TECK EXPLORATIONS LIMITED

NORTH BAY, ONTARIO

ASSESSMENT REPORT
ON
DIGHEM ANOMALY 3450C-3470C
TEDDER TOWNSHIP
DAYOHESSARAH AREA
FOR
PEZAMERICA RESOURCES CORPORATION

by

K. Thorsen

REPORT NO. 987NB

N.T.S. 42C/10,11

1984-11-21

INTRODUCTION

Geophysical surveys were completed over DIGHEM anomaly 3450C-3470C on claim SSM663605.

LOCATION AND ACCESS

The claim is located approximately 12 miles north of White River. Access is via helicopter from a base in White River or by fixed wing aircraft to Dayohessarah Lake. The grid is approximately 3 miles south of the lake.

GEOLOGY

The claims are underlain by northwesterly trending intermediate to mafic volcanics.

TOPOGRAPHY

The area is relatively flat with a maximum of 25 metres of relief. Outcrop covers approximately 5 to 10% of the area.

METHOD OF SURVEY

One shoot back line was run over the area of the DIGHEM anomaly. When the conductor was located a base line was cut along the axis and cross lines cut at 400 foot intervals perpendicular to the axis. The anomaly was traced by the vertical loop method and all lines were read with a magnetometer.

Magnetic readings were corrected for diurnal change by establishing a base station and checking-in hourly or less.

RESULTS

A relatively strong, 1200 foot long conductor was located and traced. A weak magnetic high parallels the conductor at the south end. A subsequent drill hole intersected mafic volcanics and sediments. Thin bands of barren sulphides explained the conductor.

RECOMMENDATIONS

As the conductor is explained, no further work is recommended.

SURVEY TYPE	EMPLOYEE NAME	FROM	TO	TOTAL DAYS
Linecutting	J. Laitin	Sep 25/83	Sep 26/83	1.0
	K. Greason	Sep 25/83	Sep 26/83	1.0
CEM	F. Blake	Sep 25/83		0.5
	M. Asselin	Sep 25/83		0.5
VLEM	F. Blake	Sep 26/83		1.0
	M. Asselin	Sep 26/83		1.0
	K. Thorsen	Sep 26/83		0.5
	C. Knapp	Jan 5/84		0.5
MAGNETICS	L. Blain	Sep 26/83		1.0
	K. Thorsen	Sep 26/83		0.5
	C. Knapp	Jan 5/84		0.5

$$\frac{\text{Geophysical Credits}}{\text{Claim}} = \frac{6 \text{ Days} \times 7 \text{ Credits}}{1 \text{ Claim}} = 42 \text{ days per claim}$$

$$\frac{\text{Linecutting Credits}}{\text{Claim}} = \frac{2 \text{ Credits}}{1 \text{ Claim}} = 2 \text{ days per claim}$$

TOTAL = 44 days per claim

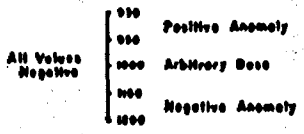
ee KT-480

GEOPHYSICS LEGEND

MAGNETOMETER SURVEY (MAG.)

INSTRUMENT :
Operator :

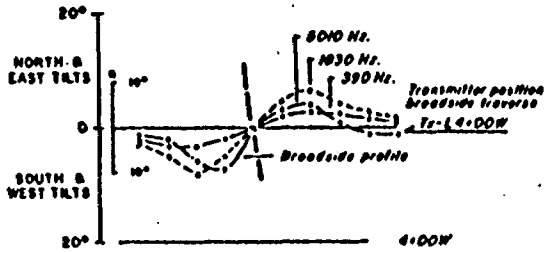
SELF-POTENTIAL SURVEY (S.P.)



INSTRUMENT :
Operator :

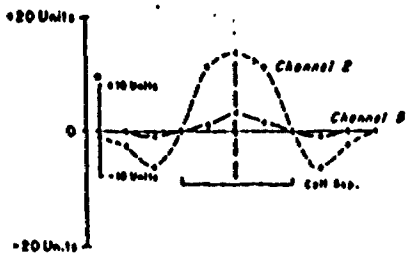
ELECTROMAGNETIC SURVEY

BROADSIDE



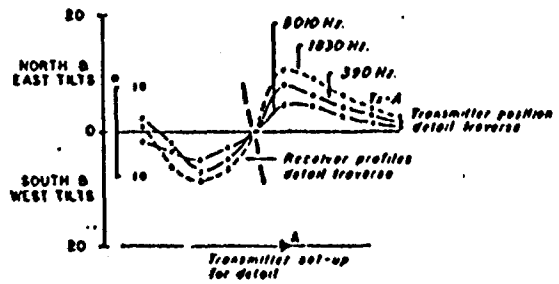
INSTRUMENT :
Operator :

P.E.M.



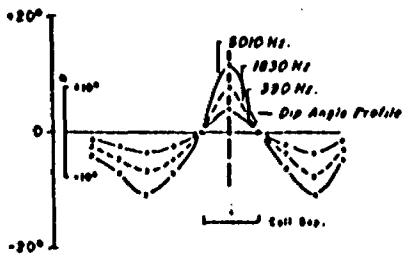
INSTRUMENT :
Operator :
Coil Sep. :
Frequency :

FIXED TRANSMITTER



INSTRUMENT :
Operator :

SHOOTBACK (Horizontal & Co-Axial)

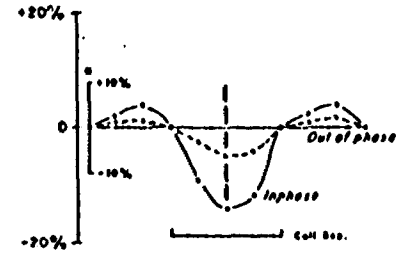


INSTRUMENT :
Operator :
Coil Sep. :

VERY LOW FREQUENCY (V.L.F.)

INSTRUMENT :
Operator :
Tx.- Station :

MaxMin (H.E.M)

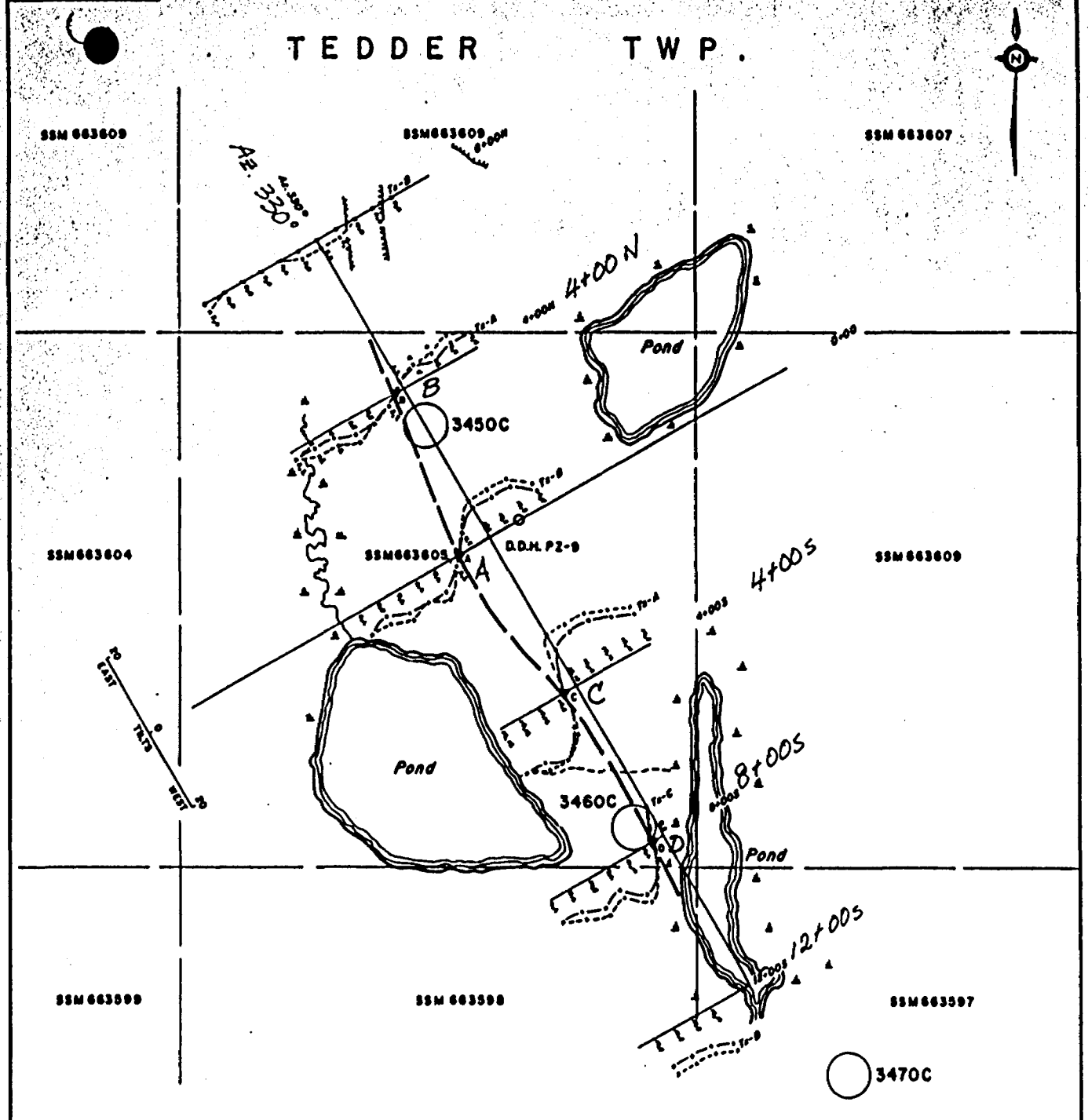


INSTRUMENT :
Operator :
Coil Sep. :

M - METRIC

DWG. NO. 3450C - 3470C

TEDDER TWP.



5/8 INCH = 200'

Teck Explorations Limited

PEZAMERICA RESOURCES CORPORATION

OPERATION PEZAMERICA
DAYOHESSARAH AREA, ONTARIO

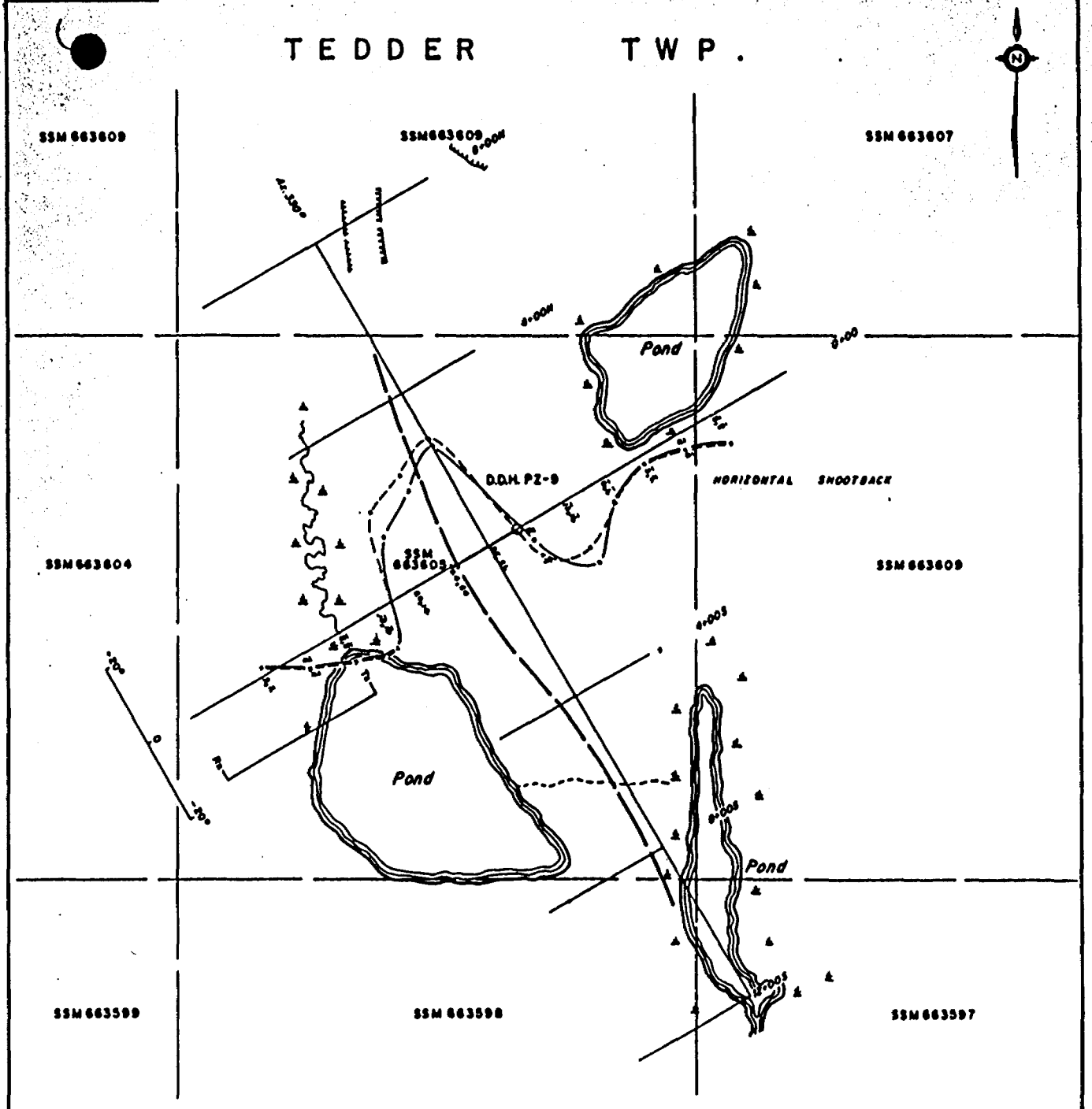
ELECTROMAGNETIC SURVEY

INSTRUMENT :	CRONE C.E.M. UNIT
OPERATOR :	BLAKE, ASSELIN
No. STATION :	
COIL SEPARATION :	
FREQUENCY :	1830 Hz. / 390 Hz.

REVISED DATE	CHK.

DATE :	DRN. BY :	CHK. BY :	JOB NO. :	DWG. NO.
1983-9-29	42C	C.E.K.	1413	3450C-3470C

TEDDER TWP.



5/8 INCH = 200'

INSTRUMENT :	CRONE C.E.M. UNIT
OPERATOR :	BLAKE, ASSELIN
Tx. STATION :	
COIL SEPARATION :	400 feet
FREQUENCY :	1830 Hz. 390 Hz.

REVISED DATE | CHK.

Teck Explorations Limited

PEZAMERICA RESOURCES CORPORATION

OPERATION PEZAMERICA
DAYOHESSARAH AREA, ONTARIO

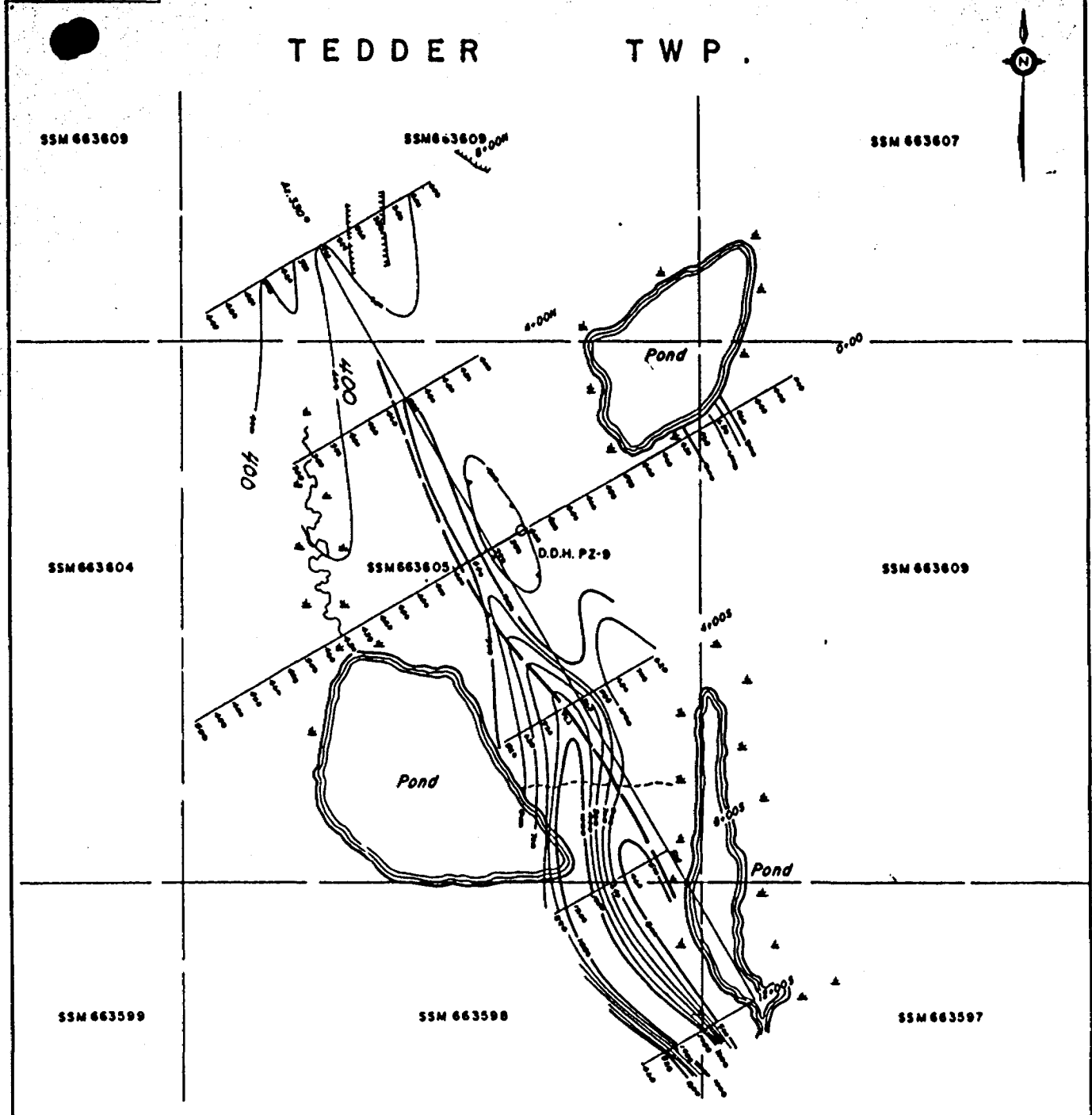
ELECTROMAGNETIC SURVEY

1 inch = 200 feet

DATE:	G.Y.E.:	DWG. BY:	JOB NO.:	
1983-9-29	42C	C.E.K.	1413	3450C-3470C

3450C - 3470C
DWG. NO.

TEDDER TWP.



5/8 INCH = 200'

INSTRUMENT :	SCINTREX MF-2 MAGNETOMETER
OPERATOR :	ASSELIN
Fr. STATION :	
COIL SEPARATION :	
FREQUENCY :	

REVISED DATE	CHK

Teck Explorations Limited

PEZAMERICA RESOURCES CORPORATION

OPERATION PEZAMERICA
DAYOHESSARAH AREA , ONTARIO

MAGNETOMETER SURVEY

200 0 200 Feet
1 Inch = 200 Feet

DATE :	N.T.S. :	SURV. BY :	JOB NO. :	
1983-9-29	42C	C E K	1413	3450C-3470C

900

Tedder

Mining Lands Section

Control Sheet

File No 27471

TYPE OF SURVEY

✓ **GEOPHYSICAL**

____ **GEOLOGICAL**

____ **GEOCHEMICAL**

____ **EXPENDITURE**

MINING LANDS COMMENTS:

sgd

Doug

Signature of Assessor

L D

23/1/85

Date

Ontario

File_____

Ministry of Natural Resources

GEOPHYSICAL – GEOLOGICAL – GEOCHEMICAL TECHNICAL DATA STATEMENT

1413
3450C

**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) Geophysical (EM & Mag)
Township or Area Tedder Township
Claim Holder(s) Pezamerica Resources Corporation

Survey Company Teck Explorations Limited
Author of Report K. Thorsen
Address of Author 2189 Algonquin Ave, North Bay, Ont P1B4Z3
Covering Dates of Survey Sep 25/83 to Jan 5/84 (linecutting to office)
Total Miles of Line Cut 5,700 ft

SPECIAL PROVISIONS CREDITS REQUESTED		DAYS per claim
ENTER 40 days (includes line cutting) for first survey.	Geophysical	
	–Electromagnetic	30
	–Magnetometer	14
	–Radiometric	
ENTER 20 days for each additional survey using same grid.	–Other	
	Geological	
	Geochemical	

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

Magnetometer_____ Electromagnetic _____ Radiometric _____
(enter days per claim)

DATE: Nov 21/84 SIGNATURE: _____
Author of Report or Agent

Res. Geol._____ Qualifications 2.2012

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
SSM	663605

If space insufficient, attach list

TOTAL CLAIMS 1

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations CEM 13, VLEM 53, Mag 78 Number of Readings CEM 26, VLEM 106, Mag 78

Station interval 50 or 100 ft Line spacing 400 ft

Profile scale 1" = 20°

Contour interval 100 gammas

MAGNETIC

Instrument Scintrex MF-2

Accuracy – Scale constant ±10 gammas

Diurnal correction method Base Station

Base Station check-in interval (hours) Hourly or less

Base Station location and value L0+00, 8+00W, 500 gammas

ELECTROMAGNETIC

Instrument Crone CEM

Coil configuration Horizontal and vertical

Coil separation 400 ft

Accuracy ±1°

Method: ☒ Fixed transmitter ☒ Shoot back ☐ In line ☐ Parallel line

Frequency 390, 1830 Hz
(specify V.L.F. station)

Parameters measured Deflections of secondary field

GRAVITY

Instrument

Scale constant

Corrections made

Base station value and location

Elevation accuracy

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

REVISED CORRECTED COPY

Ministry of Natural Resources
Ontario

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

#258-84 Revised
3450C
2.7471 corrected copy
The Mining Act

Dec 19

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.

Type of Survey(s): Geophysical (EM & MAG)

Township or Area: Tedder Twp

Claim Holder(s): Pezamerica Resources Corporation

Prospector's Licence No.: T1363

Address: 609 Granville Street, Vancouver, British Columbia, V7Y 1C6

Survey Company: Teck Explorations Limited

Date of Survey (from & to): 26 09 83 (Day Mo. Yr.) | 29 09 83 (Day Mo. Yr.)

Total Miles of line Cut: 5,700 ft

Name and Address of Author (of Geo-Technical report): K. Thorsen, 2189 Algonquin Avenue, North Bay, Ontario, P1B 4Z3

Credits Requested per Each Claim in Columns at right

Special Provisions

For first survey:
Enter 40 days. (This includes line cutting)

For each additional survey: using the same grid:
Enter 20 days (for each)

	Days per Claim
Geophysical	
· Electromagnetic	
· Magnetometer	
· Radiometric	
· Other	
Geological	
Geochemical	

Man Days

Complete reverse side and enter total(s) here

	Days per Claim
Geophysical	
· Electromagnetic	30 ~~23~~
· Magnetometer	14 ~~7~~
· Radiometric	
· Other	~~14~~
Geological	
Geochemical	

Airborne Credits

Note: Special provisions credits do not apply to Airborne Surveys.

Electromagnetic
Magnetometer
Radiometric

* Applied only 10 days (mag.) on mining claim SSM 663605 as 80 day limit has been reached.

Mining Claims Traversed (List in numerical sequence)

Prefix	Mining Claim Number	Expend. Days Cr.
SSM	663605	10

Prefix	Mining Claim Number	Expend. Days Cr.

OK please sign
K. Thorsen Dec 19

SAULT STE. MARIE MINING DIV.
RECEIVED
OCT 16 1984
A.M. P.M.

Expenditures (excludes power stripping)

Type of Work Performed

Performed on Claim(s)

Calculation of Expenditure Days Credits

Total Expenditures $ ____ + 15 =

Total number of mining claims covered by this report of work: 1

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

For Office Use Only

Total Days Cr. Recorded: 40*
Date Recorded: Oct. 18/84
Date Approved as Recorded: Jan 30/85
Mining Recorder: D.W.S. St. Jules
Branch Director: [signature]

Date: Sept. 28/84
Recorded Holder or Agent (Signature): [signature]

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: K. Thorsen, 2189 Algonquin Avenue, North Bay, Ontario, P1B 4Z3

Date Certified: Sept. 28/84
Certified by (Signature): [signature]

file on SSM 663605

0362 (81/9)

Assessment Work Breakdown

Days are based on eight (8) hour Technical or Line-cutting days. Technical days include work performed by consultants, draftsmen, etc..

Type of Survey: CEM and Linecutting

Technical Days		Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
1	X 7	= 7	+	2	=	9	+	1	=	9

Type of Survey: VLEM

Technical Days		Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
23	X 7	= ~~14~~ 21	+		=	~~14~~ 21	+	1	=	~~14~~ 21

Type of Survey: Mag

Technical Days		Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
12	X 7	= ~~7~~ 14	+		=	~~7~~ 14	+	1	=	~~7~~ 14

Type of Survey: Drafting and Supervision

Technical Days		Technical Days Credits		Line-cutting Days		Total Credits		No. of Claims		Days per Claim
~~2~~	X 7	= ~~14~~	+		=	~~14~~	+	~~1~~	=	~~14~~

SCINTREX

MF-2 FLUXGATE MAGNETOMETER

The MF-2 is a completely new concept in vertical force fluxgate magnetometers. These instruments, which are designed for fast and accurate mineral ground surveys, are orientation independent, self levelling and require no tripod.

The MF-2 combines the electronics and sensor in one compact 3¾ lb. package. An external dry cell battery pack is provided as standard power source for the instrument. As an option, rechargeable batteries may be provided and housed directly in the instrument.

With the latest I.C. and F.E.T. circuitry and high precision components, a temperature stability better than 1 gamma per °C is standard (with .25 gamma on special order) over a range of —40° to +40°C.

The instrument has a built-in hemisphere polarity switch providing two overlapping ranges. For the Northern hemisphere the full range is +80,000 to —20,000 gammas, and reversible for the Southern hemisphere.

A calibrated feedback system can be provided which makes it possible to determine the total vertical component strength.

Measuring resolution, on the 100 gamma scale (optional) is 0.5 gamma, and on the 1000 gamma scale is 5 gammas.

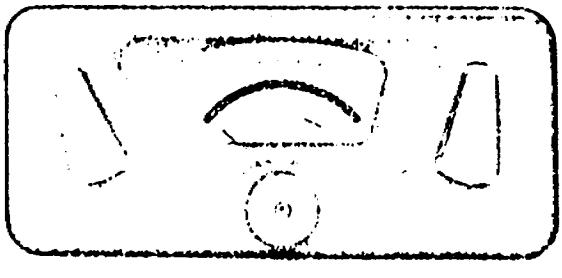
The Scintrex MF series of magnetometers have been in use for many years in varied applications, e.g. ground reconnaissance, base station recording and monitoring, study of magnetic properties of rocks, observatory monitoring and recording of both vertical and horizontal components. A high impedance recorder outlet is standard.

OPTIONAL

a) MF-2G
The MF-2G Fluxgate Magnetometer has the same electronics and specifications as the MF-2, but the sensor is detached and enclosed in a small cylindrical tube which permits it to be oriented and tilted in any desired direction. A 25 foot cable connects the sensor to the instrument housing. This version is particularly suitable for the study of the magnetic properties of rocks, and the measurement of magnetic field components of any orientation, etc.

b) MF-2GS
The MF-2GS Magnetometer has the same electronics and specifications as the MF-2 but has two sensors, the enclosed self-levelling sensor of the MF-2 as well as the detached geoprobe of the MF-2G, either one of which can be employed at any one time. Thus, this instrument can be employed as the standard MF-2 and for the determination of the magnetic properties of rocks, etc.

c) MF-2-100
100 gammas and 300 gammas full scale ranges are added to the standard MF-2 and its options.



SPECIFICATIONS OF FLUXGATE MAGNETOMETER MODEL MF-2

	RANGES	SENSITIVITY
Standard: (MF-2)	Plus or minus	
	1,000 gammas f.sc.	20 gammas/div.
	3,000 gammas f.sc.	50 gammas/div.
	10,000 gammas f.sc.	200 gammas/div.
	30,000 gammas f.sc.	500 gammas/div.
	100,000 gammas f.sc.	2000 gammas/div.
Optional: (MF-2-100)	100 gammas f.sc.	2 gammas/div.
	300 gammas f.sc.	5 gammas/div.
Meter:	Taut-band suspension 100 gamma scale 2.1" long — 50 div. 300 gamma scale 1.9" long — 60 div.	
Resolution:	All scale ranges ±0.5% of full scale.	
Operating Temperature:	—40°C to +40°C —40°F to +100°F	
Temperature Coefficient:	Less than 1 gamma per °C (½ gamma/°F).	
Noise Level:	Less than 1 gamma P-P	
Bucking Adjustments: (Latitude)	—20,000 to +80,000 gammas 9 steps of 10,000 gammas plus fine control of 0-10,000 gammas by ten turn potentiometer. Reversible for southern hemisphere.	
Recording Output:	Standard — for high impedance recorder (> 1 megohm) Optional — for low impedance recorder	
Electrical Response:	D.C. to 3 cps (3db down) on most sensitive range with meter in circuit. D.C. to 20 cps with meter network shorted for recording purposes.	
Connector:	Cannon KO2-16-10SN for plug Cannon KO3-16-10-PN and cover KO6-16-3S	
Batteries:	Standard — battery pack (16 dry cell batteries) Optional — internal 3 x 6V - 1 amp hr. Sealed lead acid rechargeable, Centralab GC 6101. Recharge time 8 hrs.	
Consumption:	60 milliamperes — GC6101 batteries are rated for 16 hours continuous use.	
Dimensions:	6¼"x 2¾"x 10" Instrument 161 mm x 71 mm x 254 mm	
Weights:	Standard 3 lb. 12 oz. — 1.7 kg Optional 5 lb. 8 oz. — 2.5 kg (with rechargeable batteries)	
Battery Charger:	6"x 2½"x 2¼" 155 mm x 64 mm x 64 mm 110V-220V 50/60 Hz supply or 28-42V D.C. supply. Automatic charge rate and cutoff preset for Centralab GC6101 batteries.	

SCINTREX LIMITED
222 Snidercroft Road • Concord, Ontario, Canada

CRONE GEOPHYSICS LIMITED

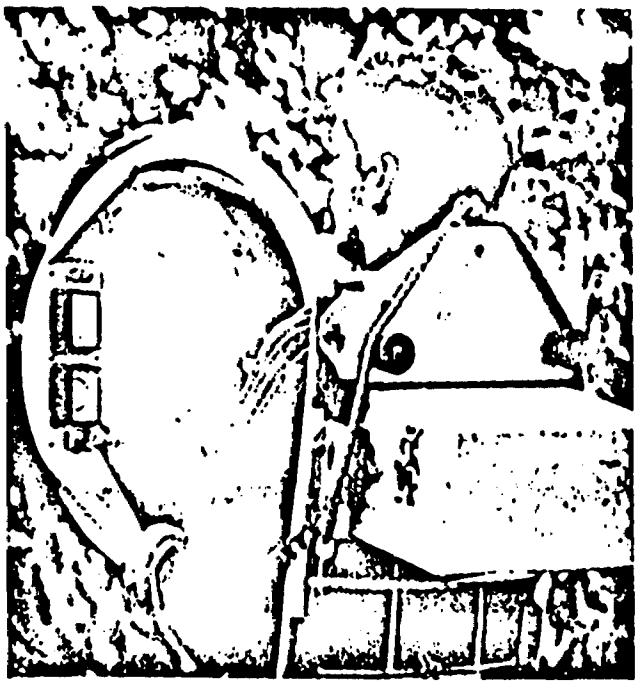
3607 WOLFEDALE ROAD,
MISSISSAUGA, ONTARIO,
CANADA.

Phone: 270-0096

C E M

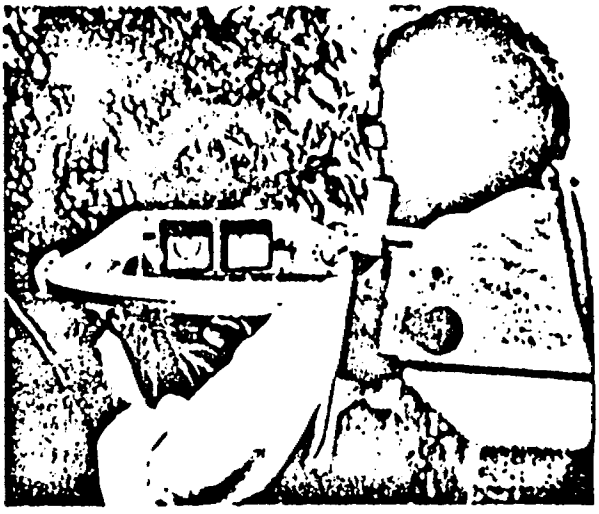
THE CRONE ELECTROMAGNETIC INSTRUMENT DESIGNED TO BE USED WITH THE NEW HORIZONTAL SHOOTBACK EM METHOD AS WELL AS VERTICAL LOOP AND HORIZONTAL LOOP METHODS.

The equipment consists of two identical transmitter-receiver coils capable of measuring the DIP ANGLE and FIELD STRENGTH of the EM field. Coil separations up to 600'. See the report "Deep Electromagnetic Exploration with the Horizontal Shootback Method" by D. Crone for analysis of this new method.



HORIZONTAL SHOOTBACK EM

TRANSMITTING ↓ RECEIVING →



- Deep penetration.
- Accurate surveys in mountainous terrain.
- Line cutting not required.
- Precise interpretation as to dip, conductivity and depth.
- Simple to operate.
- Rugged equipment.

SPECIFICATION OF THE CEM INSTRUMENT

This unit is composed of two identical coils both capable of receiving and transmitting at 3 fixed frequencies. All circuiting is housed within the coils. The batteries are mounted in an insulated box on a magnesium packboard.

- coil diameter 22", weight per coil 8.3 lbs.
- standard frequencies 390, 1830, 5010 Hz (others available).
- inclinometer range 200°, accuracy ± ½°.
- receiver gain control — 10 turns, linear calibrated pot.
- dip angle determined by visual minimum on Field Strength meter.
- Field Strength read directly on a meter and controlled by gain control pot.
- packboard and battery box weight each 7.0 lbs.
- battery — 6 volt lantern type — Eveready 731, Burgess TW-1.
- weight per battery 3.0 lbs.
- 1 to 3 batteries may be used connected in series.
- range for 100% Field Strength and ± 1° null all frequencies, 6 volts — 400', 12 volts — 500', 18 volts — 600'.
- shipped in two wooden boxes weight 50 lbs. each.

December 21, 1984 Files: 2.7445-2.7472

Pezamerica Resources Corporation
609 Granville Street
Vancouver, B.C.
V7Y 1C6

Dear Sirs:

RE: Geophysical (Electromagnetic, Magnetometer) and Geochemical Surveys submitted on Mining Claims in Bayfield, Cooper, Gourley, Hambleton, Qdlum, Strickland and Tedder Townships

---

In order to complete your submissions for assessment credit, please provide:

1. The VLEM plan, in duplicate, for the report on Dighem Anomaly 2100D, our file 2.7446.

2. The geochemical plan, in duplicate, for the report on Dighem Anomaly 2100C-2160B, our file 2.7466.

3. Signature of the author of the technical report, K. Thorsen, on each copy of the front pages of the reports. (Copies are enclosed, in duplicate).

Please forward the above information to this office quoting files 2.7445 through 2.7472.

For further information, please contact Doug Isherwood at (416)965-4888.

Yours sincerely,

S.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-4888

D. Isherwood:mc

cc: Mining Recorder
Timmins, Ontario

Mining Recorder
Sau't Ste. Marie, Ontario

cc: K. Thorsen
c/o Teck Explorations Limited
2189 Algonquin Avenue
North Bay, Ontario P1B 4Z3