42A01SE0011 2.8063 TECK

010

GEOPHYSICAL SURVEY REPORT
ON THE
PERRONS' PROPERTY
WEDGE CLAIMS

TECK TOWNSHIP

LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

FOR

ALEXANDER H. PERRON

MAY 2, 1985

MARY GREER
GEOPHYSICAL TECHNICIAN

RECEIVED
MAY 6 - 1985
MINING LANDS SECTION

42A01SE0011 2.8063 TECK

010C

TABLE OF CONTENTS

INTRODUCTION. 1, 2

PROPERTY DESCRIPTION. 2

LOCATION AND ACCESS 2

PREVIOUS WORK 3

SURVEY PROCEDURE. 3

TOPOGRAPHY. 3

GENERAL GEOLOGY 3, 4

ECONOMIC GEOLOGY. 4, 5

INSTRUMENTATION 6, 7

PRESENTATION AND DISCUSSION OF RESULTS. 7

CONCLUSIONS AND RECOMMENDATIONS 7, 8

BIBLIOGRAPHY. 9

CERTIFICATE 10

ILLUSTRATIONS

Claim Location Map - (Figure 1a). . . . . 2 a)

Location Map - (Figure 1b). . . . . 2 b)

Accompanying Plan Map. . . . . In Back Pocket

Scale: 1 inch to 200 feet

Date: May 1985

Wedge Claims

Ground VLF-EM Survey

Map No. 85-W-1b

GEOPHYSICAL SURVEY REPORT
ON THE
PERRONS' PROPERTY

WEDGE CLAIMS

TECK TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

INTRODUCTION

The Wedge Claims were recorded on July 12, 1982, for claims L-642539 - L-642540, and on November 22, 1982 for L-666099.

A geophysical grid was established in April, 1984, on the Teck claims. In April 1984, two geophysical surveys (electromagnetic - magnetic) were performed. In June of 1984 a geological survey was carried out.

On April 16, 1985, a geophysical electromagnetic survey was performed, using a different station from the first survey. The station used was Annapolis, Maryland, with a frequency of 21.4 kHz in place of Cutler, Maine, with a frequency of 24.0 kHz. The instrument used for this survey was a Geonics EM16 unit.

This work was conducted by Tom Obradovich of Kirkland Lake, Ontario, under the active supervision of Alexander Perron.

All drafting and interpretation was completed by Mary Greer.

The purpose of this report is to briefly describe the results attained in said survey.

The anomalies detected are shown on the accompanying map at a scale of one inch to 200 feet, that form an integral part of this report.

PROPERTY DESCRIPTION

The Wedge Claims consist of a contiguous block of three (3) unpatented mining claims located in Teck township, Larder Lake Mining Division, District of Timiskaming, Ontario, and are further described as follows:

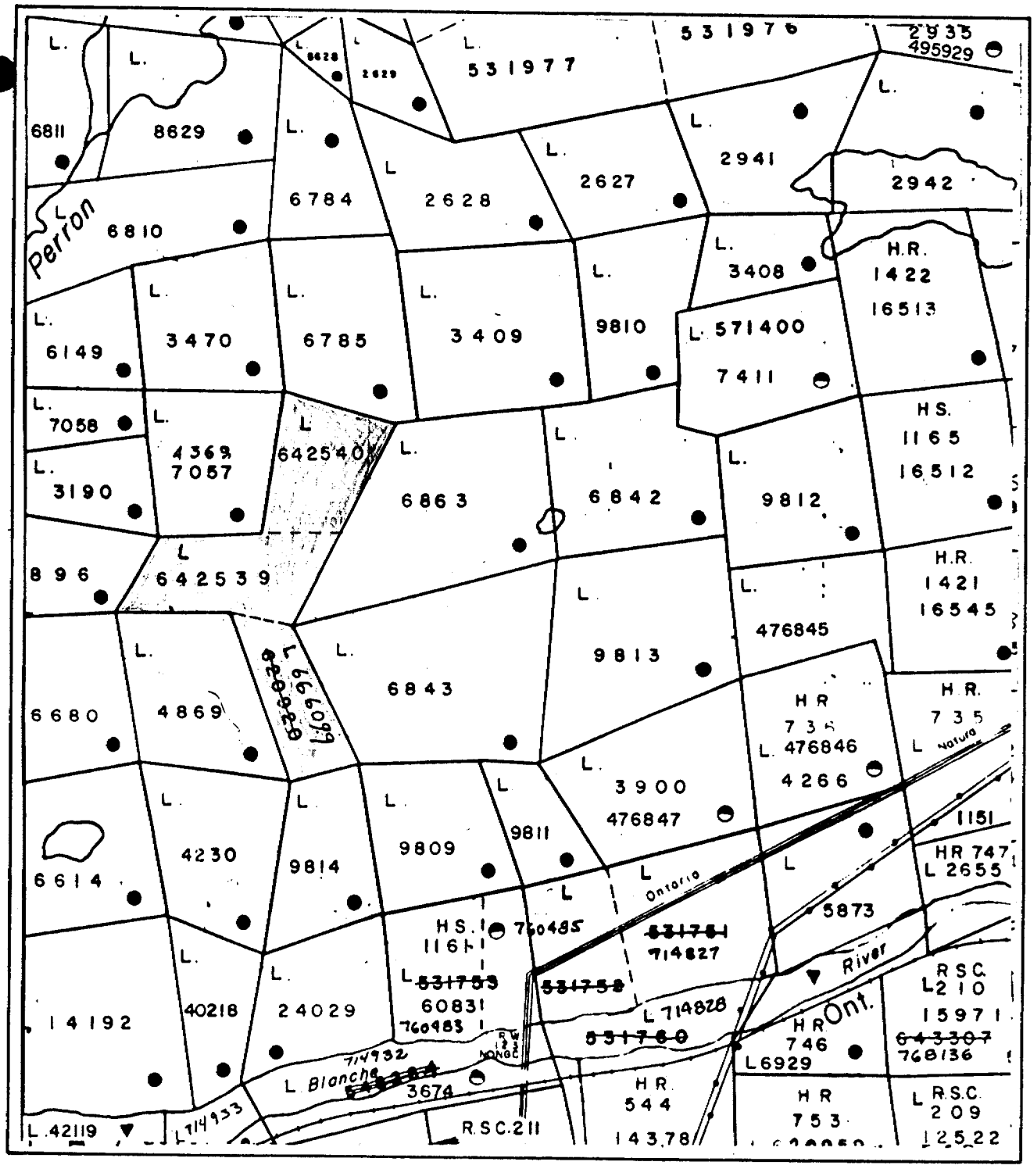
CLAIM NO.	NO. OF CLAIMS
L-642539 - L-642540	2
L-666099	1
Total number of claims	3

Ownership of the aforementioned unpatented mining claims has been attested to by Alexander H. Perron of 103 Government Road East, Kirkland Lake, Ontario, and was not independently ascertained by the writer. (See Figure 1a).

LOCATION AND ACCESS

The Wedge Claims are found in the very southwest quarter of Teck township, lying 4,000 feet north of the Blanche River and 4,000 feet south of Perron Lake. The claims are approximately five (5) miles from the town of Kirkland Lake.

The claims are accessible only by walking trails extending northward from the Blanche River or the natural gas line bearing east-west from the town of Swastika. (See Figure 1a and 1b).

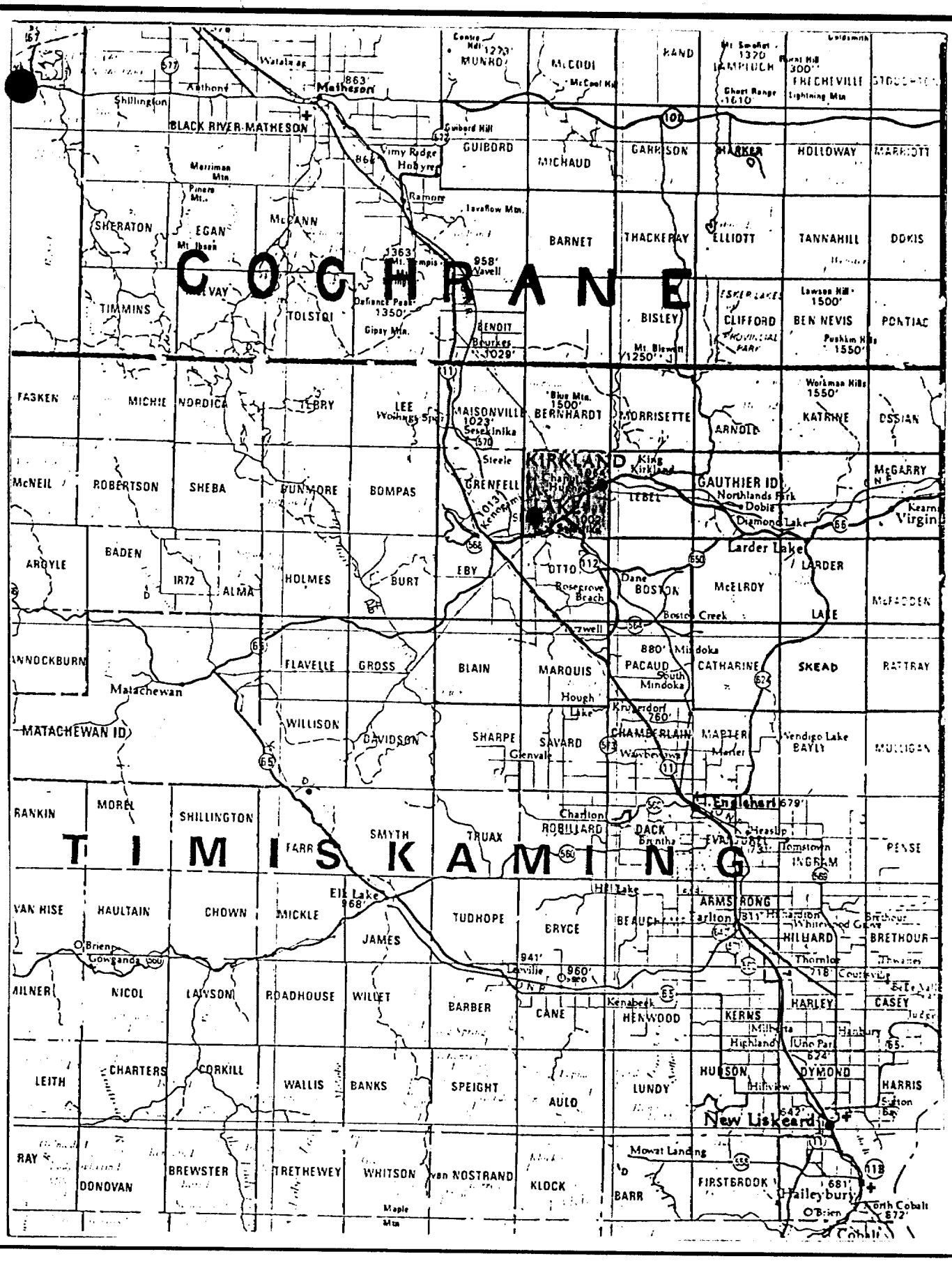


Claim Location Map

Scale: 1 inch to 1/4 mile

(Taken from a July 1984 claim map)

Figure 1a



Location Map

Miles 10 0 10 20

Figure 1b

PREVIOUS WORK

Scattered old trenching can be found throughout the property, however no records of these trenches are available. There is one diamond drill hole on claim L-642539 and a magnetometer survey was performed on claim L-666099 by Queenston Gold Mines Limited. (See Regional Assessment Files).

SURVEY PROCEDURE

An east-west baseline was established north of the No. 2 post of claim L-642539.

A grid system of picket lines 200 feet apart with stations every 100 feet, was established at right angles to the baseline.

Readings were taken at 100 foot intervals on all picket lines. All readings were taken facing east and the topography was noted for further use in the interpretation of the Em results.

TOPOGRAPHY

The general terrain of this property varies from rugged high outcrop hills to low flat swamps. The boundaries of the property follow higher rough ground. Claim L-666099 consists of large areas of outcrop and high hills, claims L-642649 & L-642540 have a large swamp occurring in the centre of the claims.

GENERAL GEOLOGY

O.D.M. Geological Map 1945-1, covering Teck township, at a scale of one inch to 1,000 feet, indicates that the bedrock is predominantly sedi-

ments, which are conglomerates, tuffs and agglomerates of the Timiskaming series. The tuffs and agglomerates occur on Claim L-666099, they are laced with syenites and syenite prophyry.

The northern claims are underlain by the conglomerates. A Post-Algoman diabase dyke occurs north-south through the centre claim. An east-west fault lies along the south boundary of claim L-642539. This fault is recognized to be part of the Kirkland Lake-Larder Lake break which is part of an east plunging synclinorium.

ECONOMIC GEOLOGY

Gold was first discovered in the vicinity of Larder Lake in 1903, and claims were staked for gold in the vicinity of Kirkland Lake and Swastika during the gold rush of 1906.

The main Kirkland Lake gold camp started mining in 1913 and was the second largest producer of gold in Ontario and Canada. The bulk of the gold ore came from the eastern part of Teck township mined by famous mines such as Kirkland Lake Gold, Tech-Hughes, Lakeshore, Wright Hargreaves, Sylvanite and Toburn.

As previously mentioned, the Kirkland Lake «Main Break» is an east plunging synclinorium located between the Lake Abitibi Batholith and the Round Lake Batholith. The Kirkland Lake-Larder Lake Fault zone marks the south location of the synclinorium and the Destor-Porcupine Fault zone marks the north. The major gold producing mines are found in these zones.

Presently, the only producing mine is the Wilroy Mines Limited, Macassa Division. The Macassa Mine is only two miles northeast along strike from the Perron Property.

The Kirkland Lake «Break» is mapped out to cross the northern boundary of L-666099.

INSTRUMENTATION

Electromagnetic Survey:

The VLF-EM method uses as a source, one of the main submarine communications transmitters in the 15 to 25 kHz band found throughout the world. These submarine communication radio waves travel in a single mode parallel to the surface of the earth along the earth-air interface.

Without vertical conductors and travelling over flat ground, the magnetic field component of this radio or surface wave is horizontal and perpendicular to it's direction of travel.

VLF instruments are capable of picking up these structures that change the direction of the waves by measuring the tilt angle of the major axis of the polarization ellipse. This is illustrated by the tilt angle being zero on flat ground, but when a conductor is present the tilt angle will acquire a finite value. The direction of tilt indicates the direction of the conductor. Calculations of such parameters as depth, depth extent, dip and width of the conductor is very minimal.

The VLF easily illustrates the location of the upper limit of dipping structures which can be seen or plotted as VLF profiles as areas of greatest change in tilt angle per unit of distance.

The instrument used for this survey was a Geonics VLF-EM16 unit. The sensitivity of this unit is $\pm$ 1% for the in-phase and $\pm$ 1% for the quadrature. The operating frequency for the EM16 is from 15-25 kHz and the station selection is made by plug-in units.

For the purpose of this survey the station used was Annapolis, Maryland, which has a frequency of 21.4 kHz.

PRESENTATION AND DISCUSSION OF RESULTS

Electromagnetic Survey:

The field data is presented on a map at a horizontal scale of one inch to 200 feet, map number 85-W-1b, found in the back pocket of this report.

The VLF-EM data is illustrated as profiled data along the survey lines and is plotted at a vertical scale of one inch = $\pm$ 40% with the in-phase to the left and quadrature to the right.

The Fraser Filter contouring method was applied to the in-phase data and the conductive zones were clearly outlined. By using this method it was found that these zones occurred over the three major swamps on the property.

CONCLUSIONS AND RECOMMENDATIONS

The VLF-EM response is due to the swamps found on the property. The conductive area outlined by the Fraser Filter method occurs along the boundaries of the swamp as determined by the field notes.

The survey was performed to delineate any structures that may have been missed by using the first station, Cutler, Maine. However the results are the same, and further studies should be carried out by using a magnetometer to find any structures.

As recommended in the previous surveys, a detailed magnetometer survey should be performed along the area of the assumed location of the Kirkland-Larder Fault System. A diamond drilling program would then confirm the presence of any economic gold values or structures.

Respectfully yours,

Mary Greer

May 2, 1985

Mary Greer
Geophysical Technician

BIBLIOGRAPHY

Ontario Department of Mines

Maps

Vol. LVII 1948, Part V

Map 1945 - 1

CERTIFICATE

I, Mary Greer, of Kirkland Lake, Ontario, do hereby certify:

1) That I am a Geophysical Technician and reside at: 49 McKelvie Avenue, Kirkland Lake, Ontario, P2N 2K6

2) That I graduated from Sir Sandford Fleming College at Lindsay, Ontario, in 1978, with a diploma as a Geological Technician.

3) That I was employed as a Geophysical Technician by H.E. Neal and Associates Limited for 18 months.

4) That I have been practising my profession for a period of five (5) years and I am qualified to write this report.

5) That I did not participate in this survey.

May 2 / 85
Date

Mary Greer
Mary Greer
Geophysical Technician

Ministry of Natural Resources
Ontario

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

#166

(Rec'd L642539)

2.8

The M

42A01SE0011 2.8063 TECK

900

Type of Survey(s)	Township or Area
GEOPHYSICAL SURVEY - ELECTROMAGNETIC	TECK

Claim Holder(s)	Prospector's Licence No.
ALEXANDER H. PERRON	K-19026

Address: 103 GOVERNMENT ROAD EAST, KIRKLAND LAKE, ONTARIO P2N IA9

Survey Company	Date of Survey (from & to) Day / Mo. / Yr. / Day / Mo. / Yr.	Total Miles of line Cut
PERRONS'	16 04 85	APPROX. 3 MILES

Name and Address of Author (of Geo-Technical report): MARY GREER, 49 MCKELVIE AVE., KIRKLAND LAKE, ONTARIO P2N 2K6

Credits Requested per Each Claim in Columns at right

		Days per Claim
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)	Geophysical - Electromagnetic	20
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	
Man Days: Complete reverse side and enter total(s) here	Geophysical	Days per Claim
	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	
Airborne Credits: Note: Special provisions credits do not apply to Airborne Surveys.		Days per Claim
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.	Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	642539				
	642540				
	666099				

RECEIVED
MAY 07 1985
MINING LANDS SECTION

LARDER LAKE MINING DIV. RECEIVED APR 24 1985 AM 7 8 9 10 11 12 1 2 3 4 5 6 PM

Total number of mining claims covered by this report of work: 3

Expenditures (excludes power stripping)

Type of Work Performed	
Performed on Claim(s)	
Calculation of Expenditure Days Credits: Total Expenditures $ ÷ 15 = Total Days Credits	

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	Date Recorded	Mining Recorder
60	APR 24 1985	
	Date Approved as Recorded	Branch Director
	85-05-21	

Date	Recorded Holder or Agent (Signature)
April 24/85	Mary Greer

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: MARY GREER, 49 MCKELVIE AVE., KIRKLAND LAKE, ONTARIO P2N 2K6

Date Certified	Certified by (Signature)
April 24/85	Mary Greer

Ontario

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) GEOPHYSICAL SURVEY - ELECTROMAGNETIC

Township or Area TOWNSHIP OF TECK

Claim Holder(s) ALEXANDER H. PERRON
103 GOV'T RD. E.,KIRKLAND LAKE,ONT.

Survey Company PERRONS' P2N IA9

Author of Report MARY GREER

Address of Author 49 MCKELVIE AVE.,KIRKLAND LAKE,ONT. P2N 2K6

Covering Dates of Survey APRIL 16, 1985 (linecutting to office)

Total Miles of Line Cut APPROXIMATELY THREE (3) MILES

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	642539
L	642540
L	666099

TOTAL CLAIMS 3

If space insufficient, attach list

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 20
–Magnetometer _____
–Radiometric _____
–Other _____
Geological _____
Geochemical _____

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

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

DATE: May 2/85 SIGNATURE: Mary Greer
Author of Report or Agent

Res. Geol. _____ Qualifications 24529

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

837 (5/79)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 153 Number of Readings VLF-EM - 145

Station interval 100 FEET Line spacing 200 FEET

Profile scale ± 40%

Contour interval

MAGNETIC

Instrument

Accuracy -- Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

ELECTROMAGNETIC

Instrument GEONICS VLF-EM 16

Coil configuration VERTICAL & HORIZONTAL

Coil separation INFINITY

Accuracy ± 1%

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

Frequency 21.4 KHz ANNAPOLIS, MARYLAND (specify V.L.F. station)

Parameters measured IN-PHASE AND QUADRATURE

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 _____

_____

_____

Total Number of Samples _____

Type of Sample _____
(Nature of Material)

Average Sample Weight _____

Method of Collection _____

_____

Soil Horizon Sampled _____

Horizon Development _____

Sample Depth _____

Terrain _____

_____

Drainage Development _____

Estimated Range of Overburden Thickness _____

_____

_____

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

Mesh size of fraction used for analysis _____

_____

_____

_____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

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 (_____ tests)

Name of Laboratory _____

Extraction Method _____

Analytical Method _____

Reagents Used _____

General _____

_____

_____

_____

_____

_____

_____

_____

_____

Mining Lands Section

File No 2.8063

Control Sheet

TYPE OF SURVEY ✓ GEOPHYSICAL

____ GEOLOGICAL

____ GEOCHEMICAL

____ EXPENDITURE

MINING LANDS COMMENTS:

lgd

LD

Signature of Assessor

17/5/85

Date

PERRONS

103 GOVERNMENT ROAD EAST - KIRKLAND LAKE, ONTARIO - P2N 1A9 - (705) 567-7057

May 2, 1985

Mr. Fred Matthews,
Lands Administration Branch,
Mining Lands Section,
Ministry of Natural Resources,
Room 6450, Whitney Block,
Queen's Park,
Toronto, Ontario
M7A IW3

Dear Sir:

RE: Geophysical Survey Report for
Teck Township
Larder Lake Mining Division

Enclosed herewith please find a duplicate copy of the following:

- Report dated May 2, 1985, by Mary Greer entitled:

  Geophysical Survey Report
  Perrons' Property
  Teck Township
  Larder Lake Mining Division
  District of Timiskaming, Ontario

I trust this is the information required to correspond with the Report of Work filed concerning the above noted township.

Yours truly,

PERRONS'

Mary Greer
Geophysical Technician
MG/p
Encls.

RECEIVED
MAY 6 - 1985
MINING LANDS SECTION

Bernhardt Twp. M.327

Grenfell Twp. M.351

Lebel Twp. M.359

Otto Twp. M.379

THE TOWNSHIP OF

TECK

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH = 20 CHAINS

DISPOSITION OF CROWN LANDS

PATENT, SURFACE AND MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LEASE, SURFACE AND MINING RIGHTS
" , SURFACE RIGHTS ONLY
" , MINING RIGHTS ONLY
LICENCE OF OCCUPATION
ROADS
IMPROVED ROADS
KING'S HIGHWAYS
RAILWAYS
POWER LINES
MARSH OR MUSKEG
MINES
CANCELLED

NOTES

400' surface rights reservation along the shores of all lakes and rivers.

Areas shown thus ▭ for slime disposal.

Mining claim L.5779 — Mining Rights subject to Sec 36 of the Mining Act. (R.S.O. 1950).

AREAS WITHDRAWN FROM STAKING

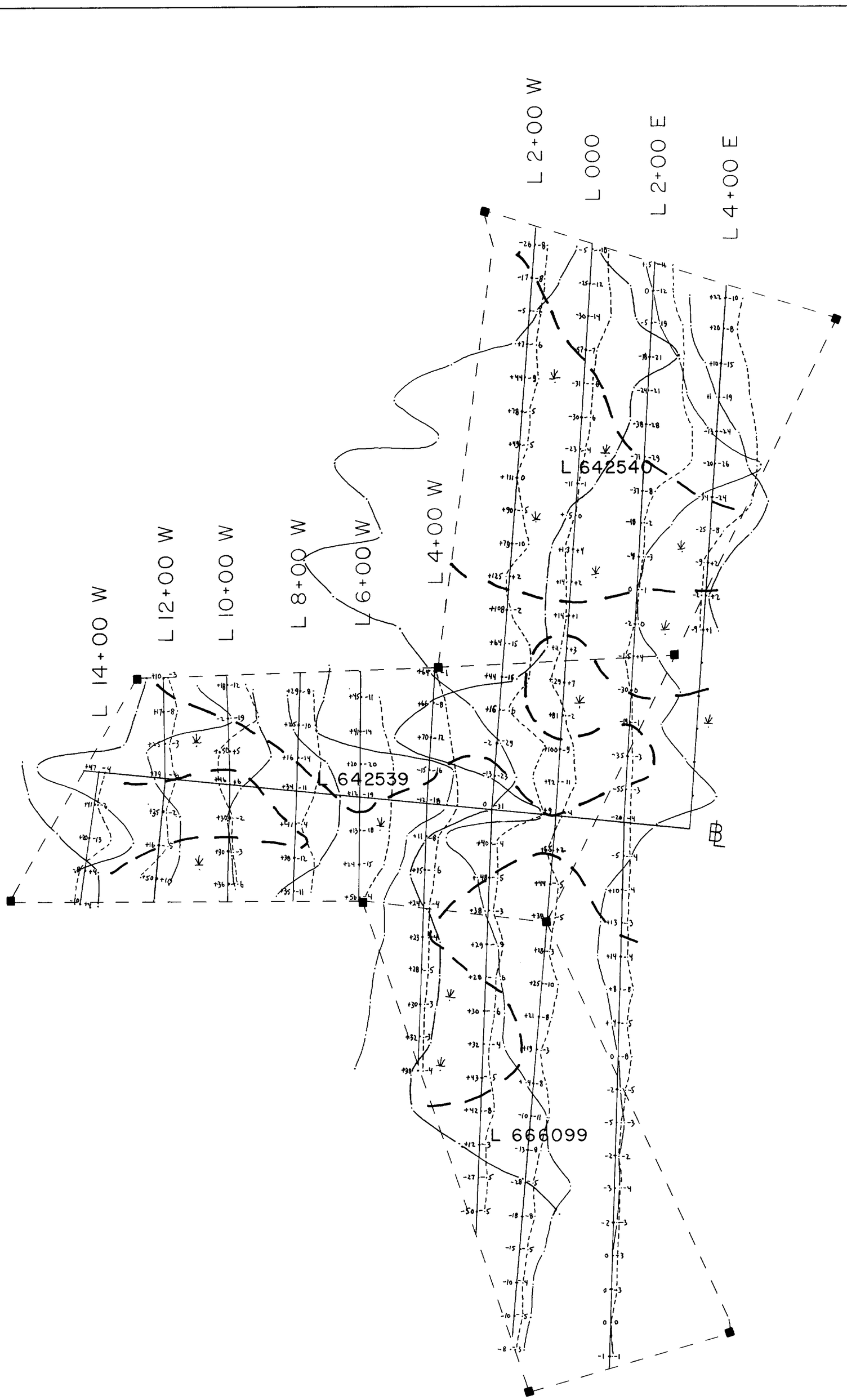
S.R. — SURFACE RIGHTS SECTION	ORDER No.	DATE	DISPOSITION	M.R. — MINING RIGHTS FILE
43 (R.S.O. 1970)	W.76/80	7/2/80	S.R.	17/760
36 (R.S.O. 1980)	W.108/82	12/5/82	S.R. & M.R.	15478
SEC. 36/80	W.61/81	19/9/83	M.R.	

NATURAL RESOURCES MAY 9 1985 TITLES SECTION

PLAN NO.-M. 392

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

200



Mag. 10° W

SYMBOLS

Inphase

Quadrature

Claim post

Claim line

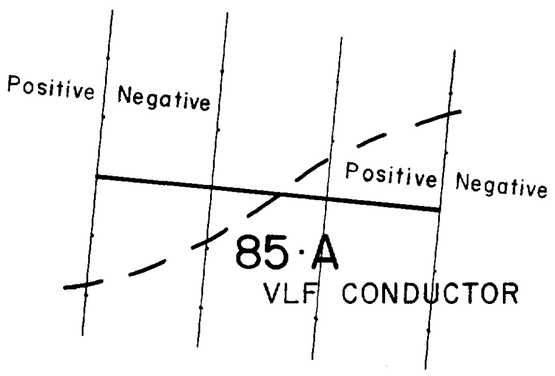
Swamp

INSTRUMENTATION

GEONICS VLF-EMI6

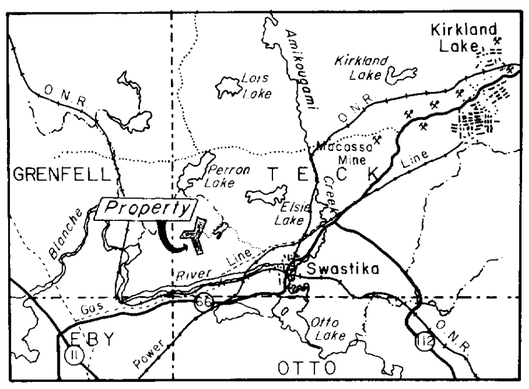
Annapolis, Maryland 21.4 kHz

Vertical scale : 1 inch = ± 40%



KEY MAP

(Scale : 1 inch to 2 miles)



Mary Greer

WEDGE CLAIMS

GROUND VLF-EM SURVEY 2.8063

TECK TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600

Scale: 1 inch to 200 feet

PERRONS' 83 LTD.

KIRKLAND LAKE CANADA

Drawn by: Mary Greer	Map No. 85-W-1b	Date: May 1985

42A01SE0011 2.8063 TECK

210