42A01SW0013 2.10394 EBY

010

GEOPHYSICAL SURVEY REPORT
ON THE
PERRON PROPERTY
DEADMAN MINE GROUP

EBY TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

FOR

ALEXANDER H. PERRON

RECEIVED
SEP 25 1987
MINING LANDS SECTION

SEPTEMBER 21, 1987

MARY GREER
GEOPHYSICAL TECHNICIAN

42A01SW0013 2.10394 EBY

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ILLUSTRATIONS

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

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

Accompanying Plan Maps . . . . . In Back Pocket

Scale: 1 inch to 200 feet

Date: August 1987

Deadman Mine

Ground Magnetometer Survey

Map No. 87-DM-1

Ground VLF-EM Survey

Map No. 87-DM-2

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GEOPHYSICAL SURVEY REPORT

ON THE

PERRON PROPERTY

DEADMAN MINE GROUP

EBY TOWNSHIP

LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

INTRODUCTION

The Deadman Mine Group was recorded by Wm. Scott on August 10, 1984.

During August, 1985, a geological survey over the claim group was completed. In the summer of 1987 a geophysical grid at a 400 foot line spacing was established and was immediately followed by two geophysical surveys (electromagnetic, magnetic). The instruments used for these surveys were a Geonics EM16 unit and a McPhar GP-81 Proton Magnetometer.

The survey was conducted by Anita Helin and Dean Sharkey, under the active supervision of Mary Greer.

All drafting and interpretation was completed by Mary Greer, with Anita Helin assisting.

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

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

PROPERTY DESCRIPTION

The Deadman Mine Group consists of four (4) contiguous unpatented mining claims located in Eby Township, SE 1/4 S 1/2 Lot 12, Concession V and NW 1/4, NE 1/4, SE 1/4, N 1/2, Lot 12, Concession IV, Larder Lake Mining Division, District of Timiskaming, Ontario, and are further described as follows:

Claim Number	Township	No. of Claims
L-802694 to L-802697 (Inclusive)	Eby	4

Ownership of the aforementioned claims have 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).

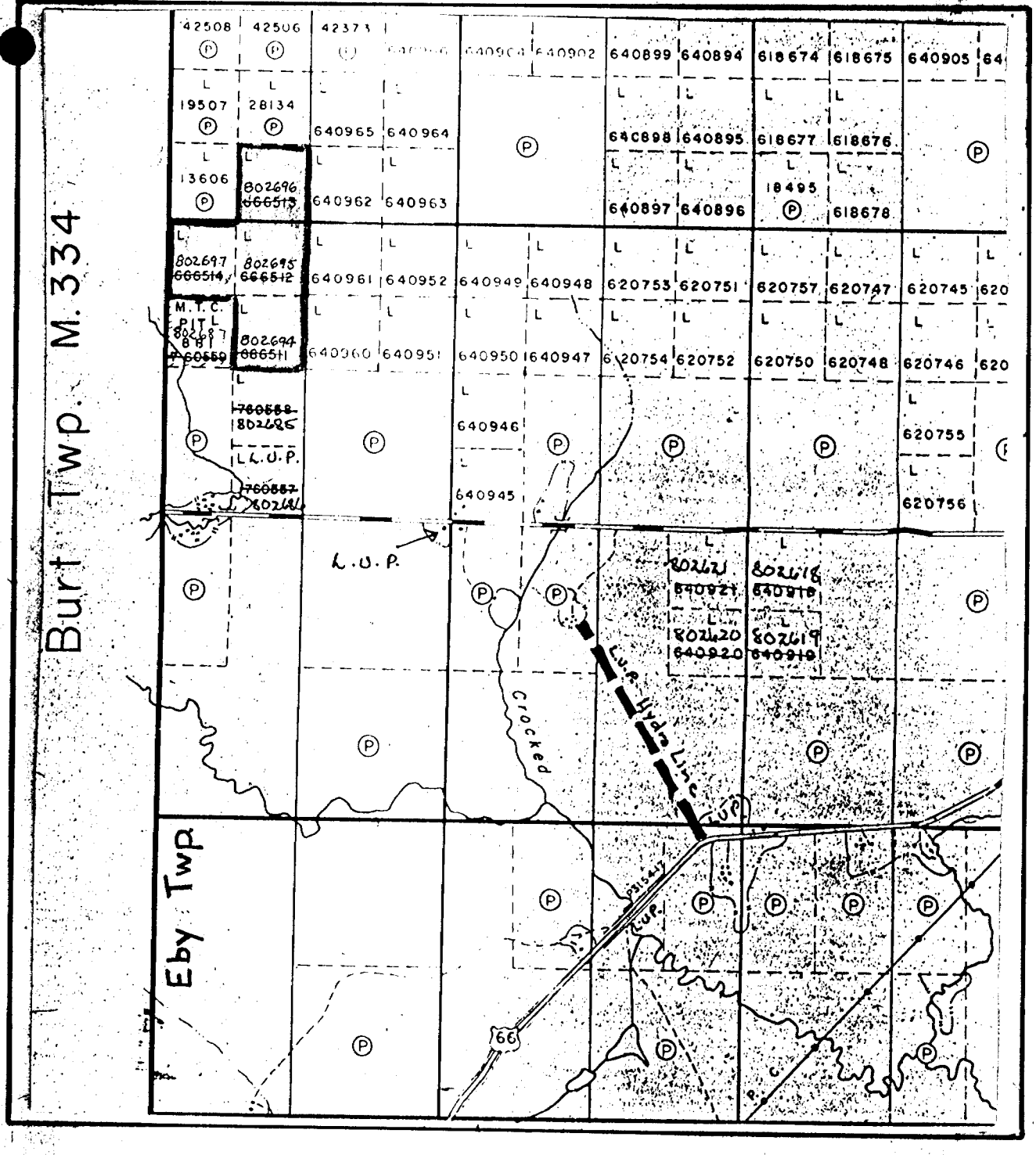
LOCATION AND ACCESS

Deadman Mine claims are located along the Eby-Burt township line in the central part of Eby township, three (3) miles west of Highway No. 66. The property is found in Concession III, northwestern part of Lot 8 and north-eastern part of Lot 9.

The property is twelve (12) miles west from the town of Kirkland Lake, Ontario, on Highway No. 66, then three (3) miles west on the Eby Concession III line road. The property is accessed one half mile north on foot. (See Figure 1a and 1b).

PREVIOUS WORK

In 1946 to 1947 surface work was performed by Red Shirt Larder Gold Mines Ltd. A 40 foot shaft was sunk and some diamond drilling was carried out. No results are available for these drill holes.

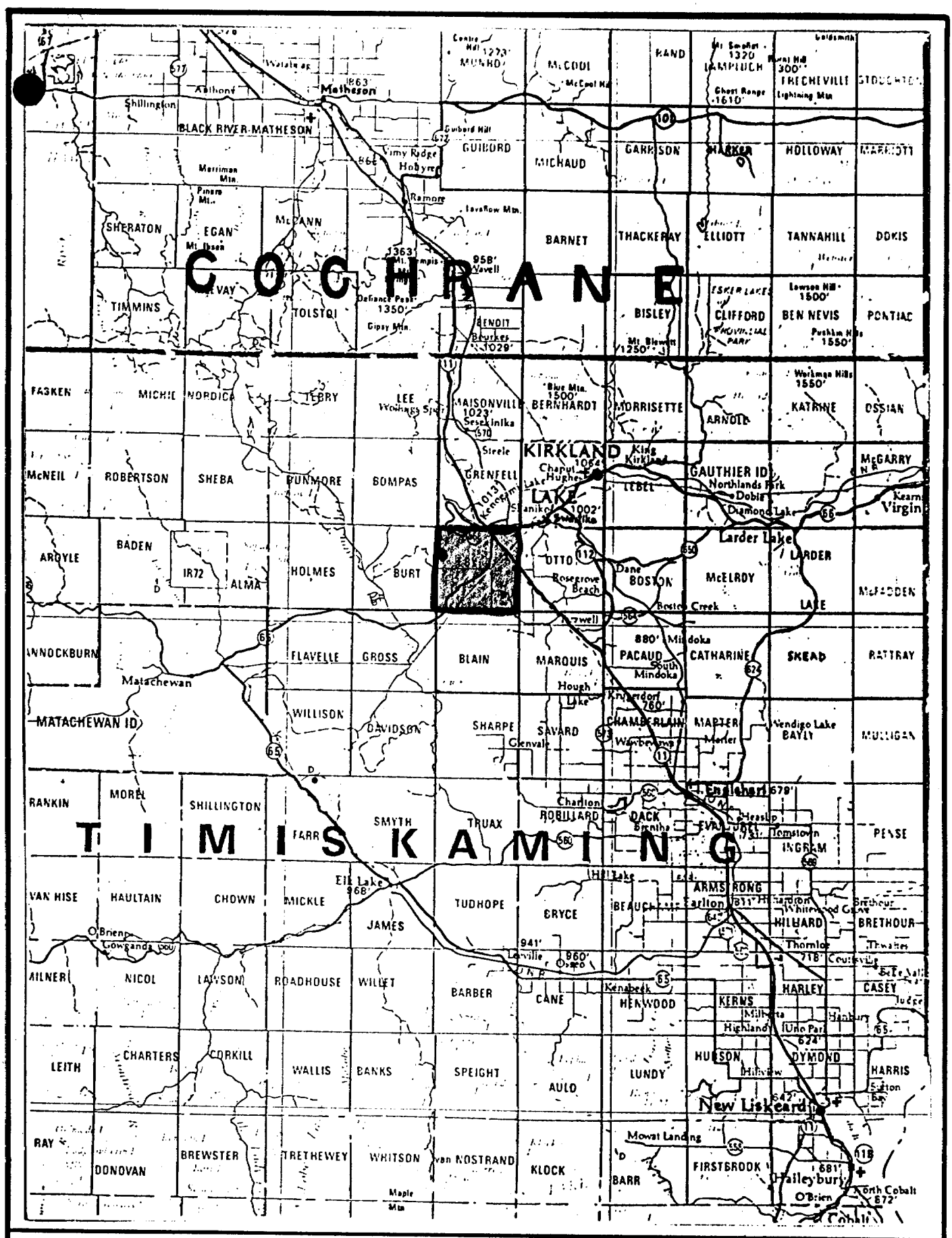


Claim Location Map

Scale: 1 inch to 1/2 mile

(Taken from a Mar. 1985 claim map)

Figure 1a



Location Map

Miles 10 0 10 20

Figure 1b

SURVEY PROCEDURE

A baseline was established from the No. 1 post of claim L-802695 for 2,400 feet west.

A grid system of picket lines 400 feet apart with stations every 100 feet was then established at right angles to the baseline.

Readings were taken at each 100 foot intervals on all picket lines. The primary magnetic base station was at BL 0+00 with secondary check stations located at each baseline-picketline intersection.

TOPOGRAPHY

The claim group is covered by poplar and birch bush to the north. The areas of outcrop found in the centre of the group is covered with jack pine and spruce. A creek through the centre claim causes the ground to be wet and swampy, covered with alder and buffalo grass.

GENERAL GEOLOGY

The O.D.M. Geological Report No. 99, Geology of the Eby and Otto area, District of Timiskaming, indicates that the underlying bedrock is predominantly mafic metavolcanics with small intrusions of syenite and trachyte. The meta-sediments of the Kirkland-Larder Lake break appear to pinch off at the northwest corner of the property.

ECONOMIC GEOLOGY

Gold is known to occur in carbonate rocks and these rocks are not confined to the area of the Kirkland-Larder Lake break area. These carbonate zones

can be found by detailed geological mapping and magnetic surveys for formations under the overburden. The zones will form low areas between the magnetic highs that show up other formations such as iron formations.

INSTRUMENTATION

i) 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 groumd, 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 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 EM16 unit. The sensitivity of this unit is $\pm$ 1% for the inphase 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 Cutler, Maine, which has a frequency of 24.0 kHz.

All readings were taken perpendicular to the station and the topography was noted for further use in the interpretation of the EM results.

ii) Magnetic Survey:

This system uses a backward motion of spinning protons of a hydrogen atom within a fluid of hydrogen and carbon. These spinning magnetic protons are caused to have two opposite poles by applying a magnetic field using a current within a coil of wire. When the current is stopped, the protons precess about the earth's magnetic field and in turn generate a small current in the wire. This frequency of precession is proportional to the earth's total magnetic field.

This instrument is read directly in gammas which is the absolute value of the earth's total field for that station.

The instrument used for this survey was a McPhar GP-8 Proton Magnetometer, this instrument has a one gamma sensitivity.

The diurnal variation was monitored by closing each loop at any secondary check station, at a gridline-baseline intersection.

Diurnal corrections were applied by linear distribution of any observed variation over the time between base stations. The corrections were calculated by using a time vs drift graph.

PRESENTATION AND DISCUSSION OF FIELD OBSERVATIONS

i) Electromagnetic Survey:

The field data is presented on a map at a horizontal scale of one inch to 200 feet, Map No. 87-DM-2, 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 1 inch to $\pm$ 40%, with the positive to the left and the negative to the right. See the plan maps for the locations of the conductors.

Several conductors were found on the claim group. Conductors 87-1 and 87-2 are parallel with 87-1 showing a good response in the relationship between the inphase and quadrature cross over. 87-3 and 87-4 may also be associated with one another since the inphase response is affected by both conductor axis.

ii) Magnetic Survey:

The field data is presented on a map at a horizontal scale of one inch to 200 feet, Map No. 87-DM-1, found in the back pocket of this report.

The magnetic data is illustrated at isomagnetic values recorded at each station.

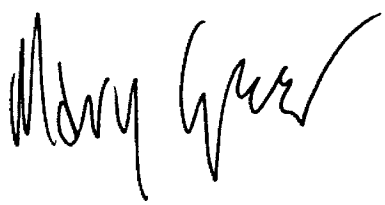
The magnetic survey shows two areas of very high magnetics surrounded by low magnetic relief. It is difficult to see the trend of the magnetic anomalies but it appears to be northwest-southeast.

CONCLUSIONS AND RECOMMENDATIONS

There was a very good electromagnetic response from the VLF-EM Survey as well as a number of possible structures in the magnetic data. This information should be assessed by a consulting geophysicist and further work proposed.

The north conductor may be associated with sulphides according to the VLF signature and diamond drilling will help to verify any gold bearing deposits.

Respectfully submitted,



September 21, 1987

Mary Greer
Geophysical Technician

BIBLIOGRAPHY

Ontario Department of Mines and Northern Affairs

Geological Report 99

Geology of the Eby and Otto Area
District of Timiskaming

by H.L. Lovell - 1972

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 have been continuously engaged in my profession for the past six (6) years and I am qualified to write this report.

4) That I did not participate in this survey.

Sept. 21/87
Date

Mary Greer
Mary Greer
Geophysical Technician

W8708.00325

#3

Ministry of Natural Resources
Ontario

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

42A01SW0013 2.10394 EBY

900

Min

— Do not use shaded areas below.

Type of Survey(s): MAGNETIC GEOPHYSICAL - ELECTROMAGNETIC

Township or Area: EBY

Claim Holder(s): ALEX H. PERRON

Prospector's Licence No.: K-19026

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

Survey Company: PERRONS'

Date of Survey (from & to): 03 08 87 (Day Mo. Yr.) 06 08 87 (Day Mo. Yr.)

Total Miles of line Cut: APPROX. 4 MILES

Name and Address of Author (of Geo-Technical report): MARY GREER, 103 GOVERNMENT ROAD EAST, KIRKLAND LAKE, ONTARIO P2N IA9

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical - Electromagnetic	20
	Geophysical - Magnetometer	40
For each additional survey: using the same grid: Enter 20 days (for each)	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical - Electromagnetic	
	Geophysical - Magnetometer	
	Geophysical - Radiometric	
	Geophysical - Other	
	Geological	
	Geochemical	

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.
L	802694	
	802695	
	802696	
	802697	

Mining Claim Prefix	Mining Claim Number	Expend. Days Cr.

AUG 7 1987

RECEIVED
AUG 28 1987
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 4

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.

Date: AUG. 6, 1987

Recorded Holder or Agent (Signature): Mary Greer

For Office Use Only

Total Days Cr. Recorded: 240

Date Recorded: AUG 7 1987

Date Approved as Recorded: 1987.10.27

Mining Recorder: Acting

Branch Director: per R.M. Jamestky

AB

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, 103 GOVERNMENT ROAD EAST, KIRKLAND LAKE, ONT. P2N IA9

Date Certified: AUG 6 1987

Certified by (Signature): Mary Greer

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File _____

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 - ELECTROMAGNETIC - MAGNETIC

Township or Area EBY

Claim Holder(s) ALEXANDER H. PERRON

Survey Company PERRONS'

Author of Report MARY GREER, 49 MCKELVIE AVENUE,

Address of Author KIRKLAND LAKE, ONT. P2N 2K6

Covering Dates of Survey 03/08/87 - 06/08/87 (linecutting to office)

Total Miles of Line Cut APPROX. 4.3 MILES

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	40
--Radiometric	
--Other	
Geological	
Geochemical	

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

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

DATE: Sept 21 87 SIGNATURE: Mary Greer
Author of Report or Agent

Res. Geol. _____ Qualifications 2.4529

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically
Mag. EM

(prefix)	(number)
L-	802694
L-	802695
L-	802696
L-	802697

If space insufficient, attach list

TOTAL CLAIMS 4

OFFICE USE ONLY

837 (85/12)

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 220 Number of Readings MAG 202 VLF 246

Station interval 100 FEET Line spacing 400 FEET

Profile scale 1" = ± 40%

Contour interval 100 GAMMAS

MAGNETIC

Instrument MCPHAR GP-8 PROTON MAGNETOMETER

Accuracy – Scale constant ± 1 GAMMA

Diurnal correction method CLOSED LOOPS

Base Station check-in interval (hours) ONE HALF HOUR

Base Station location and value BL 0+00 60195 GAMMAS

ELECTROMAGNETIC

Instrument GEONICS VLF-EM16

Coil configuration HORIZONTAL AND VERTICAL

Coil separation INFINITY

Accuracy ± 1%

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

Frequency CUTLER, MAINE 24.0 KHz (specify V.L.F. station)

Parameters measured INPHASE 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 _____

Grenfell Twp. M.351

Burt Twp. M.334

Otto Twp. M.379

Blain Twp. M.418

M.G.S. FILE 16864

VI

V

IV

III

II

I

12 11 10 9 8 7 6 5 4 3 2 1

THE TOWNSHIP OF

EBY

DISTRICT OF TIMISKAMING

LARDER LAKE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	C.S.
LEASES	(L)
LOCATED LAND	Loc.
LICENSE OF OCCUPATION	L.O.
MINING RIGHTS ONLY	M.R.O.
SURFACE RIGHTS ONLY	S.R.O.
ROADS	
IMPROVED ROADS	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	C.
CANCELLED	

NOTES

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

AREAS WITHDRAWN FROM STAKING
under Sec. 43 of The Mining Act (R.S.O. 1970).

Order No.	File	Date	Disposition

N½ Lot 7, Con. 3 - Cert. of Forfeiture - Sept 17/85

DATE OF ISSUE
OCT 9 1987

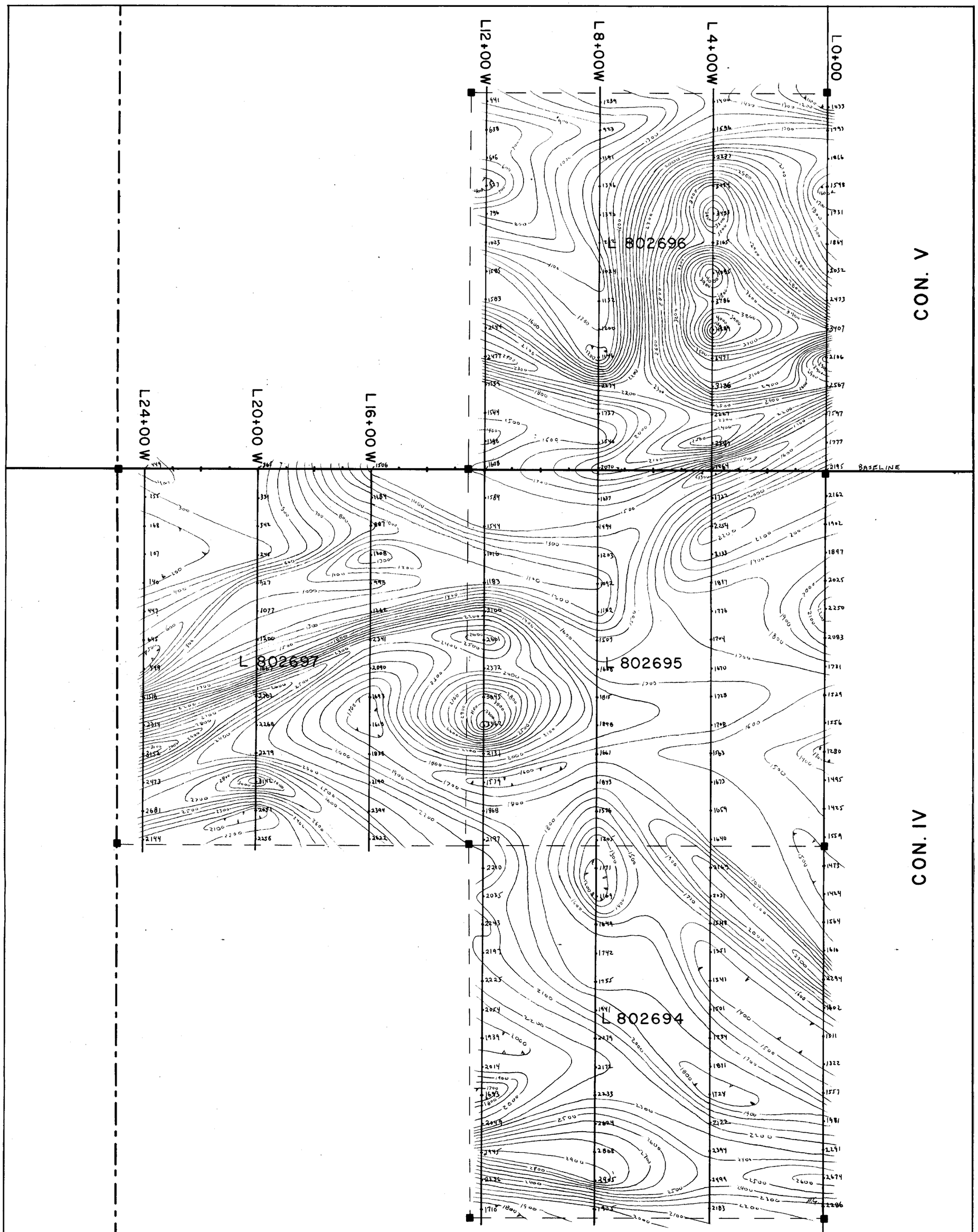
#1

PLAN NO.- M-345

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A01SW0013 2.10394 EBY

200



Mag. N10°W

N

SYMBOLS

Isomagnetic contours

Base station

Claim post ■ Claim line — —

Township line - - — - - —

INSTRUMENTATION

Instrument used: McPhar GP-81 Proton Magnetometer

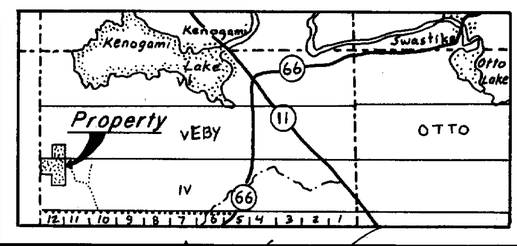
Datum subtracted: 58,000 ɣ

Contour interval: 100 gammas

Contoured by: Mary Greer

KEY MAP

(Scale: 1 inch to 2 miles)



Mary Greer

DEAD MAN MINE

GROUND MAGNETOMETER SURVEY

EBY TOWNSHIP

LARDER LAKE MINING DIVISION

DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600

Scale: 1 inch to 200 feet

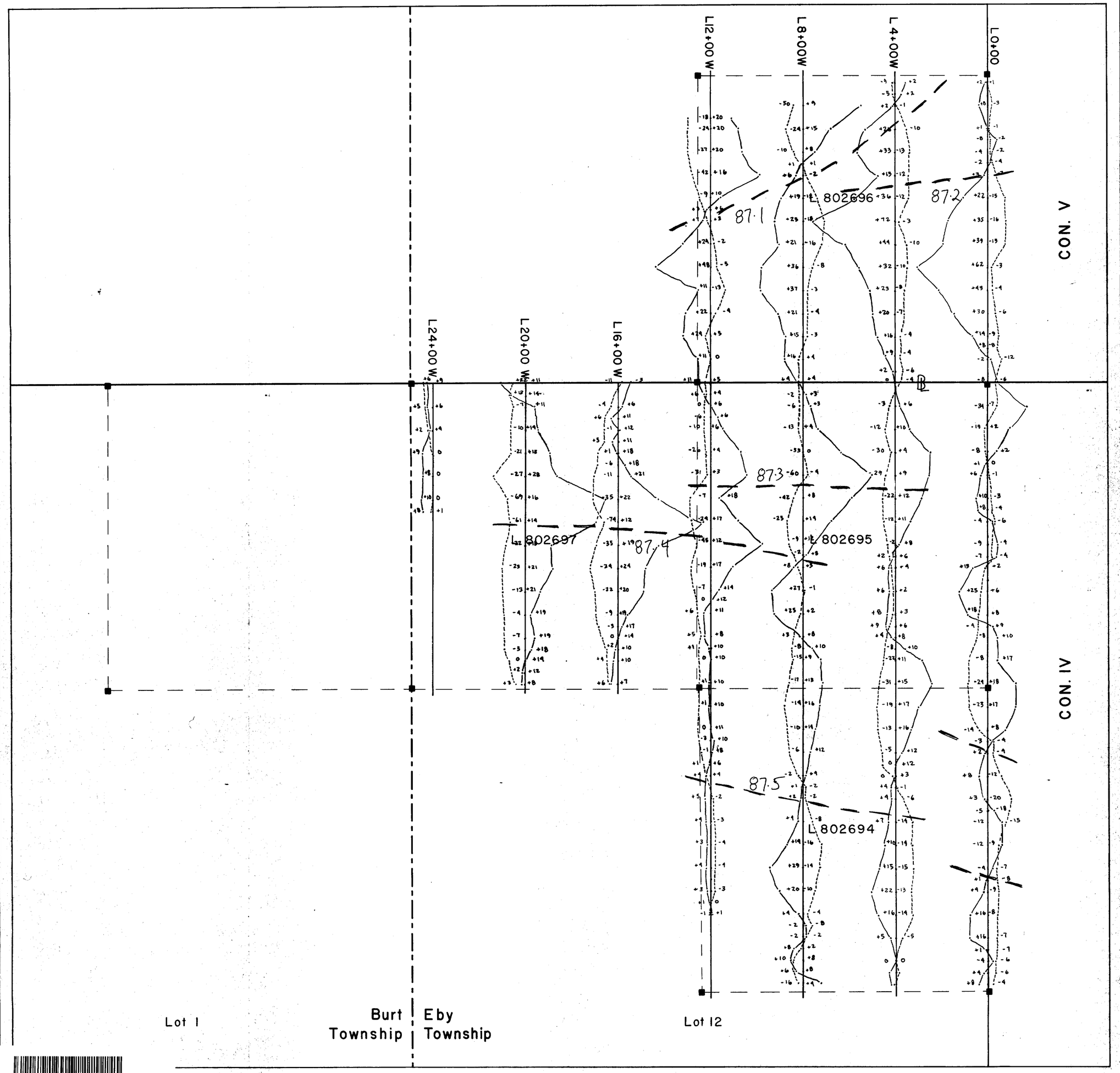
PERRONS'

KIRKLAND LAKE CANADA

Drawn by: Mary Greer	Map No.: 87-DM-1	Date: August 1987

42A01SW0013 2.10394 EBY

2.10394



Mag. N 10° W

N.

SYMBOLS

Inphase

Quadrature

VLF conductor

Claim post ■ claim line

Township line

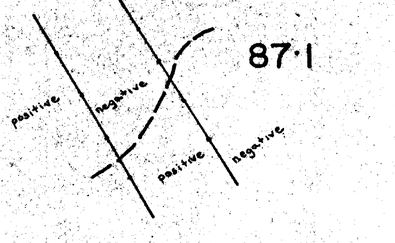
INSTRUMENTATION

Instrument used : GEONICS EM16

Station used : Cutler, Maine
NAA 24.0 kHz

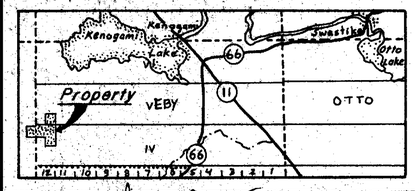
Vertical scale : 1 inch = ±40%

Plotted by Anita Helin



KEY MAP

(Scale: 1 inch to 2 miles)



Mary Greer

DEAD MAN MINE

GROUND VLF-EM SURVEY

EBY AND BURT TOWNSHIPS
LARDER LAKE MINING DIVISION
DISTRICT OF TIMISKAMING, ONTARIO

200 0 200 400 600

Scale : 1 inch to 200 feet

PERRONS'
KIRKLAND LAKE CANADA

Drawn by: Mary Greer | Map No.: 87.DM-2 | Date: August 1987

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2.10394