



32D055W0018 2.9255 CLIFFORD

010

GRID C14 EXTENSION
CLIFFORD TOWNSHIP, ONTARIO
LARDER LAKE MINING DIVISION
NTS 32 D 5

REPORT ON
MAGNETIC SURVEY

RECEIVED

JUL 11 1986

MINING LANDS SECTION

A. JAMES WALKER, P. Eng.

May 7, 1986



32D05SW0018 2.9255 CLIFFORD

010C

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ENCLOSURES

Grid C 14	Magnetic Survey	Contours	1:5000
	Magnetic Survey	Values	1:5000

INTRODUCTION

In March 1985 Walker Exploration Ltd. carried out a magnetic survey over 18 claims. Three additional claims on the east have been covered by this survey, as well as extra detail over a magnetic high on claim 803336. A new plan has been prepared to incorporate both the previous and new survey. The 21 claim group is located on the south township boundary and east of centre in Clifford Township, about 20 kilometers northeast of Kirkland Lake.

Linecutting was carried out in March 1986 by Jean Alix Co. Ltd., while the magnetic survey was made March 3, 1986 over approximately 16.6 kilometers of line, which includes repeating old lines at close station spacing.

The survey was carried out with an EDA PPM 300 total field proton magnetometer. An EDA PPM 400 base station magnetometer was used for diurnal control.

SUMMARY

The magnetic survey shows an east-west trend to the volcanics, with highest values over the mafic intrusives on the easterly section of the grid. Some north-south faulting is

likely, as indicated by offsets in the contoured magnetic values. The extra detail over previous work shows only slight changes in magnetic pattern.

PROPERTY

The 21 claim group is located in the south central part of Clifford Township (Claims 803325-803342 inclusive, 843426-843428 inclusive). The group is about 20 kilometers north-east of Kirkland Lake. Access is via a bush road that goes east from the Esker Lake Provincial Park road (about 5 kilometers).

PREVIOUS WORK

A magnetic survey was carried out by Canadex Mining Corporation Ltd. in 1972 covering the easterly 6 claims of the present survey. L. J. Cunningham, Consultant, reports several old pits and trenches were observed. Pyrite mineralization was observed near some magnetic lows, as well as rusty outcrops near a magnetic high. Some drilling by Mining Corporation is mentioned in Mr. Cunningham's report.

GENERAL GEOLOGY - OGS Geoscience Report 132, Map 2283)

The claim group is mainly drift covered. East-west trending volcanics occur on the property, with intermediate to the south and felsic to the north. Outcrops of quartz gabbro and diorite are found on the east portion of the grid.

SURVEY METHOD

The magnetic survey was performed with an EDA PPM 300 magnetometer, measuring total field to 0.1 gammas. Diurnal control was made by using an EDA base station magnetometer (PPM 400) located on the Esker Lake road to the west. Other grids on this project are tied into this base station, so a common base level for all grids was established. The extension is tied in to the previous survey.

The magnetometer and base station have solid state memory for storage of values and location of stations read. The units are plugged together each evening and the computer programme allows for automatic diurnal corrections to field values. Corrected data was stored on cassette of an HP85 computer. Data is transferred to IBM compatible for final plotting on our in-house plotter.

Observations were made at 125 meter intervals on lines 125 meters (62.5 detail) apart. As well base line and tie lines

were read. Values are plotted on a plan at a scale of 1:5000. Contours of values are plotted on a separate sheet at 25 gamma intervals.

SURVEY RESULTS

Contours of the values show a general east-west trend with low values to the west. Some isolated magnetic highs (200 to 600 gammas above background) occur to the east of lines 1875 East, and likely represent the mafic intrusive rocks. Offsets in the contour pattern suggest some north-south faulting.

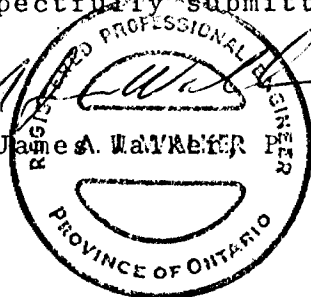
CONCLUSIONS

The magnetic survey should provide a good base to relate previous exploration work and future activities such as prospecting and mapping, geochemistry and other geophysics such as VLF-EM.

Respectfully submitted,

AJW:sb

A. James A. WALKER P. Eng.



SURVEY DATA

Grid C14

Clifford Township, Larder Lake Mining Division, Ontario.

Geophysical Contractor - Walker Exploration Ltd.

Covering Dates - Linecutting - March 1986
Magnetic Survey - March 31, 1986
Drafting - April 15-16,
May 7-8, 1986
Report - May 7, 1986

Line Coverage - Linecutting - 7.56 kilometers
Magnetic Survey - 16.649 kilometers
Readings
Line Spacing - 125 meters &
67.5 meters
Station Spacing - 12.5 meters

Crew

Linecutting - Jean Alix Co. Ltd., Val D'Or, Quebec
Magnetic Survey - J. Tough, Bracebridge, Ontario
D. Miles, London, Ontario
Drafting - R. T. Marcroft, Mississauga, Ontario
T. J. Miles, Mississauga, Ontario
Field Report - A. J. Walker, Mississauga, Ontario

Instruments

Magnetic Survey

- EDA PPM 300 Proton, Total Field
Direct Reading, 0.1 Gamma
Solid State Memory
EDA PPM 400 Base Station Recorder



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) Magnetometer
Township or Area Clifford
Claim Holder(s) Lac Minerals Ltd.
Walker Exploration Ltd.
Survey Company
Author of Report A. James Walker
Address of Author 10 Hurontario St., Mississauga, Ont.
Covering Dates of Survey March 1986 - May 7, 1986
(linecutting to office)
Total Miles of Line Cut 4.663 Km (on 3 claims)

MINING CLAIMS TRAVERSED
List numerically

L 843426
(prefix) (number)
L843427
L843428

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

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

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

DATE: May 7, 1986 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. _____ Qualifications 63.2234

Previous Surveys

File No.	Type	Date	Claim Holder

TOTAL CLAIMS 3

If space insufficient, attach list

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 187 Number of Readings 381

Station interval 12.5 Line spacing 62.5 & 125 meters

Profile scale _____

Contour interval 25 gammas

MAGNETIC

Instrument EDA PPM 300, Proton Total Field

Accuracy - Scale constant Readout to 0.1 gammas

Diurnal correction method Base Station Recorder, EDA PPM 400

Base Station check-in interval (hours) Continuous - 15 seconds

Base Station location and value Off Esker Lake Road, just north of Highway 66 - 59703 gammas

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 _____

July 15, 1986

File: 2.9255

Mining Recorder
Ministry of Northern Development and Mines
4 Government Road East
Kirkland Lake, Ontario
P2N 1A2

Dear Madam:

We received reports and maps on July 11, 1986 for a Geophysical (Magnetometer) Survey submitted under Special Provisions (credit for Performance and Coverage) on Mining claims L 843426, et al, in the Township of Clifford.

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

We do not have a copy of the report of work which is normally filed with your office prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours sincerely,

J.C. Smith, Supervisor
Mining Lands Section

Whitney Block, 6th Floor
Queen's Park
Toronto, Ontario
M7A 1W3

Telephone: (416) 965-4888

AB/mc

cc: Lac Minerals Ltd
Royal Bank Plaza
Suite 2105, North Tower
P.O. Box 156
Toronto, Ontario
M5J 2J4

Walker Exploration Ltd
10 Hurontario Street
Mississauga, Ontario
L5G 3G7

Mining Lands Section

File No 2.9255

Control Sheet

TYPE OF SURVEY GEOPHYSICAL
 GEOLOGICAL
 GEOCHEMICAL
 EXPENDITURE

MINING LANDS COMMENTS:

J. Hurst

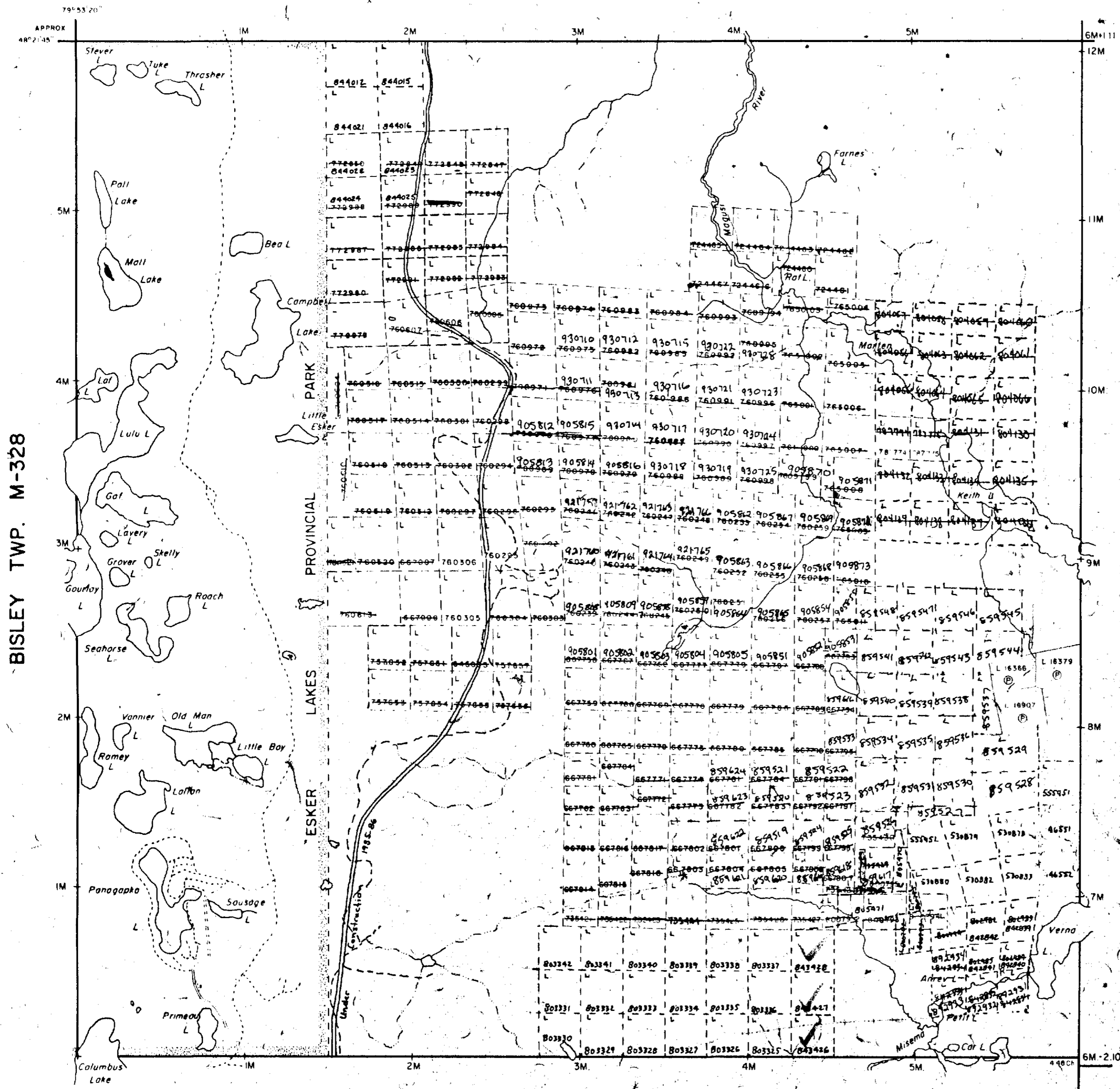
Signature of Assessor

Aug 19/86

Date

[Handwritten initials]

ELLIOTT TWP. M-347



BISLEY TWP. M-328

BEN NEVIS TWP. M-325

ARNOLD TWP. M-321

NOTES

400 surface rights reservation along the shores of all lakes and rivers
 Order No. W15/85 Date April 10/85 Disposition MR 65A
 SEC 36/80 # above re-surveyed 02/31/85 3:55pm

LEGEND

- PATENTED LAND
- PATENTED FOR SURFACE RIGHTS ONLY
- LEASE
- LICENSE OF OCCUPATION
- CROWN LAND SURFACE
- LOCATED LAND
- CANCELLED
- MINING RIGHTS ONLY
- SURFACE RIGHTS ONLY
- HIGHWAY & ROUTE NO.
- ROADS
- TRAILS
- RAILWAYS
- POWER LINES
- MARCH OR MUSKEL
- MINES

TOWNSHIP OF JUL 2, 1985

CLIFFORD

DISTRICT OF COCHRANE

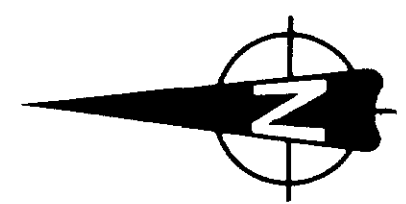
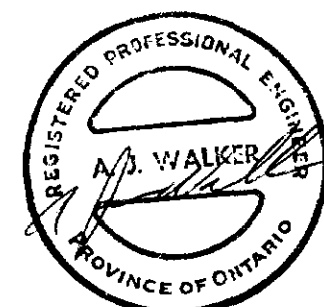
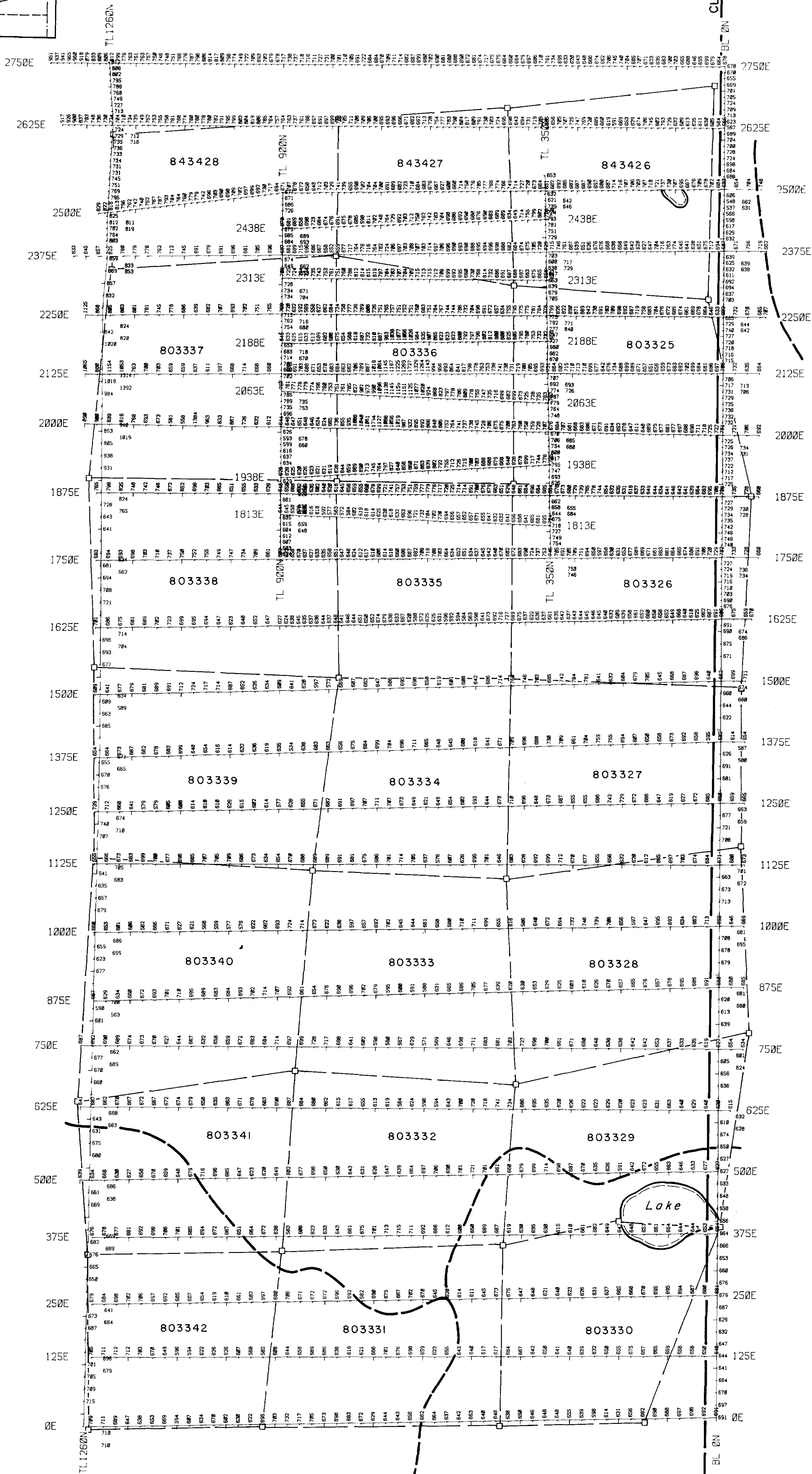
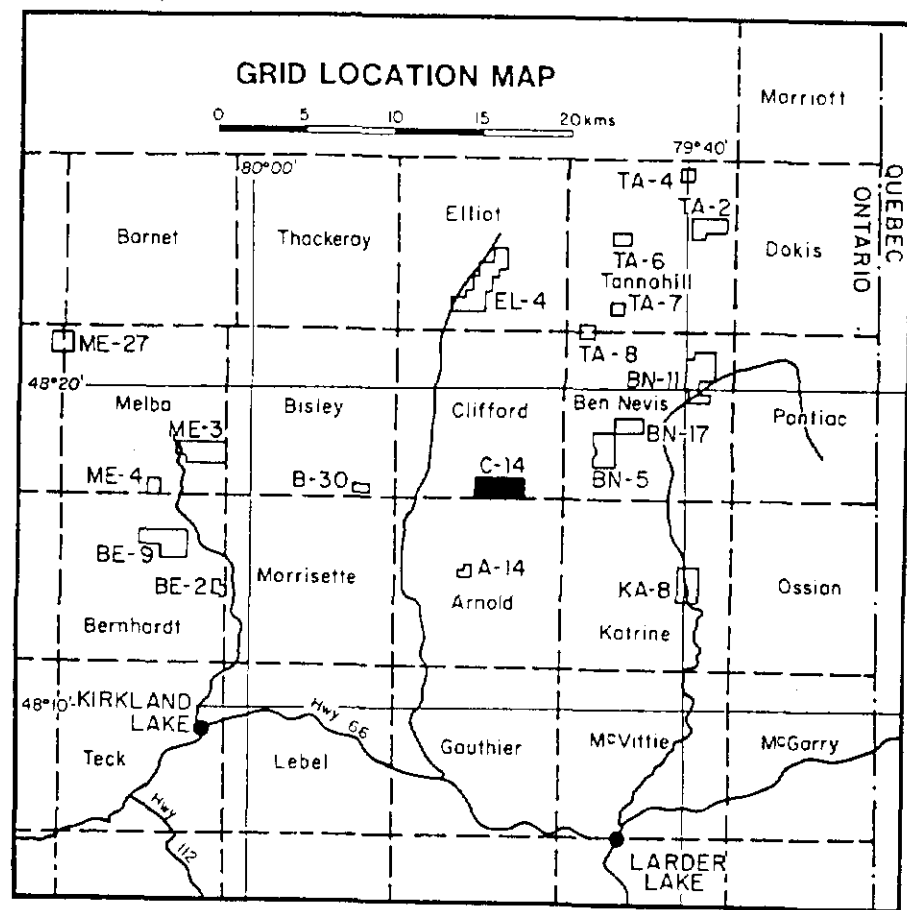
LARDER LAKE MINING DIVISION

SCALE: 1 INCH = 40 CHAINS (1/2 MILE) #15

DR R.W. NOBLE PLAN NO. M-338
 DATE DEC 9, 71

ONTARIO
 MINISTRY OF NATURAL RESOURCES
 SUDBURY & MATHIAS BRANCH





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SURVEY DATA

Contractor - Walker Exploration Ltd.
 Instrumentation - EDR PPM-5000
 Base Station - EDR PPM 400

TOPOGRAPHIC LEGEND

Claim post and line
 Roads: main, bush
 Creek, swamp, lakeshore

NTS - 32 - D - 5

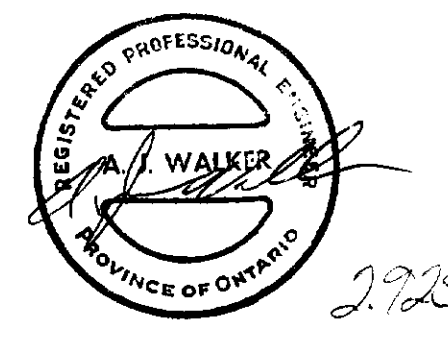
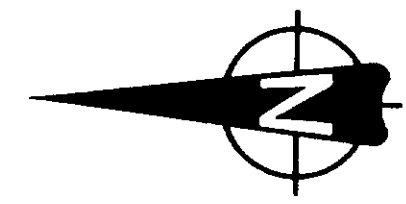
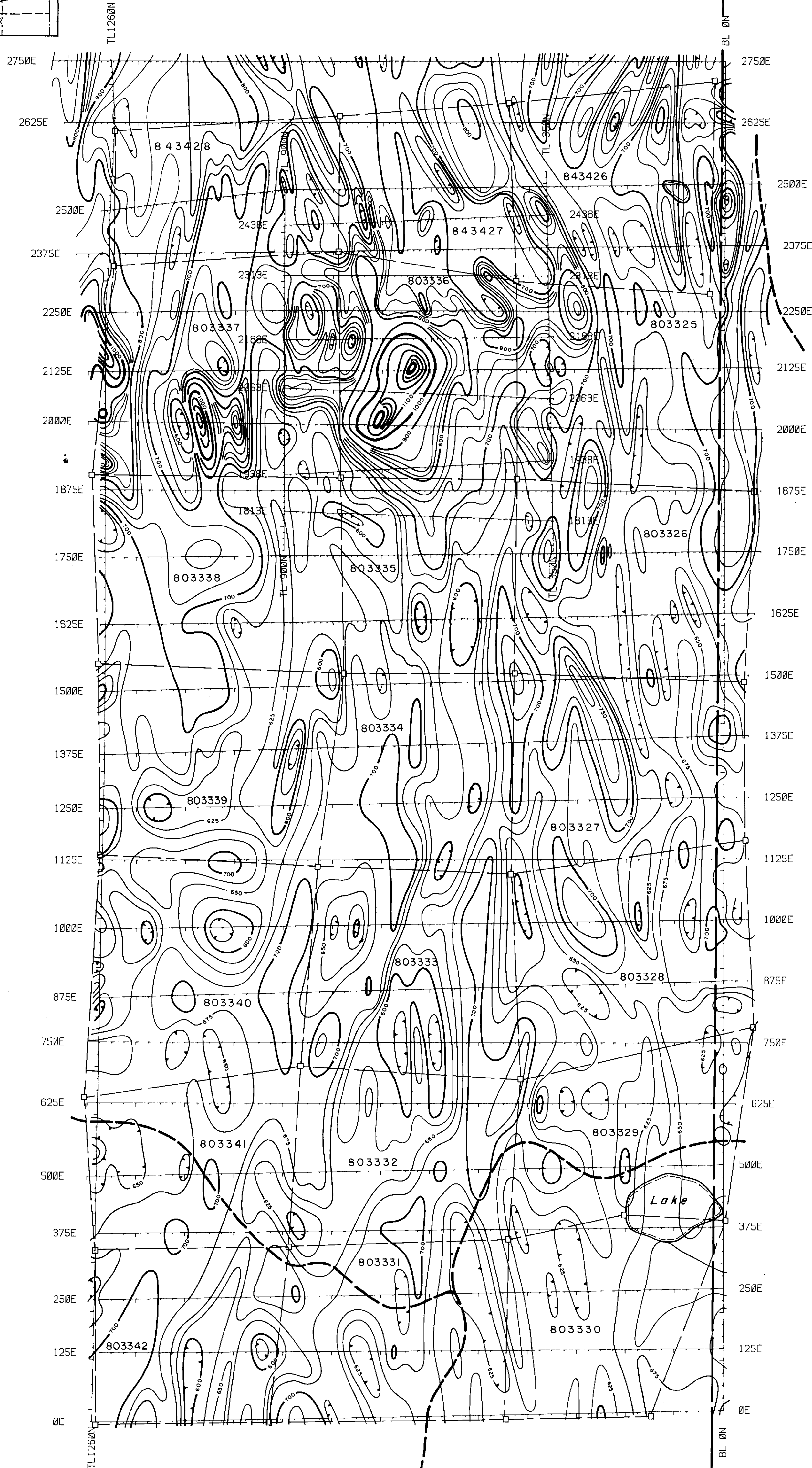
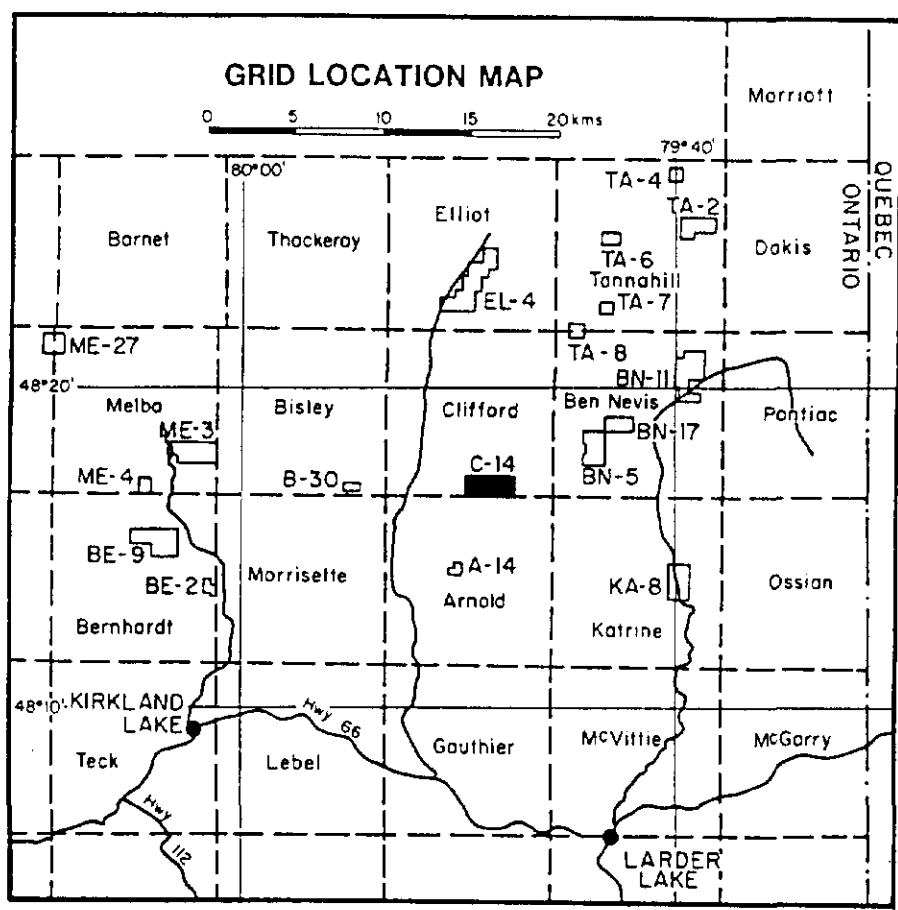
**CLIFFORD TWP. (C 14 GRID)
 TOTAL FIELD MAGNETIC VALUES**

Scale 1 : 5000

Compilation and Plotting
 by
WALKER EXPLORATION LTD
 Mississauga Ontario.
 April 1986

LEGEND
 Base Level = 58222 nT

Sheet # 1a



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SURVEY DATA

Contractor - Walker Exploration Ltd.
 Instrumentation - EDA PPM-500
 Base Station - EDA PPM 400

TOPOGRAPHIC LEGEND

Claim post and line □
 Roads: main, bush ————
 Creek, swamp, lakeshore ~~~~~

CLIFFORD TWP. (C 14 GRID)
 TOTAL FIELD MAGNETIC CONTOURS

Scale 1 : 5000

Compilation and Plotting
 by
 WALKER EXPLORATION LTD
 Mississauga Ontario,
 April 1986

LEGEND

Values above base level of 58,000 nT
 Contour interval 25 nT
 25 nT contour ————
 100 nT contour ————
 500 nT contour ————
 Depression ————