



32004NW0029 2.9838 ARNOLD

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GRID A 4
ARNOLD TOWNSHIP, ONTARIO
LARDER LAKE MINING DIVISION
NTS 32 D 4

REPORT ON
MAGNETIC SURVEY

RECEIVED

MAR - 3 1987

MINING LANDS SECTION

A. JAMES WALKER P.Eng.

DECEMBER 13, 1986



32004NW0029 2.9838 ARNOLD

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- 1 -

LIST OF CONTENTS

Introduction	Page 1
Summary	1
Property	1
Previous Work	2
Geology	2
Survey Method	3
Survey Results	4
Conclusions	4
Survey Data	5

ENCLOSURES

Sheet 1A	Magnetic Values	1:5000
Sheet 1B	Magnetic Contours	1:5000
Sheet 1C	Magnetic Profiles	1:5000

INTRODUCTION

Walker Exploration Ltd. carried out a magnetometer survey over 6 claims in the southwest part of Arnold Township, just west of the Esker Lake road. The group is about 15 kilometers northeast of Kirkland Lake.

Linecutting and chaining was done by another contractor in October, 1986. The survey was carried out November 15, 1986 over approximately 10.4 kilometers of line.

The survey was carried out with an EDA PPM 500 total field proton magnetometer with an EDA PPM 400 base station magnetometer for diurnal control.

SUMMARY

Magnetic highs on the west and north part of the grid likely represent basic intrusives. The northeast trending lows suggest shearing, parallel to the Murdoch Creek - Kennedy Lake Fault to the south.

PROPERTY

The 6 claim group is located in the southwest part of Arnold Township, on the west boundary, just west of North Arm, Victoria Lake. The group consists of Claims 891926 to 891931 inclusive. Access to the property is via the Esker Lake Park road. The group is about 15 kilometers northeast of Kirkland Lake.

PREVIOUS WORK

Airborne magnetic and electromagnetic surveys by Rosario Resources covered this group. In 1982 Aerodat covered the north part of the grid with helicopter magnetic and electromagnetic surveys for Monopros Ltd. Ground magnetic and electromagnetic surveys were conducted by Geoex Ltd. for Falconbridge Ltd. in 1980.

GENERAL GEOLOGY (OGS Map 2061)

The property is mainly drift covered (glacial outwash sand). A few outcrops of intermediate volcanics are shown on Map 2061 on this claim block, located in a broad area of felsic to

intermediate volcanics, with occasional felsic to mafic intrusives. The claims are northwest of the northeast trending Murdoch Creek - Kennedy Lake fault.

SURVEY METHOD

The magnetic survey was performed with an EDA PPM 300 proton magnetometer, measuring total field to 0.1 gammas. Diurnal control was made by using an EDA PPM 400 base station magnetometer located on the Esker Lake road just north of Victoria Lake. Other grids on this project are tied into this common base station.

The field magnetometer and base station magnetometer have solid state memory for storage of values and locations of stations read. The instruments have built in clocks which are synchronized each day. The units are plugged together each evening and the built-in computer programme in the base station allows for automatic diurnal correction of data collected. This corrected data was stored on the cassette of an HP85 computer in the field, and later transferred to an IBM compatible computer for final plotting.

Observations were made at 12.5 meter stations on lines 125 meters spacing. Values are plotted on a plan at a scale of 1:5000. Contours of values are plotted on a separate sheet.

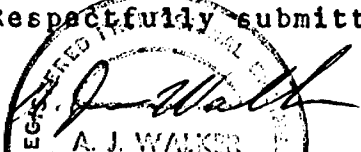
SURVEY RESULTS

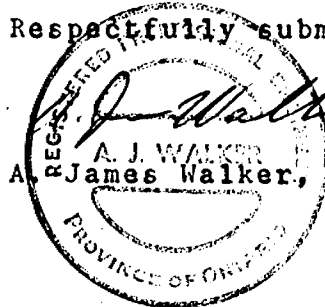
The magnetic pattern is generally low and flat over the southerly part of the grid, with a general northeast trend. Magnetic highs on the west and north part of the group likely represent basic intrusives. The northeast trending lows suggest shearing, parallel to the Murdoch Creek - Kennedy Lake Fault which is to the southeast.

CONCLUSIONS

The magnetic survey should assist in geological interpretation and further exploration of this claim group.

Respectfully submitted,


A. J. Walker, P. Eng.



AJW:sb

SURVEY DATA

Grid A4.

Arnold Township, Larder Lake Mining Division, Ontario.

Geophysical Contractor - Walker Exploration Ltd.

Covering Dates	- Linecutting	- October 1986
	Magnetic	- November 15, 1986
	Drafting	- Nov. 19 - Dec. 15 1986
	Report	- December 13, 1986

Line Coverage	- Linecutting	- 10.424 km.
	Magnetic Survey	- 10.424 km.
	Readings	- 846.
	Line Spacing	- 125 meters
	Station Spacing	- 12.5 meters

Crew

Linecutting	- Charles Bosum, Chibougamau, Quebec
Magnetic Survey	- J. Tough, Bracebridge, Ontario
	D. Miles, London, Ontario
Drafting	- T.J. Miles, Mississauga, Ontario
	R.T. Marcroft, Mississauga, Ontario
Field Report	- A.J. Walker, Oakville, Ontario

Instruments

Magnetic Survey

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



Ministry of

GEOPHYSICAL - GEOTECHNICAL



32D04NW0029 2.9838 ARNOLD

File _____

900

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) Magnetic
Township or Area Arnold
Claim Holder(s) Lac Minerals Ltd.
Survey Company Walker Exploration Ltd.
Author of Report A. James Walker
Address of Author 10 Hurontario St., Mississauga, Ont.
Covering Dates of Survey Oct. 1 - Dec. 13, 1986
Total Miles of Line Cut 10,424 Km.

MINING CLAIMS TRAVERSED
List numerically

L 891924
L 891927
L 891928
L 891929
L 891930
L 891931

If space insufficient, attach list

SPECIAL PROVISIONS
CREDITS REQUESTED

DAYS per claim

Geophysical
-Electromagnetic
-Magnetometer 40
-Radiometric
-Other
Geological
Geochemical

ENTER 40 days (includes line cutting) for first survey.
ENTER 20 days for each additional survey using same grid.

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

Magnetometer Electromagnetic Radiometric
(enter days per claim)

DATE: Dec. 13, 1986 SIGNATURE: [Signature]
Author of Report or Agent

Res. Geol. Qualifications 63-2234

Previous Surveys

Table with 4 columns: File No., Type, Date, Claim Holder

TOTAL CLAIMS 6

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 429 Number of Readings 846
Station interval 12.5 meters Line spacing 125 meters
Profile scale 200 nT/cm.
Contour interval 25 nT

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
Victoria Lake - 58640 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 _____

Clifford Twp. (M.338)

THE TOWNSHIP OF
OF
ARNOLD

DISTRICT OF
TIMISKAMING

LARDER LAKE
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

- PATENTED LAND Ⓟ
 - CROWN LAND SALE C.S.
 - LEASES Ⓞ
 - 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 X
 - CANCELLED —
 - PATENT SURFACE RIGHTS ONLY —
- (Application pending under Public Lands Act)*

NOTES

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

Areas withdrawn from staking under Section 43 of the Mining Act (R.S.O. 1970)

Order No.	File	Date	Disposition
Ⓟ	183497	APRIL 17/70	S.R.O.
Ⓟ	NR W. 32/79 172213	MAY 4/79	S.R.O.

Proposed Crown Subdivision

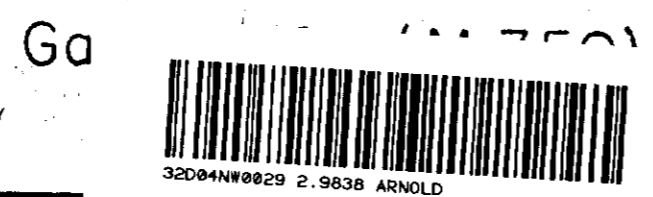
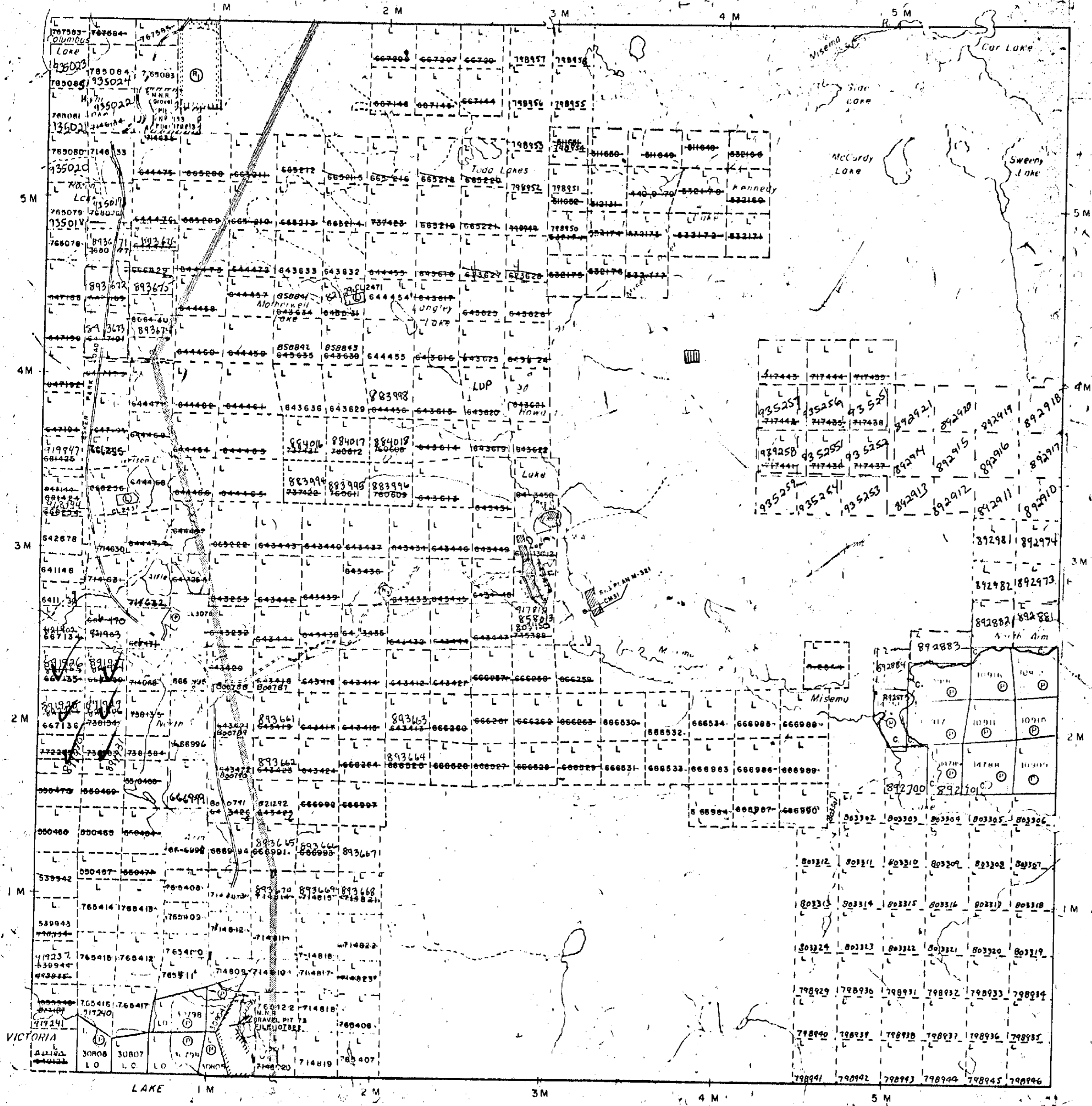
Proposed Power Line Right-of-Way Contract

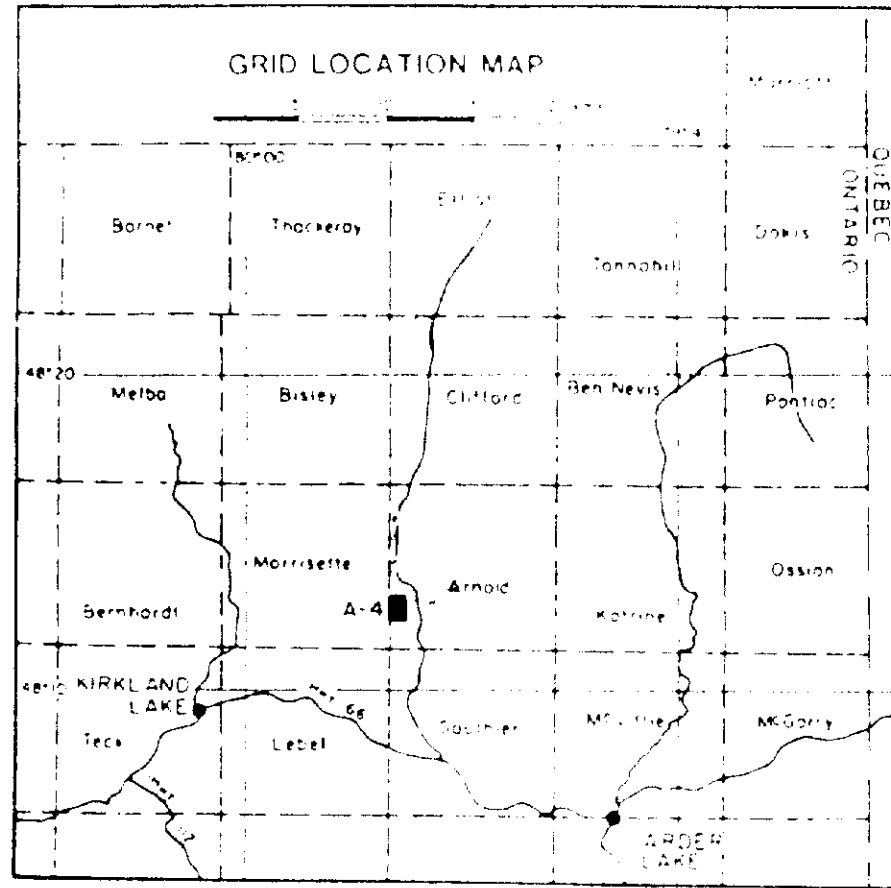
DATE OF ISSUE
FEB 10 1987
LARDER LAKE
MINING RECORDER'S OFFICE

PLAN NO. **M.321#7**
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

Morrisette Twp. (M.374)

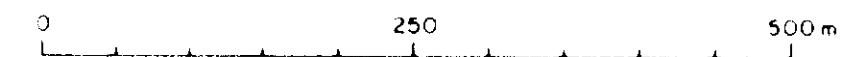
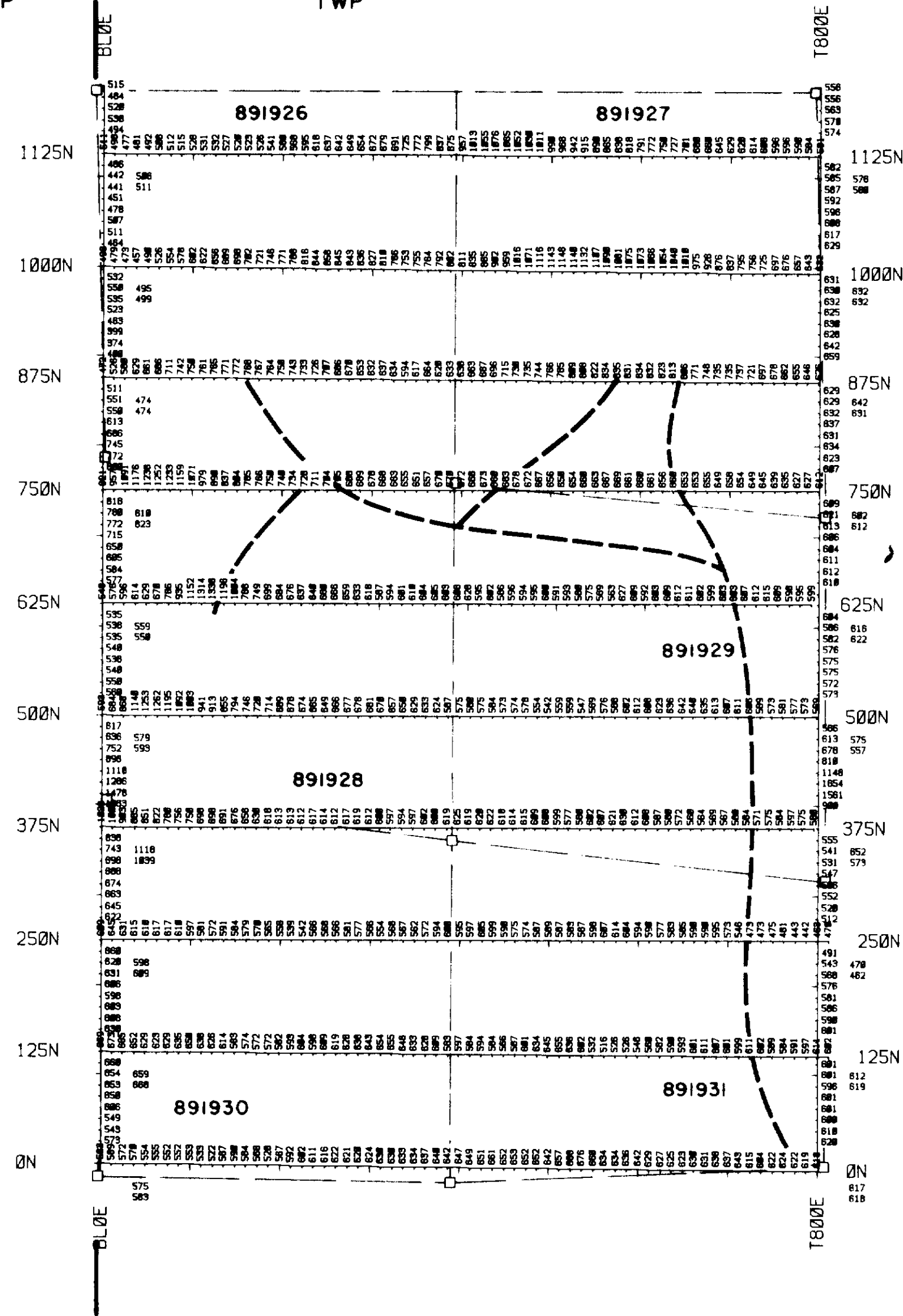
Katrine Twp. (M.357)





MORRISETTE
TWP

ARNOLD
TWP



SURVEY DATA

Contractor - Welker Exploration Ltd.
Instrumentation - EDR PPM-500
Base Station - EDR PPM 400

TOPOGRAPHIC LEGEND

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

NTS -

ARNOLD TWP. (GRID A4)

TOTAL FIELD MAGNETIC VALUES

Scale 1 : 5000

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

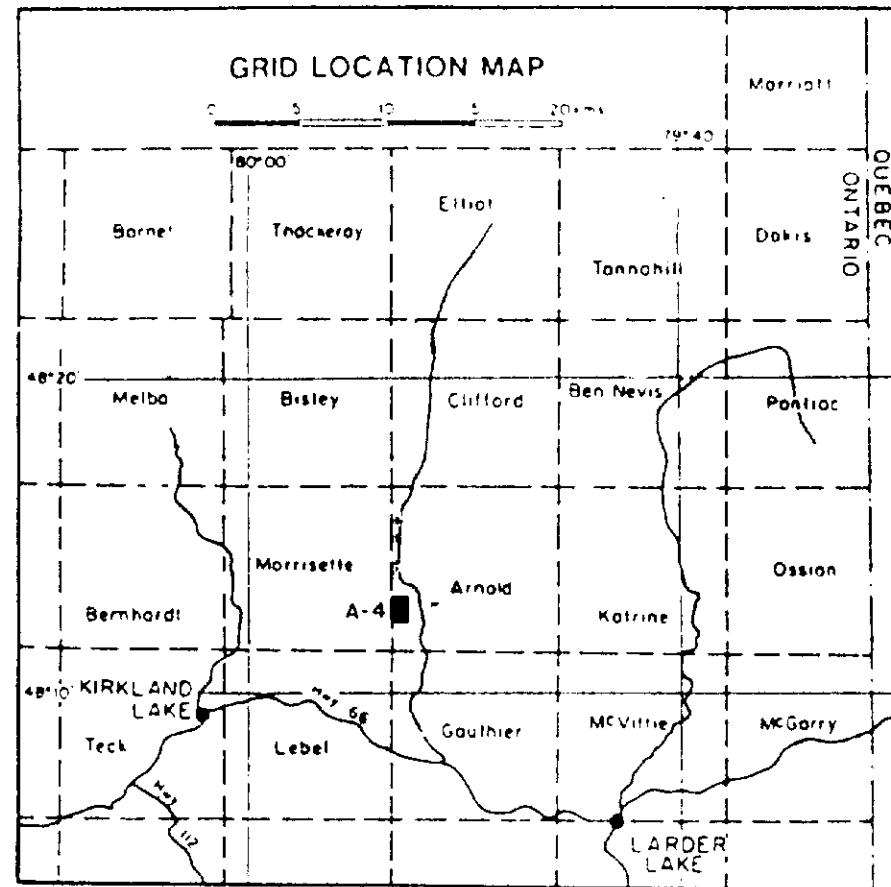
LEGEND

Base Level = 58000 nT

Sheet # 1A
ARNOLD TWP. (GRID A4)

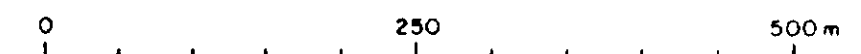
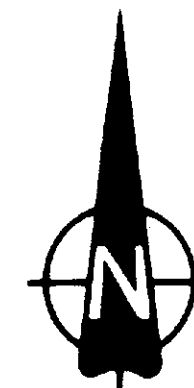
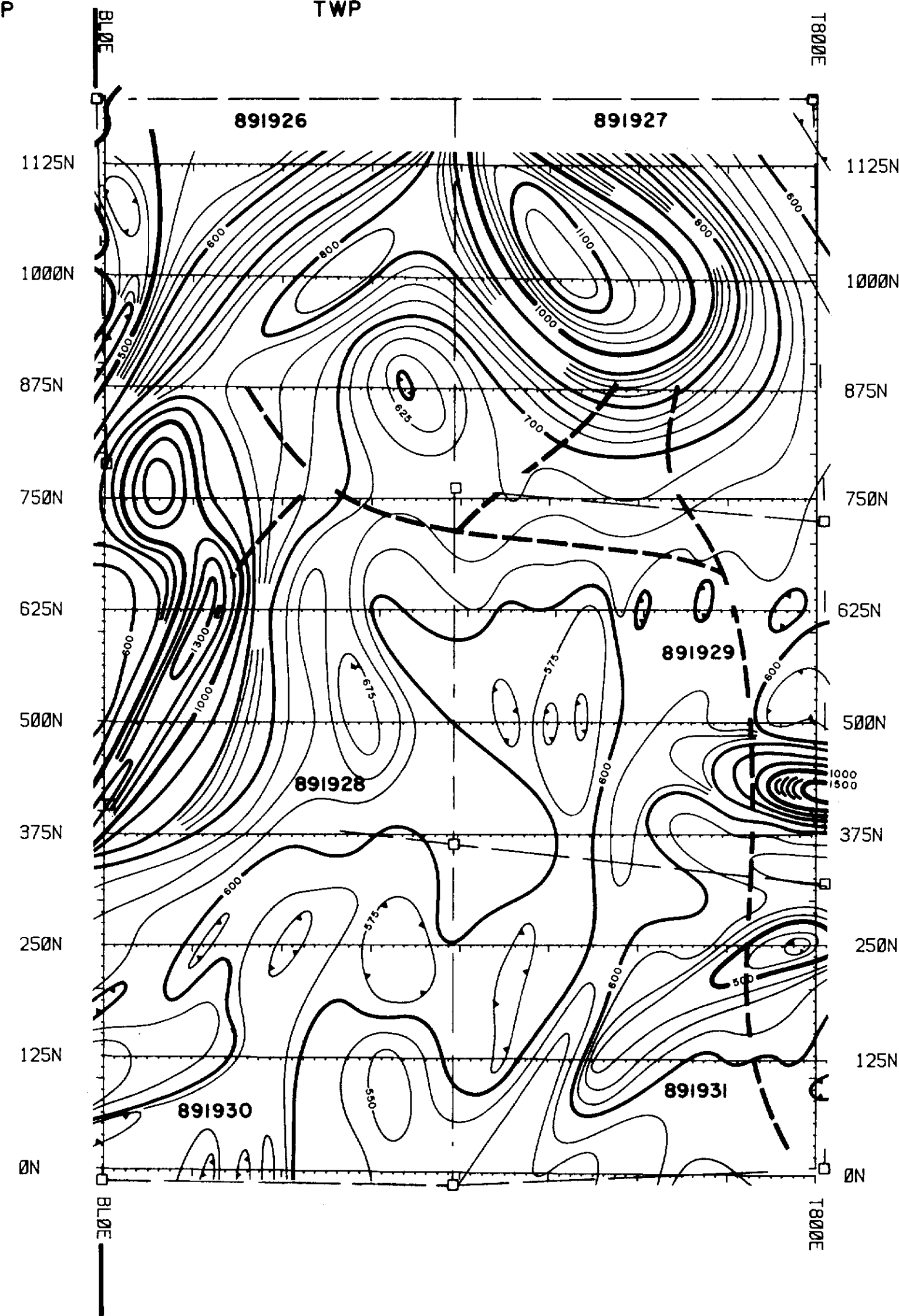


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MORRISETTE
TWP

ARNOLD
TWP



SURVEY DATA

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

TOPOGRAPHIC LEGEND

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

NTS -

ARNOLD TWP. (GRID A4)

TOTAL FIELD MAGNETIC CONTOURS

Scale 1 : 5000

Compilation and Plotting
by

WALKER EXPLORATION LTD

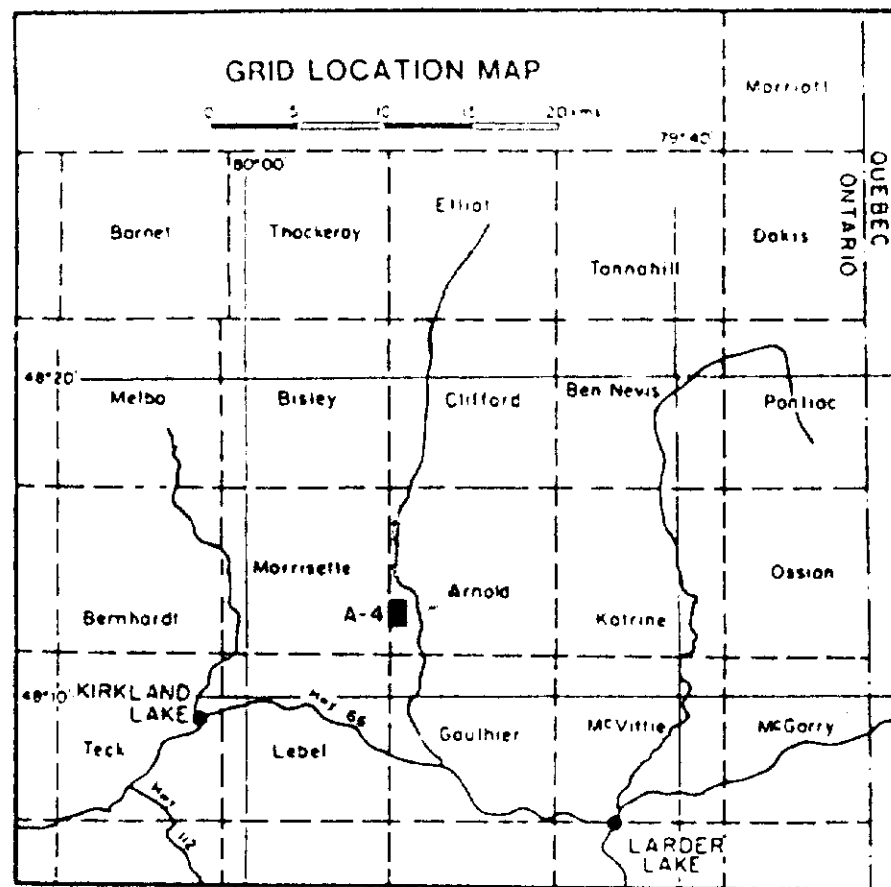
Mississauga Ontario.
NOV 1986

LEGEND

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

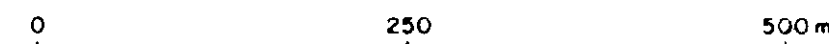
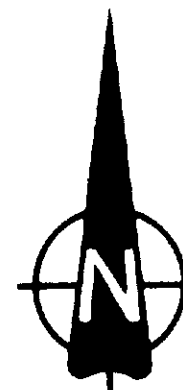
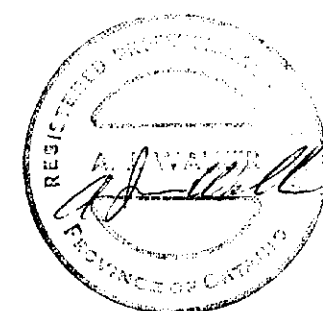
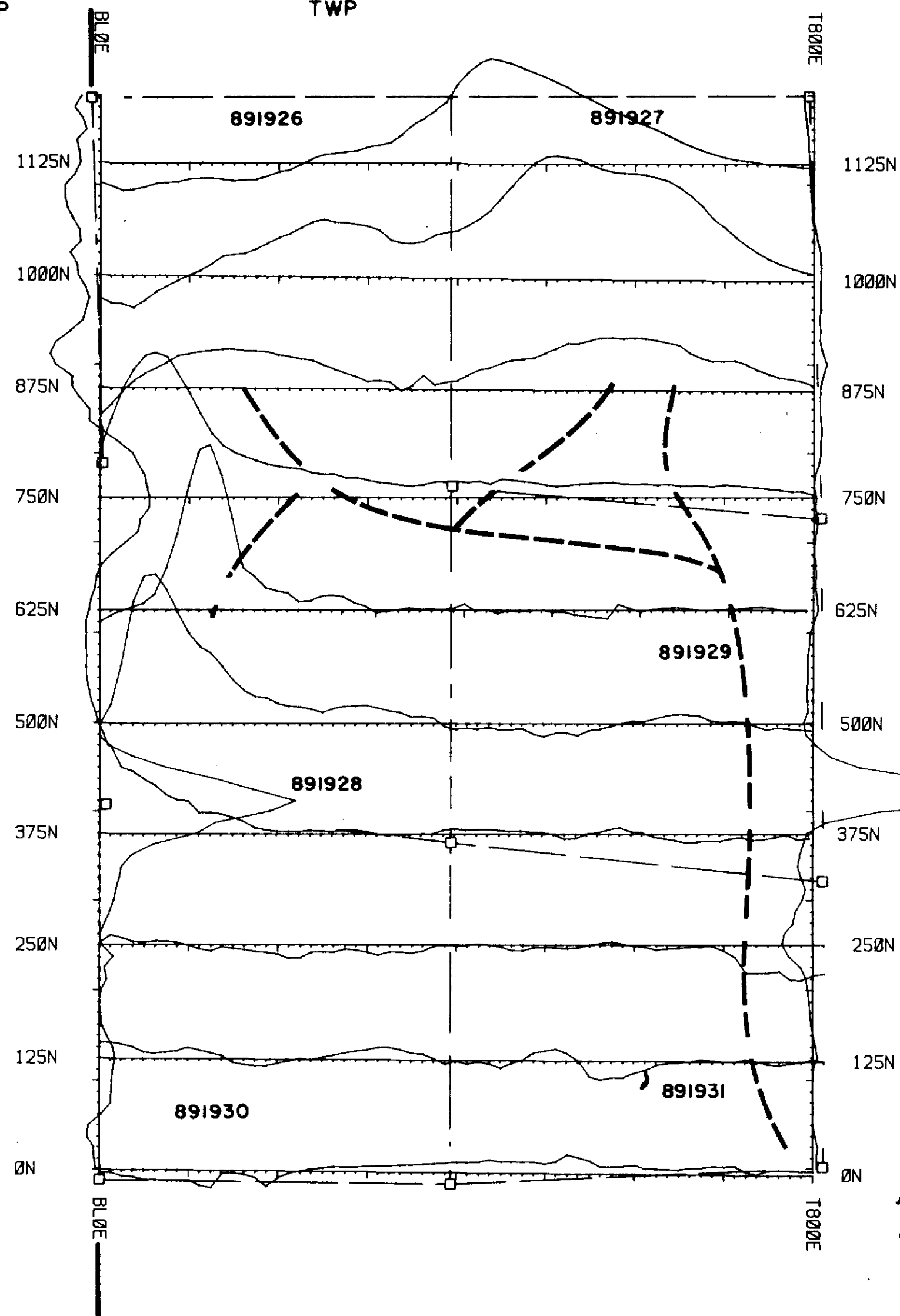
Sheet # 1B
ARNOLD TWP. (GRID A4)





MORRISETTE
TWP

ARNOLD
TWP



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

NTS -

ARNOLD TWP. (GRID A4)

TOTAL FIELD MAGNETIC PROFILES

Scale 1 : 5000

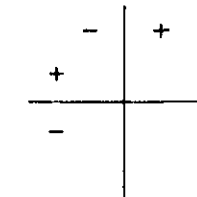
Compilation and Plotting
by

WALKER EXPLORATION LTD

Mississauga Ontario.
NOV 1986

LEGEND

Base Level = 58600nT
Profile scale = 200 nT/cm



Sheet # 1C
ARNOLD TWP. (GRID A4)

