#### WORK REPORT

ON THE

# OGDEN TOWNSHIP PROPERTY PORCUPINE MINING DIVISION, ONTARIO

FOR

WILLOW RESOURCES INC.

2.17262



SUBMITTED BY: S. ANDERSON

FEB. 21,1997



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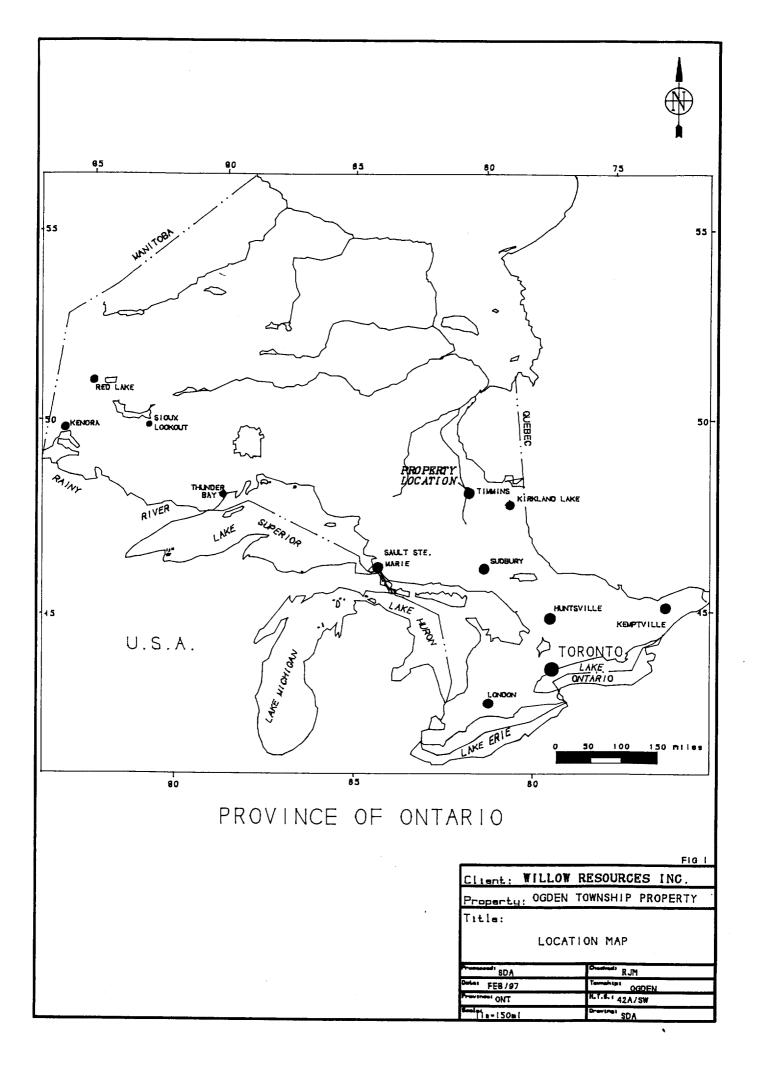
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#### INTRODUCTION

The subject of this report is a Linecutting and ground Magnetic Survey carried out on the Ogden Twp. Property for Willow Resources Inc., under contract to Steve Anderson. The Ogden Township Property is located in the Porcupine Mining Division, District of Cochrane, Ontario (Fig 1).

The Magnetic Survey subject of this report extended the previous Survey (1994) to cover the remainder of the property. The data has been merged with the previous survey and the results will be used to plan a more extensive exploration program planned by Willow Resources Inc. in 1997. This report describes the logistics of the field work and an interpretation of the results.



#### LOCATION AND ACCESS

The Ogden Twp. Property is located within the Porcupine Mining Division District of Cochrane, Ontario. It is situated along the central part of the boundary between Ogden Twp, and Deloro Twp. to the east. In a straight line, the claim block is approximately 9 km South- South West of the City of Timmins (Fig 2).

Access to the property during the survey period was gained by taking Pine St. south from the City of Timmins for about 10 km. to the eastern boundary of the property and the grid. A snowmobile was used to access most of the property on logging roads. This road is driveable in the summer.

#### CLAIM STATUS

The Ogden Twp. Property is comprised of 3 unpatented mining claims (30 units), in the central, east part of Ogden Township, Porcupine Mining Division, Timmins, Ontario (Fig 3).

The	claim numbers	are as follows:	
	1155254	5 units	Ogden Township
	1189546	12 units	ff
	1189547	3 units	19
	1189548	3 units	*1
	1206604	6 units	**
	Total	= 30 units	Ogden Township

#### PERSONNEL

The people who were directly involved in this work program are listed below:

Steve Anderson	Timmins,	Ontario
D. McKinnon	Timmins,	Ontario
G. Carnovale	Timmins,	Ontario

All work was supervised by Steve Anderson.



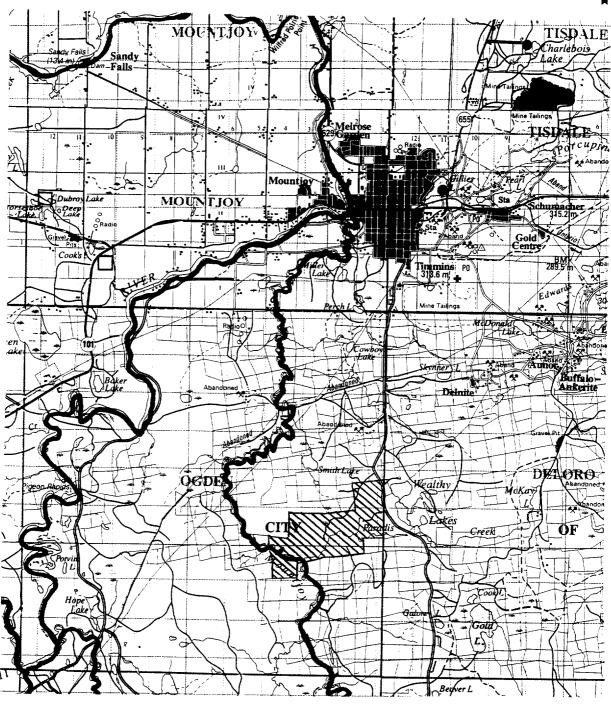


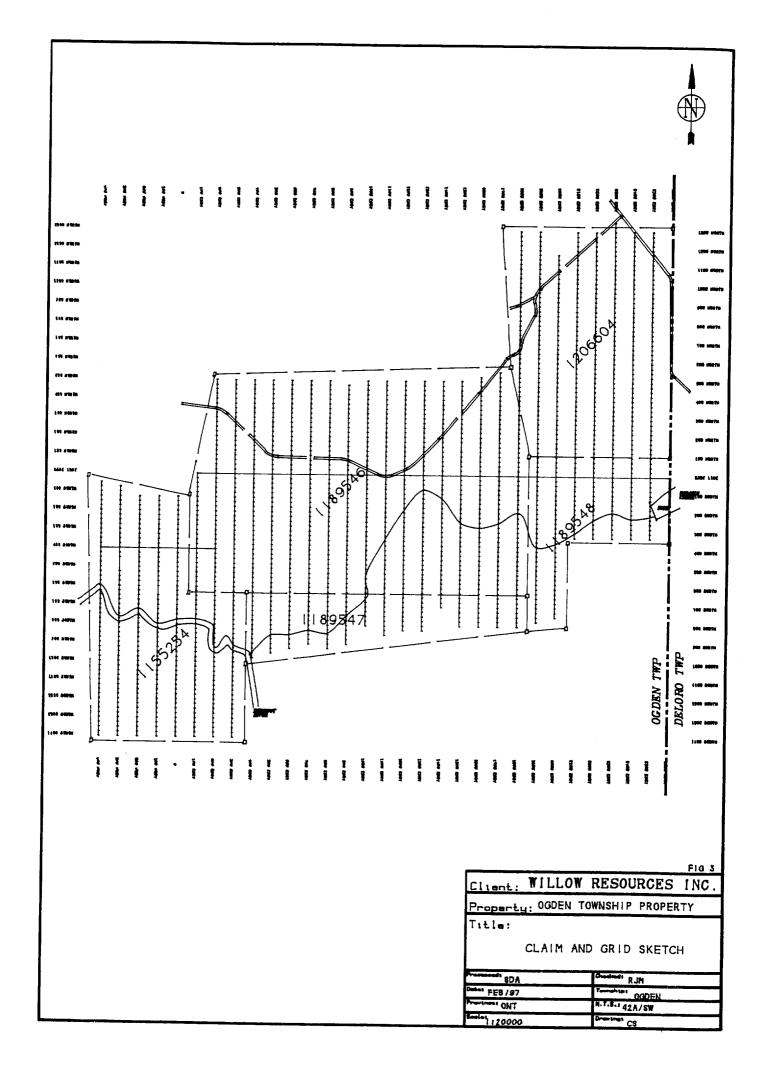
FIG 2

## Client: WILLOW RESOURCES INC.

Property: OGDEN TOWNSHIP PROPERTY

REGIONAL LOCATION MAP

SDA	Charles RJM
Date: FEB/97	Terrahapi OGDEN
Free Index ONT	N. F. S. : 42A/SW
Seeles : 100000	Drawings SDA



#### PREVIOUS WORK

Some of the earliest reported work carried out on this property was done by John Reid in 1910. He reported gold values at that time, which ranged from \$0.60 to \$20.67 per ton. These assay results were apparently taken from a 5 foot channel sample.

The following is an abbreviated list of the past history of exploration on the property.

- 1910 J.A.Reid(engineer), sampled qtz vein on cl. 1189546
- 1912 W.A.Campbell reports the presence of "much free gold" at a depth of 18 ft.(pit), on cl. 1206604.
- 1923 Property first actively worked by Ridgegold Porcupine Hines Ltd., including trenching and dramond drilling.
- 1925 Ogden Twp. mapped by Hawley(1926) of the Ontario Depart. of Hines.
- 1929 Two compartment shaft sunk to 125 ft., crosscut driven to intersect the vein with 14 ft. of drifting.
- 1930 Ridgegold work discontinued because of economic reasons.
- 1940 Trenching and sampling by Sylvanite Gold Mines.
- 1965 Happed by Carlson(1966), 0.0.11.
- 1975 Magnetic survey/diamond drilling by Goshawk Mines Limited.
- 1980 Amax Exploration flew airporne magnetic and EM survey over Ogden and other townships.
- 1984 VLF-EM survey by Hibbard, Karpovitch, and Rousseau.
- 1994 Anderson, ground Mag/VLP survey cl. 1189546.

#### GENERAL GEOLOGY

The Ogden Township Property lies within the Abitibi Greenstone Belt.

Locally, the property is shown to be underlain by felsic volcanics, and sediments on the extreme southern part of the property as shown by Map 2205 Timmins-Kirkland Lake Geological Compilation Series and Map P341, Prelim Ogden Twp., Geological Map. The previously surveyed northwest part of the property has a 500 ft wide shear zone with numerous quartz veins some of which had greater than 1.0 oz/ton Au. reported in the files.

The Paradise Creek fault is shown to traverse the south-central part of the property with some cross faulting.

#### WORK PROGRAM

The work conducted on the Ogden Township Property was carried out in February, 1997. The project consisted of linecutting and ground Magnetic Survey, described below.

#### Linecutting

The previous grid(1994) cut on claim 1189546 was extended to cover the entire property at 100m line interval and 25m pickets, north-south. The pickets are marked with inscribed aluminum tags. A total of 40.6km of lines were cut during this current program.

#### Magnetic Survey

A total of 38.5km of ground Hagnetic Survey was completed on the above lines. The data was levelled and merged with the previous survey and the results posted and contoured in plan form (Map No.1).

An EDA OMNI PLUS Proton Precession magnetometer was used to carry out the magnetometer survey. The instrument is synchronized with an EDA recording base station to nelp eliminate magnetic diurnal variation. This should ensure an accuracy of less than 10 Nt.

The Proton Precession method involves energizing a wire consimmersed in a hydrocarbon fluid. This causes the protons in the proton rich fluid to spin or precess simulating spinning magnetic dipoles. When the current is removed the protons precess about the direction of the earth's magnetic field, generating a signal in the same coil which is proportional to the total magnetic field intensity. In this way, the horizontal gradient of the earth's magnetic field can be measured and plotted in plan form with values of equal intensity joined to form a contour map. This presentation is useful in correlating with other data sets to aid in structural interpretation. Individual magnetic responses can be interpreted for dip, depth and width estimates after profiling the data.

The following parameters were employed for the survey:

Instrument - EDA Omni PLUS Proton Precession Magnetometer Station Interval - 25m Line Interval - 100m Diurnal Correction Method - EDA Recording Base Station Data Presentation - Magnetic Contours Map 1

- 1:5000 scale
- Contour interval = 50 nano-teslas

#### MAGNETIC SURVEY RESULTS

The magnetic survey conducted on the Ogden Township Property was successful in outlining a number of features.

The eastern portion of the grid, south of the base line, shows the most magnetic change. A high extends east-west from L7E/100S to L21E/50S, and possibly extending off the grid to the west on L4W/225S. Ogden Twp. Preliminary Map P-341 shows this feature to be coincident with the Paradis Creek Fault. This zone is broken along its strike length in the area of L1E and L16E. This may be the result of cross structures.

The second feature outlined in this area strikes from L11E/675S to L20E/550S, and remains open to the east. Map P-341 shows from formation occurring on strike and to the east of this zone, which likely explains its response. The Ogden Twp. OGS, AEM Map No.81086, shows 3 conductors coincident with this zone between 11E and 16E. A similar magnetic response with a south flanking AEM conductor occurs on L23E/250S and could be an offset extension of this zone, or the previous one.

A weaker magnetic high is located on LIBE/375N, extending in a southwesterly direction to LIBE/300N, and possibly as far as LI4E/50N. Although this is a weaker response it is or particular interest because of an old shaft located on, or along its northern flank. This previous work reported encouraging gold values from the shaft area. Due to the extreme show conditions encountered during this work program, the exact location of this shaft has not been determined.

A magnetic high located from the north end of L21E to L19Z1190N is likely due to iron formation, as shown by Map P-341. The last area to mention is a magnetic high that runs from L0/1250S to L4W/1150S, remaining open to the West. It has weak AZM conductors coincident with it between L0 and L2W.

#### CONCLUSIONS AND RECOMMENDATIONS

All of the magnetic features described above are worthy of some type of follow-up work. At this point in time three of the zones should receive priority.

The first would be the magnetics that seem to be marking the Paradis Creek Fault. Work to the east of Timmins, in the Nighthawk Lake area, has shown economic amounts of gold occurring within secondary faults or splays to the south of the main Porcupine Destor Fault zone.

The second area of interest is the strong high to the south of this, which is likely marking a zone of iron formation. On strike with and to the east of this feature, gold values associated with iron formation have been reported.

The last priority area is the magnetic feature associated with the old shaft area. In 1912 W.A.Campell reported much free gold at the 18 foot level of this shaft. The remainder of the associated magnetic feature to the southwest remains untested.

The first phase of follow-up work should be a detailed geological mapping program conducted over the entire grid. This may help identify some of the magnetic features described above.

As much of the property is overburden covered additional geophysical surveys should be carried out. A VLF-EM survey might nelp outline some of the structures such as cross faults that seem to be extending through the area. An Induced Polarization survey would likely outline any areas of disseminated sulphides and would also held distinguish between the various geological units and structures interpreted to occur within the block.

As mentioned, due to the encouraging geological environment none of the zones outlined should be dismissed without further testing. If after additional testing, any zones that warrant it should be tested with diamond drilling.

#### CERTIFICATION

- I, Steve Anderson of Timmins, Ontario hereby certify that:
- I hold a three year Technologist Diploma from Sir Sandford Flemming College , Lindsay, Ontario, obtained in May 1981.
- I have been practising my profession since 1979 in Ontario, Quebec, Nova Scotia, New Brunswick, Newfoundland, NWT, Hanitopa, and Saskatchewan.
- 3. I have been employed directly with Asamera Oil Inc.

  Urangelischaft Canada Ltd.. Nanisivik Hines Ltd., R.s.

  Middleton Exploration Services Ltd., and Rayan

  Exploration Ltd.
- 4. I have based conclusions and recommendations contained in this report on knowledge of the area, my previous experience and on the results of the field work conducted on the property during 1997.
- 5. I hold a 50% interest in the Ogden Twp. Property, subject of this report.

1730le

Dated this 21st day of Feb. 1997 at Timmins, Ontario.

Le Constant

### APPENDIX 'A'

SCINTREX EDA OMNI PLUS PROTON MAGNETOMETER

# onni pilo VII / Wagneraneter System





# Major Benefits of the OMNI PLUS

- Combined VLF/Magnetometer/Gradiometer System
- No Orientation Required
- Three VLF Magnetic Parameters Recorded
- Automatic Calculation of Fraser Filter
- Calculation of Ellipticity
- Automatic Correction of Primary Field Variations
- Measurement of VLF Electric Field



## Specifications\*

Frequency Tuning Range . . . . . . . . 15 to 30 kHz, with bandwidth of 150 Hz; tuning

range accommodates new Puerto Rico station

at 28.5 kHz

Transmitting Stations Measured . . Up to 3 stations can be automatically measured

at any given grid location within frequency

tuning range

Recorded VLF Magnetic

Parameters ...... Total field strength, total dip, vertical

quadrature (or alternately, horizontal

amplitude)

Standard Memory Capacity . . . . . 800 combined VLF magnetic and VLF electric

measurements as well as gradiometer and

magnetometer readings

display with built-in heater and an operating temperature range from  $-40^{\circ}$ C to  $+55^{\circ}$ C. The display contains six numeric digits, decimal point, battery status monitor, signal strength status monitor and function descriptors.

RS232C Serial I/O Interface ..... 2400 baud rate, 8 data bits, 2 stop bits, no parity

Test Mode ..... A. Diagnostic Testing (data and programmable

memory)

B. Self Test (hardware)

automatic tilt compensation

Operating Environmental

Range  $\dots -40$ °C to +55°C;

0 – 100% relative humidity:

Weatherproof

Power Supply ......Non-magnetic rechargeable sealed lead-acid 18V

DC battery cartridge or belt; 18V DC disposable battery belt; 12V DC external power source for

base station operation only.

Weights and Dimensions

Instrument Console ... 2.8 kg, 128 x 150 x 250 mm
Sensor Head ... 2.1 kg, 130 dia. x 130 mm
VLF Electronics Module ... 1.1 kg, 40 x 150 x 250 mm
Lead Acid Battery Cartridge ... 1.8 kg, 235 x 105 x 90 mm
Lead Acid Battery Belt ... 1.8 kg, 540 x 100 x 40 mm
Disposable Battery Belt ... 1.2 kg, 540 x 100 x 40 mm

\*Preliminary

EDA Instruments Inc., 4 Thorncliffe Park Drive, Toronto, Ontario Canada M4H 1H1 Telex: 06 23222 EDA TOR, Cables: Instruments Toronto (416) 425-7800

In USA, EDA Instruments Inc., 5151 Ward Road, Wheat Ridge, Colorado U.S.A. 80033 (303) 422-9112

Printed in Canada



Ministry of Northern Development and Mines

# **Declaration of Assessment Work** Performed on Mining Land

Mining Act, Subsection 65(2) and 66(3), R.S.O. 1990

Transaction Number (office use) W9760.00094

Personal informatic Mining Act, the info Questions about t 933 Ramsey Lake



nd 66(3) of the Mining Act. Under section 8 of the it work and correspond with the mining land holder. of Northern Development and Mines, 6th Floor,

900

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	report.		ed for assigning work;
3. Person or some			
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5. Work to be recorded and distributed. Work can only be assigned to claims that are contiguous (adjoining) to the mining land where work was performed, at the time work was performed. A map showing the contiguous link Mining Claim Number. Or if Number of Claim work was done on other eligible Value of work Units. For other Value of work mining land, show in this performed on this Value of work column the location number mining land, list Bank. Value of work applied to this claim or other assigned to other indicated on the claim map. hectares. claim. to be distributed mining claims. mining land. at a future date. eg TB 7827 16 ha \$26, 825 N/A eg 1234567 \$24,000 12 \$24,000 өg 1234568 0 2 \$ 8, 892 1 \$ 4,000 1206604. 0 4000 \$4,892 2400 2 840 760 2000 3 1200 O 800 2000 4 1200 3920 2400 5 1520 3960 4200 6 7 8 9 10 RECEIVED 11 12 MAY 1 4 1997 13 MINING LANDS BRANCH 14 15 Column Totals 15,880 12,000 nderson ear  $_{-}$  , do hereby certify that the above work credits are eligible under ubsection 7 (1) of the Assessment Work Regulation 6/96 for assignment to contiguous claims or for application to gnature of Recorded Holder or Agent Authorized in Writing instructions for cutting back credits that are not approved. me of the credits claimed in this declaration may be cut back. Please check ( u ) in the boxes below to show how 1. Credits are to be cut back from the Bank first, followed by option 2 or 3 or 4 as indicated. 2. Credits are to be cut back starting with the claims listed last, working backwards; or 3. Credits are to be cut back equally over all claims listed in this declaration; or 4. Credits are to be cut back as prioritized on the attached appendix or as follows (describe): From 1155254 If you have not indicated how your credits are to be deleted, credits will be cut back from the Bank first, ffice Use Only d Stamp Deemed Approved Date FEB 24 1997 Date Notification Sent @10:15 an CC Total Value of Credit Approved DIVISION Approved for Recording by Mining Recorder (Signature)



Ministry of Northern Development and Mines

# Statement of Costs for Assessment Credit

Transaction Number (office use)
W9760.00094

Personal information collected on this form is obtained under the authority of subsection 6(1) of the Assessment Work Regulation 6/96. Under section 8 of the Mining Act, the information is a public record. This information will be used to review the assessment work and correspond with the mining land holder. Questions about this collection should be directed to the Chief Mining Recorder, Ministry of Northern Development and Mines, 6th Floor, 933 Ramsey Lake Road, Sudbury, Ontario, P3E 6B5.

Work Type	Units of Work  Depending on the type of work, list the number of hours/days worked, metres of drilling, kilometres of grid line, number of samples, etc.	Cost Per Unit	1726 2 Total Cos
Line cutting	40 km	877 - 11	4
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Ministry of Northern Development and Mines Ministère du Développement du Nord et des Mines

May 20, 1997

Gary White Mining Recorder Ontario Government Complex P.O. Bag 3060, Hwy 101 East South Porcupine, ON PON 1H0

Dear Sir or Madam:

**Ontario** 

Geoscience Assessment Office 933 Ramsey Lake Road 6th Floor Sudbury, Ontario P3E 6B5

Telephone:

(705)

670-5853

Fax:

(705) 670-5863

Submission Number: 2.17262

**Status** 

Subject: Transaction Number(s): W9760.00094 Approval

We have reviewed your Assessment Work submission with the above noted Transaction Number(s). The attached summary page(s) indicate the results of the review. WE RECOMMEND YOU READ THIS SUMMARY FOR THE DETAILS PERTAINING TO YOUR ASSESSMENT WORK.

If the status for a transaction is a 45 Day Notice, the summary will outline the reasons for the notice, and any steps you can take to remedy deficiencies. The 90-day deemed approval provision, subsection 6(7) of the Assessment Work Regulation, will no longer be in effect for assessment work which has received a 45 Day Notice.

Please note any revisions must be submitted in DUPLICATE to the Geoscience Assessment Office, by the response date on the summary.

NOTE: This correspondence may affect the status of your mining lands. Please contact the Mining Recorder to determine the available options and the status of your claims.

If you have any questions regarding this correspondence, please contact Lucille Jerome by e-mail at jerome\_I@torv05.ndm.gov.on.ca or by telephone at (705) 670-5858.

Yours sincerely,

ORIGINAL SIGNED BY Ron C. Gashinski

Senior Manager, Mining Lands Section

ncodel.

Mines and Minerals Division

# **Work Report Assessment Results**

Submission Number: 2.17262

Date Correspondence Sent: May 20, 1997 Assessor: Lucille Jerome

Transaction Number

First Claim Number

Township(s) / Area(s)

Status

**Approval Date** 

W9760.00094

1206604

OGDEN

Approval

May 15, 1997

Section:

14 Geophysical MAG

Correspondence to:

Mining Recorder South Porcupine, ON

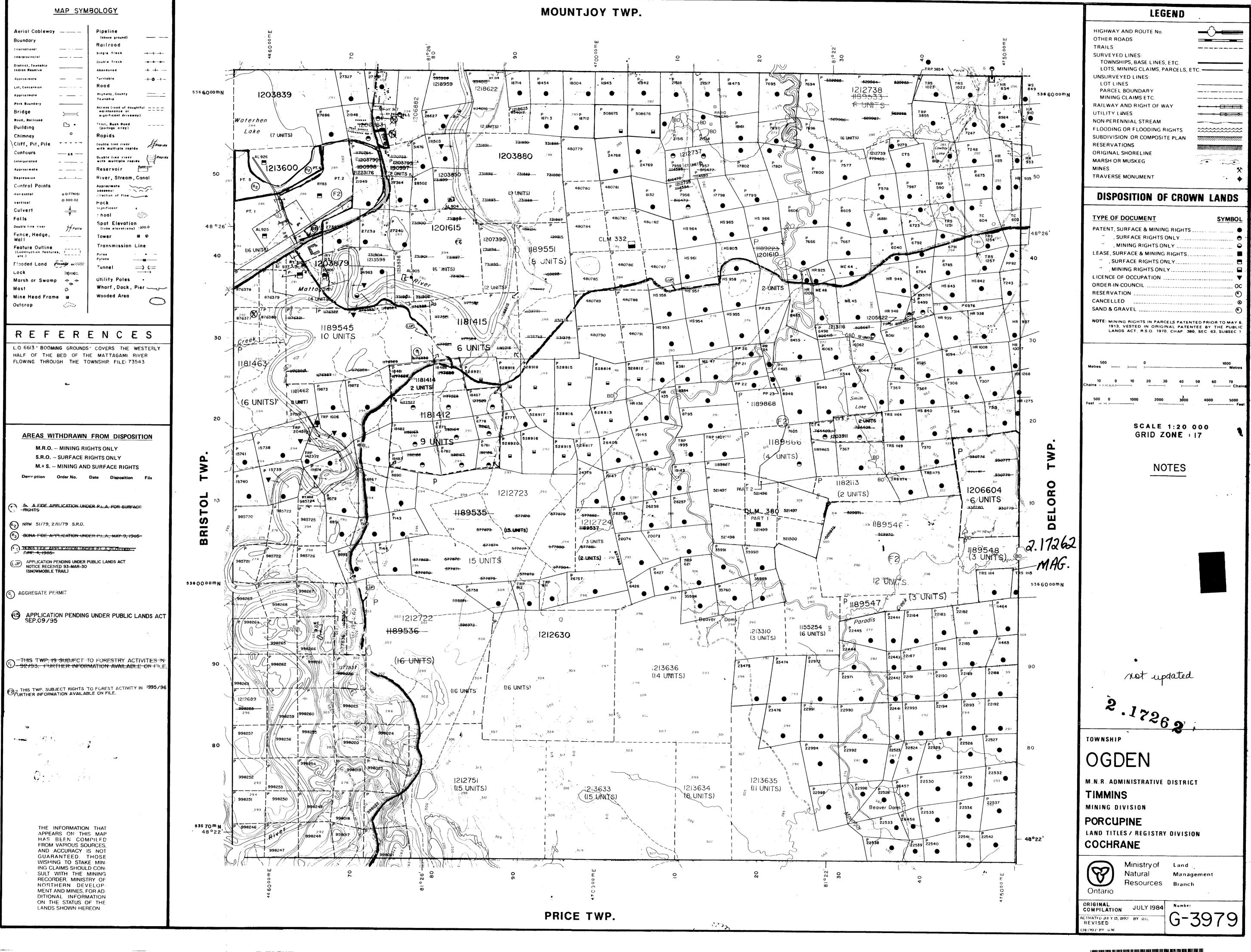
Resident Geologist South Porcupine, ON

Assessment Files Library Sudbury, ON

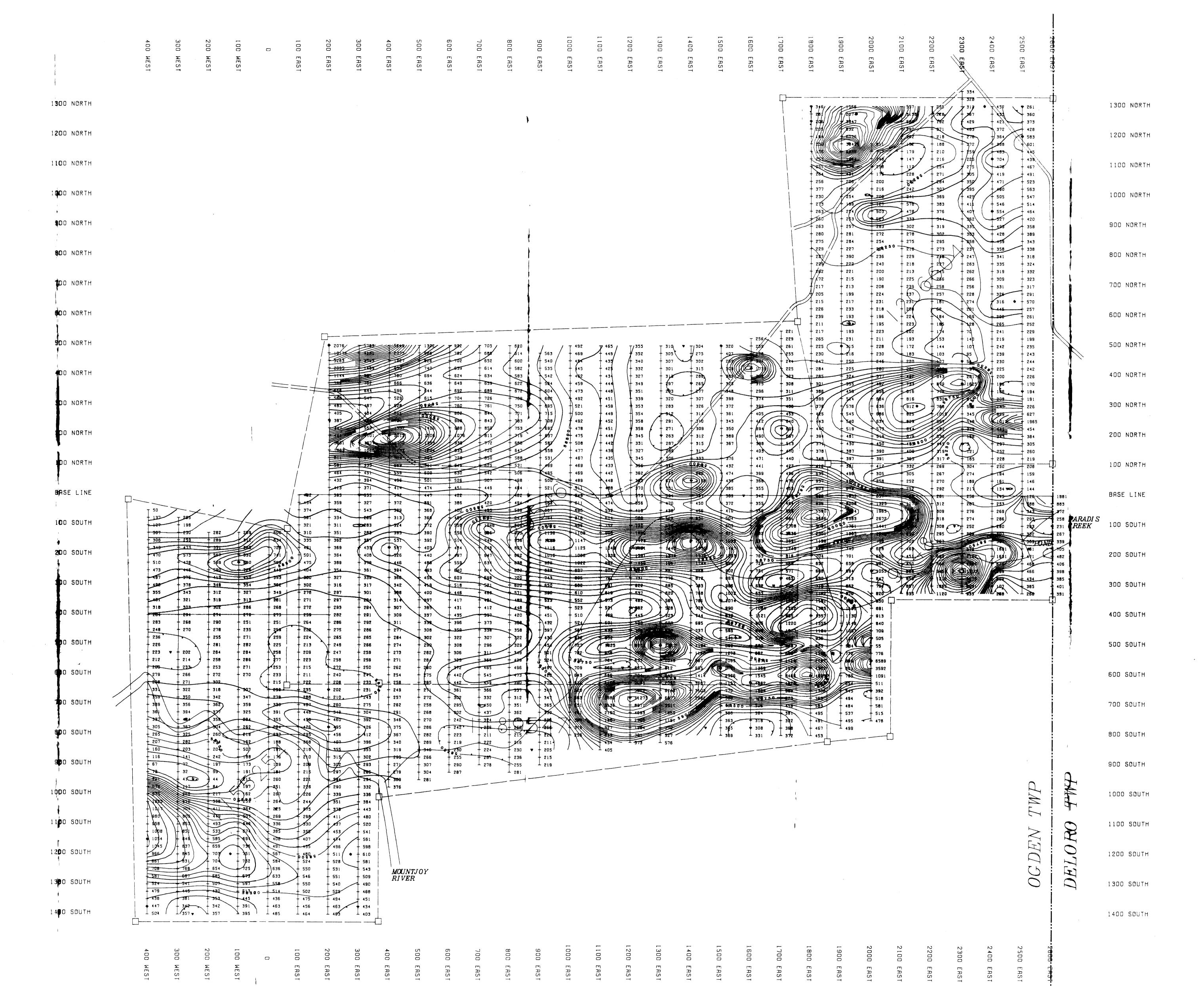
Recorded Holder(s) and/or Agent(s):

STEVEN DEAN ANDERSON

TIMMINS, ONTARIO







LEGEND

INSTRUMENT: EDA OMNI PROTON PRECESSION MAGNETOMETER PARAMETERS MEASURED: EARTH'S TOTAL MAGNETIC FIELD (NANO-TESLAS) READING INTERVAL: 25M CONTOUR INTERVAL: 50 NANO TESLAS DIURNAL CORRECTION METHOD: RECORDING OMNI BASE STATION DATUM SUBTRACTED FROM ALL PLOTTED READINGS: 58000 NANO TESLAS PEAK MAGNETIC HIGH: • PEAK MAGNETIC LOW:

# TOPO LEGEND

SHORE LINE HYDRO LINE CLAIM POST ASSUMED CLAIM POST LOCATED CLAIM LINE LOT AND CONCESSION LINE \_\_\_\_\_ RAIL LINE



WILLOW RESOURCES INC. OGDEN TOWNSHIP PROPERTY

Title:

DATA POSTED AND CONTOURED TOTAL FIELD MAGNETOMETER SURVEY

Checked. SDA Cote: FEBRUARY 1997 Township: OGDEN Frevince: ONTARIO N T.S. 42A/SW Scole: 1:5000 Drawing: MAGOGD