



42A11SW0205 2.5449 TISDALE

010

REPORT
ON
A VLF-EM SURVEY AND
A GROUND MAGNETOMETER SURVEY
CLAIMS 594787, 594788
TISDALE TOWNSHIP
PORCUPINE MINING DIVISION

By: L.M. Wilson
Esso Minerals Canada
120 Adelaide Street West
Toronto, Ontario
March, 1983

RECEIVED

MAR 25 1983

MINING LANDS SECTION

INTRODUCTION

Purpose of Survey

A VLF-EM and a ground magnetometer survey was carried out on claims 594787 and 594788, Tisdale Township, to assist in defining the bedrock stratigraphy in the area and to possibly outline potentially gold-bearing bedrock structures.

LOCATION AND ACCESS

Claims 594787, 594788 are located in the Tisdale Township, Porcupine Mining Division, and are situated approximately 5 kilometres northeast of the City of Timmins, northern Ontario. The Tisdale Township is centred at approximately 48°30'N and 81°16.5'W and is indexed under NTS 42 A/6, 11.

Claims 594787 and 594788 are accessible year-round by means of gravel roads off Highway 545 which runs north from Timmins to the Kidd Creek Mine site (see Location - Claim Map enclosed).

Regularly scheduled air service is provided by Air Canada to Timmins, Ontario.

PROPERTY

The claims covered in this report are as follows (see enclosed Claim Map):

<u>Claim Number</u>	<u>Description</u>	<u>Lot</u>	<u>Conc.</u>
P. 594787	SE 1/4 S 1/2	7	6
P. 594788	NE 1/4 S 1/2	7	6

PREVIOUS WORK

Tisdale Claims 594787, 594788

1964-1965: Keevil Exploration carried out ground mag. and electromagnetic surveys on claim 594788. One diamond drill hole by Inco tested an electromagnetic anomaly on claim 594788 and intersected mafic volcanics with interflow graphitic horizons.

GEOLOGY

Tisdale Claims 594787, 594788

The most recent mapping and compilation of Tisdale Township has been carried out by Ferguson, 1968 (Geological Report 58 and Map 2075). Based on this work, there are only a few isolated outcrops of basalt and serpentinite.

INTERPRETATION

VLF-EM Survey

Details concerning equipment, survey procedures and data presentation are contained in Appendix I to this report.

INTERPRETATION

VLF-EM Survey Cont'd

The In-phase and Quadrature profiles for claims 594787-88 are presented on the enclosed map at a horizontal scale of 1:2500 and a vertical scale of 1 cm = 10%.

The two parallel VLF-EM conductors located on the south end of Lines 18E-20E are attributed to interference from the power line which parallels the 00 Baseline in this area.

The in-phase cross-overs coincident with negative quadrature inflections on Lines 18E and 19E over a small lake are probably caused by conductive overburden. This conductive feature is also evident on Line 20E.

The VLF-EM conductors outlined on the north end of the survey area form part of a broad "band" of conductors which extends beyond the immediate survey area covered in this report. Inco has drilled mafic volcanics with interflow graphitic horizons on Claim 594788. These conductors are interpreted to be due to graphite.

GROUND MAGNETOMETER SURVEY

Details concerning equipment, survey procedures and data presentation are contained in Appendix II to this report.

The magnetometer survey values are contoured and presented in plan form on the enclosed map.

The magnetic contour map shows considerable influence from the power line which runs NNE-SSW through the survey area. Since the survey lines are at a low angle to the power line, the magnetometer survey values may be in error up to distances of 100 to 150 metres on either side of the power line.

The broad magnetic high to the south on Lines 16E-19E may be due to serpentinites, which have been mapped to the south and west of this area.

CONCLUSIONS AND RECOMMENDATIONS

The magnetometer and VLF-EM surveys have not defined any probable gold-bearing targets on claims 594787. 594788.

No further geophysical work is recommended at this time.

Lloyd M. Wilson

REFERENCE

- 1) Ferguson, S.A. 1968, Geology and Ore Deposits of Tisdale Township; Ontario Department of Mines, Geological Report 58 plus Map 2075.

APPENDIX NO. 1

VLF-EM METHOD

A. GENERAL PRINCIPLES

The VLF (Very Low Frequency) EM method employs an artificial source of EM waves - a VLF antenna, several hundred feet high, which acts essentially as a vertically grounded wire. A worldwide network of high-power VLF stations established for marine and air navigation act as the sources for the VLF-EM exploration method. At present, suitable transmitters for EM prospecting in North America are located at Cutler, Maine; Annapolis, Md. and Seattle, Washington. The transmitted frequencies (in the 20 KHz band) are very low frequency (VLF) only by comparison to broadcasting standards, but are in fact very high relative to any other geophysical EM system.

The VLF antenna current is vertical. The main magnetic field component of the primary (transmitted) signal is horizontal and theoretically tangent to circles about the antenna mast. Hence, a transmitting station should be chosen so that its direction is almost parallel to the geological strike in the survey area so as to produce a magnetic field perpendicular to the strike. If a conductor is located in the survey area, eddy currents are established producing a secondary field in the vicinity of the conductor. The VLF-EM-16 equipment measures the vertical components of this secondary field.

The fact that the source is at infinity means the primary field is essentially uniform over the survey area and hence all conductors are energized uniformly. This enables the detection of a broad variety of conductors, ranging from good conductors - graphite, massive sulphides, to poor conductors - muskeg, clay edges, shear zones, contacts ... At times this may be a disadvantage, however, since it may emphasize large-scale, relatively poor conductors at the expense of smaller concentrated bodies. In many environments, the anomalies of interest can be masked by the large amount of geological noise. The penetration of the system is limited by its high frequency in the presence of conductive overburden. However, if the subsurface is resistive, for example, little overburden, the penetration can be quite deep due to the transmitter being so far removed.

The VLF-EM method is also affected by topographic effects; spurious anomalies being picked up on top of conductive hills because the resultant field tends to follow the slope. The distinction between anomaly conductivity and depth is also often difficult. Another major drawback is that it is not always possible to use a transmitting station which gives a primary horizontal field striking at right angles to the geologic strikes in the survey area. In this case, two VLF transmitters, at approx. right angles to each other, should be used to provide better coverage.

B. EQUIPMENT

The Geonics EM-16 measures the tilt angle and quadrature components of the resultant (secondary) EM field. The instrument consists of two coils or antennas with axes perpendicular to each other and linked to appropriate electronics.

C. SURVEY PROCEDURE

Readings were taken at 25 meter intervals along lines generally spaced 100 meters apart using Cutler, Maine as the transmitting station.

The survey technique is listed below:

1. The most probably strike of interest is decided and the transmitter station more closely along strike, with a detectable signal, is chosen.
2. The proper receiver channel is selected to receive the transmitted signal. This may involve plugging in a circuit module.
3. Direction to transmitter station is determined by rotating the axis of the longer receiver coil in a horizontal plane. The transmitter is located in the direction of minimum field strength, i.e., minimum noise from the speaker. With this orientation the axis of the long coil should be pointing more or less in the direction of the transmitter station.
4. Receiver is then oriented with the long coil vertical and axis of the small coil at the bottom, the reference coil, oriented perpendicular to the transmitter direction.
5. Tilt angle response is measured by rotating the instrument about a horizontal line which points toward the transmitter, until minimum noise is heard.
6. Quadrature response is measured by rotating the small dial until the best minimum is heard.
7. Facing direction and local terrain is recorded together with the tilt angle and out of phase measurements.

A complete specification for a V.L.F. reading includes:

1. tilt angle response
2. quadrature response
3. facing direction
4. line azimuth
5. transmitter and frequency
6. terrain

C. : SURVEY PROCEDURE (CONT'D)

The direction the operator is facing during measurement is very important with the Geonics EM 16 instrument because tilt angles above horizontal are positive and those below are negative. Other conventions exist for recording the tilt angle but only the facing convention is discussed here.

The tilt angle and quadrature responses for the survey reported herein have been plotted at a horizontal scale of 1:2500 and a vertical scale of 1 cm = 10%. All readings were taken facing north along the survey line.

APPENDIX II

Magnetometer Survey

A Geometrics G-816 portable proton precession magnetometer was used. This instrument digitally displays the total magnetic field strength by measuring the frequency at which protons (hydrogen nuclei) precess about the prevalent earth's magnetic field. The precession frequency is directly proportional to the total magnetic field strength at the point of measurement. Sensitivities of ± 1.0 gamma can be achieved with this magnetometer.

Magnetometer readings were taken at 25 metre intervals along lines generally spaced 100 metres apart. The data is presented in plan form at a horizontal scale of 1:2500 and contour interval of 50-100 gammas.

The variations of the magnetic field (diurnal) were obtained by establishing a base station within each of the claim groups 1-6 and tying these to a main base. Further base stations were then established along grid base/tie lines within each of the claim groups. These base line/tie line station values were then fixed and any time variations of the magnetic field along the traverse lines were linearly distributed by tying in to one or more of the base stations at the end of each traverse. These linearly distributed variations in the traverse stations values were then removed from the field data.

APPENDIX III

1. D. LaForest
Hollinger-Argus Limited Operator
Timmins, Ontario

2. G. Tremblay
Hollinger-Argus Limited Operator
Timmins, Ontario

3. L.M. Wilson
Esso Minerals Canada Geophysicist-author
120 Adelaide Street West
Toronto, Ontario

APPENDIX IV

Qualifications of Author

Lloyd M. Wilson attended Memorial University of Newfoundland between 1966 and 1971, graduating with a B.A. (Honours) degree in Mathematics. From May, 1971 to October, 1973, Mr. Wilson worked in oil and gas exploration for Amoco Canada Petroleum Co. Limited in Calgary, Alberta, specializing in potential field (i.e. gravity, magnetics) seismic methods. Since then he has had eight years of experience as a mineral exploration geophysicist - three with Geoterrex Limited in Ottawa and five with Esso Minerals Canada in Toronto. For the past three years he has been in charge of project planning, geophysical field activities and training of student personnel for Esso Minerals Canada. He is a member of the Society of Exploration Geophysicists, the Prospector's and Developer's Association, CIMM (Toronto Branch) and KEGS.



N.B. Notice of Intent - file 2.4543
Report of Work
 (Geophysical, Geological,
 Geochemical and Expenditures)

2.5449

The Mining Act

Instructions: - Please type or print.
 - If number of mining claims traversed exceeds space on this form, attach a list.
 Note: - Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
 - Do not use shaded areas below.

May 27th

P.594787

Type of Survey(s) Geophysical-Magnetic		Township or Area Tisdale Twp. M-315	
Claim Holder(s) Hollinger Argus Limited		Prospector's Licence No. A-20822	
Address P.O. Box 320, TIMMINS, Ontario P4N 7E2			
Survey Company Hollinger Argus Limited		Date of Survey (from & to) 24 02 '83 25 02 '83 Day Mo. Yr. Day Mo. Yr.	
Total Miles of line Cut 2.8 miles (4.525 kms)			
Name and Address of Author (of Geo-Technical report)			

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	20
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
Man Days Complete reverse side and enter total(s) here	Geological	
	Geochemical	
	Geophysical	
	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
Airborne Credits Note: Special provisions credits do not apply to Airborne Surveys.	Geological	
	Geochemical	
	Electromagnetic	
	Magnetometer	
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Mining Claim			Mining Claim		
Prefix	Number	Expend. Days Cr.	Prefix	Number	Expend. Days Cr.
P	594787	20			
	594788	20			

RECEIVED

MAY 11 1983

MINING LANDS SECTION

Report of Work approved & sent out

RECORDED

MAR 28 1983

Receipt No.

Total number of mining claims covered by this report of work. 2

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 40	Date Recorded Mar 28/83
Date Approved as Recorded 63.08.31	Mining Recorder <i>[Signature]</i>
	Regional Mining Recorder <i>[Signature]</i>

Date **March 9 - 83** Recorded Holder or Agent (Signature) **W. H. King**

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
1495 FIELDLIGHT BLVD.
PICKERING, ONT L1V 2S3

Date Certified **March 21/83** Certified by (Signature) **[Signature]**



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) Ground Magnetometer and VLF-EM
Township or Area Tisdale Township M315
Claim Holder(s) Hollinger Argus Limited
P.O. Box 320, Timmins, Ontario P4N 7E2
Survey Company Hollinger Argus Limited
Author of Report Lloyd M. Wilson
Address of Author 1485 Fieldlight Blvd. Pickering, Ontario
Covering Dates of Survey February 24, 25, 1983
(linecutting to office)
Total Miles of Line Cut 2.8 miles (4.525 kms)

MINING CLAIMS TRAVERSED
List numerically

P	594787
(prefix)	(number)
P	594788

RECEIVED
MAR. 25. 1983
MINING LANDS SECTION

TOTAL CLAIMS 2

If space insufficient, attach list

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

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)
Magnetometer _____ Electromagnetic _____ Radiometric _____
(enter days per claim)
DATE: March 21/83 SIGNATURE: Lloyd M. Wilson
Author of Report or Agent

Res. Geol. _____ Qualifications 2.4488

Previous Surveys

File No.	Type	Date	Claim Holder

OFFICE USE ONLY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 170 (for VLF) 183 (for mag) Number of Readings 165 (VLF) 195 (Mag)
Station interval 25 metres Line spacing 100 metres
Profile scale 1 cm = 20% (VLF)
Contour interval 100 gammas for background magnetics - see plan

MAGNETIC

Instrument G-816 Precession magnetometer
Accuracy - Scale constant +/- 1 gamma
Diurnal correction method Base Line with Base Stations vs. time
Base Station check-in interval (hours) 1-2 hours
Base Station location and value Base station carried from previous survey using 00 BL/20 E @ 59, 120

ELECTROMAGNETIC

Instrument Geonics EM-16
Coil configuration vertical and horizontal receiving coils
Coil separation Infinity
Accuracy +/- 1/2 degree in-phase +/- 1% Quadrature
Method: [x] Fixed transmitter [] Shoot back [] In line [] Parallel line
Frequency 17.8 kHz Station NAA Cutler Maine (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 _____

May 24/83

Mining Lands Comments

To: Geophysics *Mr. Barlow.*

Comments

Approved Wish to see again with corrections Date *July 27/83* Signature *Douglas H. Paterson*

To: Geology - Expenditures

Comments

Approved Wish to see again with corrections Date Signature

To: Geochemistry

Comments

L.D.

Approved Wish to see again with corrections Date Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)

1983 03 29

2.5449

Mr. William L. Good
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

We have received reports and maps for a Geophysical
(Electromagnetic and Magnetometer) survey submitted under
Special Provisions (credit for Performance and Coverage)
on Mining Claims P 594787-88 in the Township of Tisdale.

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 you prior to the submission of this technical
data. Please forward a copy as soon as possible.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6045
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:416/965-1380

A. Barr: mc

cc: Hollinger Argus Limited
Timmins, Ontario

cc: Lloyd M. Wilson
Pickering, Ontario



ESSO MINERALS CANADA
120 ADELAIDE STREET WEST, P.O. BOX 4029, STATION "A"
TORONTO, ONTARIO M5W 1K3

S. B. MACEACHERN
Regional Exploration Manager

March 22, 1983

File: 16.63.A04

Your file: 2.4543

Mr. E.F. Anderson
Director
Lands Administration Branch
Ministry of Natural Resources
Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3

RECEIVED

MAR 25 1983

MINING LANDS SECTION

Attention: Mr. F.W. Matthews - Mining Lands

Dear Sir:

Please find enclosed a covering letter from Hollinger Argus Limited and two copies of a report on a ground magnetometer and VLF-EM survey covering Claims 594787 and 594788 in Tisdale Township. As a result of a notice of intent concerning these claims they are currently under an extension until May 31, 1983. Approval of the work submitted here should provide 40 days of assessment credits for the two claims. These credits along with the 20 days already approved for the claims should maintain these claims in good standing for two years from their recording date.

Yours truly,

L.J. Ferguson
Geologist, Esso Minerals

LJF:mao
Enclosure
c.c. J. Pirie
c.c. S. Korman
c.c. D. Alexander - Hollinger Argus Timmins

HOLLINGER ARGUS LIMITED

P.O. BOX 320
TIMMINS, ONTARIO P4N 7E2

TELEPHONE: (705) 264-1313

March 9, 1983.

Mr. E.F. Anderson,
Director, Lands Administration Branch,
Ministry of Natural Resources,
Whitney Block, Room 6450,
Queen's Park,
TORONTO, Ontario M7A 1W3

Dear Sir:

Attached are copies of a notice of intent and a technical assessment work credit form for two claims in Tisdale Township (Claim Nos. 594787, 594788). These data are forwarded to facilitate comprehension of the reports forthcoming from Esso Minerals Canada.

The two claims in contention are partly covered by a small lake and crossed by a hydro line, such that the survey was not completed in the fall of 1981. Since Esso Minerals Canada did the original ground work and reports, they have consented to follow through with same on this survey.

An extension of time was applied for on February 25, 1983 - approved March 1, 1983.

We have been advised to file for 20 days credit on these two claims, thereby raising the assessment allotment to 40 days per claim for the VLF survey.

Since a similar circumstance may arise for the magnetic survey filed in December 1982, those data are also included at this time - we most certainly hope to avoid a repeat of a notice of intent et. al. if possible.

I trust that these data are lucid and comprehensive, and I thank you for your consideration.

Sincerely,

HOLLINGER ARGUS LIMITED

Dale R. Alexander

Dale R. Alexander,
Project Geologist.

Encls.



The Mining and Lands Commissioner

In the matter of The Mining Act

AND IN THE MATTER OF Mining Claims P-594787 and 594788, situate in the Township of Tisdale, in the Porcupine Mining Division, hereinafter referred to as "the Mining Claims";

AND IN THE MATTER OF an application in respect of the Mining Claims under section 86 of the Mining Act by or on behalf of the recorded holder.

UPON THE APPLICATION of or on behalf of the holder of the Mining Claims for an extension of time in which to comply with the requirements of the Mining Act and upon reading the material filed and hearing the allegations made;

I ORDER that upon filing the order herein and paying the fee therefor, the time for performance of deficiency of work on the Mining Claims and filing due proof thereof, be and the same is hereby extended until and including the 31st day of May, 1983, subject, however, to the right of any adverse interest.

DATED this 1st day of March, 1983.

MINING AND LANDS COMMISSIONER.

"Notice of Intent dated February 17, 1983".

TISDALE #1.



Ministry of
Natural
Resources

Notice of Intent
for Technical Reports

RECEIVED
Feb 24-83

1983 02 17

2.4543

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.

Recorded Holder	HOLLINGER ARGUS LIMITED
Township or Area	TISDALE

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical Electromagnetic <u>40</u> days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Section 86 (18) _____ days Geological _____ days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	P 594781 to 86 inclusive 594789 to 93 inclusive 595767 to 70 inclusive 595967 to 69 inclusive

Special credits under section 86 (15a) for the following mining claims

20 days
P 594787-88.

No credits have been allowed for the following mining claims

not sufficiently covered by the survey Insufficient technical data filed

Murphy Twp.

THE TOWNSHIP OF

TISDALE

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

LEGEND

- PATENTED LAND (P)
- CROWN LAND SALE (S) or (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
- KINGS HIGHWAYS
- RAILWAYS
- POWER LINES
- MARSH OR MUSKEG
- MINES
- GEODECTIC STATION
- SURFACE RIGHTS ONLY PATENTED

NOTES

This township lies within the Municipality of CITY of TIMMINS.

400' Surface rights reservation around all lakes & rivers.

Town boundary of TIMMINS shown thus: NOW WITHIN THE CITY OF TIMMINS.

25449

DATE OF ISSUE
MAR 14 1983
Ministry of Natural Resources
TORONTO

VI

V

IV

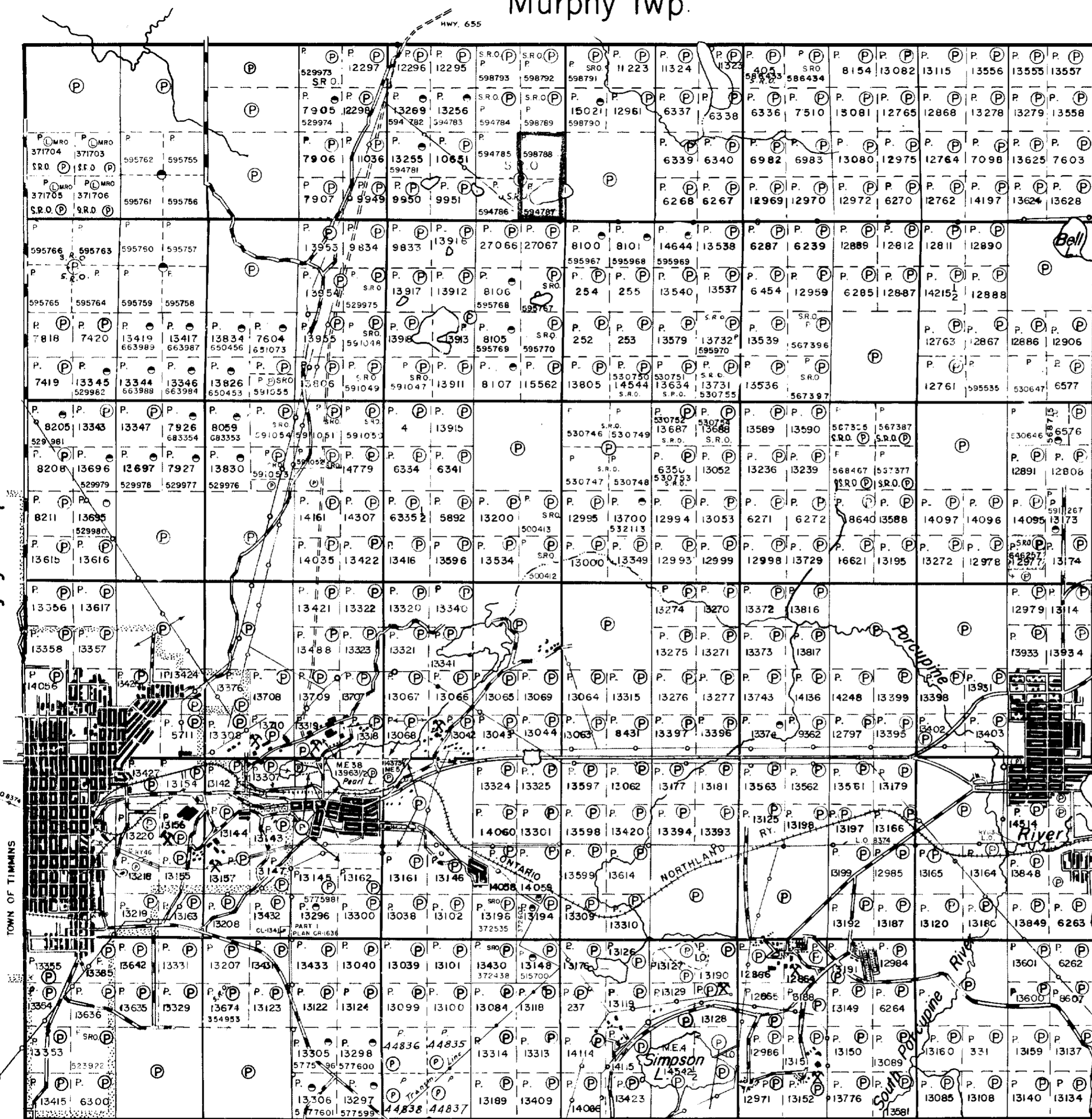
III

II

I

Whitney Twp.

Mountjoy Twp.



Deloro Twp.

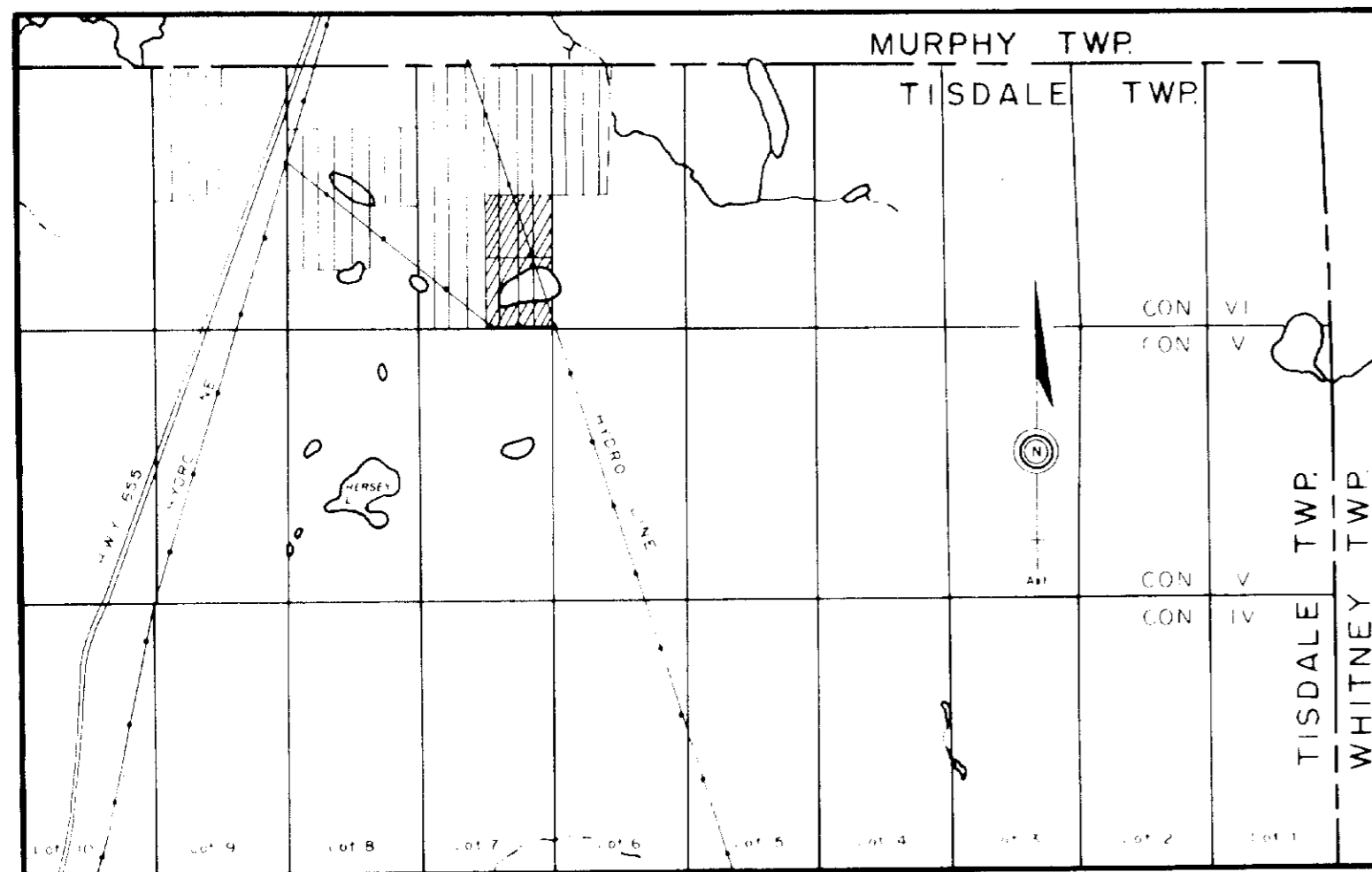


42A115W0205 2-5449 TISDALE

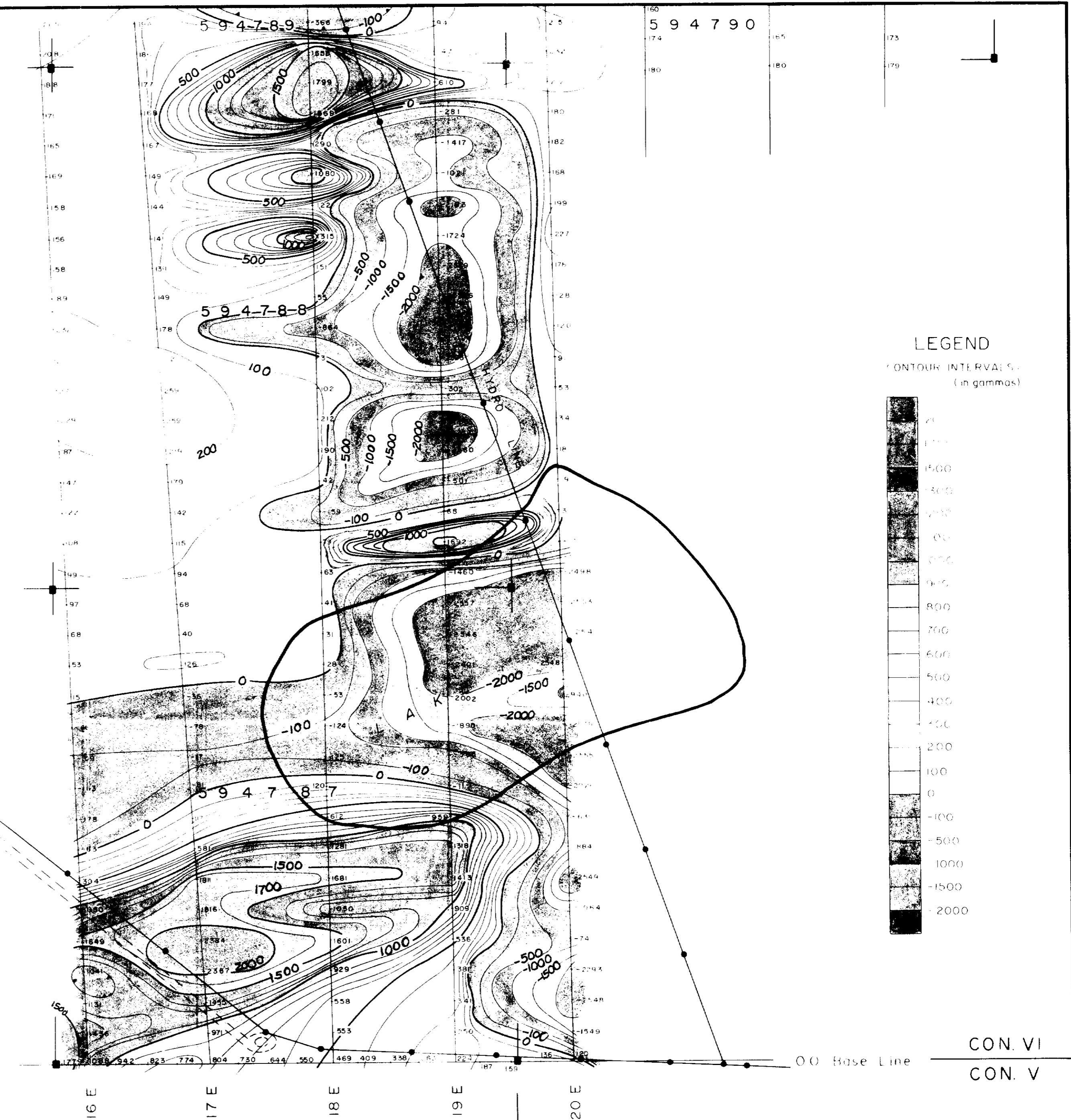
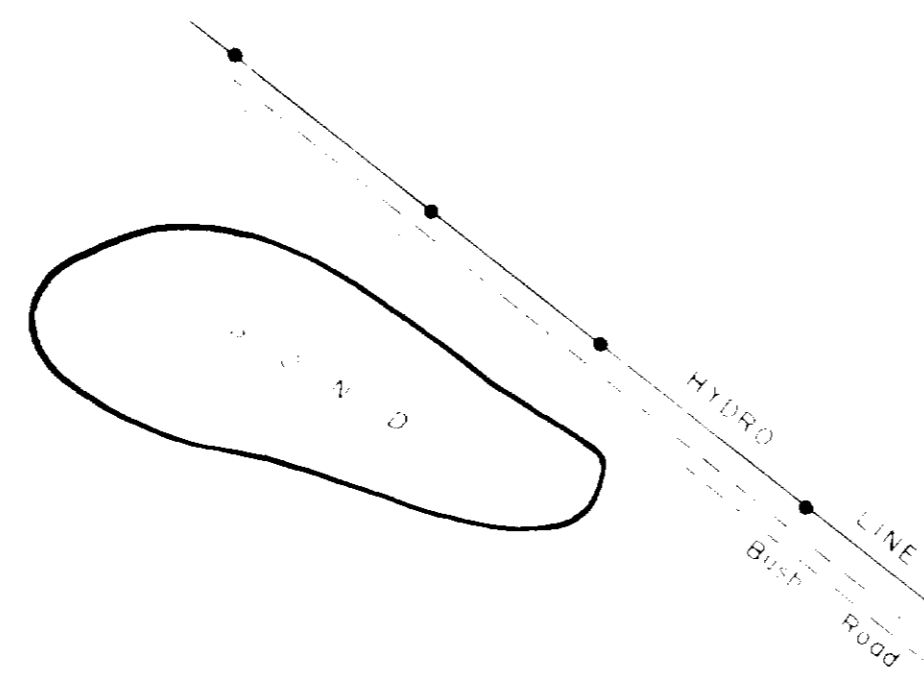
200

PLAN NO.- M. 315

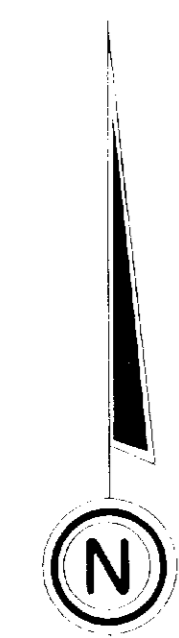
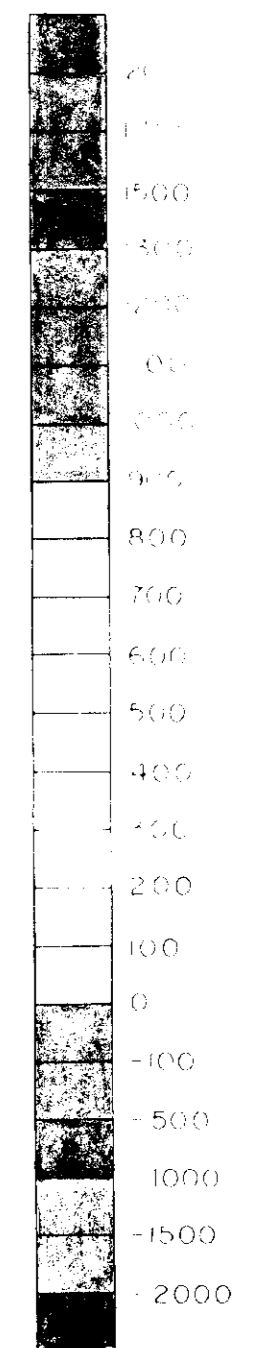
ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEY AND MAPPING BRANCH



LOCATION MAP



LEGEND
CONTOUR INTERVALS
(in gammas)



AST.

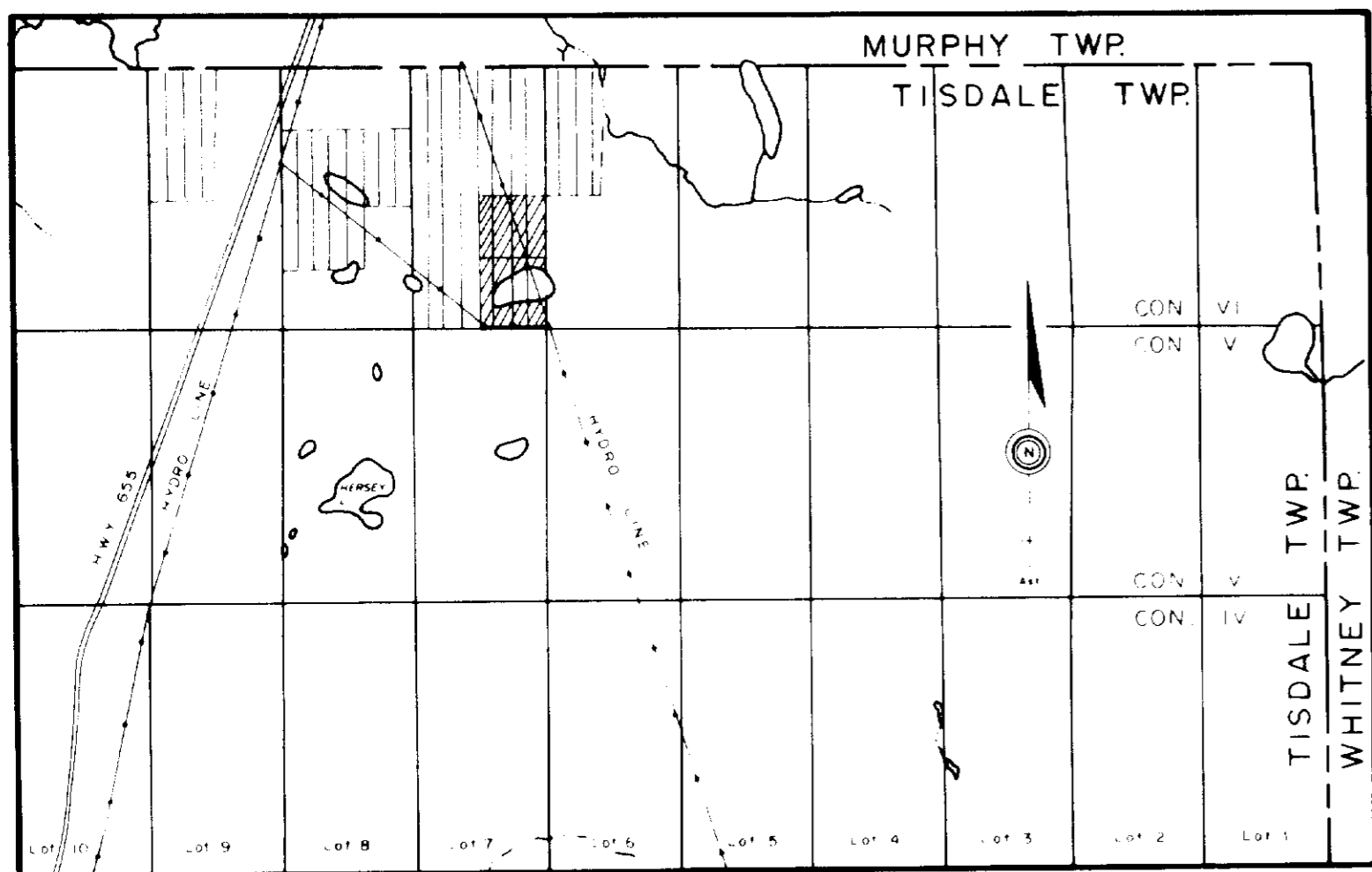
CON. VI
CON. V

Lot 7 Lot 6

HOLLINGER ARGUS LTD.
&
ESSO MINERALS CANADA
MAGNETIC SURVEY

TISDALE No's 1-B & 2
TISDALE TWP. ONT.
Scale 1:2500
Lloyd Nicholson





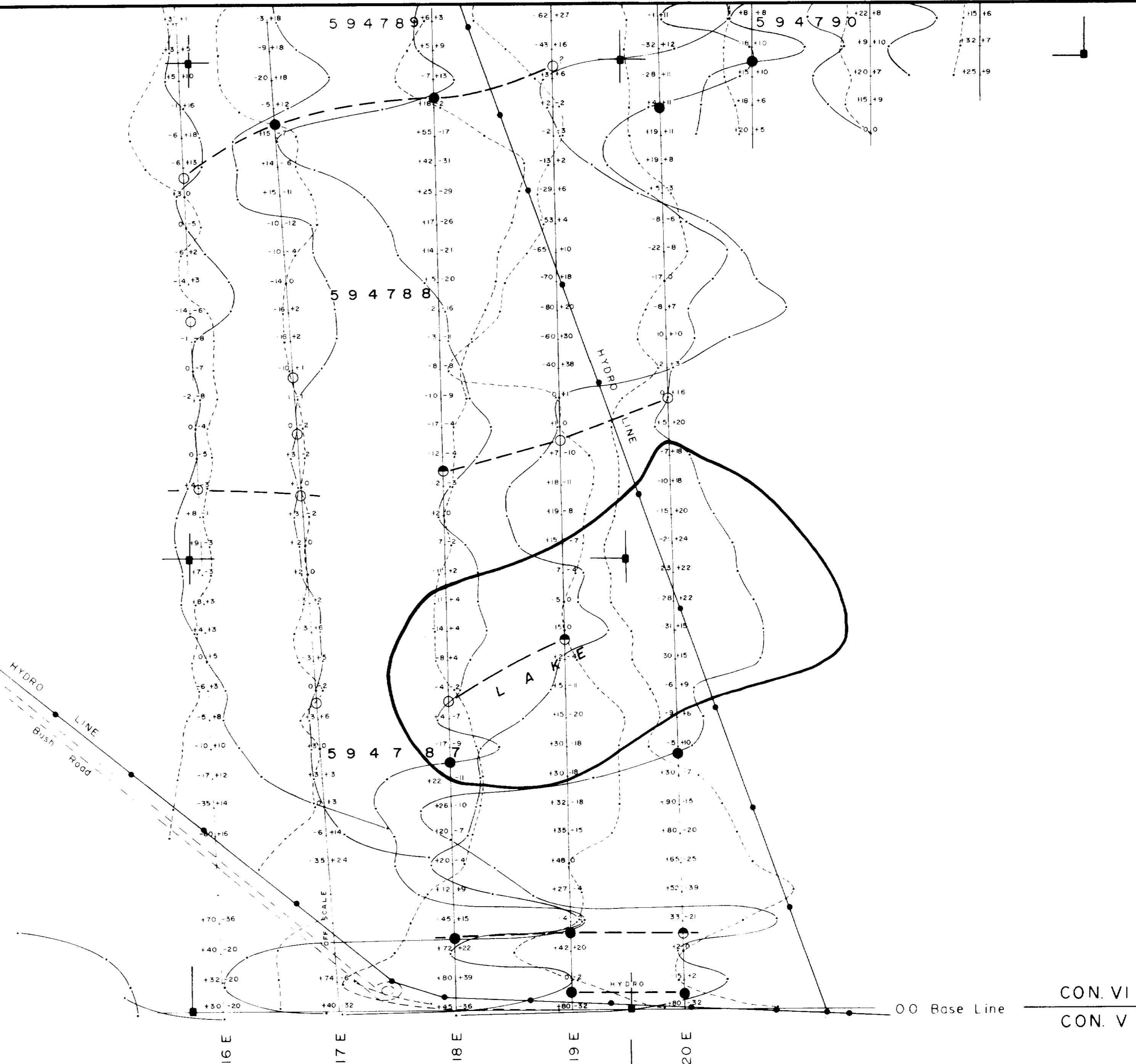
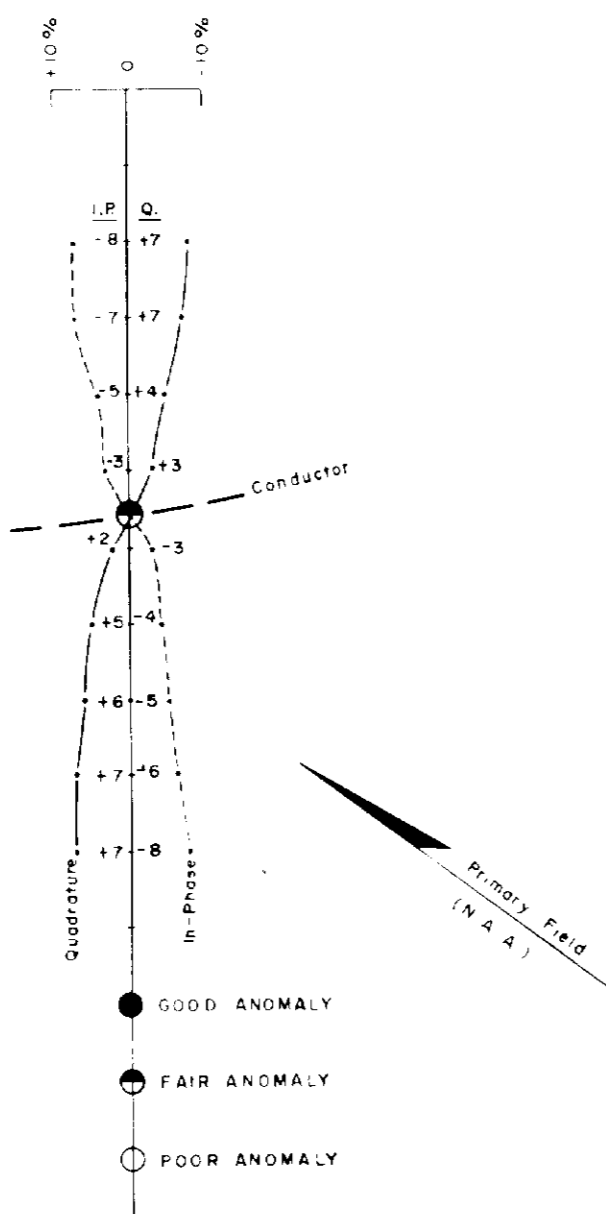
LOCATION MAP

LEGEND

Instrument: GEONICS E.M-16
 Profile Scale: 1 Cm = 10 %



45°



CON. VI
 CON. V

HOLLINGER ARGUS LTD.
 &
ESSO MINERALS CANADA
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TISDALE No's 1-B & 2
 TISDALE TWP. ONT. 2549
 Scale 1:2500 *Lloyd M. Wilson*

