REPORT

ON

A VLF-EM SURVEY

TISDALE NO. 1 CLAIM GROUP

TISDALE TWP.

PORCUPINE MINING DIVISION

BY

L. M. WILSON

ESSO MINERALS CANADA

120 ADELAIDE ST. W.

TORONTO, ONTARIO

FEBRUARY 1982

INTRODUCTION

PURPOSE OF SURVEY

A VLF-EM survey was carried out on the Tisdale No. 1 group of claims, Tisdale Township, to assist in defining the bedrock stratigraphy in the area and to possibly outline potentially gold-bearing bedrock structures.

LOCATION AND ACCESS

The Tisdale No. 1 claim group is located in the Tisdale Township, Porcupine Mining Division, and is situated approximately 5 kilometers northeast of the City of Timmins, northern Ontario. The Tisdale Township is centered at approximately 48° 30' N and 81° 16.5' W and is indexed under N.T.S. 42-A/6,11.

The Tisdale No. 1 claim group is accessible year-round by means of gravel roads off Hwy. 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):

TISDALE (GROUP NO. 1)

Claim Number	Description	Lot	Conc.
P. 594781	NW¼ S½	8	6
P. 594782	SW¼ N½	8	6
P. 594783	SW¼ N½	8	6
P. 594784	SW¼ N½	7	6
P. 594785	NW¼ S½	7	6
P. 594786	SW¼ S½	7	6
P. 594787	SE¼ S½	7	6
P. 594788	NE¼ S½	7	6
P. 594789	SE¼ N½	7	6
P. 594790	SW¼ N½	6	6
P. 594791	NW¼ N½	6	6
P. 594792	NE¼ N½	7	6
P. 594793	NW¼ N½	7	6
P. 595767	SE¼ N½	7	5
P. 595768	SW¼ N½	7	5
P. 595769	NW¼ S½	7	5
P. 595770	NE¼ S½	7	5
P. 595967	NW¼ N½	6	5
P. 595968	NE¼ N½	6	5
P. 595969	NW¼ N½	5	5

PREVIOUS WORK

TISDALE CLAIM GROUP NO. 1

1964-1965 Keevil Exploration carried out ground mag. and electromagnetic surveys on claims 594785 to 594788. One diamond drill hole by Inco tested an electromagnetic anomaly on claim 594788 and intersected mafic volcanics with interflow graphitic horizons.

GEOLOGY

TISDALE CLAIM GROUP NO. 1

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.

The In-phase and Quadrature profiles for the Tisdale No. 1 claim group are presented on two separate base maps (Tisdale No. 1A & 4, Tisdale No. 1B & 2) which cover a much larger survey area comprising the No. 1, 2, 4 and Hollinger patented claim groups.

AREA 1A:

Two or possibly three good conductors are clearly indicated. The main anomaly of interest is located along a NE to E trend of conductors which have an overall apparent strike length in excess of 1700 meters. On Lines 15E - 17E (Claim P. 595767) we observe a positive in-phase crossover together with a negative or reverse quadrature crossover. This conductor may extend under the small lake on Lines 18E & 19E and is then detected further to the east on Line 20E. Beyond Line 20E the anomalous trend or feature cannot be distinguished because of interference from a power line; the conductive feature or trend is detected on Lines 24E - 32E and is open to the east of the survey area. The conductive source appears to be weaker and possibly shallower on Lines 24E - 32E.

AREA 1A (CONT'D):

The second conductor of interest is located along the south edge of Claim P. 595969 and the "exact" location of this conductor is not known because of insufficient survey data across this feature. This conductor is caused by a weak conductive source, indicated by the lack of a corresponding quadrature anomaly.

A third conductor is located on Lines 12E - 14E (Claim P. 595769). This conductor is open to the west of the survey area. The broad in-phase crossover together with the weak reverse crossover on the quadrature profile suggest that this anomaly may be due to weakly conductive overburden in the area.

The other conductors observed in the area are not considered significant and are interpreted as being due to culture (overburden, geological noise, etc.).

AREA 1B:

This survey area lies within an area of major influence from two power lines which cross the claim group in a NNW/NW direction.

A band of two or possibly three semi-parallel conductors is outlined in the south half of the survey area striking approximately E - W. The continuity of this band of conductors is masked by the effect of the powerline on Lines 9E - 13E and Lines 17E - 19 E. The negative quadrature inflections and crossovers together with the in-phase positive crossovers suggest that the sources of these anomalies are moderately conductive. The interpreted depth to these sources is 50 - 75 meters. This broad "band" of conductors has a strike length in excess of 1700 meters and is open to the east of the survey area. Inco has drilled mafic volcanics with interflow graphitic horizons on Calim P. 594788 and hence this long band of conductors are interpreted to be graphitic in origin.

The other conductors outlined in the survey area are not considered significant exploration targets and are attributed to culture.

Horizontal loop EM and magnetometer surveying are recommended to further assist in interpreting the conductors outlined by the present VLF - EM survey and to define the bedrock stratigraphy in the area.

February 3, 1982

Lloyd M. Wilson

Lloyd M. Wilson, B. A.

Project Geologist

Esso Minerals Canada

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

NAMES, ADDRESSES AND DUTIES

L. Wilson, 1485 Fieldlight Blvd., Pickering, L1V 2S3 - Project Geophysicist, Operator, Co-ordinator, Author
(Esso Minerals Canada)

G. Doucet, 425 Hodder Avenue, Thunder Bay - Operator
(Esso Minerals Canada)

M. Wong, 86 Wilkinson Dr., Willowdale, M2J 3Z5 - Operator
(U. of Waterloo, Student)

D. Heaman, 149 Perry Crescent, Islington, M9A 1K8 - Operator
(U. of Waterloo, Student)

D. Coté, Box 1504, Timmins - linecutter

A. Beaudoin, Box 512, Timmins - linecutter

L. LePine, 473 Spruce St., Timmins - linecutter

J. Mackenzie, 25 Pine St. S., Timmins - linecutter

R. Dionne, 407 Louise, Timmins - linecutter

M. Lariveé, 185 Golden East, Timmins - linecutter

E. Huard, 324 Elam South, Timmins - linecutter

J. Rodrique, 367 Cherry, Timmins - linecutter

D. McLeod, 225 Pine South, Timmins - linecutter

P. Rodrique, 177 Wilson, Timmins - linecutter

L. Valcourt, 88a Mountjoy South, Timmins - linecutter

APPENDIX III

QUALIFICATIONS OF AUTHOR

Lloyd M. Wilson attended Memorial University of Newfoundland between 1966 and 1971, graduating with a B.A. (Honors) degree in Mathematics. From May, 1971 to October, 1973, Mr. Wilson worked full-time in oil and gas exploration for Amoco Canada Petroleum Co. Ltd. in Calgary, Alberta, specializing in gravity, magnetics and seismic methods. Since then he has had seven years of experience as a mineral exploration geophysicist - three with Geoterrex Ltd. in Ottawa and four with Esso Minerals Canada in Toronto. For the past two and a half 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 Prospectors and Developers Association, CIMM (Toronto Branch) and KEGS.

Ministry of Natural Resources
Ontario

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

Tisdal #52

42A11SW0210 2.4543 TISDALE

900

W8106.00525

The Mining

Type of Survey(s)	Township or Area
GROUND VLF-EM (VERY LOW FREQUENCY EM)	Tisdale Township M315

Claim Holder(s)	Prospector's Licence No.
HOLLINGER ARGUS LTD	A20822

Address: P.O. Box 320 Timmins, Ont. P4N 7E2

Survey Company	Date of Survey (from & to)	Total Miles of line Cut
Esso Minerals Canada	15 / 9 / 81 (Day / Mo. / Yr.) — 30 / 10 / 81 (Day / Mo. / Yr.)	42 (67.2 km) (lines every 100 m)

Name and Address of Author (of Geo-Technical report)
Lloyd M. Wilson c/o Esso Minerals Canada 120 Adelaide St. W., Toronto, ON

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 VLF-EM	40
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

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

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

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: Dec. 16/81

Recorded Holder or Agent (Signature)

Mining Claims Traversed (List in numerical sequence)

Mining Claim Prefix	Number	Expend. Days Cr.
P		
	529973	2.4548
	529974	
	529975	2.4547
	529976	
24544	529977	
	529978	
	529979	
	529980	
	529981	
	529982	
	594781	
	594782	
	594783	
	594784	
	594785	
2.4548	594786	
	594787	
	594788	
	594789	
	594790	
	594791	
	594792	

Mining Claim Prefix	Number	Expend. Days Cr.
P		
	594793	
	595767	
	595768	
	595769	
	595770	
	595967	
	595968	
	595969	
	595970	2.4546.
	595755	
	595756	
	595757	2.4545
	595758	
	595759	
	595760	
	595761	
	595762	

RECEIVED
DEC 21 1981
MINING LANDS SECTION

RECORDED
DEC 16 1981
Receipt No.

Total number of mining claims covered by this report of work: 39

For Office Use Only

Total Days Cr. Recorded	Date Recorded	Mining Recorder
1560	Dec. 16/81	
	Date Approved as Recorded	Branch Director / Regional Mining Recorder

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
Lloyd M. Wilson 1485 Fieldlight Blvd., Pickering, ON L1V 2S3

Date Certified: December 10, 1981

Certified by (Signature): Lloyd M. Wilson

362 (81/9)

Ontario

Ministry of Natural Resources

File 16.63.C.100

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) VLF-EM

Township or Area Tisdale Twp.

Claim Holder(s) Hollinger Argus Ltd.

Survey Company Esso Resources Canada Ltd.

Author of Report Lloyd M. Wilson

Address of Author 1485 Fieldlight Blvd., Pickering, Ont.

Covering Dates of Survey 15 Sept. - 30 Nov. 1981
(linecutting to office)

Total Miles of Line Cut 34.0 km cross lines
7.6 km base/tielines

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	40
--Magnetometer	
--Radiometric	
--Other	
Geological	
Geochemical	

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

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

DATE: _____ SIGNATURE: 2 4488
Author of Report or Agent

Res. Geol. _____ Qualifications _____

Previous Surveys

File No.	Type	Date	Claim Holder

MINING CLAIMS TRAVERSED
List numerically

Tisdale No. 1 Claim Group

(prefix)	(number)
P.	594781 ✓
	594782 —
	594783 —
	594784 ✓
	594785 ✓
	594786 —
	594787 1/2
	594788 1/2
	594789 ✓
	594790 ✓
	594791 ✓
	594792 ✓
	594793 ✓
P.	595767 ✓
	595768 ✓
	595769 ✓
	595770 ✓
P.	595967 ✓
	595968 ✓
	595969 ✓

If space insufficient, attach list

TOTAL CLAIMS 20

ONTARIO GEOLOGICAL SURVEY

GEOPHYSICAL TECHNICAL DATA

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

Number of Stations 1276 Number of Readings 1276

Station interval 25 meters Line spacing 100 meters

Profile scale 1 : 2500 horizontal 1 cm = 10% vertical

Contour interval

MAGNETIC

Instrument

Accuracy – Scale constant

Diurnal correction method

Base Station check-in interval (hours)

Base Station location and value

ELECTROMAGNETIC

Instrument Geonics EM-16 (VLF)

Coil configuration Vertical & horizontal receiving coils with axes perpendicular to each other

Coil separation

Accuracy Readability ± 1%

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

Frequency Cutler, Maine (17.8 kHz) (specify V.L.F. station)

Parameters measured In-phase & Quadrature components of secondary vertical field.

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 _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

1983 02 17

Ministry of Natural Resources
Ontario

Technical Assessment Work Credits

File 2.4543

Recorded Holder	HOLLINGER ARGUS LIMITED
Township or Area	TISDALE

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

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

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Section 86(18)-60:

828

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

S. B. MacEACHERN
Regional Exploration Manager

RECEIVED
FEB - 7 1983
MINING LANDS SECTION

February 7, 1983

File: 16.63.A04

Your File: 2.4543
2.4546
2.4547
2.4548

Mr. E.F. Anderson - Director
Land Management Branch
Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3

Attention: Mr. F.W. Matthews - Lands Management Branch

Dear Sir:

As requested, please find enclosed the signed maps in duplicate for the reports on the electromagnetic surveys on Mining Claims P. 594781 et al in Tisdale Township.

Yours truly,

Larry Ferguson
Geologist, Esso Minerals

LF:mao
Enclosure
c.c. L. Wilson
c.c. W. King - Hollinger Argus Limited P.O. Box 320
Timmins, ON P4N 7E2

Ministry of Natural Resources
Ontario

Geotechnical Report Approval

File 2.4543

Mining Lands Comments

- maps not signed

☑ To: Geophysics — Mr. Barlow.

Comments

maps need signature

☑ Approved ☐ Wish to see again with corrections | Date Oct 7/82 | Signature

☐ 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)

1593 (81/10)

2.4543

1983 03 16 2.4543

Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Geophysical (Electromagnetic) Survey on Mining Claims P594781 et al in the Township of Tisdale.

The Geophysical (Electromagnetic) Survey assessment work credits as listed with my Notice of Intent dated February 17, 1983 has been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1380

A. Barr:sc

cc: Esso Minerals Canada
Toronto, Ontario
Attn: Mr. Lloyd M. Wilson

cc: Resident Geologist
Timmins, Ontario

cc: Hollinger Argus Limited
Timmins, Ontario

Ministry of Natural Resources
Ontario

MARCH 8, 1983

Your file:

1983 02 17

Our file: 2.4543

Mining Recorder
Ministry of Natural Resources
60 WilsonAAvenue
Timmins, Ontario
P4N 2S

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

Yours very truly,

For further information, if required
Please contact Mr. F.W. Matthews
at 416/965-1380

E.F. Anderson
Director
Lands Administration Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

A. Barr:sc

Encls:

cc: Esso Minerals Canada
Toronto, Ontario
Attn: Lloyd M. Wilson.

cc: Mr. G.H. Ferguson
Mining & Lands Commissioner
Toronto, Ontario

Ministry of Natural Resources

Ontario

Notice of Intent

for Technical Reports

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.

Ministry of
Natural
Resources
Ontario

Your file:

1983 01 17

Our file: 2.4543
2.4546
2.4547
2.4548

Hollinger Argus Limited
P.O. Box 320
Timmins, Ontario
P4N 7E2

Dear Sirs:

RE: Geophysical Electromagnetic Survey submitted on Mining Claims P 594781 et al in the Township of Tisdale.

Enclosed are the plans in duplicate for the above mentioned survey. Please sign all copies and return them to this office.

For further information please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 965-1380

A. Barr:sc

cc: Mining Recorder
Timmins, Ontario

Encls:

1982 02 25 2.4543

Hollinger Argus Ltd.
P.O. Box 320
Timmins, Ontario
P4N 7E2

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P 594 781 et al in the Township of Tisdale.

With each of the six submissions we only require plans in duplicate so we are returning the third copy from each group.

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

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450
Queen's Park
Toronto, Ontario
M7A 1W3
Phone: 416/965-1316

J. Skura/amc

cc: Mining Recorder
Timmins, Ontario

cc: Esso Minerals Canada
Toronto, Ontario
Attn: Lloyd M. Wilson

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

FENTON SCOTT
Vice President Exploration

S. B. MACEACHERN
Regional Exploration Manager

February 5, 1982

File: 16.63.A04

Mr. E.F. Anderson
Director Lands Management Branch
Ministry of Natural Resources
Room 6450
Whitney Block
Queen's Park, ON

Attention: Mining Lands Section

Dear Sir:

Please find enclosed full assessment reports and plans in duplicate on a ground electromagnetic survey carried out on each of the six claim groups in Tisdale Township listed on the attached. This work should provide 40 days of assessment work for each of these claims.

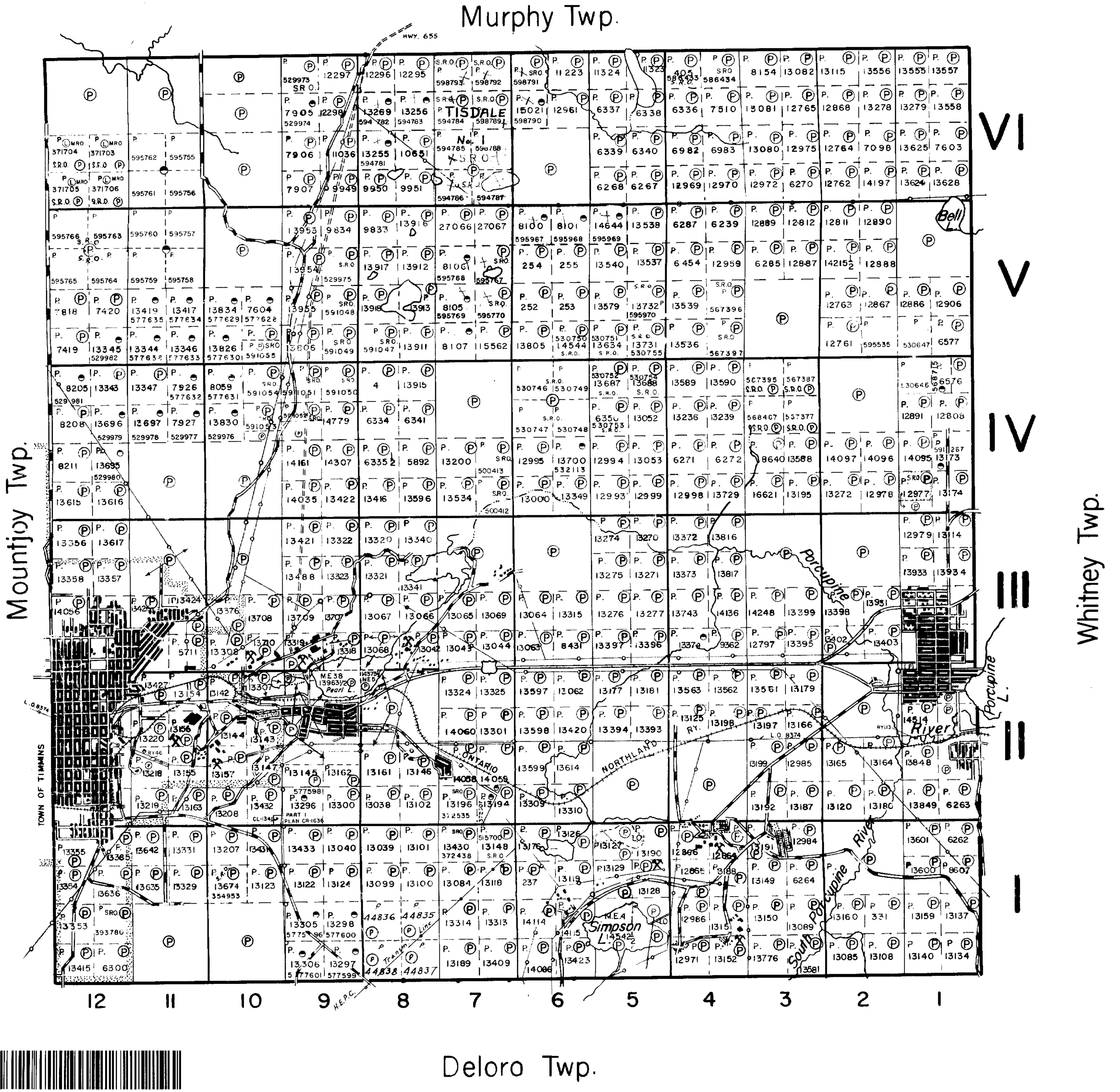
Yours truly,

Larry Ferguson
Geologist, Esso Minerals

LJF:mao
Enclosures
c.c. J. Pirie
c.c. L. Wilson

RECEIVED
FEB 5 1982
MINING LANDS SECTION

Claim Group 1:	595767 to 595770 595967 to 595969 594781 to 594793
Claim Group 2:	529973, 529974
Claim Group 3:	529975
Claim Group 4:	595970
Claim Group 5:	595755 to 595762
Claim Group 6:	529976 to 529982



THE TOWNSHIP OF TISDALE

DISTRICT OF COCHRANE

PORCUPINE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

4543

LEGEND

PATENTED LAND	Ⓟ
CROWN LAND SALE	Ⓢ or 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	
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.

DATE OF ISSUE
FEB - 1 1982
Ministry of Natural Resources
TORONTO

PLAN NO.- M.315

ONTARIO
MINISTRY OF NATURAL RESOURCES
SURVEYS AND MAPPING BRANCH

42A11SW0210 2.4543 TISDALE

200

J.v.K.


1610 N. Tie Line
00 Base Line
LAFOREST ROAD
3 W
2 W
1 W
0
1 E
2 E
3 E
4 E
5 E
6 E
7 E
8 E
9 E
10 E
11 E
12 E
13 E
14 E
15 E
16 E
17 E
18 E
19 E
20 E
2075 E
2175 E
2275 E
21 E
5 2 9 9 7 3
5 2 9 9 7 4
5 9 4 7 8 2
5 9 4 7 8 3
5 9 4 7 8 4
5 9 4 7 8 5
5 9 4 7 8 6
5 9 4 7 8 7
5 9 4 7 8 8
5 9 4 7 8 9
5 9 4 7 9 0
5 9 4 7 9 2
5 9 4 7 9 3
POND
LAKE
CREEK
NORTH TISDALE GOLD PROPERTY
LEGEND
VLF - EM SURVEY
IN-PHASE AND QUADRATURE PLOT
VERTICAL SCALE : 1 CM = 10%
HORIZONTAL SCALE 1:2500
INSTRUMENT : GEONICS EM-16
TRANSMITTER : CUTLER, MAINE
Primary Field

HOLLINGER ARGUS LTD.
&
ESSO MINERALS CANADA

TISDALE No's. 1-B & 2
TISDALE TWP. ONT.

Scale 1:2500

DRAFTED BY: W. B. Coughell

Lloyd M. Wilson

210


HOLLINGER ARGUS LTD.
&
ESSO MINERALS CANADA
LEGEND
VLF-EM SURVEY
IN-PHASE AND QUADRATURE PLOT
VERTICAL SCALE = 1 CM. = 10%
HORIZONTAL SCALE - 1:2500
INSTRUMENT = GEONICS EM-16
TRANSMITTER = CUTLER, MAINE
TISDALE NO. 1A & 4
TISDALE TWP. ONT.
SCALE 1:2500
DRAFTED BY M. WONG
+10%
-10%
CONDUCTOR
IN PHASE
QUADRATURE
Good Anomaly
Fair Anomaly
Poor Anomaly
Primary Field
N.A.A
N
BASE LINE
TIE LINE
0+00
1+00S
2+00S
3+00S
4+00S
5+00S
6+00S
7+00S
8+00S
9+00S
10+00S
11+00S
12+00S
13+00S
14+00S
15+00S
16+00S
L-12+00E
L-13+00E
L-14+00E
L-15+00E
L-16+00E
L-17+00E
L-18+00E
L-19+00E
L-20+00E
L-21+00E
L-22+00E
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L-24+00E
L-25+00E
L-26+00E
L-27+00E
L-28+00E
L-29+00E
L-30+00E
L-31+00E
L-32+00E
L-33+00E
L-34+00E
L-35+00E
L-36+00E
5 9 5 7 6 8
5 9 5 7 6 7
5 9 5 7 6 9
5 9 5 7 7 0
5 9 5 9 6 7
5 9 5 9 6 8
5 9 5 9 6 9
5 9 5 9 7 0
P
LAKE
MURPHY TWP
WHITNEY
FELDMAN
DAVIDSON
NORTH TISDALE GOLD PROPERTY
TWP
220