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Claims: 2ll642-46 incl.,
    2l1653-55 incl..
    211662-71 incl.,
    227029
    227349-51 incl.,
*227358-59
    227361-66 incl.,
    243577-92 incl..
    243865
    243867-68
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PATRICIA MINING DIVISION
I. F. Downie.

## INTRODUCTION

This report describes results of a ground electromagnetic survey undertaken in March/April 1970 on 49 claims in the region of East Bay of Sturgeon Lake, Patricia Mining Division.

## LOCATION AND ACCESS

The claims lie on or immediately adjacent to East Bay of Sturgeon Lake along its length, and extend eastward for about one mile. The claims may be reached by boat or snowmobile, and by float or ski-equipped aircraft - depending on the season.

## CLAIMS

The property consists of 49 contiquous unpatented claims: Nos. 21l642-46 incl., 2ll653-55 incl., 211662-71 incl., 227029, 227349-51 incl., 227358 and 227359, 227361-66 incl., 243577-92 inc., 243865 and 243867 and 243868.

## SURVEY PROCEDURE

(1) Line-Cutting

A control grid was cut over the claims: an easterly trending base-line with north-soluth trend offsets at intervals of $4 C 0$ feet for a total of $461 / 2$ miles of lines.

Offsets have been picketed at intervals of 100 feet.
(2) E.M. Survey

The survey was conducted by Geosearch Limited under contract to Selco Exploration Company Limited. Supervision was provided by R. Lee of Geosearch, and the survey was performed in late March and early Apri1, 1970.

The instrument used in the course of the survey was an A.B.E.M. Miniquili horizontal loop equipment which measures in-phase and quadrature voltages induced at the receiver as a percentage of like quantities induced in a reference coil.

The frequency employed was $3520 \mathrm{o} / \mathrm{sec}$, and separation of coils kept constant by reference cable 200 feet in lenath. Readings were taken at intervals of 100 feet and are depicted with conductor axes on accompanying plan 70-33 [in three parts].

## RESULTS

(i) An extremely long, strong conductor beginning at 3S, L. 48W, and continuing uninterrupted to $3-4 \mathrm{~N}, \mathrm{~L} .28 \mathrm{E}$. In-phase and quadrature values attain $-82 \%$ and $-1 \%$ [L.44W $2+50 \mathrm{~S}$ ]; values generally cover an in-phase ratio $-55 \%$ or greater [numerically].

The source of this conductor, as observed in bedrock, is a graphitic horizon.
(ii) A conductor parallel and probably subsidiary to (i) extending from l+50S, L.44W to $3 \mathrm{~N}, \mathrm{~L} .32 \mathrm{~W}$. Anomaly peak is at $1+50 \mathrm{~S}, \mathrm{~L} .40 \mathrm{~W}$ where in-phase and quadrature ratios of $-90 \%$ and $-2 \%$ are found. The source is unknown, but may well be graphite.
(iii) From $11+50 \mathrm{~S}$, L. 56W to $8+50 \mathrm{~S}$, L. 48 W : an anomaly which shows considerable width and strength on L. 48 W . This is likely to be a bedrock conductor; source unknown.
(iv) Two weaker conductors lying north and west of (iii) but displaying good in-phase to quadrature ratios. Both may represent weak bedrock features.
(v) From L. 20 W at 4 S to L4E at $0+50 \mathrm{~S}$, a weak/good conductor subsidiary to (i). Probably due to some weak, bedrock feature: a thin graphitic horizon (?).
(vi) L. 20W at 7 S and L. 16 W at 5+50S: a conductor giving good ratios on L.l6W. Presumably a bedrock source gives this anomaly.
(vii) A long conductor, but weak except at its west end. It extends from L. 28 E at B.L. to L. 44 E at $4+50 \mathrm{~N}$. This is thought to be the faulted extension of (i).
(viii) A long, discontinuous anomaly from L. 68E at 35 to L. 136 E at $3+50 \mathrm{~N}$ and still open eastward, which in itself may be the discontinuous extension of (i)-(vii). Ratios are poor to excellent. In-phase and quadrature give ratios of $-68 \%$ and $-2 \%$ on L.76E.
(ix) On lines 124 E and 128 E at 4 S , a conductor giving good ratios on L. 124E. The conductor presumably represents a bedrock feature but the source is unknown.

A winter drilling programme will be undertaken in order to explore some of the unexplained anomalies.


## PERFORMANCE \& COVERAGE CREDITS

## ASSESSMENT WORK DETAILS



PA 227349
227350
227351
227358
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243867

243868


Box 669
Sioux Lookout, Ontario

Fred W. Matthews,
Supervisor, Projects Section, Ontario Department of Mines, Whitney Block,
Parliament Buildings, Toronto.

Date of Recording of Work $\qquad$ November 6, 1970
Recorded Holder $\qquad$ Selco Exploration Company Limited
 (address)

Township or Area
DEPARTMENT OF MINES AND NORTHERN AFFAIRS
MINING LANDS BRANCH OFFICE OF THE MINING RECORDER


Souaw lake K-7904 $\qquad$


## NOTICE TO RECORDED HOLDER

Survey reports and maps in duplicate must be submitted to the Projects Section, Toronto within 60 days from the date of recording of this work.Reports and maps are being forwarded to Projects Section with this letter.
Mining Claims
Pa -221642-46 Incl.
$211653-55$ Incl.
$211662-71$ Incl.
227029
$227349-51$ Incl.
$227359-59$. Incl.
$227361-66$ Incl.
$243577-92$ Incl.
244365
$243367-68$ Inc 1.
 Mining Recorder.
c.c. Selco Exploration Company Limited 6th Floor - 55 Yonne Street Toronto, Ontario

Mr. J. A. Gribben

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DEPARTMENT OF MINES ANUNOHTHERN AFFAIRS


April 2let， 1971.

Mr．W．A．Buchan， Mining Recorder， Court House， Sioux Lookout，Ontario．

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\begin{array}{r}
\text { Re: Mining Claims PA. } 211642 \text { et al, } \\
\text { Squaw Lake Area. File No. } 2.210 \\
\hline
\end{array}
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Dear Sir：
The Geophysical（Electromagnetic）assessment work credits as listed with my Notice of Intent dated April 6th，1971， have been approved as of the date above．Please inform the recorded holder and so indicate on your records．

> Yours very truly,


Fred W．Matthews， Supervisor， Projects Section．
c．c．Selco Exploration Co．，Ltd．， 6th Floor， 55 Yong Street， Toronto，Ontario．

Attn：Mr．J．A．Gribben．
cc．Mr．H．L．King， Resident Geologist， 808 Robertson Street， Kenora，Ontario．

FMM／mr

See Accompanying
Map (S) IDENTIFIED AS 52J/02SE-0026, \#1-3

Located in the map Channel in The Following SEQUENCE ( $X$ )






