



41110SE0085 0021 FALCONBRIDGE

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**REPORT ON
ELECTROMAGNETIC CHECK SURVEY**

"EAST GROUP" OF CLAIMS

MACKENZIE HILL MINES LIMITED

FALCONBRIDGE TOWNSHIP

SUDBURY MINING DIVISION

ONTARIO

REPORT ON
ELECTROMAGNETIC CHECK SURVEY
"EAST GROUP" OF CLAIMS
MACKENZIE HILL MINES LIMITED

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CONTENTS

	<u>Page</u>
Introduction.....	1
Property, Location and Access.....	1
Geology.....	2
Survey Data.....	2
Survey Results and Interpretation.....	2
Conclusions and Recommendations.....	4



CONTENTS

	<u>Page</u>
Introduction	1
Property, Location and Access	1
Geology	2
Survey Data	2
Survey Results & interpretation	2
Conclusions and Recommendations	4

The President and Directors
Mackensize Hill Mines Limited
Suite 305, Concourse Building
100 Adelaide Street West
Toronto 1, Ontario

**DUPLICATE COPY
POOR QUALITY ORIGINAL
TO FOLLOW**

Gentlemen :

This report describes the results of an electromagnetic check survey conducted on your "East Group" of claims, located in Falconbridge Township, Sudbury Mining Division, Ontario. The survey was designed to check indications described in the report on magnetometer survey dated January 13, 1966. The present electromagnetic survey results are added on the same plan for close correlation.

PROPERTY, LOCATION AND ACCESS -

The "East Group" of claims covered by the electromagnetic survey was listed as follows :

S-129310 to S-129317, inclusive
S-129224 to S-129233, inclusive
S-131299, S-131300 and S-131301.

As described in previous report, this group of claims is apparently located more to the south than recorded on Government claim map, Plan No. M-799. This irregularity should be corrected in due course.

The claim group is accessible by gravel road from Garson, and partly through lumber roads.

GEOLOGY -

The readers are referred to our previous report and 66th Annual report of the Ontario Department of Mines, 1959 for the geology.

SURVEY DATA -

The electromagnetic survey was carried out along picket lines cut for the magnetometer survey at 400 foot intervals north-south to cover all interesting indications.

A Ronka Mark IV Electromagnetic Unit with a 300 foot cable was used for this check survey. Several readings were obtained beyond the line grid to test indications of possible conductor. The readings were obtained and recorded at the receiver station. The receiver was leading the transmitter.

SURVEY RESULTS AND INTERPRETATION -

The electromagnetic check survey encountered an interesting conductor along the Falcon Fault zone inferred from the magnetic survey.

The location is at 2740' south, L 36W, at the junction of two inferred faults. The conductor is small but definite with 4% of in-phase changes and 2% of out-of-phase changes. The ratio is good, and the conductor is apparently associated with a magnetic anomaly with a high reading of 4434 gammas against a background reading in the order of 500 gammas. The association is inferred as indicting sulphide mineralization associated with small occurrences of gabbro, commonly known at this part of Falcon Fault Zone which extends into the neighbouring holdings of Falconbridge Nickel Mines Ltd. Diamond Drilling is recommended to test this conductor when irregularities of the staking have been corrected.

The electromagnetic survey encountered two other marginal conductors, one of which is located to the east of a small but strong negative magnetic anomaly in claim S-129314. This marginal conductor could be due to minor sulphides associated with a blue quarta vein observed by Jack Haynes near it. The other, in Claim S-129228, could be due to a combined effect of an easterly fault zone and topography. This easterly fault is inferred as the eastern extension of a fault zone located at the shaft area of the neighbouring Falcon Gold Mine.

The electromagnetic survey failed to obtain any conductor associated with the sulphide mineralization and gossan zones observed by your prospector, Mr. Jack Haynes.

CONCLUSIONS AND RECOMMENDATIONS -

The electromagnetic check survey encountered a target for test diamond drilling, but failed to detect any indication of heavy concentrations of sulphides at showings uncovered by prospector Haynes.

The writer recommends to correct all staking irregularities with the Mining Recorder prior to carrying out further investigation, which should involve a certain amount of geological examination of Haynes' showings, and examination of the locations of the conductor and other two marginal electromagnetic conductors described in this report.

A program of diamond drilling is to be laid out after the geological examination.

Respectfully submitted.
CANA EXPLORATION CONSULTANTS LIMITED

S. S. Szetu, Ph. D
Consulting Geologist

Toronto, Ontario
February 11, 1966



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Suite 305, Concourse Building
100 Adelaide Street, West
Toronto 1, Ontario**

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S. S. Szetu, Ph. D.
Consulting Geologist

SSS:rk
Encl.

Toronto, Ontario
February 11, 1966.



41110SE0085 0021 FALCONBRIDGE

900



ONTARIO
DEPARTMENT OF MINES
Mining Lands Branch

69.1905

PARLIAMENT BUILDINGS
TORONTO 2, ONTARIO

July 28th, 1966

Re: S 129312 - Falconbridge Township

Dear Sir:

The geophysical assessment work credits as listed with my Notice of Intent dated July 13th, 1966 have been approved as of the above date. Please inform the recorded holder and so indicate on your records.

Yours truly,

R. V. Scott,
Director.

FWM:smm

cc MacKenzie Hill Mines Ltd

Dr. J.F. Donovan

Mr. J. F. McFarland

Mr. K. M. Hallock
Mining Recorder
Sudbury, Ontario

THE MINING ACT
Assessment Work Credits

Name: MACKENZIE HILL MINES LTD

Township or Area: FALCONBRIDGE TOWNSHIP

Number of Assessment work days per claim

Geophysical 9 Electromagnetic Geological NIL

Mining Claims: S 129312 to 129317 inclusive
S 129224 to 129229 inclusive
S 129231 to 129233 inclusive
S 131290
S 131300, 131301

Note: Assessment credits have not
been allowed for S 129310,
129230 and S 129311 as they were
not covered by the survey.

Use for one type of survey only

Assessment Work Breakdown

1. Technical

<u>Type of Work</u>	<u>Name & Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Electromagnetic	Gaston Heyerdahl (Operator)	Jan. 24-Feb. 1, 1968 (incl.)	72	9 (9)
Check Survey	427-12 Richmond St. E. Toronto, Ont.		(72)	
	Jim Young (Helper)	Same as above	72	9 (9)
	427-12 Richmond St. E. Toronto, Ont.		(72)	
Totals			144 (144)	18 (18)

Consultants

<u>Name & Address</u>	<u>Dates Worked (specify in field or office)</u>	<u>Hours</u>	<u>Days</u>
S. S. Sætu, Ph. D.	Feb. 9, 11, 1968 (office)		2 (2)
Consulting Geologist			
427-12 Richmond St. E.			
Toronto, Ontario			
Totals			2 (2)

Draughtsman, Typing, others (specify)

<u>Name & Address</u>	<u>Type of Work</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
R. Knox	Typing, etc.	Feb. 10, 1968	(8) 8	1 (1)
427-12 Richmond St. E.		Feb. 11, 1968	(8) 8	1 (1)
Toronto, Ontario				
L. Nagy	Drafting	Period Feb. 6 - 8, 1968	(16) 16	2 (2)
Totals			(32) 32	4 (4)

2. Line-Cutting

<u>Name</u>	<u>Address</u>	<u>Dates Worked</u>	<u>Hours</u>	<u>Days</u>
Totals				

Assessment Work Breakdown

- 1. Type of Survey Electromagnetic survey
- 2. Township or Area Falconbridge Township
- 3. Mining claim numbers S-129310 to S-129317, inclusive;
S-129224 to S-129233, inclusive;
S-131290, S-131301, S-131300
- 4. Number of miles of line cut Picket lines were cut for previous survey.
- * 5. Type of instrument used Ronka Mark IV, E. M. Unit, 300 foot cable
- * 6. Scale constant or sensitivity
- * 7. Number of stations established 661
- 8. Summary of days worked (details on reverse side)
 - Total technical (include consultants, draughting etc.) 24 x 7 = 168
 - Total line-cutting
 - Total man-days (technical plus line-cutting) 168
 - Assessment days credit per claim 8

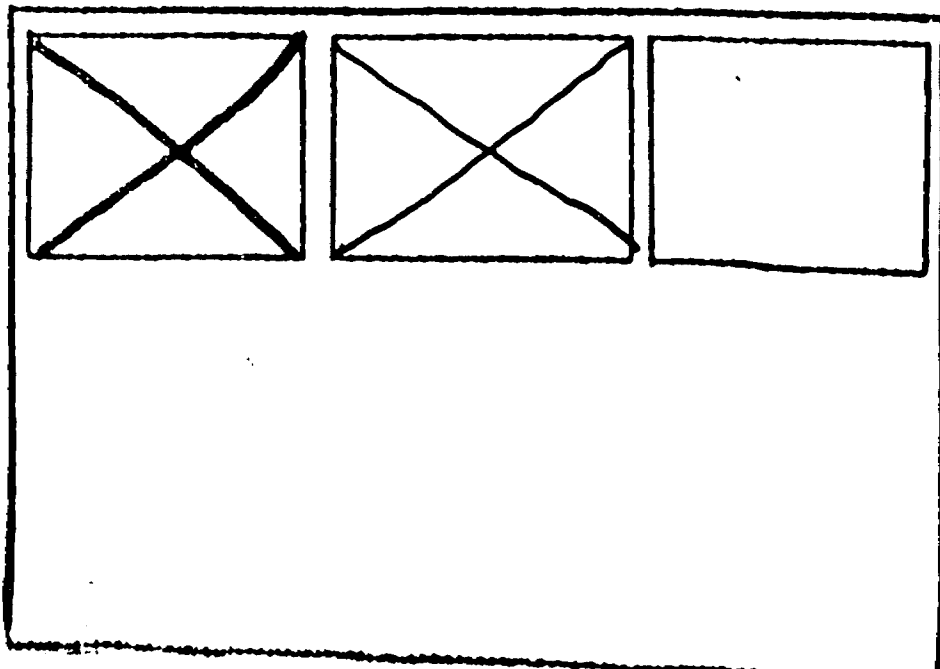
9. Dated March 28, 1968 Signed [Signature]

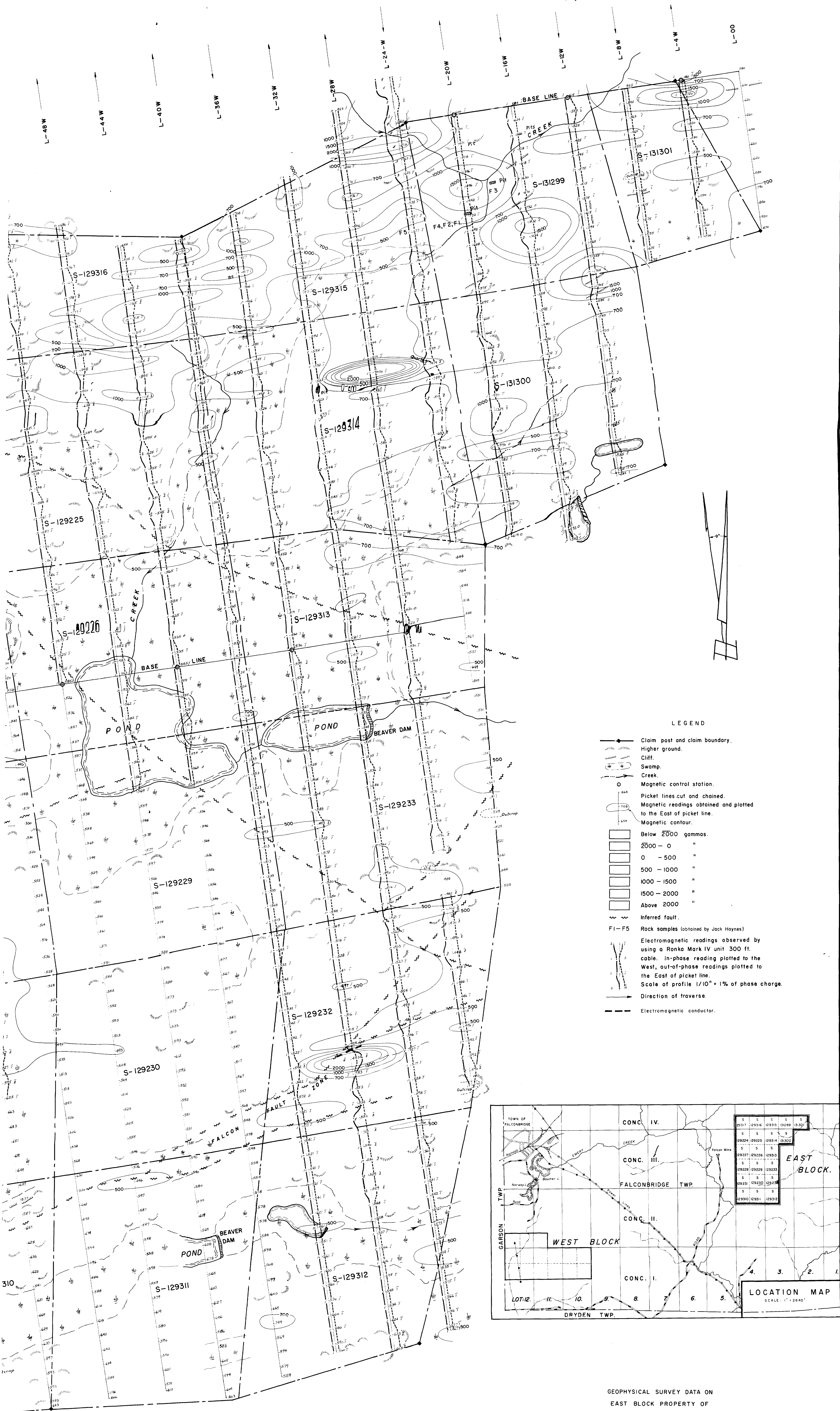
* Complete only if applicable

Complete list of names, addresses and dates on reverse side

SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
FALCONBRIDGE-0021-#1

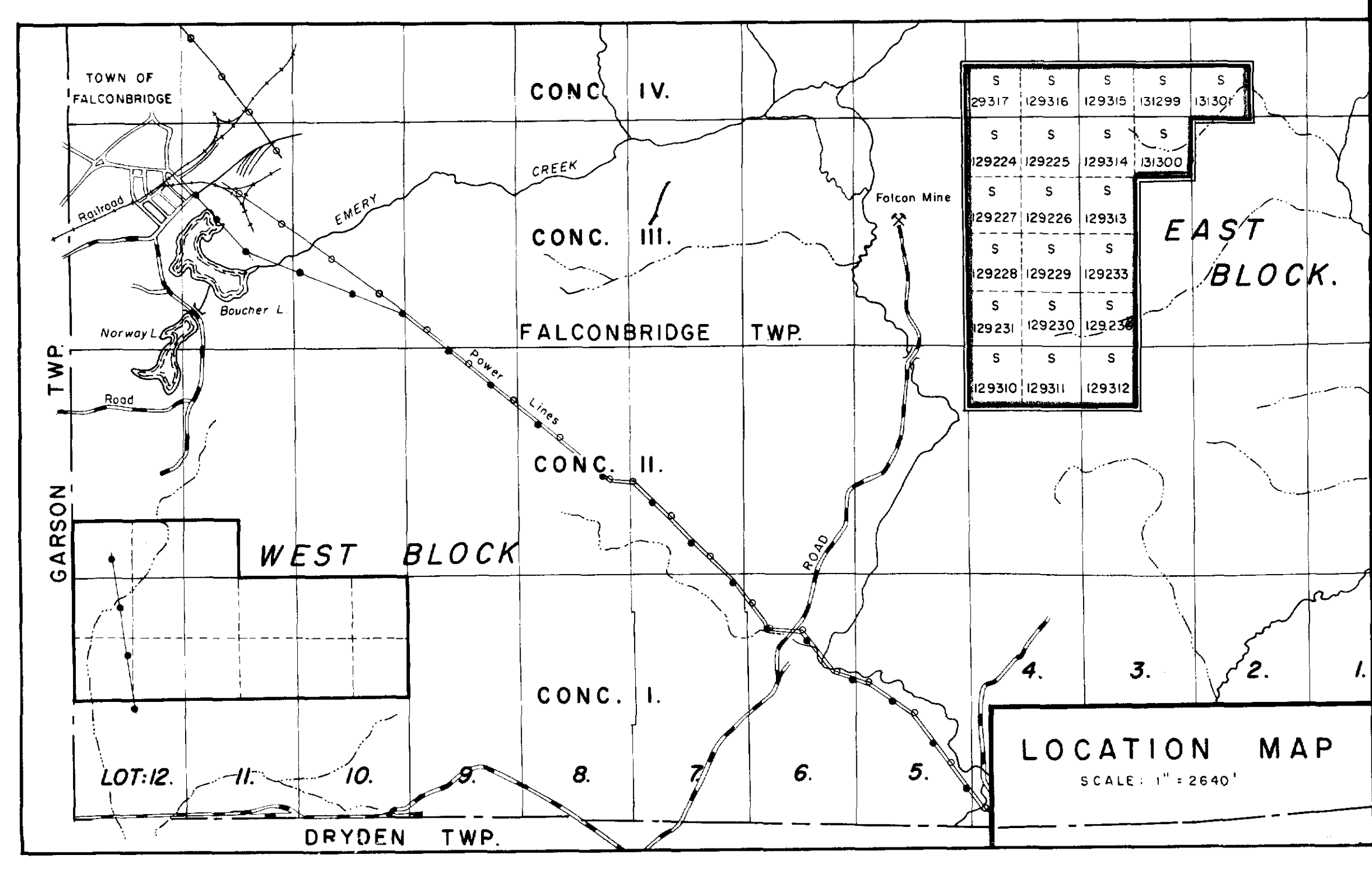
LOCATED IN THE MAP
CHANNEL IN THE FOLLOWING
SEQUENCE (X)





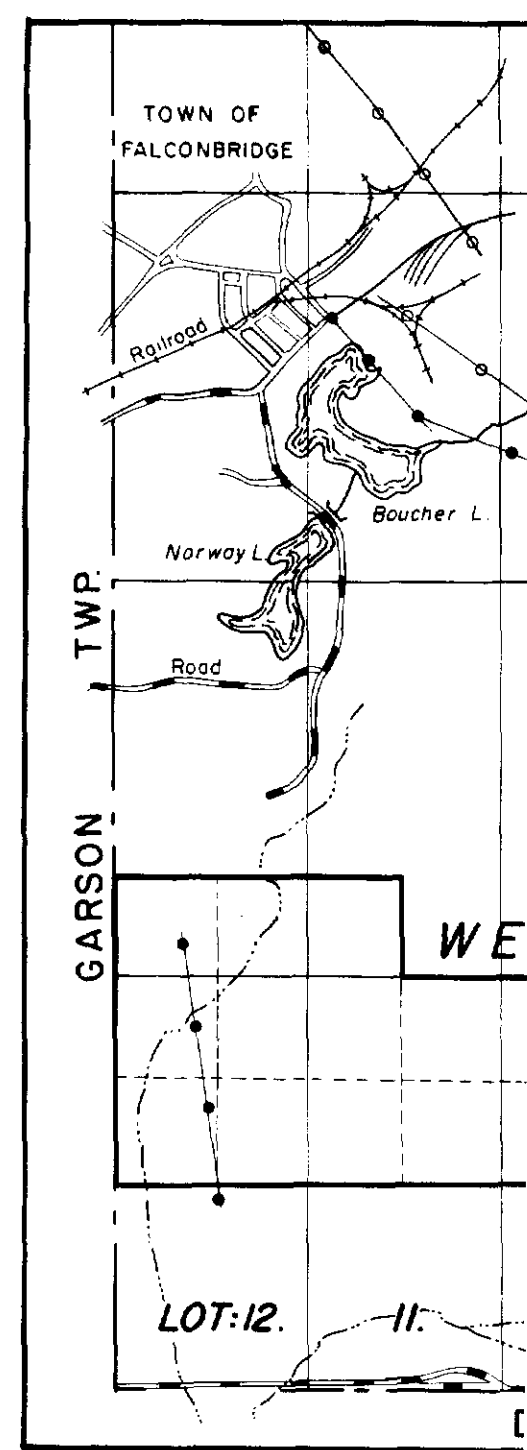
LEGEND

- Claim post and claim boundary.
- Higher ground.
- Cliff.
- Swamp.
- Creek.
- Magnetic control station.
- Picket lines cut and chained.
- Magnetic readings obtained and plotted to the East of picket line.
- Magnetic contour.
- Below 2000 gammas.
- 2000 - 0 "
- 0 - 500 "
- 500 - 1000 "
- 1000 - 1500 "
- 1500 - 2000 "
- Inferred fault.
- F1-F5 Rock samples (obtained by Jack Haynes)
- Electromagnetic conductor observed by using a Ronka Mark IV unit 300 ft. cable. In-phase reading plotted to the West, out-of-phase readings plotted to the East of picket line. Scale of profile 1/10" = 1% of phase change.
- Direction of traverse.
- Electromagnetic conductor.



GEOPHYSICAL SURVEY DATA ON
EAST BLOCK PROPERTY OF
MACKENZIE HILL MINES LIMITED
FALCONBRIDGE TOWNSHIP
SUDBURY MINING DIVISION, ONTARIO

SCALE: 1" = 200'
JANUARY 1966
Revised February 1966
CANA EXPLORATION CONSULTANTS LIMITED



MAI

FALCONBRIDGE-0021-#1

