



41105NW0015 0019A1 PORTER

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**REPORT ON
GEOPHYSICAL SURVEY**

CANA EXPLORATION CONSULTANTS LIMITED

**FOUR CLAIMS
PORTER TOWNSHIP
ONTARIO**

**Toronto, Ontario
July 17, 1968**

CANA EXPLORATION CONSULTANTS LIMITED



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Map: Four Claim Group
 Cana Exploration Consultants Limited
 Porter Township
 Sudbury District, Ontario
 Magnetometer and E. M. Surveys
 Scale: 1" = 200'

INTRODUCTION -

The four claims are part of 15 contiguous claims located at the corner of Porter, Dunlop and Vernon Townships, Sudbury Mining Division, Ontario. The claims were staked to cover a copper showing and a contacted zone between granites and sediments.

PROPERTY, LOCATION AND ACCESS -

The four claims covered by the geophysical survey are numbered S-141044, S-141045, S-141050, and S-141051, Porter Township.

The location is at about seven miles north of Agnew Lake.

Access was made by road to Agnew Lake, in Shakespeare Township, and then by boat for about five miles to a bush road at Spanish River which leads northeasterly for about two and a half miles to the property.

GEOLOGY -

Geological Map 2011, O. D. M., shows that all but the northwest corner of the four claims is covered by sediments which run north-northeasterly, parallel to a synclinal structure known as the Shiner Syncline. The sediments are middle quartzites, limey argillites, greywacke, siltstone and subgreywacke (Pre-Keweenaw). There are two more or less parallel northeasterly faults running across the four claims. The copper showing is located at the northwest part of the four claims.

The copper showing is described in Geological Report No. 5, 1967, O. D. M., as Copper Occurrence #1, with chalcopyrite and quartz stringers in the plane of a shear within greywacke. The shearing strikes north 36° east and is vertical. Small Z-dragfolds with vertical axes

contained concentrations of chalcopyrite in the nose of the folds. A grab sample of the sulphides taken by R. M. Ginn, government geologist, assayed 2.11% copper.

General geology of the area shows that the mineralized structure is parallel and within a large formation of sediments which strike east-northeasterly, differing from the general east-westerly structure of sediments and copper occurrence in the Agnew Lake-Iron Bridge Area. There are many occurrences of U_3O_8 bearing conglomerates located within Porter Township, but apparently none have been noted in the immediate area of the property and there is no evidence of exploration having been carried out for that purpose in this corner of Porter Township. The copper showing is believed to be located within a graben, a depressed tract of land caused by faults. The granite-sediment contact is largely not faulted. It follows that there is a possibility of having uranium-bearing conglomerate or quartzite near the contact under the sediments.

SURVEY DATA -

A base line was cut N. 30° E. across the west part of the property, with picket lines turned off at 400 foot intervals from this base line to cover the four claims. The picket lines were traversed by a magnetic survey, using a Fluxgate magnetometer, with 100 foot stations. The picket lines were also traversed by using a Ronka EM-16 instrument, using Transmitting Station NSS, with readings taken at 100 foot and

sometimes at 50 foot intervals. A total of 4.36 miles of lines were cut on these four claims, and 217 magnetic stations and 238 electromagnetic stations were established on the property. Details regarding the operating of the instruments, etc., are given on the appendix accompanying this report.

In the vicinity of the showing, preliminary prospecting was carried out to trace and blast the showing for sampling. A total of 20 rock samples was taken out for examination. Furthermore, an electromagnetic conductor encountered by the Ronka 16 was checked by using an SE-200 unit.

SURVEY RESULTS -

The magnetic survey encountered a magnetic zone directly to the northeast of the showing. The copper showing itself apparently has background readings. There are two small magnetic depressions, one at the north central part, and the other at the southwest part of the claim group. These could be associated with northeasterly faults in the sediments. The granite area, located at the northwest corner of the property, do not register high in magnetism.

The electromagnetic survey encountered no indication of an electromagnetic conductor at the showing, but there is a marginal indication on strike to the northeast at 25 feet southeast of Line 4 N. The electromagnetic survey encountered an electromagnetic conductor zone which appears to be running north-south in Claim S-101045. This

conductor zone has an indicated length of a claim, open to the south.

The in-phase changes were from as high as 42% to -47%, but with little out-of-phase indications.

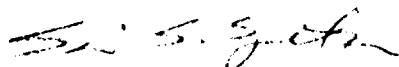
The SE-200 check survey obtained only marginal indications of the conductors. This could be due to the fact that the traverses were at about 30° to 45° from the axes of the conductor zone.

CONCLUSIONS AND RECOMMENDATIONS -

The survey did not encounter any interesting indication at the copper showing, but encountered a lengthy electromagnetic zone to the southwest. It is recommended that this electromagnetic zone be further checked and investigated by geochemical and/or other methods.

Respectfully submitted,

CANA EXPLORATION CONSULTANTS LIMITED



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

SSS:rk
Encl.

Toronto, Ontario
July 17, 1968.

Appendix - Details of Instruments, etc.

- (a) Type of instrument:- 1) Fluxgate MF-1 magnetometer, Serial #30536, manufactured by Sharpe Instruments of Canada Limited, Toronto.
- 2) Electromagnetic survey: Ronka EM-16, Serial #5, manufactured by Geonics Ltd., of Toronto; SE-200, Serial #455 TP, Sharpe Instruments of Canada Ltd., Toronto.
- (b) Specifications:- 1) Fluxgate MF-1 magnetometer - maximum sensitivity = 20 gammas on 1,000 gamma range; ranges \pm 1,000, 3,000, 10,000, 30,000, 100,000 gammas; batteries: 12 x 1.5 V flashlight "C" cells.
- 2) Ronka EM-16 - horizontal primary field from VLF transmitting station NSS, Annapolis, Maryland, freq. 21.4 kHz, selected by plug-in units; vertical measured field with in-phase and quadrature components with \pm 1% accuracy of readings, \pm 150% range of measurements for in-phase and \pm 40% for quadrature; null-detection by an earphone, real and quadrature components out-put read-out from mechanical dials; size 18 x 5.5 x 3.5 in.; receiver powered by six size AA penlight cells. Sharpe SE-200 - frequency 1250 c. p. s.; separation up to 500' \pm 2° (null); batteries: 2 x 6 volt #731 Eveready, 1 x 9 volt #216 Eveready.
- (c) Survey procedures:- For the Ronka EM-16 survey the proper transmitting station (NSS) was selected with coil parallel to the primary field. On all stations established on the ground, readings were taken with operator facing easterly along lines of the primary field. Both in-phase and out-of-phase readings were taken in percentage. For the SE-200 survey parallel line method was used.

For the magnetic survey, base-check method was used with the control stations established on various points on the property as shown on the plan for the calculation of values taken on all stations by the Fluxgate magnetometer.


- (d) Data presentation is described on the plan plotted to a scale: 1" = 200'. Magnetic readings taken and calculated are given on the north side of each station. In-phase EM readings are plotted to the south, and out-of-phase readings plotted to the north of each station. Dip angles detected by the SE-200 survey are plotted further to the south of the in-phase readings.

Magnetic contours are given at 200 gamma intervals when over zero and electromagnetic profiles are plotted at a scale: 1/10" = 4% phase change.

NOTES

face rights reservation along the shores of all
nd rivers.

ision of this township into lots and conce-
has been annulled with the exception of
on.1, lot 2 con.1, and lot 1 con.2.









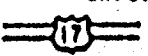
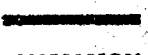
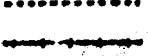
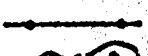


designated thus  lies within the limits
P.L.A. 69 for Surface Rights Only.

DUNLOP TP. M-771

281540	281538	281536	192089	192088
281541	281539	281537	192071	192067
281542	281544	281542	192064	192065
281547	281545	281543	192061	192062

Cons. E. of ...

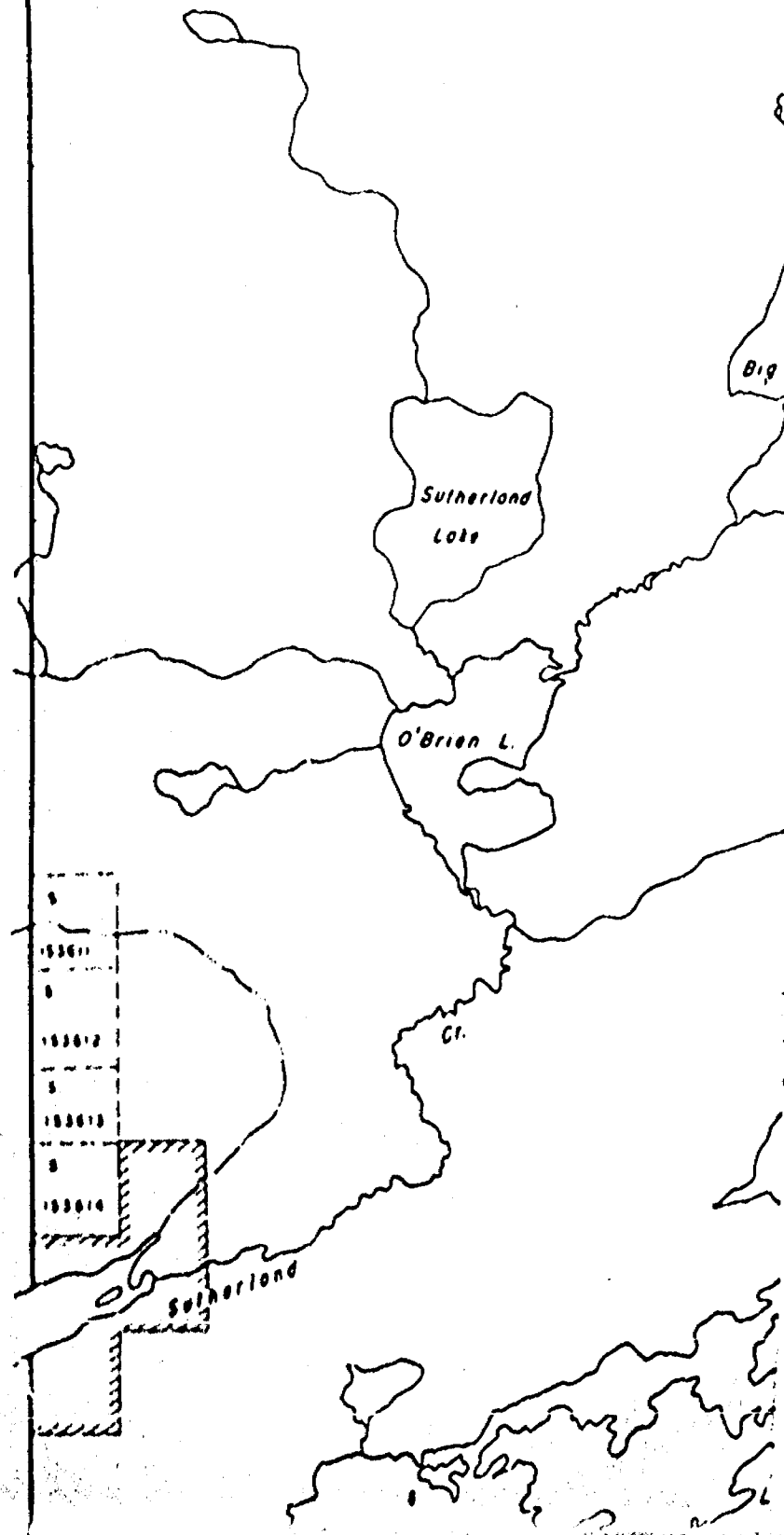
LEGEND

- UNDEVELOPED LAND 
 - RESERVED FOR SURFACE RIGHTS ONLY 
 - RESERVED FOR OCCUPATION 
 - RESERVED FOR LAND SALES 
 - RESERVED LAND 
 - RESERVED 
 - RESERVED RIGHTS ONLY 
 - RESERVED SURFACE RIGHTS ONLY 
 - WAY & ROUTE NO. 
 - RAILROADS 
 - WATERWAYS 
 - POWER LINES 
 - SHORE OR MUSKEG 
 - SETBACKS 
- Use only with summer resort locations or when space is limited

TOWNSHIP OF

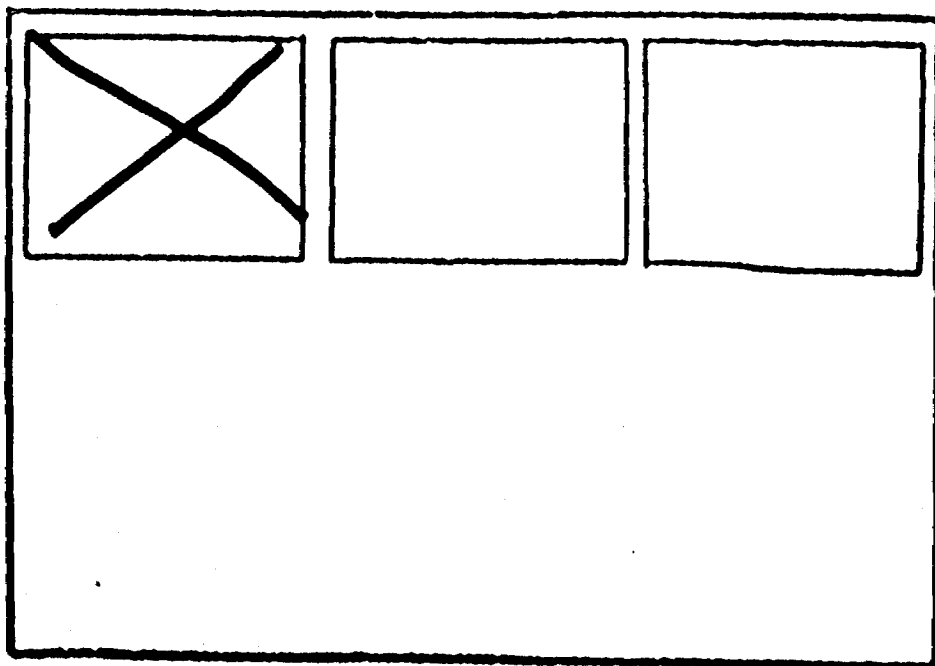
PORTER

1" = 40 CH
DISTRICT OF
SUDBURY
SUDBURY
MINING DIVISION



SEE ACCOMPANYING
MAP(S) IDENTIFIED AS
PORTER-0019-A1-#1

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

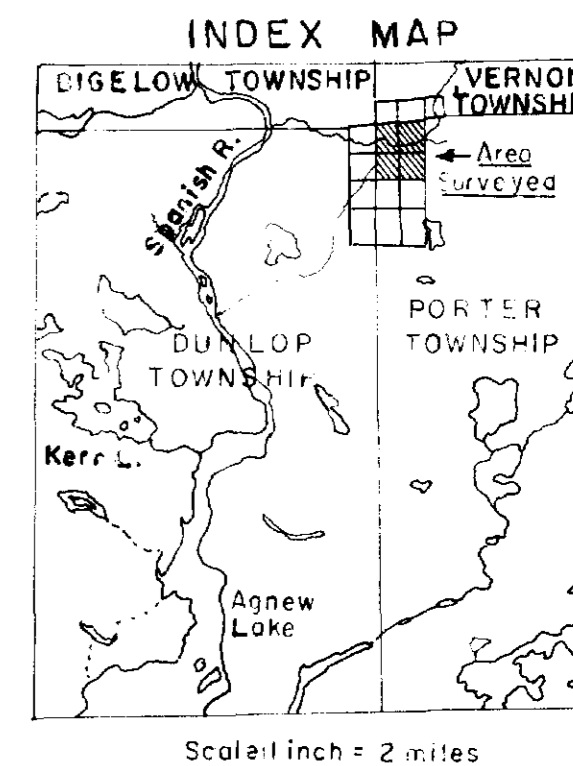


BIGELOW
TOWNSHIP

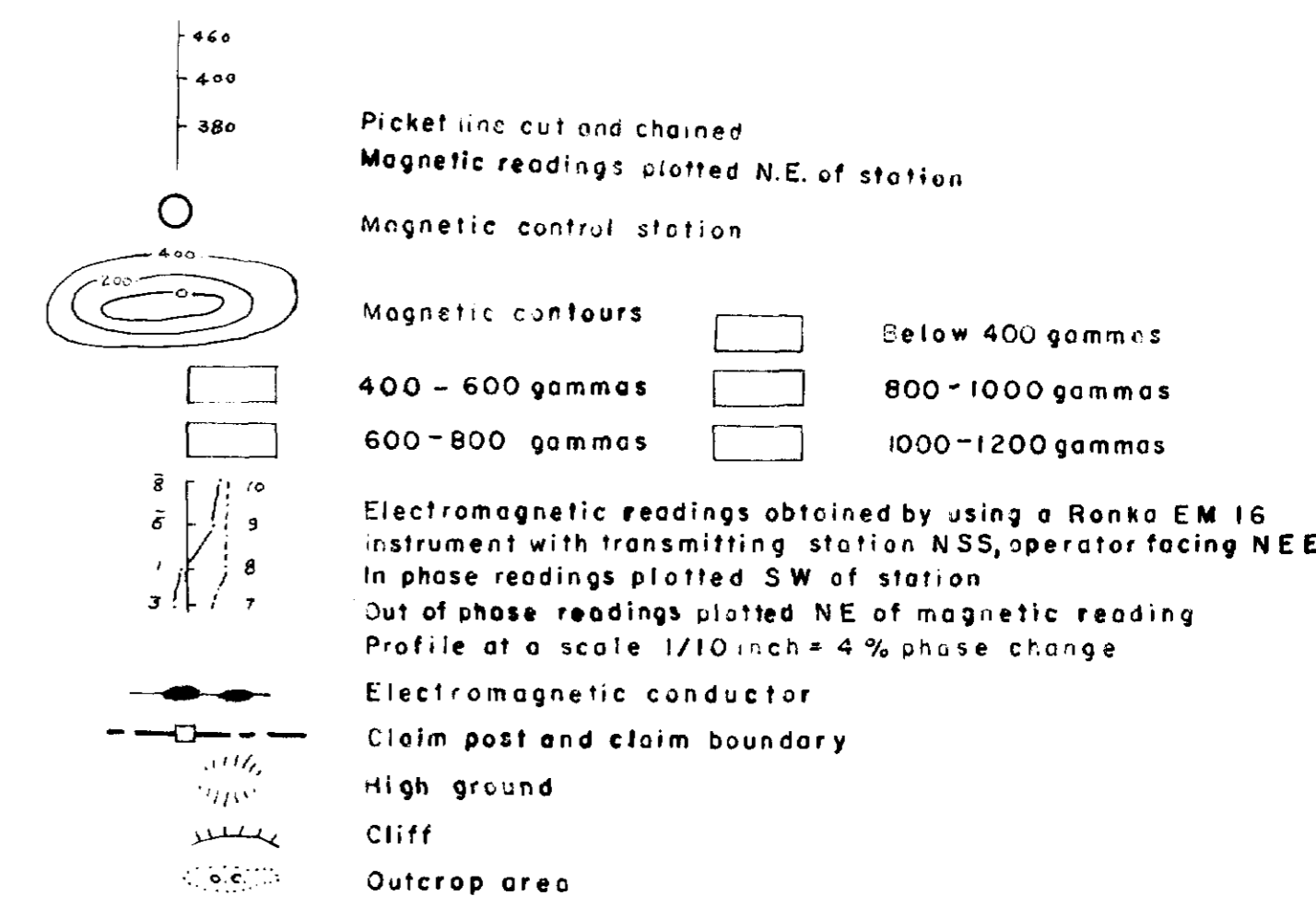
VERNON TOWNSHIP

DUNLOP
TOWNSHIP

PORTER
TOWNSHIP



LEGEND



FOUR CLAIM GROUP

PORTER TOWNSHIP, SUBURRY DISTRICT, ONTARIO

CANA EXPLORATION CONSULTANTS LTD.

MAGNETOMETER AND E.M. SURVEYS

SCALE : 1 INCH = 200 FEET

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