REPORT ON

TOOMS TOWNSHIP PROPERTY

ONTARIO

BY

CANEX AERIAL EXPLORATION LTD.

Toronto
June, 1972.

ABSTRACT

During the months of May and June, 1972, about 19 miles of line were cut on a claim group in Tooms and Greenlaw Townships, about 10 miles north of Kormak, Ontario. This allowed detailed geological mapping of the area. Magnetometer and E.M.16 surveys were also conducted. The area proved to be underlain mainly by intermediate-basic volcanics with minor tuffaceous, acid volcanic and sedimentary horizons. These volcanic rocks were found to be intruded by granitic and ultramafic magmas.

INTRODUCTION

Location:

The claim group in which the various surveys were conducted is situated about ten miles north of Kormak, Ontarion in the Townships of Tooms and Greenlaw. It is also about 1½ miles from Betty Lake. The baseline, 2 miles in length, runs east-west one mile within Tooms Township and one mile within Greenlaw Township. Twenty-six 4000-foot lines at 400 foot spacing between each line were cut from the baseline.

Means of Access:

The easiest means of reaching the grid is by use of the private road of Kormak Lumber running north from Kormak to Betty Lake. This road is usually in good condition after the spring runoff has dried up. Other old roads make accessibility to most parts of the grid easy. The nearest lake that could be used by plane would be Betty Lake which is about 2 miles to the north of the grid.

Previous Work:

The only recorded work on the property was that done by Tooms Nickel Syndicate in 1967. At this time a grid was cut and geophysical surveys were carried out. This resulted in the drilling of nine holes on various parts of the grid, and considerable trenching.

Topography:

The area over which the grid extends consists of about 60% swamp and the rest is sandy overburden. A few eskers or sand dunes, as well as terminal morains were present. South of Sylvanite Creek, that traverses the southern portion of the grid, is a gentle uplands. It was in this area most of the outcroppings were found.

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Methods Employed:

Some 18-19 miles of previous grid (1967) were cleaned and mapping, 1" = 200', was carried out along and between the lines. A magnetometer survey using an MF-1 was done with considerable detailing. An EM.16 survey using 50-foot spacings was also carried out.

SUMMARY

It appears from preliminary work done to date that the area under study does have economic potential both for Ni and Cu-Zn. The area consists of intermediate to basic volcanic, but does contain at least one mineralized tuffaceous horizon that appears to be quite extensive. This volcanic sequence mentioned above is intruded by nickeliferous peridotite and dunite that exhibit a wide range of alteration from serpentinization to talcous, the latter indicating temperatures about 500°C. This temperature is high enough to enable the migration of sulphide forming minerals to favourable area of deposition.

A complete interpretation of the geophysical aspects of the property has not as yet been done, but there are some anomalies that have both magnetic and conductive components. The best example of that is the anomaly on L20E around 14N where one finds a very strong magnetic peak associated with a fairly strong conductor. This anomaly has not been drilled so it should be considered very carefully.

contd. ...

TABLE OF FORMATIONS

(Modified from the O.D.M. Reports)

Cenozoic

Recent and Pleistocene

Swamp accumulations, clay, gravel, sand, boulders, eskers and morains.

Unconformity

Precambrian

Intrusive Rocks

Intermediate to Ultrabasic Rocks

6 quartz diorite
6a peridotite and dunite

Granitic Rocks

5 granite
5a quartz-feldspar porphyry
5b Lamprphyre Dikes

Intrusive Contact

Intermediate-Basic Volcanic Rocks

4 andesite
4a diorite and/or meta-andesite
4b tuff, siliceous and basic
4c basalt
4d chlorite schist
4e volcanic breccia

Conformable Contact ??

Sedimentary Rocks

3 metasediments
2 iron formation

Acid Volcanic Rocks

1 rhyolite and dacite

contd. ...

GEOLOGY

General: The area studied was lacking in numerous outcrops so the geology remains somewhat vague. From the available information it appears that most of the area is underlain by intermediate-basic volcanic with minor horizons of tuffaceous and sedimentary rocks. This volcanic sequence is intruded by both granitic and ultramafic magmas. The major structural trend in the area is a dominant east-west schistosity and foliation.

ROCK TYPES

Acid Volcanic Rocks

1 Rhyolite - Very little true rhyolite was observed on the property. To the east of L72E was a small band of pink-white, massive rhyolite. This outcrop occurred with numerous other volcanic rocks in close contact. Fragments of this same rock was found nearby in a fragmental rock. Associated with the fragments is usually considerable calcite with traces of chalcopyrite.

Rhyolite also occurs along with tuffaceous and dacitic rocks mapped near the baseline between L4W and L0. This rhyolite is dull grey, massive and mineralized with pyrite, pyrrhotite and traces of chalcopyrite. Due to its sulphide content it is usually deeply weathered and forms a gossan zone. A light brown alteration, occurring as blebs was common in mineralized rhyolite. Rhyolite buff grey to white was often present in the drill core examined.

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1 Dacite - An uncommon rock type, restricted to a narrow east-west zone near the baseline between L4W and LO. This rock unit is generally fine-medium grained, greenish, hard, massive. It often contains lensoid bodies of tuffaceous material, especially near the dacite andesite contact. This contact was observed in several places and proved to be quite gradational with the decrease of quartz towards the andesite and also the increase of femic minerals. Alteration of the dacite was mainly chloritization with minor carbonatization and introduction of secondary silica. Sulphide content up to 2-3% was not uncommon and was composed of pyrite, pyrrhotite with traces of chalcopyrite. The contact between dacite and rhyolite was observed to be gradational with a rhyodacitic phase being an intermediate between the two. Sulphide content was greater in the more siliceous phases of the dacite-rhyolite sequence.

Sedimentary Rocks

2 Iron Formation - To the northwest of the property exists several outcrops of a sedimentary iron formation. This iron formation consists of limonite stained basic and acidic volcanics, pyrite rich layers and also cherty and tuffaceous layers. Siderite (iron carbonate) was abundant along with minor magnetite. It was found that the magnetic content was not great enough to enable the tracing of this unit with the magnetometer. The contact with the andesitic rocks was observed to be gradational.

3 Metasediments - Rocks of sedimentary nature were found in outcrop in the southeast sector of the grid and consisted of interbedded shales, greywackes and tuffaceous material as well as thin volcanic flows. The bedding was preserved but highly contorted and stretched, but follows the regional east-west trend with steep dip.

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Foliation associated with chloritization is very common. It is so strong in places that a chlorite schist has been developed. Traces of pyrite were occasionally seen. This sedimentary-volcanic sequence has a gradational contact with the overlying andesitic rock.

Minor sedimentary phases were observed in the drill core examined, associated with tuff. Most of these (sediments) have been altered to chlorite schists and/or graphite.

Intermediate-Basic Volcanics

4 Andesites are the most common rock type in the area and range from massive to schistose. Pillows were observed in only one outcrop at L16E - 14S. Colour varies from grey to dark green with the green more common in the schistose chloritized rock. Grain size varies from fine to coarse.

Alteration is commonly limited to chloritization of the hornblende and other mafics and saussuritization of the feldspar. Carbonatization is also common.

4a Diorite and/or Meta-andesite - The coarser grained andesites have a dioritic texture. Whether or not these rocks are intrusions or simply the central portion of a basic volcanic flow was not determined.

4b Tuff - Tuffaceous rocks were observed in two distinct environments; (1) In the southern part of the grid, as small layers generally less than 1-inch in a sedimentary volcanic sequence that is exposed in numerous outcrops. The tuff varies from very siliceous, buff grey in colour to a basic, greenish almost black rock. Generally a considerable amount of chloritization has taken place in the more mafic layers of the tuff. Seldom is there any evidence of mineralization. Where it is present, it is usually associated with $CaCO_3$ in the more siliceous tuff.

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The only sulphide encountered was pyrite. (2) Within a purely volcanic sequence near the baseline (L4W-LO) is a horizon of tuffaceous material with an average width of 15-20 feet. This horizon varies from a very siliceous phase to the north and grades into a basic tuff to the south. This sequence is repeated in outcrop and in drill core. The tuff, both siliceous and basic are fine to medium grained with bedding laminations well preserved. Fragments of mafic material less than 1-inch is common in the more siliceous tuff with their concentration becoming greater towards the basic tuff. The siliceous tuff is buff grey to greenish, hard, massive, with laminations only visible on weathered surface. The basic tuff is grey to black in colour, and more strongly foliated than the siliceous tuff. Calcite is more abundant as the tuff becomes more basic. Mineralization in the siliceous tuff is mainly pyrite, pyrrhotite with traces of chalcopyrite. The sulphide mineralogy of the basic tuff is different, showing an increase in pyrrhotite and chalcopyrite with respect to pyrite. Bedding and foliation are coincident and strike nearly east-west with a steep dip to the south. As previously mentioned similar rock types were encountered in many of the holes drilled in 1967.

4c Basalt - Subordinate to andesite in volume on the grid, it was only observed in two places, at the south end of L44 and to the east on L64E. In both places the rock was greenish black and highly chloritized. The outcrop at L44E was slightly foliated in an east-west direction and contained minor $CaCO_3$ and trace pyrite. The outcrop to the east of L64 was more strongly foliated and contained numerous calcite veins. Trace quantities of pyrite, pyrrhotite and also chalcopyrite were present.

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4d Chlorite Schist - Adjacent to the intrusions is usually a chlorite schist. Near, but not adjacent to the granitic and porphyritic intrusion the andesite is recrystallized.

4e Volcanic Breccia was only found in one outcrop and this was to the east of L72E or about 6N L76E. At this location white and pink fragments were found in a highly chloritic matrix..To the north the fragment size is small and there is considerable numbers of them but to the south on the same outcrop the number of fragments decreases but the size increases. The pyroclastic material is in contact with rhyolite to the south and andesite to the north. Of interest was the abundance of calcite stringers within the rock, often containing traces of chalcopyrite.

Intrusive Rocks

5 Granite - Numerous outcrops of granite and quartz monzonite were observed to the south on the property. These granitic bodies were commonly pink to grey in colour, equigranular and medium grained. Quartz and feldspar were the main constituents with minor hornblende and biotite. The granite on several occassions had a strongly developed gneissosity which roughly paralleled the attitude of the volcanic rocks it intruded. The granite-volcanic contact was observed in several places and proved to be sharp, interfingering, with a narrow (2-8 ft.) zone of intense chloritization. Recrystallization of andesite was observed further away from the contact.

5a Quartz-Feldspar Porphyry - A few outcrops of a quartz feldspar porphyry were observed near the granitic bodies to the south. These dike rocks are probably related closely to the granitic intrusion. These dikes were narrow, about 10-15 feet wide, and could not be traced for any distance along strike.

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It varies from a near massive reddish rock with a few quartz phenos and feldspar phenos. The overall colour of these rocks were pinkish to greyish. The strike of these dikes was nearly east-west. Only one contact was observed and this was very similar to that of the granite contact. Traces of pyrite were found in some samples examined.

5b Lamprophyre Dikes - Indication of this rock was only evident in the drill core where small dikes of coarse grained, black biotite lamprophyre were observed. Traces of pyrite were rarely seen.

6 Quartz Diorite - A few scattered outcroppings of a rock of composition near that of quartz diorite were found in the southern part of the grid. This rock is unaltered, equigranular, medium grained and dark in colour. The content of magnetite is high, about 1%, and this enables it to be traced with magnetics. Due to its size and fresh appearance it was classified as dike rock.

6a Peridotite and Dunite - Several outcrops of peridotite and dunite were observed and others were inferred from magnetics. The rock varies considerably in composition but in most cases is on the border line between a peridotite and dunite but for simplicity only the term peridotite will be used. The outcrops examined were mostly dense, equigranular in texture and dark greenish black in colour. Most samples were highly serpentinized and this partially destroyed the equigranular, ophitic texture. Magnetite content averaged about 5% to 10% within most samples examined. Traces of pyrite and pyrrhotite were found in most outcrops. Positive nickel reaction was obtained on several samples. Veinlets up to 3/4" of coarse cross fibre asbestos and picrolite were found in an outcrop just west of L64E. Near zones of tectonic stresses, i.e. faults, the rock becomes almost massive serpentinite with flecks of magnetite present indicating that the original rock was an ultrabasic.

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Peridotite examined in core was generally highly altered to talc and iron carbonate. This type of alteration can only be verified for the peridotite at L4E and the one at L16E and L20E north side of the baseline. Initial analysis of these peridotites indicate that they are high in nickel content. Further sampling was done on these bodies.

STRUCTURAL GEOLOGY

Folds

From general observation it appeared that the property is situated on a steeply dipping, overturned north limb of an anticlinal structure, with an east-west axis plunging to the east at about 40°.

Small drag folds of limited extent were observed in several places but were more prominent in the sedimentary and tuffaceous rocks.

Faults

Only one major fault was observed in the field running east-west at 10N on L64E. This fault was also indicated by the E.M. and magnetic survey. Movement was east-west at about 30° from vertical, determined by slickensides. Minor faults with very limited movement were found near the baseline at L0. These had a north-south strike with vertical dip. A major fault about 700 ft. horizontal displacement with a north-south strike was inferred by displacement of a magnetic high between L0 and L4E. Physical evidence was indicated by minor movement along north-south joints and small faults in outcrops near L0 at the baseline.

Joints

One prominent pattern of joints was evident in most outcrops with a north-south strike and nearly vertical dip. Also a weak east-west joint pattern was observed.

contd. ...

Schistosity

Strongly developed in most volcanic and sedimentary rocks observed, the schistosity nearly parallels the bedding and layering of these sequences. The strike is a dominate east-west direction with near vertical dip. This schistosity is attributed to recrystallization within the rock and the development of platy minerals such as chlorite.

Lineation

Mineral lineation was observed in the tuffaceous horizons examined and these lineations generally plunged to the east at about 40°. Bedding and cleavage intersections were not observed as cleavage commonly parallel bedding.

Pillow Structures

Only one outcrop with pillow structures was observed, at 14S-L16E. The outer rims of these pillows were highly chloritized so were quite obvious on a weathered surface. These pillows were stretched in an east-west direction but were preserved enough to indicate top to the north.

GEOPHYSICAL RESULTS

Magnetics: From the magnetic survey carried out with an MF.1 magnetometer, 5 distinct magnetic anomalies were located and are listed below.

Anomaly	Location	Intensity in Gammas
#1	L12W-BL	≈ 6,000
#2	L0-10N	≈ 13,000
#3	L4E-2N	≈ 15,000
#4	L20E-14N-15N	≈ 30,000
#5	L72E-6N	≈ 12,000

contd. ...

Anomaly #1

Possesses a very broad magnetic high, of not an intense nature, i.e. only 6,000 gammas. Due to these features and its broad, evenly spaced contours it could be an ultramafic body covered by a considerable depth of overburden.

Anomaly #2

Has a contourable high of about 13,000 gammas, and is probabaly a small lensoid body of peridotite or dunite with a slight dip to the south.

Anomaly #3

As Anomaly #3 is very similar to above in shape and intensity the indication is that a north-south fault may exist between L0-L4E displacing Anomaly #2 & #3 relative to each other.

Anomaly #4

Is a large magnetic high due to an underlying altered peridotite (results of drilling). This anomaly has its high around 15N on L20E of over 30,000 gammas. From magnetics the dip of the body is presumed to be towards the south. A drill hole was completed in 1967 but the mag. high was not drilled as the hole was collared on line 16E.

Anomaly #5

Is a large (size) magnetic high due to an ultramafic body, peridotite or dunite. Magnetic reversals were evident within this high. Dip was again towards the south.

Of interest also is the magnetic low near the Cu-Ni showing between L4S and L0 at the baseline. This is probably a magnetic reversal phenomenon. A quartz diorite dike trending NE-SW in the south part of the grid was easily traced by using magnetic information.

EM.16 Filtered Inphase Data

An EM.16 survey with 50 foot station spacings was carried out, simultaneously with the magnetic survey. The inphase data was recorded in degrees tilt and this allowed filtering of the data by a method introduced by Fraser, D.C. 1969. Below is a brief discussion of the results obtained.

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Anomaly #1 has a high of 42 at 3+25'S on L8W. The extent of this anomaly is approximately from L16W — L8E 2400' with contourable width about 225 feet (2+50S — 4+75'S).

Anomaly #2 developed a high of 38 at L16E, 19+75S within a strong E-W trend which extends from L12E - L20E with a continuing extension to L40E. Contoured width is, on the average, about 150'. This conductive zone parallels the topographical high of the area and there may be a relationship between the two.

Anomaly #3 reached a high of 34 at 13+75'N on L20E and trends in an east-west direction from about L41E - L21E with a width of 150'. This conductor coincides with a magnetic expression.

Anomaly #4 has a high of 25 at 4+25N on L52E, trends NW-SE from L48E - 56E. Has contourable width of 150'.

Anomaly #5 attained a high of 16 at 7+75N on L68E, trends E-W from L64E - L72E with contourable width about 100 feet. This response is most likely due to the fault that was observed on L64E.

ECONOMIC GEOLOGY

The geological environment of the area examined appears to be favourable for economic distribution of sulphides. An added attraction is its twofold diversity, that is geochemically favourable (nickeliferous) peridotites and dunite, and an interesting mineralized tuffaceous horizon that contains copper and nickel.

contd. ...

Nickel: Aside from the fact that the ultrabasic rock contains interesting nickel values, nickel is also present within the tuffaceous horizons along with copper-zinc mineralization. An explanation for this has not as yet been offered but due to the low concentration of nickel in the ultrabasic rock near the tuffaceous horizon it is logical to assume that the nickel was mesothermally derived from the ultrabasic rock, probably during intrusion.

Copper-Zinc: Copper in the form of chalcopyrite was found along with nickel and traces of zinc within the tuffaceous horizon exposed by trenches and drill core. The average width of this horizon determined from exposures is about 20' with an undetermined strike length. If the horizon intersected by drilling on L32W is the same as that which outcrops on L0, and this is a feasible assumption as it is supported geologically, then the strike length is at least 3200 feet and makes magnetic Anomaly #1 very interesting.

RECOMMENDATIONS

From the work carried out this season it would appear that further work should be done. This additional work would have as its main objective the pinpointing of the EM.16 conductors. Due to the sensitivity of the EM.16 to topography and swampy terrain a less sensitive, dual frequency, E.M. unit, preferably a horizontal loop system, may successfully be employed.

The possibility of using I.P. over the ultrabasic should also be considered, swampy conditions along with overburden may hinder its feasibility.

contd. ...

If the conductors are reproduced and are encouraging with a more elaborate E.M. system, then drilling would certainly be warranted.

Regionally: One of the aims of this project would be to determine the extent of the mineralized tuffaceous horizon that runs SW off our property. Possibly the most feasible method of doing this would be by airborne geophysics over the area to the SW of our property including over the acidic volcanic mapped by the O.D.M.

Respectfully Submitted

D. Daniel Davidson

DDD/of

D. Daniel Davidson
B.Sc. Geologist

File 2.1109

41010NW0025 2.1109 GREENLAW

900

RECEIVED

JAN 2 1973

PROJECTS SECTION

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: Magnetometer, E.M., Geology

Township or Area: Tooms & Greenlaw

Claim holder(s): Canex Aerial Exploration Ltd.,
2600, 401 Bay Street, Toronto, Ontario.

Author of Report: D. Davidson, B.Sc. Geologist

Address: 2600,401 Bay Street, Toronto, Ontario.

Covering Dates of Survey: May 16 - June 16, 1972
(linecutting to office)

Total Miles of Line cut: 23.0

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

Geophysical	DAYS per claim
--Electromagnetic	20
--Magnetometer	20
--Radiometric	
--Other	
Geological	40
Geochemical	

except

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

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

DATE: Dec 21st/72 SIGNATURE: D. Daniel Davidson
Author of Report or Agent

PROJECTS SECTION

Res. Geol. ______ Qualifications On this file

Previous Surveys L D

Checked by ______ date ______

GEOLOGICAL BRANCH ______

Approved by ______ date ______

GEOLOGICAL BRANCH ______

Approved by ______ date ______

OFFICE USE ONLY

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
S.	333351
S.	333352
S.	333353
S.	333356
S.	333357
S.	333358
S.	333359
S.	333360
S.	333361
S.	333366
S.	333369
S.	333370
S.	333371
S.	333372
S.	333373
S.	333375

½ covered
10 EM
10 Mag
20 Geological
for these two claims
OJ

If space insufficient, attach list

TOTAL CLAIMS 16

Show instrument technical data in each space for type of survey submitted or indicate "not applicable"

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations Mag.1219, E.M.1081 Number of Readings Mag.1425, E.M. 1943

Station interval 100' closing to 25' on mag. highs, E.M. 50'

Line spacing 400' with some 200' lines for magnetometer

Profile scale or Contour intervals Mag. 500 gammas, E.M. 1" 40%
(specify for each type of survey)

MAGNETIC

Instrument Sharpe MF-1 Fluxgate Magnetometer

Accuracy - Scale constant 20 gammas on the 1000' gamma range

Diurnal correction method Daily corrections tying into B.S. at 1-2 hour intervals.

Base station location Along base line at approximately 1200' intervals. Base station established using the "leap frog" method.

ELECTROMAGNETIC

Instrument Geonics EM.16

Coil configuration One vertical and one horizontal

Coil separation

Accuracy ± 1% resolution

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

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

Parameters measured Vertical field - In Phase & Quadrature Components

GRAVITY

Instrument "Not Applicable"

Scale constant

Corrections made

Base station value and location

Elevation accuracy

INDUCED POLARIZATION -- RESISTIVITY

Instrument "Not Applicable"

Time domain Frequency domain

Frequency Range

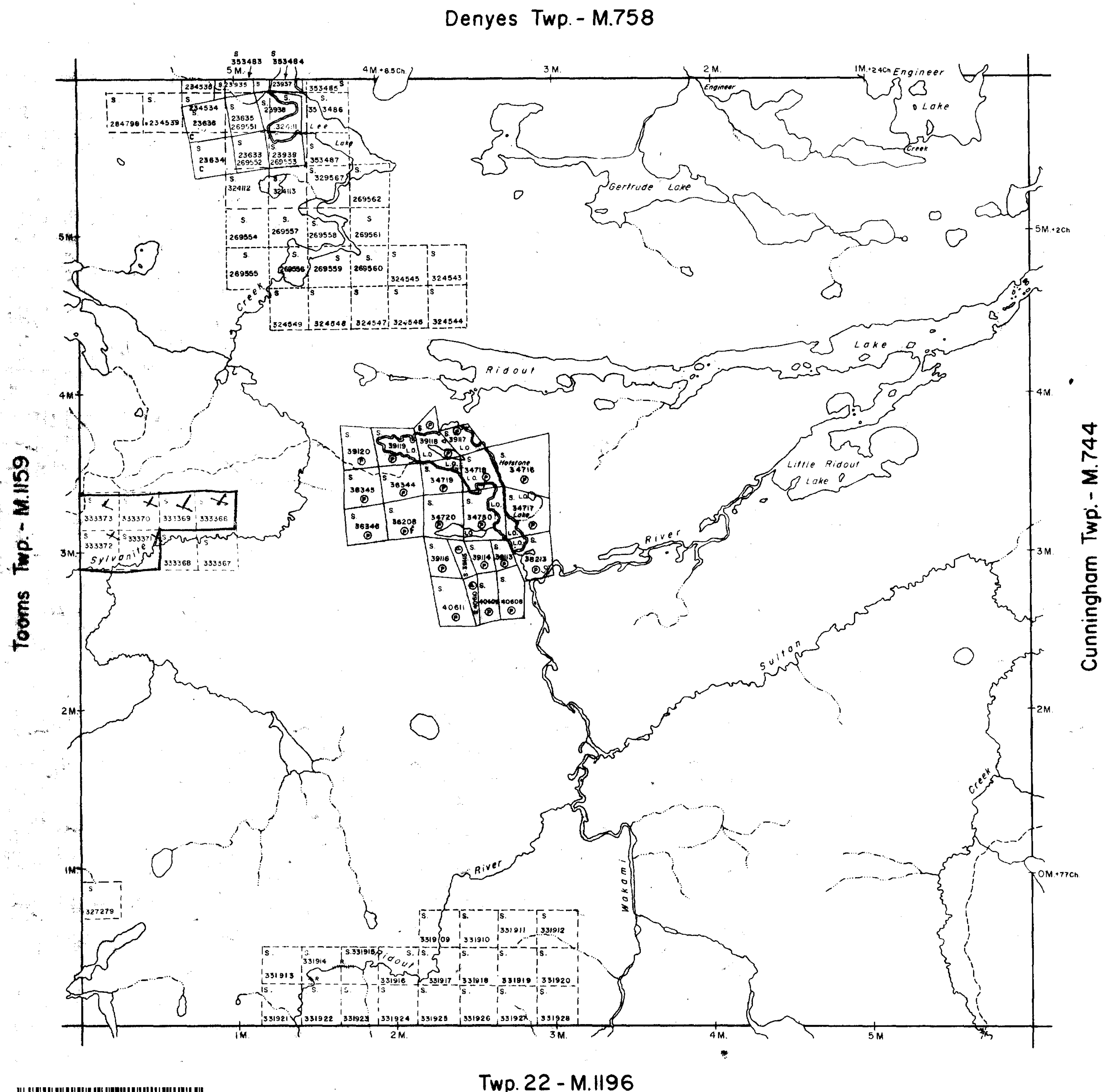
Power

Electrode array

Electrode spacing

Type of electrode

2.1109



THE TOWNSHIP OF

GREENLAW

DISTRICT OF SUDBURY

SUDBURY MINING DIVISION

SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	P
CROWN LAND SALE	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	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C.

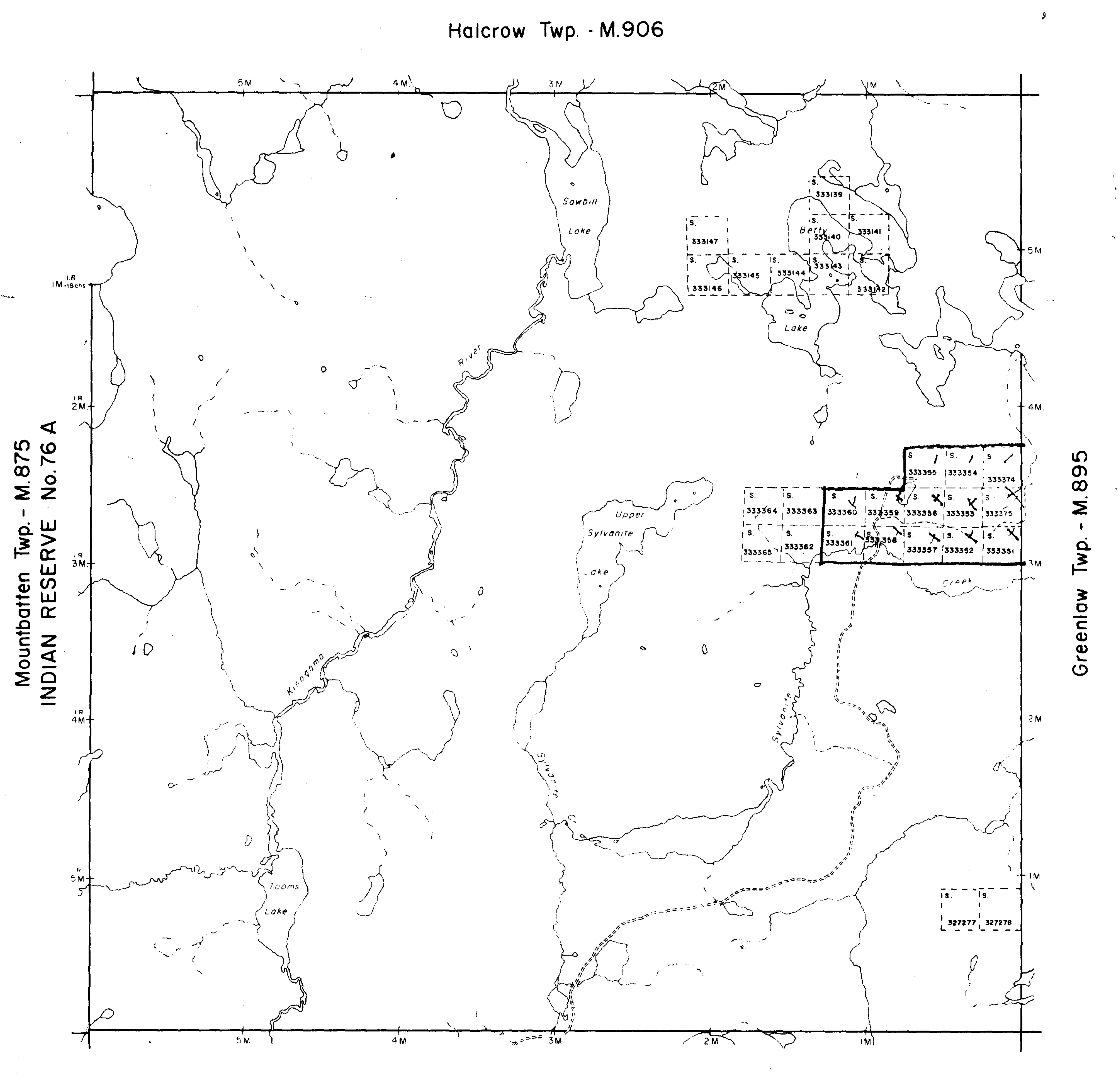
NOTES

400' Surface Rights Reservation around all lakes and rivers.

PLAN NO. M.895

ONTARIO DEPARTMENT OF MINES AND NORTHERN AFFAIRS

2.1109



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THE TOWNSHIP OF

TOOMS

DISTRICT OF
SUDBURY

SUDBURY
MINING DIVISION

SCALE: 1-INCH 40 CHAINS

LEGEND

PATENTED LAND	(P)
CROWN LAND SALE	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	
KING'S HIGHWAYS	
RAILWAYS	
POWER LINES	
MARSH OR MUSKEG	
MINES	
CANCELLED	C

NOTES

400' Surface Rights Reservation around all lakes and rivers.

• MINING LANDS •
DATE OF ISSUE
JAN 5 1973
MINISTRY
OF NATURAL RESOURCES

Geological
Magnetometer
Electromagnet

PLAN NO. **M.1159**

ONTARIO
DEPARTMENT OF MINES
AND NORTHERN AFFAIRS

LEGEND

TABLE OF FORMATIONS (modified from O.D.M. reports)

CENOZOIC

RECENT & PLEISOCENE

Swamp accumulations, clay, gravel, sand, boulders, eskers & moraines.

Unconformity

PRECAMBRIAN

INTRUSIVE ROCKS

Intermediate to Ultrabasic rocks

- 6 — Quartz diorite
- 6a — Peridotite & dunite

GRANITIC ROCKS

- 5 — Granite
- 5a — Quartz-feldspar porphyry

Intrusive Contact

INTERMEDIATE - BASIC VOLCANIC ROCKS

- 4 — Andesite
- 4a — Diorite &/or meta andesite
- 4b — Tuff, siliceous & basic
- 4c — Basalt
- 4d — Chlorite schist
- 4e — Volcanic breccia

Conformable Contact ?

SEDIMENTARY ROCKS

- 3 — Metasediments
- 2 — Iron formation

ACID VOLCANIC ROCKS

- 1. — Rhyolite & dacite

SYMBOLS

- .... Lakeshore
- ... Creek
- ... Swamp
- <<<<<< ... Esker or sand dune
- ...... Terminal moraine
- ... Road
- Claim post and boundary
- Diamond drill hole (Tooms Nickel Syndicate 1967 - Holes 1-9 incl.)
- Geological contact - observed, interpreted
- , X .... Outcrop
- Δ Δ .... Float
- ... Bedding - vertical, inclined, top indication
- .... Foliation - vertical, inclined
- .... Lineation
- ... Fault

ABBREVIATIONS

- c ..... carbonatization
- .... pyrite
- .... pyrrhotite
- .... chalcopyrite

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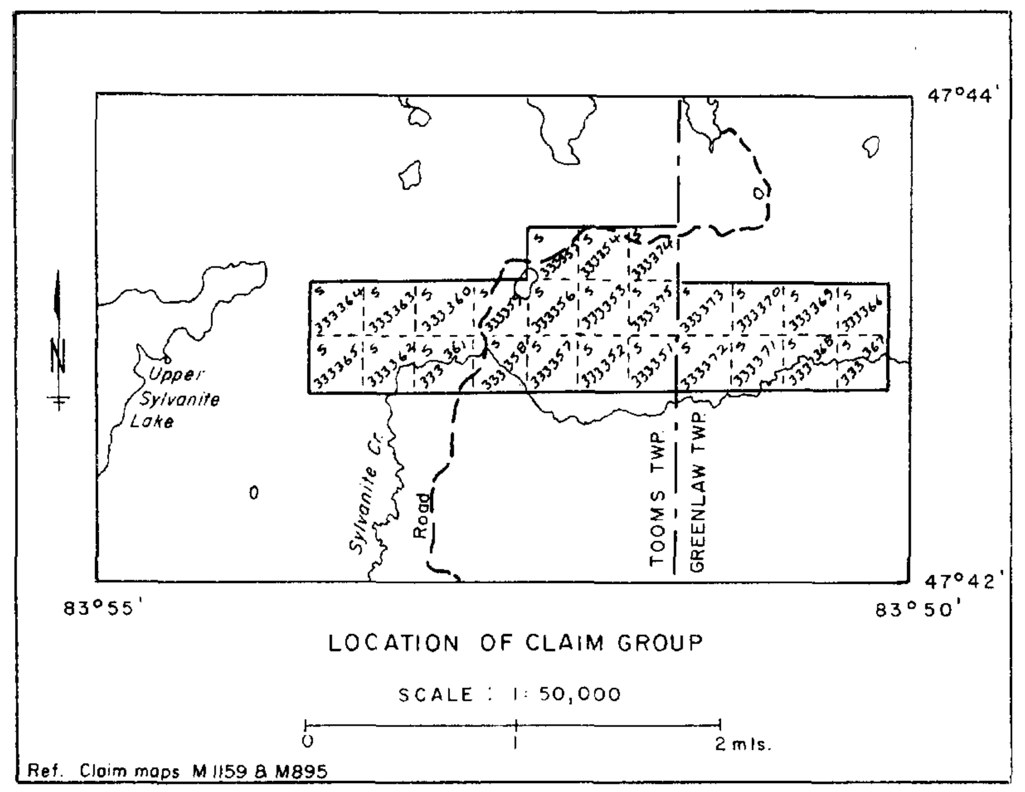


LOCATION OF CLAIM GROUP

Ref. Claim maps M.1159 & M.895

T.N
M.N

P. Daniel Davidson

CANEX AERIAL EXPLORATION LTD.

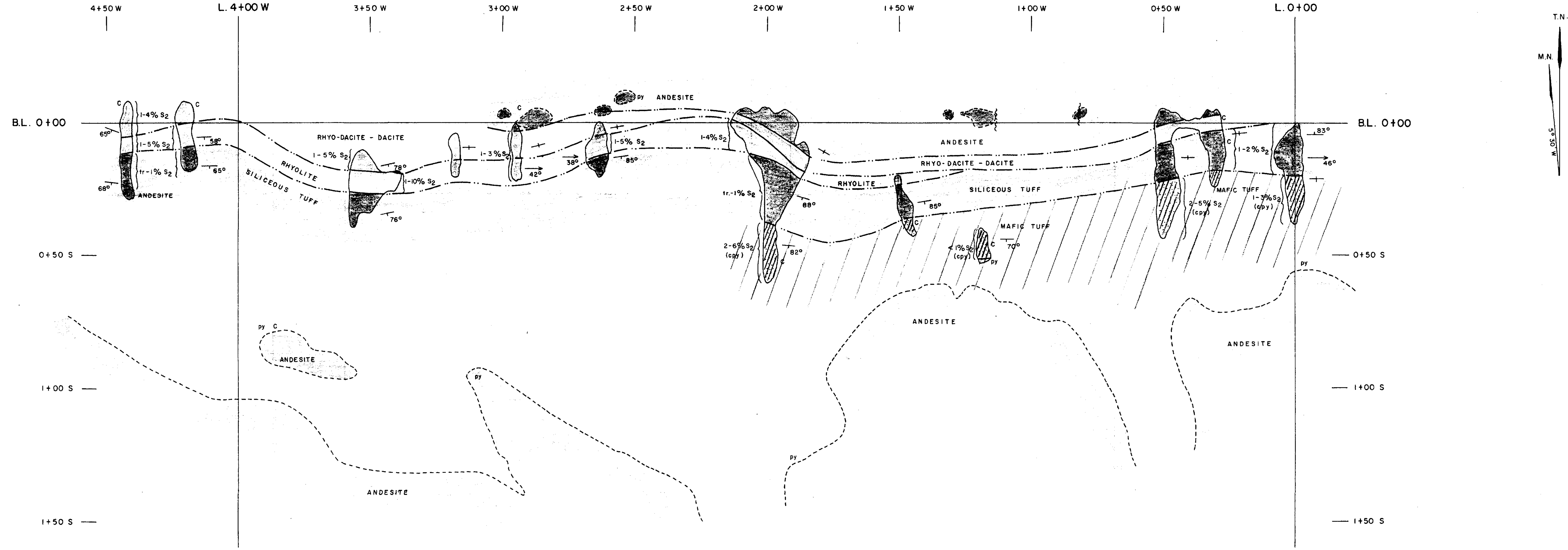
GEOLOGICAL SURVEY

TOOMS - GREENLAW TOWNSHIPS

Sudbury Mining Division, Ontario

SURFACE GEOLOGY

Instr. used :		Scale : 1" = 400'	Drawn by : J.W.
Operator : D.D.D.			Date : Oct. 1972
Date surveyed : May-June '72	N.T.S. : 41-0-10	Venture : GEEC	Dwg. No. : 1



LEGEND

Rock Types

Andesite — medium to coarse grained, generally massive but can be chloritized & foliated, green to white-green in colour.

Rhyo-dacite-dacite — medium grained, greenish black-grey, dense, massive, becomes banded near andesite contact.

Rhyolite — greenish-white, fine grained, massive to strongly foliated. This unit also contains tuff and cherty bands, often forms gossan due to weathering of contained sulphides.

Tuff - siliceous — greenish white, fine-grained, strongly banded & foliated, also contains rhyolite & chert bands. Becomes more massive to the east.

Tuff - mafic — similar to above only black to grey in colour, more strongly foliated, contains no cherty bands. Contains higher % $CaCO_3$ & cpy than other units.

Symbols

Geological contact — observed, assumed

Outcrop

70° ...... Bedding - vertical, inclined

46° .... Lineation

Fault

Abbreviations

py ..... pyrite
cpy .... chalcopyrite
c .... carbonatization
S_2 .... sulphides

P. Daniel Davidson

CANEX AERIAL EXPLORATION LTD.

GEOLOGICAL SURVEY

TOOMS - GREENLAW TOWNSHIPS

Sudbury Mining Division, Ontario

DETAILED MAPPING

(for location see Dwg. No 1)

Instr. used :	Scale : 1" = 20'	Drawn by: gv.
Operator : D.D.D.		Date : Oct. 1972

Date surveyed : June 1972	N.T.S. : 41-0-10	Venture : GEEC	Dwg. No. : 1A

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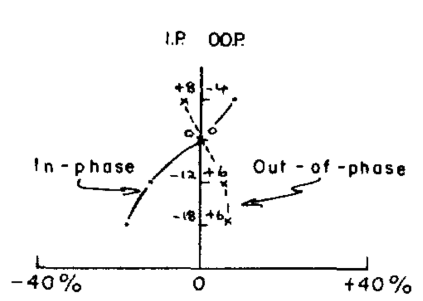
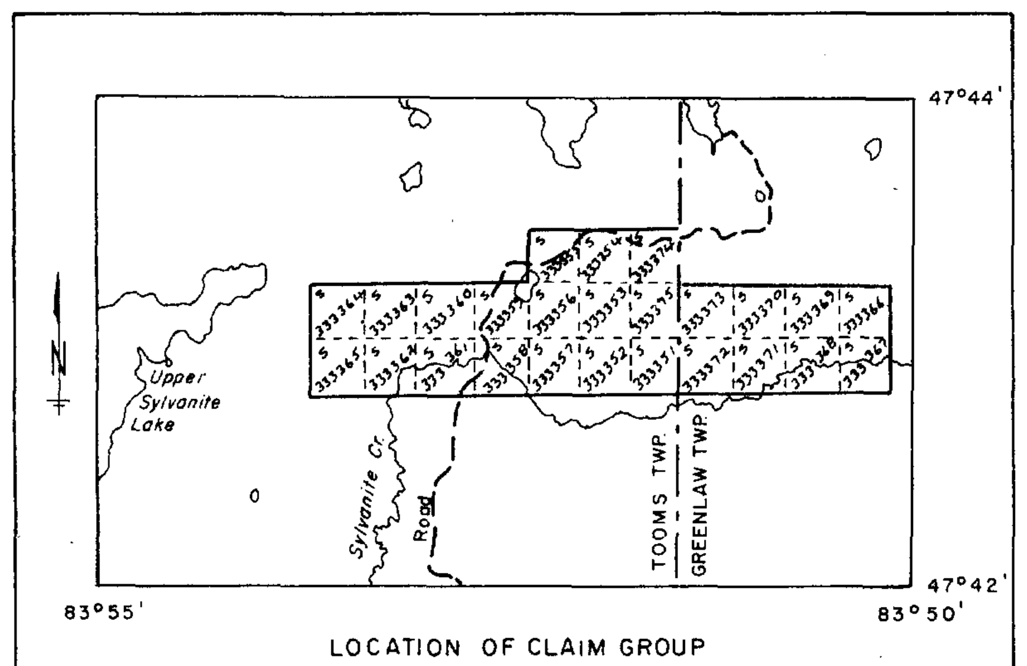
CANEX AERIAL EXPLORATION LTD.
GROUND MAGNETIC SURVEY
TOOMS - GREENLAW TOWNSHIPS
Sudbury Mining Division, Ontario
D. Daniel Davidson
Instr. used: Sharpe MF-1
Scale: 1" = 400'
Drawn by: 9N.
Operator: W.R.T.
Contour Interval: 500 γ
Date: June 1972
Date surveyed: May-June '72
N.T.S.: 41-O-10
Venture: GEEC
Dwg. No.: 3
LEGEND
Lakeshore
Creek
Swamp
Bush road
Claim post & boundary
5000 gamma contour
1000 gamma contour
500 gamma contour
LOCATION OF CLAIM GROUP
SCALE: 1:50,000
Ref. Claim maps M.1159 & M.895
Upper Sylvanite Lake
Sylvanite Cr.
Road
TOOMS TWP.
GREENLAW TWP.
47°44'
47°42'
83°55'
83°50'
T.N.
M.N.
Tooms Twp.
Greenlaw Twp.
ANOM. 1
ANOM. 2
ANOM. 3
ANOM. 4
ANOM. 5
Pond
FLOODED AREA
Sylvanite Creek
B.L. 'A'
B.L. 'B'
L. 32 W
L. 28 W
L. 24 W
L. 20 W
L. 16 W
L. 12 W
L. 8 W
L. 4 W
L. 0
L. 4 E
L. 8 E
L. 12 E
L. 16 E
L. 20 E
L. 24 E
L. 28 E
L. 32 E
L. 36 E
L. 40 E
L. 44 E
L. 48 E
L. 52 E
L. 56 E
L. 60 E
L. 64 E
L. 68 E
L. 72 E
20 N
16 N
12 N
8 N
4 N
0+00
4 S
8 S
12 S
16 S
20 S
S-333360
S-333361
S-333359
S-333358
S-333355
S-333357
S-333354
S-333352
S-333353
S-333374
S-333375
S-333351
S-333373
S-333372
S-333370
S-333371
S-333369
S-333368
S-333366
S-333367
240

LEGEND

- Lakeshore
- Creek
- Swamp
- Bush road
- Claim post & boundary



Profile Scale : 1" = 40%



LOCATION OF CLAIM GROUP

SCALE : 1:50,000

0 1 2 mls.

Ref. Claim maps M.1159 & M.895

T.N.

M.N.

D. Daniel Davidson

CANEX AERIAL EXPLORATION LTD.

GROUND ELECTROMAGNETIC SURVEY

TOOMS - GREENLAW TOWNSHIPS

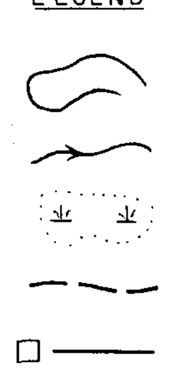
Sudbury Mining Division, Ontario

EM-16 PROFILES

Sta. used : NAA Cutler, Maine
Dir. of travel : Facing North

Instr. used : E.M.-16	Scale : 1" = 400', 1" = 40%		Drawn by : g.w.
Operator : F.M.I.			Date : June 1972
Date surveyed : June 1972	N.T.S. : 41-O-10	Venture : GEEC	Dwg. No. : 2

LEGEND



Lakeshore

Creek

Swamp

Bush road

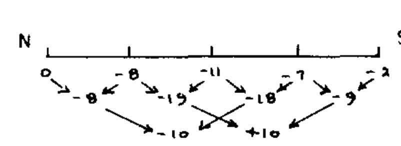
Claim post & boundary

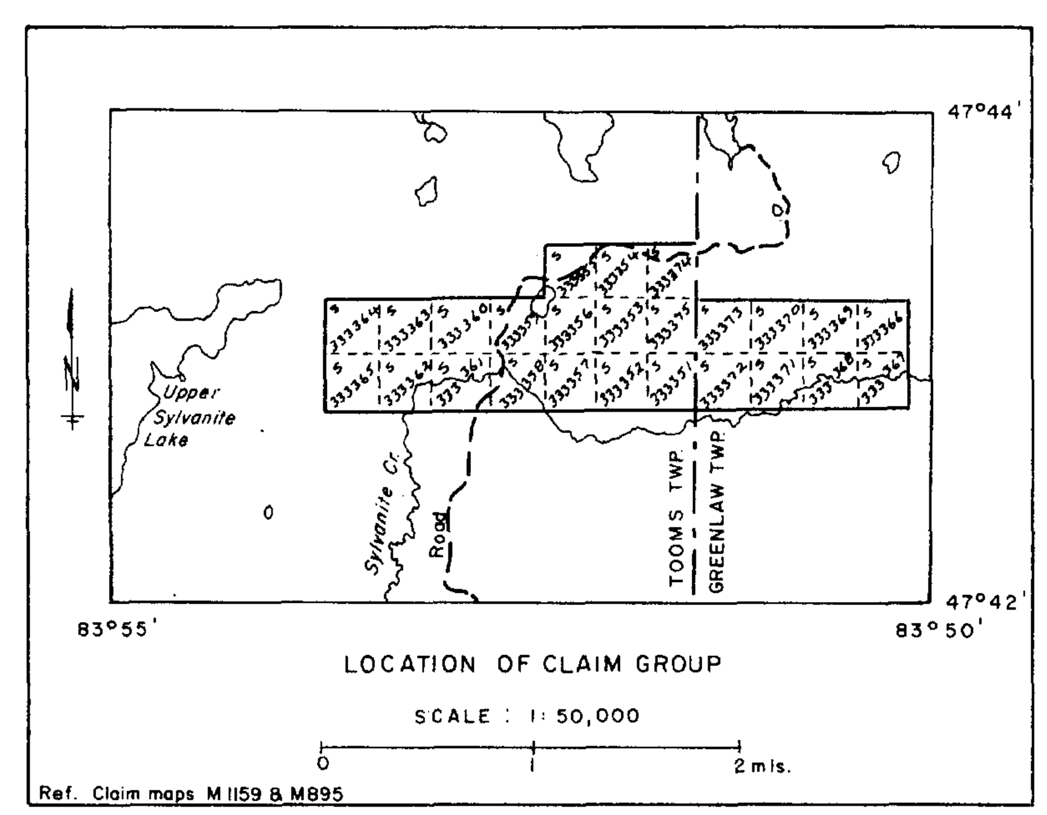
NOTE: In-phase readings filtered as follows:-

Add consecutive pairs of readings

Take difference between alternate pairs (S–N)

Plot difference & contour positive values





LOCATION OF CLAIM GROUP

SCALE : 1:50,000

0 1 2 mls.

Ref. Claim maps M 1159 & M895

T.N.

M.N.

P. Daniel Davidson

CANEX AERIAL EXPLORATION LTD.

GROUND ELECTROMAGNETIC SURVEY

TOOMS - GREENLAW TOWNSHIPS

Sudbury Mining Division, Ontario

EM-16 – Contours of Filtered Data

Sta. used : NAA Cutler, Maine

Dir. of travel : Facing North

Instr. used : E.M.-16		Scale : 1" = 400'	Drawn by : G.W.
Operator : F.M.I.		Contour Interval : 10	Date : June 1972
Date surveyed : June 1972	N.T.S. : 41-O-10	Venture : GEEC	Dwg. No. : 2 A