



41P12SW0069 2.5944 CHESTER

010

GEOLOGICAL AND GEOPHYSICAL REPORT

prepared for

ROCKWELL MINING CORPORATION

Chester Township
Property

Claims P.652612 and 652613

Prepared by: Neil Novak B. Sc.
Geologist
October 15, 1983

Qual 2,4227

RECEIVED

OCT 25 1983

MINING LANDS SECTION

Property

This property is located in Chester Township of the Porcupine Mining Division of the District of Sudbury in the province of Ontario. It consists of 2 mining claims numbered P.652612 and P.652613.

The property is in good standing with the Provincial Mining Recorder, and is currently held by the numbered company 466738 Ontario Limited, who is in turn controlled by Rockwell Mining Corporation, of 1585-B Britannia Rd. E. Suites 11 & 12, Mississauga, Ontario.

Location and Access

The property is located in west-central Chester township near the west shore of Weeduck Lake, and the north west shore of Three Duck Lake. (O.M.N.R. plan M.717).

Access to the property is gained by all-terrain vehicles or by a rugged 4 X 4 type truck. A road exists from the extension of highway 560 near Mesomikenda Lake to the southern portion of the property (200 feet south of the southwest corner of claim 653613.) This road is not maintained year round, but it does provide adequate access during the entire year.

Exploration History

This area is the focus of much current exploration activity in the search for gold and related base metals.

Gold was first discovered near Errington creek in northeast Chester township on the east side of Mesomikenda Lake in 1910. This property saw limited production in 1916, where the primary metal sought was Copper rather than Gold, due to its strategic nature in the war effort. The property did however have reported grades of 0.19 oz/ton Au. In 1930, native gold was discovered on the east shore of Three Duck Lake just southeast of this property, sparking much exploration in the general

area of these claims. In 1936 Gomak Gold Mines went into production on a small vein encountered near Arethusa lake approximately 2 miles east of the property, this vein saw limited production, which yielded nearly 100 ounces of gold and 23 ounces of silver, in 1,387 tons of rock (averaged .07/ton Au. and 0.02 oz/ton Au.) Several other prospects saw subsurface work during this time, several in the immediate vicinity of this property. Exploration in the general vicinity continued until 1963 when this property was staked and the property underwent limited work by Beaverbridge Mines Limited. Their work included prospecting, geological mapping, geophysical surveys, stripping, trenching and diamond drilling, during the years 1965 to 1970. Their results were inconclusive, in that they intersected several sub-economic concentrations of gold and copper in the northwestern portion of Weeduck Lake. One diamond drill hole numbered R-16, although not reported as assessment work, is said to have intersected 0.12 oz/ton Au. over a core length of 30 feet, the hole is centrally located in claim number P.652613. It is this result that makes this property of economic interest to Rockwell Mining Corporation.

Recent evaluation of mining claims in Chester township by Canadian Gold Crest, Rockwell, Murgold Resources Inc., Jarvis Corporation and Pacific Northern Gold Mines, have encountered several areas of economic or near economic gold concentrations. These two claims have been interpreted as lying within the same geologic environment as all of these other occurrences. With this in mind Rockwell has obtained ownership to these claims and proceeded to evaluate them by an electro magnetic (EM-16 VLF) survey and a subsequent geologic evaluation.

Survey Personnel

An EM(VLF) survey was carried out on this property in early October 1983, followed by detailed geologic mapping of all outcrops located. Personnel involved in the geophysical survey included John and Robert Leliever of Mississauga, Ontario, under the auspices of this author who mapped the area

geologically. All personnel were in the employ of Blue Falcon Mines Limited of Mississauga on contract with Rockwell Mining Corporation.

Survey Procedure

As the area had been previously covered by Beaverbridge Mines in the early 1970's, in their evaluation of the adjacent claims to the east, linecutting was not required, but the old baselines and offsets had to be re-established by pacing and flagging every 100 feet along lines, the old baseline was due east-west, with offsets in the due south direction. Readings in the EM survey were recorded at 100 foot intervals, while all geological observations were related to station points along lines. Total number of feet surveyed in each survey was 10850 feet, which is equivalent to 109 individual stations.

Electromagnetic (VLF) Survey

The very low frequency (VLF) electromagnetic survey is a passive electromagnetic technique utilizing electromagnetic radio waves transmitted worldwide for marine navigational purposes. The signal used in this survey originated in Cutler Maine, U.S.A., some 1250 kilometers to the east at an azimuth of 104° , the station code is NAA, transmitted at a frequency of 17.8 K Hz, at a radiated power of 1000 KW.

The Geonics EM-16 hand held receiver used in the survey is capable of measuring the variations in the tilt angle of the electromagnetic polarization ellipse resultant from the distortions from the normal caused by irregular conductive bodies acting upon the transmitted signal. This unit measures the in-phase component as a percentage of the horizontal normal field (real component) as well as, measuring the amplitude of the minor axis of the polarization ellipse (quadrature response).

As the real component decreases and approaches zero per cent, the receiver is approaching a conductive target, and as the real component becomes negative the receiver passes the conductor. The quadrature response to the conductor is a semi-quantitative measurement of the interference caused by overburden inconsistencies and other geological quirks.

Measurements were taken along lines facing the north (azimuth 0°) in all instances. The values obtained were recorded and plotted on the accompanying geophysical plan. The results were then profiled at a scale of one inch equals 20%.

Geology

This property is located within the southeastern extension of the Swayze synclinorium, of the Abitibi greenstone belt. As is typical of greenstone belts in the Canadian Precambrian terrain this belt consists of an extensive area of steeply dipping volcanics and sediments in a major synclinal structure. The Swayze belt is surrounded on its north and south flanks by granitic terrain. The area underlying this property has been intruded and metamorphosed (to varying degrees) by a very silicious diorite (ranging in composition from granodiorite to quartz diorite). The injection of this intrusion into the volcanics has altered and assimilated the volcanics to the point where they are nearly unrecognizable as being of volcano-sedimentary origin, save, a few locations of apparently en-echelon sulphide lenses reminiscent of their syngenetic deposition. Intense fracturing resultant from the deep-seated intrusion has been well-healed by quartz-vein emplacement (commonly auriferous and cupriferous) and also by diabase dykes.

The local geology as observed on this property consists of intermediate to felsic volcanic sediments (primarily tuffaceous) which have been silicified and

altered by the intrusion of a dioritic mass. The central portion of the property displays this geologic relationship (intense silicification) of gradational silicification to the north and south (primarily unaltered). Two sulphide zones were located during the course of this survey, the sulphides being finely disseminated euhedral crystals of pyrite, weathered to a dull orange gossan.

Interpretation of Data

Four separate electromagnetic conductors were located in the VLF survey. The first two may be expressions of the same east-west trending conductive zone. A diamond drill hole (#16) located in the vicinity of these two conductors is rumoured to have intersected thirty feet of material grading 0.12 oz/ton Au., in a copper sulphide zone. This being the case, it makes these two particular conductors very attractive exploration targets.

The third conductor Axis is located in a swamp corresponding with a deep topographic depression. This conductor is therefore attributable to overburden conductance, but a water filled fault zone may be evident also.

The fourth conductor is located in the extreme northwest corner of the property. This conductor has been attributed to the contact zone of the volcanics with the metasediments in the central portion of the Swayze belt. Although no outcrop of sediments was observed within the property limited, they are known to exist a short distance to the north of the northern boundary of this claim group.

Conclusion

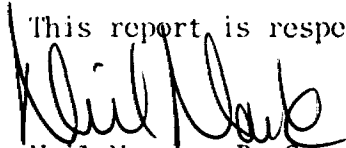
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Recommendations

A very strong linear conductor exists in a general east-west trend running through the central portion of this claim group. A 1972 drilling program by Rockzone Mines Limited is rumoured to have intersected a zone

30 feet wide averaging 0.12 oz. Au/ton in diamond drill #16. This area should therefore be re-tested to verify this occurrence, and the conductor tested along strike pending successful verification of the Rockzone drill results.

This report is respectfully submitted by :



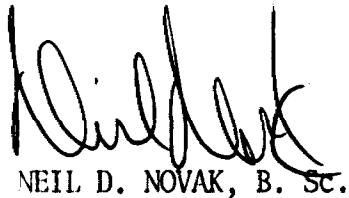
Neil Novak B. Sc.,

October 11, 1983.

CERTIFICATE

I, NEIL D. NOVAK, do hereby certify:

- 1) that I am an exploration geologist residing at lot 7, Trillium Crt., Heidelberg, Ont.
- 2) that I am a graduate of the University of Waterloo, Waterloo Ontario, and hold a Bachelor of Science degree as an Earth Scientist, dated 1977.
- 3) that I have been engaged in the practice of this profession since graduating.
- 4) that I have no interest, direct or indirect in the properties or securities of Rockwell Mining Corporation Limited.



NEIL D. NOVAK, B. SC.

Geologist

October 15, 1983.



41P12SW0069 2.5944 CHESTER

900

1984 04 13

Your File: 325/83
Our File: 2.5944

Mr. Bruce W. Hanley
Mining Recorder
Ministry of Natural Resources
60 Wilson Avenue
Timmins, Ontario
P4N 2S7

Dear Sir:

RE: Geophysical (Electromagnetic) and Geological
Survey on Mining Claims P 652612-13 in the
Township of Chester

The Geophysical (Electromagnetic) and Geological Survey
assessment work credits as shown on the attached statement
have been approved as of the above date.

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

Yours sincerely,

E.E. Yundt
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-6918

D. Kinvig:mc

cc: 466738 Ontario Limited
1585-B Britannia Road East
Suite 11 & 12
Mississauga, Ontario
L4W 2M4

cc: Resident Geologist
Timmins, Ontario

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

Encl.



325/83

T.O.
File 2.5944

Ministry of
Natural
Resources

Notification of recording
of assessment work credits

Lands Administration Branch
Mining Lands Section
Ministry of Natural Resources
Room 1617, Whitney Block
Queen's Park, Toronto
M7A 1W3

RECEIVED
DEC 6 1983
MINING LANDS SECTION

Date of recording of work: October 19, 1983
Recorded holder: Blue Falcon Mines Ltd.
1585 -B Britannia Rd. E.
Address: Mississauga, Ontario
CHESTER TOWNSHIP
Township or Area:

Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	P- 652612 P- 652613.
Electromagnetic _____ 40 _____ days	
Magnetometer _____ days	
Radiometric _____ days	
Induced polarization _____ days	
Section 77 ^{77 19} (2) _____ days	
Geological _____ 20 _____ days	
Geochemical _____ days	See Revised work Statement
Man days <input type="checkbox"/> Airborne <input type="checkbox"/>	
Special provision <input type="checkbox"/> Ground <input type="checkbox"/>	

Notice to recorded holder:

- Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Blaney
Mining Recorder
c.c. Blue Falcon Mines Ltd.



Mining Lands Comments

check geological plan - does this meet requirements? — JTC

To: Geophysics Mr. R. Barlow

Comments

Approved Wish to see again with corrections Date Jan 21 / 84 Signature R. Barlow

To: Geology - Expenditures Mr. C. Kursta

Comments

Approved Wish to see again with corrections Date Feb. 16 / 84 Signature C. Kursta

To: Geochemistry

Comments
LD

Approved Wish to see again with corrections Date Signature

To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)



Recorded Holder: BLUE FALCON MINES LTD
 Township or Area: CHESTER TOWNSHIP

Type of survey and number of Assessment days credit per claim	Mining Claims Assessed
Geophysical 40 Electromagnetic _____ days Magnetometer _____ days Radiometric _____ days Induced polarization _____ days Other _____ days Section 77 (19) See "Mining Claims Assessed" column Geological 20 days Geochemical _____ days Man days <input type="checkbox"/> Airborne <input type="checkbox"/> Special provision <input checked="" type="checkbox"/> Ground <input checked="" type="checkbox"/> <input type="checkbox"/> Credits have been reduced because of partial coverage of claims. <input type="checkbox"/> Credits have been reduced because of corrections to work dates and figures of applicant.	P 652612-13

Special credits under section 77 (16) for the following mining claims

No credits have been allowed for the following mining claims

not sufficiently covered by the survey insufficient technical data filed

November 2, 1983

2.5944

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

Dear Sir:

We have received reports and maps for a Geophysical (Electromagnetic) and Geological survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims P 652612-13 in the Township of Chester.

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

We do not have a copy of the report of work which is normally filed with you prior to the submission of this technical data. Please forward a copy as soon as possible.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6643
Queen's Park
Toronto, Ontario
M7A 1W3
Phone:(416)965-1380

A. Barr:mc

cc: 466738 Ontario Limited
1585-B Britannia Road East
Suites 11 & 12
Mississauga, Ontario
L4W 2M4



Initial Check

MEA Dec 7, 1983

Assessed

Approved Reports of Work
sent out

Notice of Intent filed

Approval after Notice of Intent
sent out

Duplicate sent to Resident
Geologist

Duplicate sent to A.F.R.O.

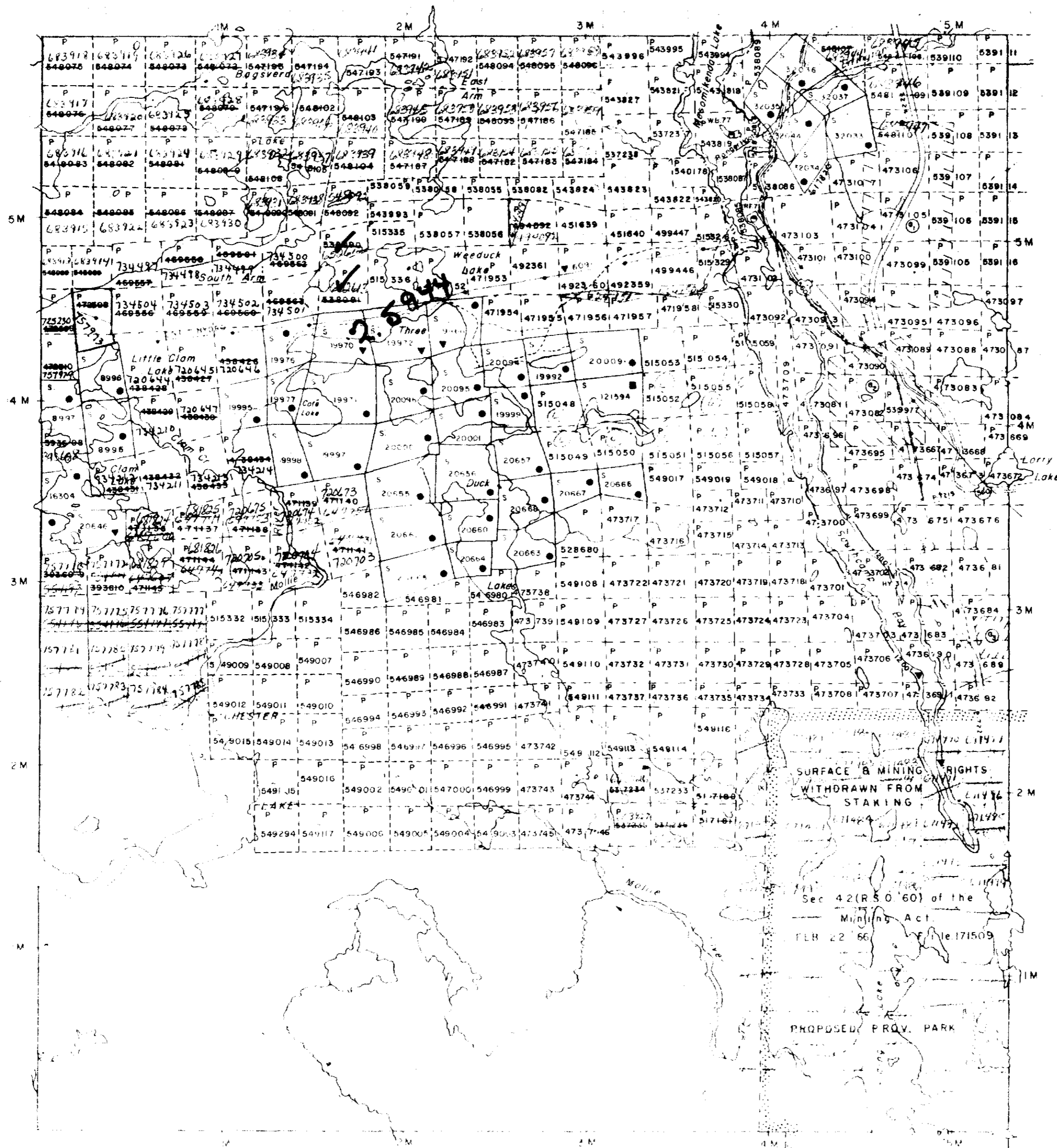
T.M.

T.M.

CHESTER T.M.B.

CHESTER T.M.B.

NEVILLE TP. M.888



INVERGARRY TP. M.948

THE TOWNSHIP OF CHESTER

DISTRICT OF SUDBURY

BORCUPINE MINING DIVISION

SCALE: 1-INCH=40 CHAINS

DISPOSITION OF CROWN LANDS

PATENT, SURFACE AND MINING RIGHTS	●
" SURFACE RIGHTS ONLY	○
" MINING RIGHTS ONLY	◐
LEASE, SURFACE AND MINING RIGHTS	■
" SURFACE RIGHTS ONLY	◼
" MINING RIGHTS ONLY	◻
LICENCE OF OCCUPATION	▼
ROADS	—
IMPROVED ROADS	—
KING'S HIGHWAYS	—
RAILWAYS	—
POWER LINES	—
MARSH OR MUSKEG	—
MINES	—
CANCELLED	—

NOTES

400' Surface Rights Reservation along the shores of all lakes and rivers.

Flooding rights to 1200' contour reserved to Ont. Hydro ▼ 7543, Loc HY 34 file 10621

SAND & GRAVEL

①	M.T.C. Pit No 1349
②	" Gravel Pit No. 1649
③	" " " No. 1385

PLAN NO. M. 717

MINISTRY OF NATURAL RESOURCES SURVEYS AND MAPPING BRANCH



41P125W069 2.5944 CHESTER

T.M.

N_t

declination 6°W

NAA
PRIMARY FIELD
TRANSMITTED POWER
1000 KW
FREQUENCY
17.8 KHZ

CUTLER ME. U.S.A. AZ. 104° DIST. 1250 KM.

TO BAGSVARD
LAKE

BASELINE

P 652612

MILLER POND

P 652613

TO WEEDUCK
LAKE

TO THREEDUCK
LAKE

LEGEND

- CLAIM POST
- CLAIM LINE
- FLAGGED LINE
- ← PORTAGE, TRAIL
- DRILL SITE
- OUTCROP
- E.M. READING
- REAL COMPONENT left of station
- QUAD. COMPONENT right of station
- / CONDUCTOR AXIS number

PROFILE SCALE

+20% +10% 0% -10% -20%

LINE

SCALE : 1" = 200'

0 100 200 300 400 500 600

ROCKWELL MINING CORP.

CHESTER TOWNSHIP

ELECTROMAGNETIC
E.M. 16 (V.L.F.)

DRAWN	COMPILED	GEOLOGY	APPROVAL	DATE
NDN	RGL NDN	NDN	<i>[Signature]</i>	10/10/83

2.5944



N

declination 5°W



TO BAGSVERD LAKE

BASELINE 0' South

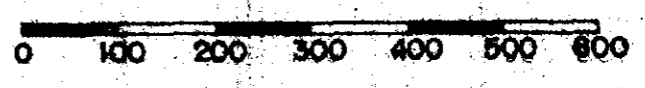
P 652612

P 652613

LEGEND

- CLAIM POST
- - - CLAIM LINE
- FLAGGED LINE
- PORTAGE, TRAIL
- DRILL SITE
- OUTCROP
- - - GEOLOGICAL CONTACT
- ↘ STRIKE / DIP
- ☼ TRENCH
- ⊕ SWAMP AREA
- I.T. INTERMEDIATE TUFF
- F.T. FELSIC TUFF
- D. DIORITE (silicified I.T.)
- G.D. GRANODIORITE (sil. F.T.)

SCALE 1" = 200'



ROCKWELL MINING CORP.

CHESTER TOWNSHIP

GEOLOGICAL PLAN

DRAWN	COMPILED	GEOLOGY	REF. MAP	DATE
NDN	RGL NDN	NDN	<i>[Signature]</i>	10/10/83

