



42A05NE0117 2.1129 TURNBULL

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PROJECTS
SECTION

GEOLOGICAL REPORT
ON
CLAIM P-299557
TURNBULL TOWNSHIP
N.T.S. 42-A-5
PORCUPINE MINING DIVISION
ONTARIO

J.A. Kelly, P.Eng.

January 15, 1973

1. PROPERTY:

Total number of claims - One (1)
Recorded numbers - P-299557
Date recorded - April 17, 1971
Staked by - J. P. Larche @ 11:00 A.M. on Mar. 25/71
Status - On extension to June 29, 1972, a
second extension granted December 19/72
to June 29, 1973

2. LOCATION:

Township - Turnbull
N.T.S. - 42-A-5
Latitude - 42° 29' N
Longitude - 81° 43' W
Mining Division - Porcupine
Distance from Timmins - Fourteen (14) miles west.

3. OWNERSHIP AND TITLE:

Owned by - J. P. Larche
721 Churchill Street, Timmins, Ontario
Percent Interest - One Hundred (100) percent transferred
to Elar Mines Limited, August 18, 1972.
Falconbridge Nickel Mines, at the date
of this writing, holds a working option
with Elar.

4. ACCESS:

Summer - Via gravel road to Genex Mine from
Highway 576, then via tracked vehicle on
winter timber trail. Or via helicopter.
Winter - Via Highway 576 to Genex turnoff then

via tracked vehicle to mine site and timber roads.

5. HISTORY:

Early exploration in Turnbull township turned up several gold showings none of which proved economic. Base metal sulfide explorations began in the area in the early 1950's.

A brief resume of exploration work done in the immediate area is outlined below:

1947 : Trident Porcupine Mines Limited - geological mapping, magnetometer survey, drilling, area about $\frac{1}{2}$ mile north of claim P-299557.

1952 : Kennco Explorations Limited - geological mapping

1960 : Sogemines Development Company - geological mapping; E.M. Survey.

1964 : Mespi Mines Limited - geological mapping; E.M. survey, magnetometer survey; drilling; area covered area $\frac{1}{2}$ to 1 mile north of claim area.

1967 - 69: Pyrotex - magnetometer survey; E.M. survey; drilling in area of claim.

6. GEOLOGICAL MAPPING PROGRAM:

During the 1972 field season a block of 38 claims including claim P-299557 was mapped by a three man field party under the supervision of the writer.

The mapping was conducted on E.W. traverse lines spaced at 200 foot intervals. These lines were cut and/or cleared out and

Linecutting credits requested
on Magnetometer Survey

of

picketed at 50 foot intervals. The use of traverse lines for detailed outcrop mapping is an ancient and outmoded method and is only used in order to meet specifications for geological surveys as required in the present provisions of the Ontario Mining Act.

Detailed outcrop mapping at one inch to one hundred feet was outlined on 8½ x 11" field sheets and later transferred to a master field map. Upon completion, the field map was replotted on master transparencies now on file at the Timmins Office. This report covers only a portion of the entire map area.

7. GENERAL GEOLOGY:

(a) Topography - the claim area covers a flat, featureless, spruce-alder swamp and grassy bog. Towards the south and southeast the ground rises gently and is covered by mixed forest with some open outcrop areas.

(b) Table of Formations -

(modified for Turnbull Twp. from O.D.M. Map 2046 -
Timmins-Kirkland Lake, 1 inch = 4 miles compilation)

Genozoic	- gravel, sand, clay muskeg
	- unconformity -
Proterozoic	- Diabase dike
	-intrusive contact-
	Acid intrusives: granite, granodiorite, trondjemite
	-intrusive contact-
	--- TECTONIC EVENT ---
Archean	- Mafic and ultramafic intursives: diorite, gabbro peridotite
	Basic volcanic extrusives: basalt, andesite (pillowed and massive flows)
	Acid and intermediate extrusives and pyroclastics: (flows, flow breccias pyroclastic breccias, glowing avalanche, air-fall tuffs, aquagene tuffs-palagonitic tuffs)

(c) Structure:

The volcanic succession underlying the claim group strikes about N 20° W and dips vertically to steeply west. The sequence is part of the volcanic pile centered in the Kamiskotia Lake area.

Regional deformation and metamorphism has imparted an east-west schistosity on the generally north-south sequence. This is readily seen in the east-west rodding and stretching of fragments in north trending fragmental rhyolites.

Several strong shear zones have been noted on the property, none of these in claim P-299557, however.

Two north-trending dikes noted in mapping and traced by a magnetic survey apparently fill narrow fault zones. Horizontal offsets on the older fault traces, while not certain, appear to be less than 100 feet.

8. GEOLOGY OF CLAIM P-299557:

The only outcrops in the claim are located towards the southern end. Here light and medium grey rhyo-dacite breccias, dacite tuffs and flows are cut by a north trending dike. Many of the flows and/or tuffs contain 5 - 10% very coarse, round to sub-round glassy quartz eyes. Possibly some of the "flows" are welded lapilli tuffs.

The dike is very dark greenish grey very fine to micro-crystalline and exhibits well developed chill margins. Judging from the dark color and massive, aphanitic texture, the composition of the dike rock may be diabasic but is more likely of basaltic affinity. Hence, it may be an altered fissure feeder.

The volcanic rocks are foliated and sheared in an east-west direction. Fragments have been elongated in this direction.

This has, in some cases, led to erroneous inference with respect to strike directions. There is, however, enough variation in rock types (flows, breccias, tuffs) to interpret a general N 10 - 15° W strike.

9. MINERALIZATION:

Chalcopyrite mineralization in narrow quartz-filled fractures occur along the dike contact. Samples from small trenches and from a series of short drill holes indicated low Cu values (less than 1% Cu) over narrow discontinuous widths.

10. CONCLUSIONS AND RECOMMENDATIONS:

The acid and intermediate pyroclastics appear to be glowing avalanche material probably originating from explosive fissure eruptions on the flank of a rhyolitic dome. As such they probably would occupy an intermediate position in the acid volcanic stratigraphy of the area. In any event, these units together with the underlying (?) rhyo-dacite flows and dikes are not indicative of late or waning stage pyroclastic-exhalitive volcanism.

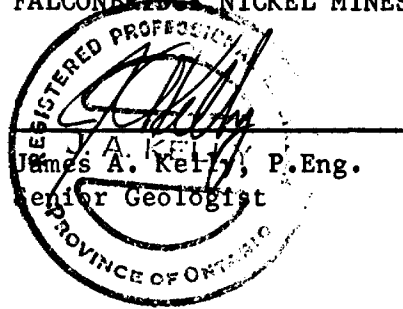
Abnormal alteration in the form of chloritization (with sericite) silicification, epidotization and/or carbonate appears to be minimal.

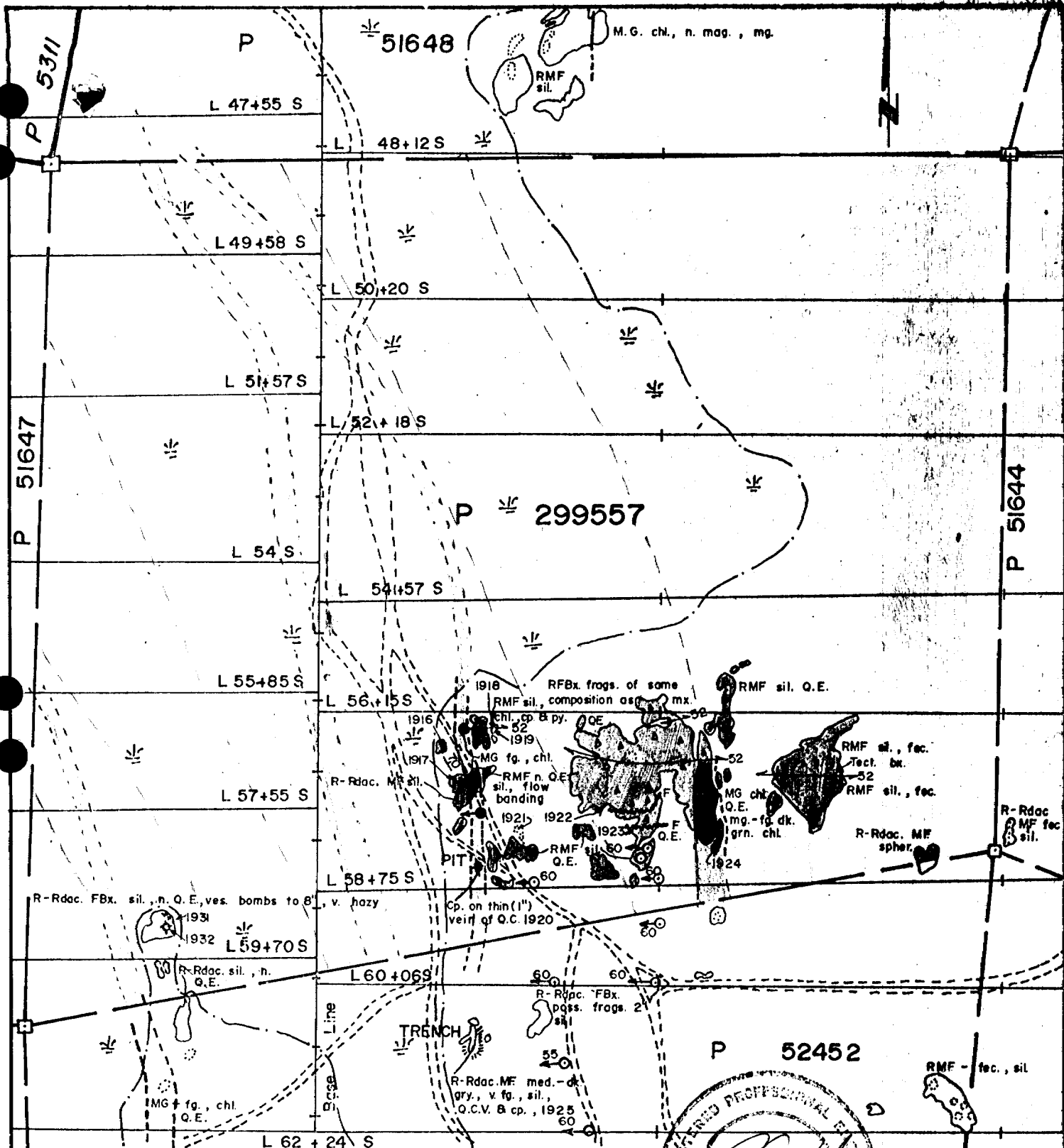
On the basis of the observed geological data, Claim P-299557 is not a likely target area for volcanogenic, polymetallic base metal sulfide accumulation. Prior to any final disposition, however, E.M. check traverses should be run on north-south grid lines. It is noteworthy that east-trending schistosity appear to influence present orientation of sulfide zones at the Canadian

Jamieson and Genex properties. Hence, E.M. surveys run on north-south lines would be in the azimuth of maximum conductance of any metallic zone striking east-west (eg: maximum coupling of the primary and secondary field).

Respectfully submitted,
FALCONBRIDGE NICKEL MINES LIMITED,

Timmins, Ontario.
Dated: January 15, 1973





SYMBOLS & ABBREVIATIONS

	Metagabbro or diabase	spher	spherulitic
	Rhyolite, flow breccia	py	pyrite
	Rhyolite, rhyodacite flows	cp	chalcopyrite
	Rhyolite with quartz-eye phenocryst probable welded tuff or tuff breccia (ignimbrite)	QCV	Quartz carbonate vein
	Claim post & lines	chl	chlorite
	Road, trail, track		
	Location bearing diamond drill hole		
	Brecciated		
	Shearing, foliation		
	Fault		
	Contact observed		
QE	Quartz eye		
MF	Mass flow		

FALCONBRIDGE NICKEL MINES LTD

**CLAIM 299557
ELAR MINES
Turnbull Twp.**

GEOLOGY

Scale : 1" = 200'	N.T.S. : 42 - A / 5 & 12
Date : Dec. , 1972	Drawn : D. E. Last

**GEOPHYSICAL - GEOLOGICAL - GEOCHEMICAL
TECHNICAL DATA STATEMENT**

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 GEOLOGICAL
Township or Area TURNBULL TWP.
Claim holder(s) ELZAR MINES & FALCONBRIDGE
NICKEL - TIMMINIS
Author of Report J. A. Kelly
Address 724 Churchill, Timmins
Covering Dates of Survey Aug 12-13, 1972 & Jan. 11-15 1973
(linecutting to office)
Total Miles of Line cut 2.5

MINING CLAIMS TRAVERSED
List numerically

P 299557
(prefix) (number)

**SPECIAL PROVISIONS
CREDITS REQUESTED**

DAYS
per claim

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

ENTER 20 days for each
additional survey using
same grid.

- Geophysical
 - Electromagnetic _____
 - Magnetometer _____
 - Radiometric _____
 - Other _____
- Geological 20
- Geochemical _____

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

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

DATE: Jan 19, 1973 SIGNATURE: [Signature]
Author of Report

PROJECTS SECTION

Res. Geol. _____ Qualifications 2.258
63.1308, 63.1307, 63.1224 all airborne 2.1121, 63.1618
Previous Surveys 63.1089, 63.1059 all geophysical

63.A447 done 1965 63.A395 done 1959 L.D.

Checked by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

GEOLOGICAL BRANCH _____

Approved by _____ date _____

TOTAL CLAIMS 1

OFFICE USE ONLY

If space insufficient, attach list

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS

Number of Stations _____ Number of Readings _____

Station interval _____

Line spacing _____

Profile scale or Contour intervals _____
(specify for each type of survey)

MAGNETIC

Instrument _____

Accuracy - Scale constant _____

Diurnal correction method _____

Base station location _____

ELECTROMAGNETIC

Instrument _____

Coil configuration _____

Coil separation _____

Accuracy _____

Method: Fixed transmitter Shoot back In line Parallel line

Frequency _____
(specify V.L.F. station)

Parameters measured _____

GRAVITY

Instrument _____

Scale constant _____

Corrections made _____

Base station value and location _____

Elevation accuracy _____

INDUCED POLARIZATION -- RESISTIVITY

Instrument _____

Time domain _____ Frequency domain _____

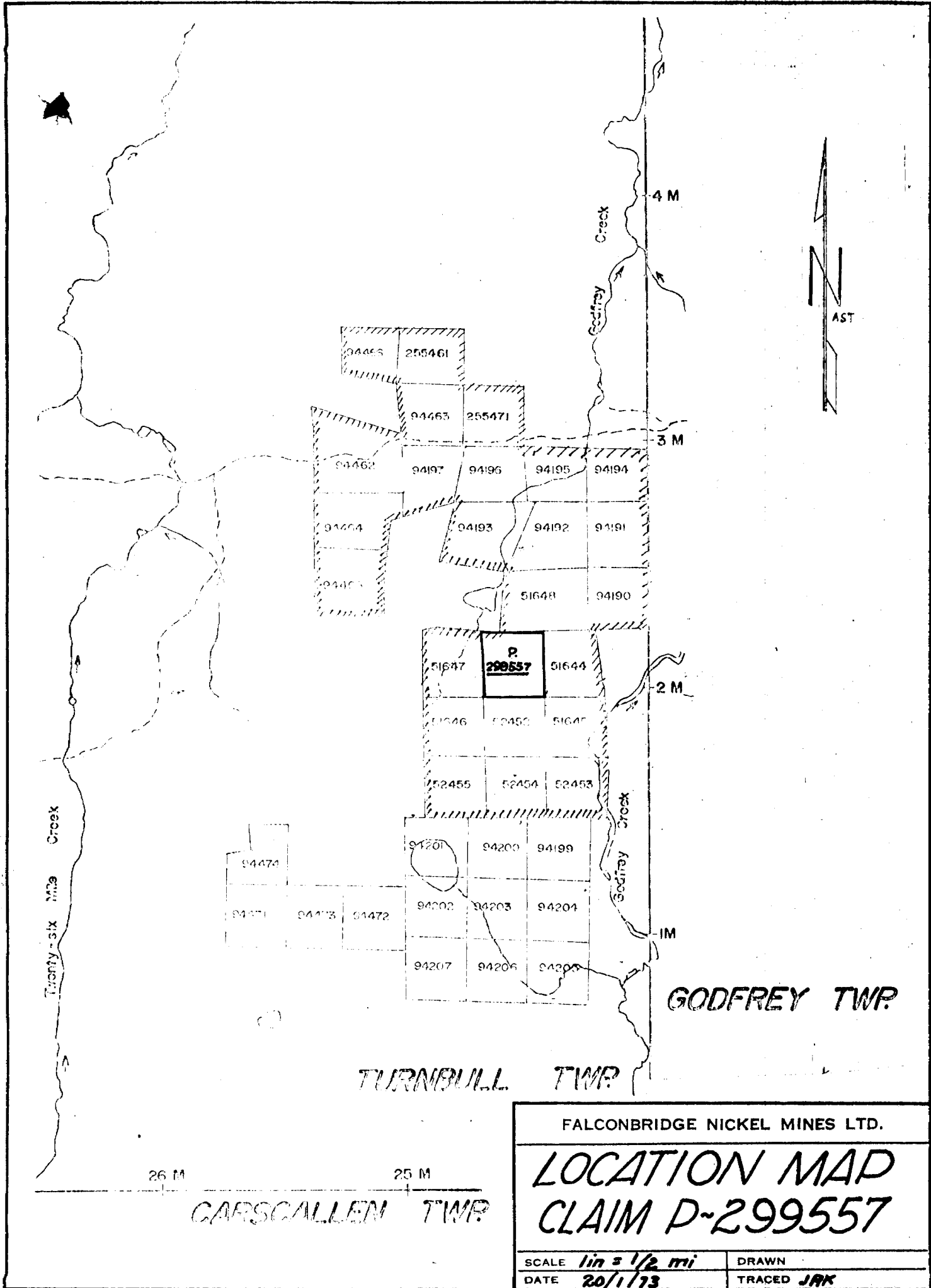
Frequency _____ Range _____

Power _____

Electrode array _____

Electrode spacing _____

Type of electrode _____



GODFREY TWP.

TURNBULL TWP.

CARSCALLEN TWP.

FALCONBRIDGE NICKEL MINES LTD.	
LOCATION MAP	
CLAIM P-299557	
SCALE <i>1 in = 1/2 mi</i>	DRAWN
DATE <i>20/1/73</i>	TRACED <i>JAK</i>

21E.M

TP 1111111111

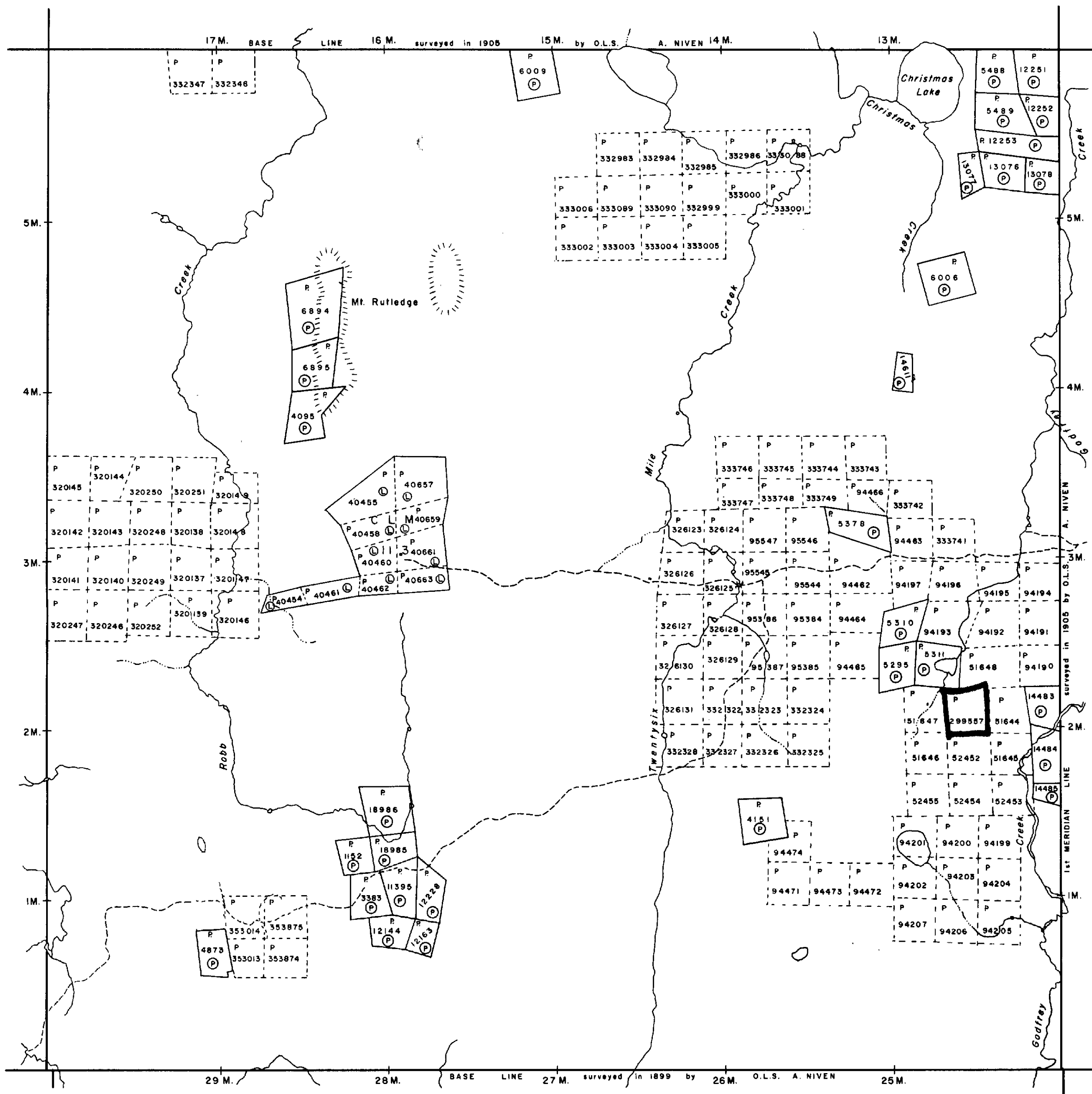
21E.M

21E.M

TURNBULL TP

21E.M

Robb TP (M.309)



Massey TP. (M.296)

Godfrey TP. (M.284)

Carscallen TP. (M.267)



200

K. Kalamov

THE TOWNSHIP OF
TURNBULL
 DISTRICT OF COCHRANE
 PORCUPINE MINING DIVISION
 SCALE: 1-INCH = 40 CHAINS

LEGEND

PATENTED LAND	● or ⊕
CROWN LAND SALE	C.S.
LEASES	⊙
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	—
PATENTED FOR SURFACE RIGHTS ONLY	—

NOTES
 400' Surface Rights Reservation along the shores of all lakes & rivers

MINING LANDS -
 DATE OF ISSUE
 JAN 26 1973
 MINISTRY OF NATURAL RESOURCES

PLAN NO. M-316

MINISTRY OF NATURAL RESOURCES
 ONTARIO