



52L07NW0002 63.619 WERNER LAKE

010

RESULTS OF
AN ELECTROMAGNETIC SURVEY
on the Property of
EASTERN SMELTING & REFINING CO. LTD.
LYNX LAKE AREA
KENORA MINING DIVISION

INTRODUCTION:

An electromagnetic survey was carried out over the 27 claim group held by EASTERN SMELTING AND REFINING CO. LTD., during August of this year.

The group consists of claims 34390 to 34416, inclusive. They are located to the north of Lynx Lake in the Kenora Mining Division of the Province of Ontario.

Electromagnetic readings were taken at 100 foot intervals along north-south picket lines which were cut at 600 foot intervals. The readings have been plotted as profiles on the accompanying map, which is on a scale of one inch equals 400 feet. The electrical conducting zones are shown by heavy, broken lines.

METHOD OF SURVEY

An electromagnetic field is set up over the area to be investigated. This applied field induces currents in any conducting masses or structures in the area, which results in producing a distortion in direction and intensity of the electromagnetic field produced by the primary loop. Measurements of the electromagnetic field are taken at successive stations

COPY

QUEBEC NICKEL CORPORATION LIMITED
(No Personal Liability)

MINE OFFICE
C/o Ontario Central Airlines
Kenora, Ontario.

September 26, 1955.

Mining Recorder,
Red Lake, Ontario

Dear Sir:

Re: Eastern Smelting & Refining Co. Ltd.,
KRL.34390 to KRL.34416. (inclusive)

Breakdown of man days to accompany Report of Work
forms for the above mentioned claims:

Geophysical crew as per electromagnetic survey report:	
64 days x 4 equals	256
Geophysical crew as per Mag. and Scintillometer report:	
67 days x 4 equals	268
Kurt Speth, Supervising Engineer (Office & field work)	
30 days x 4 equals	120

Linecutters:

J. Carlson, Daileybery, Ont.	July 3 to July 22	20 days (10 Hr.)
E. Delak, Kenora, Ont.	July 11 to July 22	12 days (10 Hr.)
W. Martin, Kenora, Ont.	July 6, to July 22	17 days (10 hr.)
G. Leblanc, Kenora, Ont.	July 6 to July 23	18 days (10 hr.)
H. Brunet, Kenora, Ont.	July 6, to July 23	18 days (10 hr.)
W. Lyons, Kenora, Ont.	July 6 to July 23	18 days (10 hr.)

103 days

Equivalent 8 hour days: $103 \times \frac{10}{8} \times 4$ equals 516

Total 1160 days

Maximum allowable days per claim for Geophysical work:
27 claims x 40 equals 1080 days

Due to extremely rough country (east-west ridges)
considerably more time was spent on linecutting than other-
wise would have been required.

Yours truly,
Eastern Smelting & Refining Co.Ltd.

C.C. Andrew Robertson
F.L. Hamaford

(Sgd.) Allan Wm. Grant.

Allan Wm. Grant,
Consulting Engineer

along picket lines and thus a distortion in the field indicates a conducting zone.

Conducting zones may be caused by different geological structures, such as:

1. Water bearing shear zones.
2. Graphite bands.
3. Mineralized zones.

For comparison purposes, two plates showing the results over known deposits are enclosed.

The Brunswick Mining and Smelting ore body consists of massive sulphides, containing zinc-lead-silver and copper and averages about 200 feet in width.

The Anthonian zone is also massive sulphides with lead-zinc and silver. It varies in width from 5 to 15 feet.

RESULTS AND RECOMMENDATIONS:

Three electrical anomalies were outlined by the survey. These anomalies indicate narrow conducting zones.

Anomaly 1 occurs on line 120 W at chainage 3000 North. It shows up on only one line.

Anomaly 2 occurs on line 108 W at 300 South and on line 102 W at 100 South. Sulphide mineralization occurs on line 108 and is no doubt,

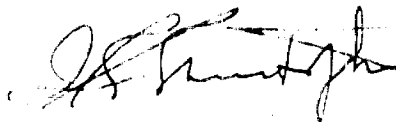
3.

the cause of the anomaly.

Anomaly 3 is located at 500 South on line 48 W and at 700 South on line 42 W. The strongest indication is on line 42W.

It is recommended that the three anomalies be investigated by surface trenching if possible. If trenching is impracticable, it is suggested that Anomalies 2 and 3 be tested by diamond drilling. Suggested holes are shown on the accompanying map.

Respectfully submitted,



I.C. CHRISTOPHER, B. Sc., P. Eng.

Bathurst, N.B.
September 9th, 1955.

EASTERN SMELTING & REFINING CO. LTD.

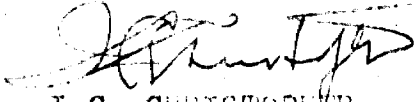
Summary of personnel engaged on
Geophysical Survey carried out
over 27 claim group Lynx Lake Area
Kenora Mining Division, Ont.

MAN DAY DISTRIBUTION

Aug. 1 - 19, 1955

Operation of Electromagnetic Survey, Calculating,
Drafting & Typing.

Alton Smith	19 days
Ronald Wiseman	19
J. Hodge	19
F. Corcoran	4
J. McAloon	2
I. Christopher	2
M. Leblancq	1
TOTAL.....	66 days

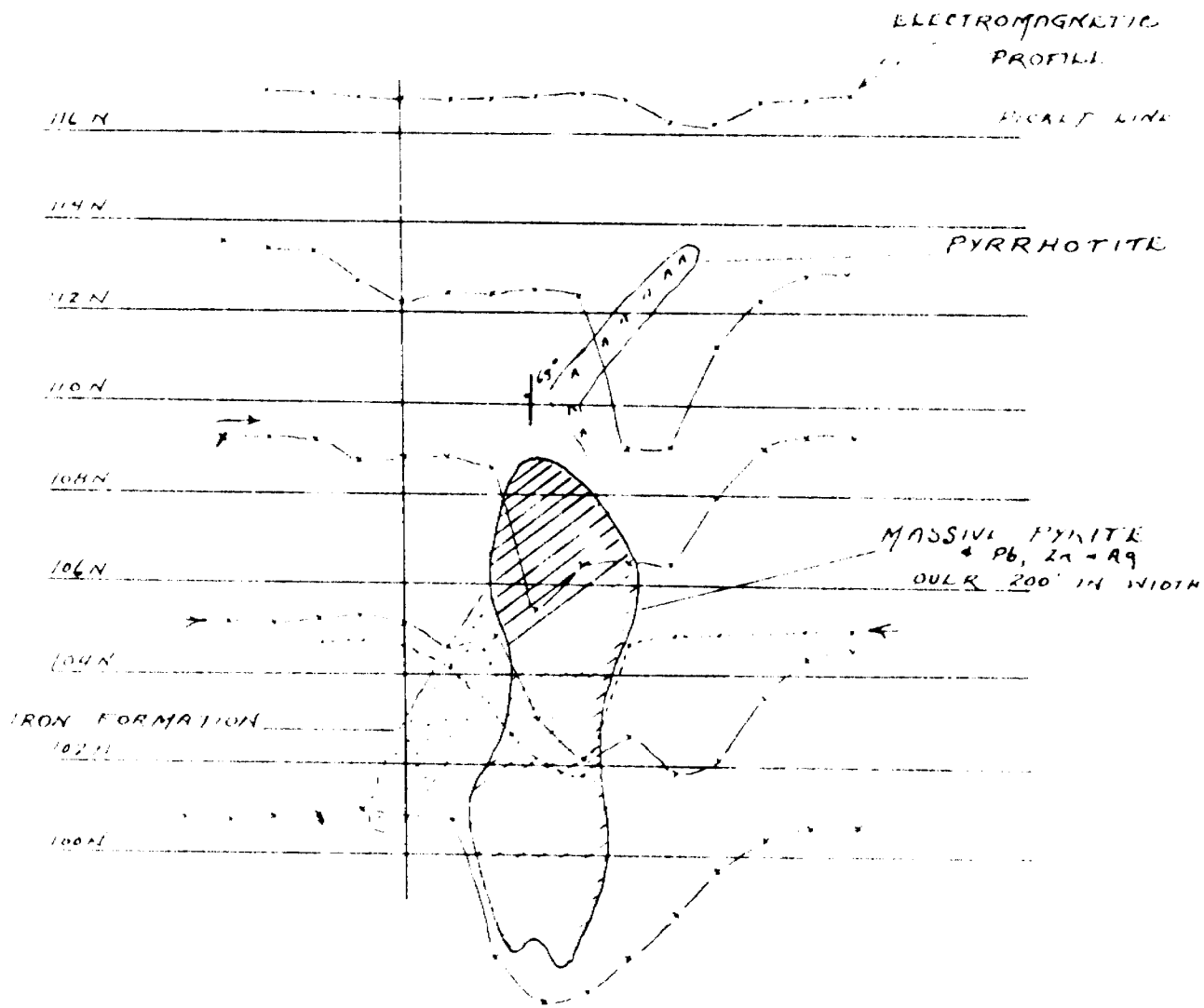

I.C. CHRISTOPHER.

Bethurst, N.B.
September 13, 1955.

EASTERN SMELTING & REFINING CO. LTD.

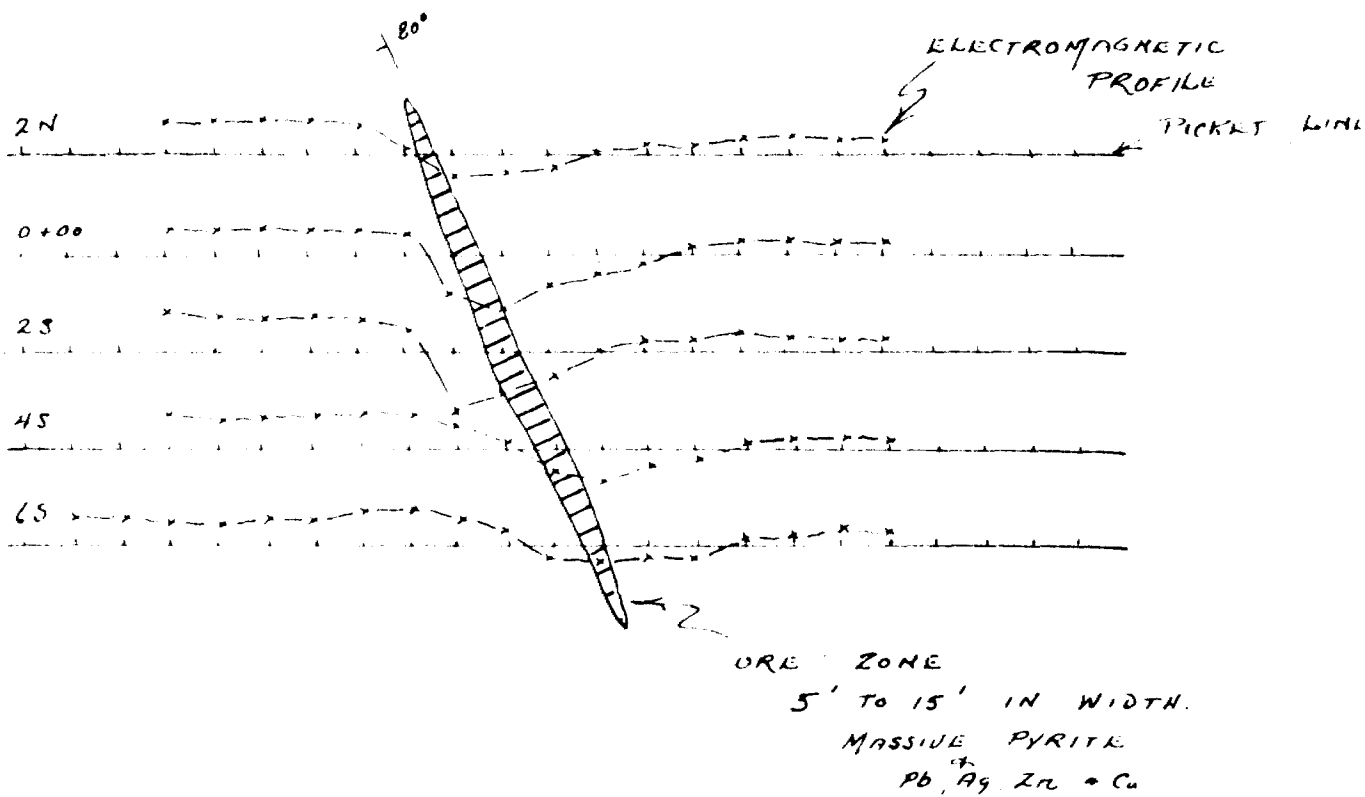
LYNX LAKE

<u>NAME</u>	<u>OCCUPATION</u>	<u>MAN DAYS</u>
Alton Smith	Instrument man	19
Ronald Wiseman	Motor man	19
J. Hodge	Note man	19
F. Corcoran	Rough plotting & calculation	4
J. McAloon	Drafting	2
I. Christopher	Interpretat'on & report	2
N. Leblancq	Typing	1
	TOTAL	<u>66 days</u>



RESULTS OF E.M. SURVEY
OVER
BRUNSWICK M & S
ORL ZONE

SCALE
1" = 400'



RESULTS OF E.M. SURVEY
OVER
ANTHONIAN ORE ZONE.

SCALE
1" = 400'



52L07NW0002 63.619 WERNER LAKE

020

RESULTS OF
MAGNETIC & RADIATION SURVEYS
on the property of
EASTERN SMELTING & REFINING CO. LTD.
LYNX LAKE AREA
KENORA MINING DIVISION
ONTARIO.

COPY

QUEBEC NICKEL CORPORATION LIMITED
(No Personal Liability)

MINE OFFICE
C/o Ontario Central Airlines
Kenora, Ontario.

September 26, 1955.

Mining Recorder,
Red Lake, Ontario

Dear Sir:

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Linecutters:

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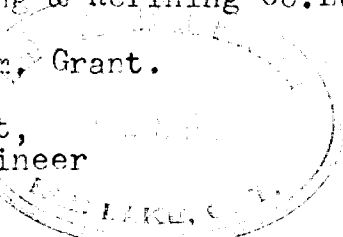
Due to extremely rough country (east-west ridges)
considerably more time was spent on linecutting than other-
wise would have been required.

Yours truly,
Eastern Smelting & Refining Co. Ltd.

(Sgd.) Allan Wm. Grant.

Allan Wm. Grant,
Consulting Engineer

C.C. Andrew Robertson
F.I. Hamaford



INTRODUCTION

A magnetometer and radiation survey was carried out over a group of 27 claims held by Eastern Smelting & Refining Company Ltd. The claims are numbered 34390 to 34416 and are located to the north of Lynx Lake in the Kenora Mining Division of Ontario.

A grid of north-south picket lines was out over the property at 600 foot intervals and readings were taken along the lines at 100 foot stations.

The magnetic values which are expressed on the map in gammas are all correlated to an arbitrary base station which tends to reduce the measurements to the values they would have had if measured simultaneously. The occurrence of the minerals magnetite and pyrrhotite in varying amounts cause most of the magnetic anomalies.

A model E A 135 S scintillator was used in taking the radiation readings. The normal background value in this case is 35.

RESULTS

The results are shown on the accompanying map which is made on the scale of 1 inch equals 400 feet.

A fairly persistent east-westerly trending magnetic zone occurs near the south western boundary of the property. It occurs on lines 126 W, 120 W, 114 W, & 108 W at chainage 200 north of the base line. The zone swings south and occurs again on lines 96 W, 90 W, & 84 W, at

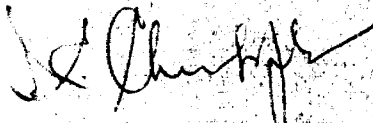
chainage 200 south and again on line 72 W at chainage 600 south. Radiation highs also occur along this zone.

Another east-westerly trending magnetic zone occurs at 1000 north on line 60 W and persists to line 6 W at 500 north.

Several zones of higher than normal radiation counts were outlined. The strongest occurs on line 60 W at 1050 south and on line 66 W at 900 south.

It is recommended that the high scintillator readings on line 72 W at 600 south, 66 W at 900 S and 60 W at 1050 south be investigated either by surface trenching or diamond drilling. It is also recommended that the magnetic & radiation anomalies occurring just north of the base line from line 120 W to 108 W be investigated.

Respectfully submitted,



I.C. CHRISTOPHER, B.Sc., P. Eng.

Bathurst, N.B.
Aug. 30, 1955.

EASTERN SMELTING & REFINING CO. LTD.

Summary of personnel engaged on
geophysical surveys carried out
over 27 claim group.

MAN DAY DISTRIBUTION: July 7 - Aug. 1, 1955

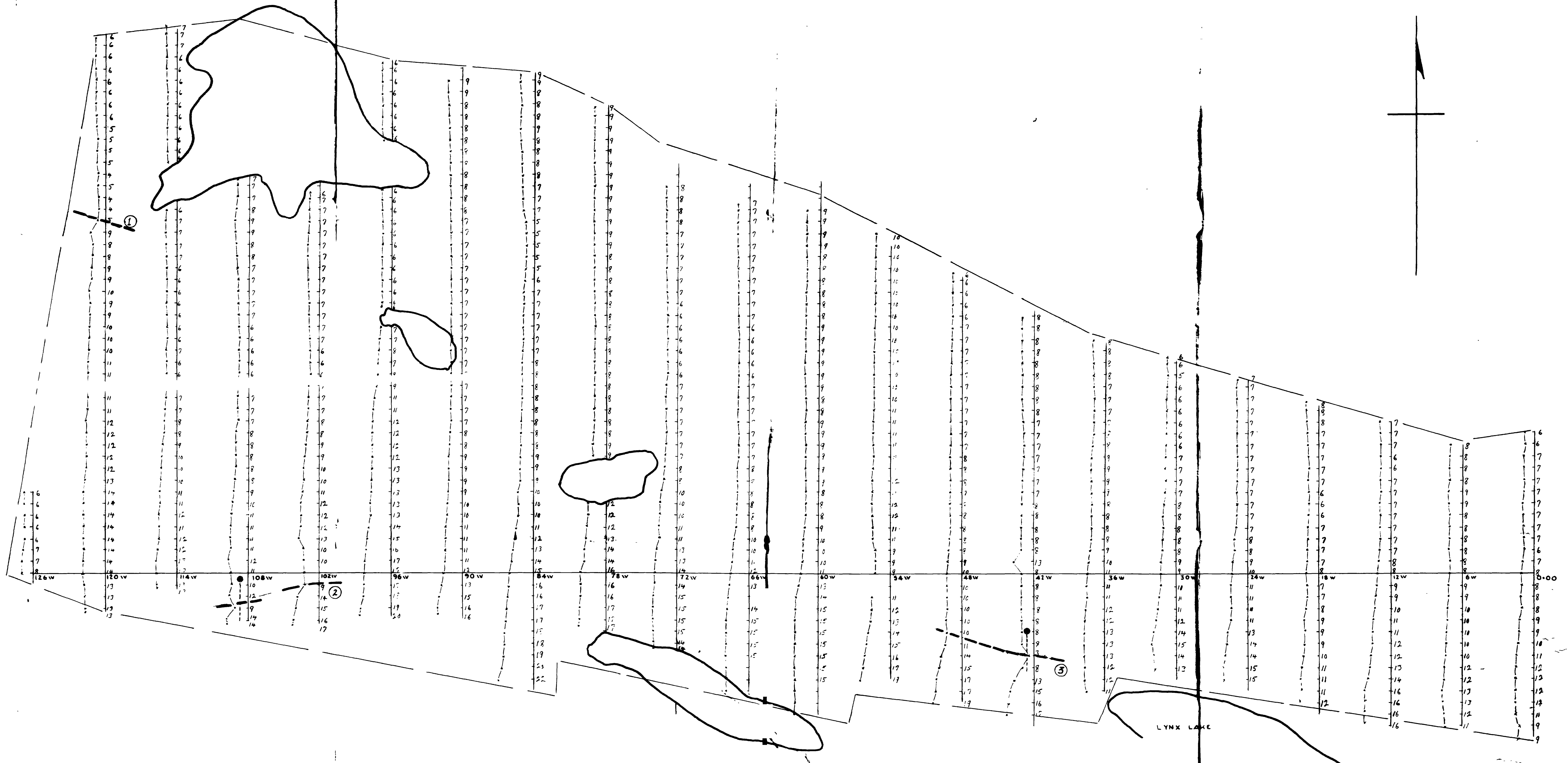
Operation of Magnetometer & Scintillometer,
Calculations, Drafting & Typing:

Alton Smith	Bathurst, N.B.	26 days ✓
Ronald Wiseman	Toronto, Ont.	26 days
J. Hodge	Bathurst, N.B.	6 days
F. Corcoran	Bathurst, N.B.	3 days
J. McAloon	Bathurst, N.B.	3 days
I. Christopher	Bathurst, N.B.	2 days
M. Leblanoq	Bathurst, N.B.	1 day

Total..... 67 days

I.C. Christopher
I.C. CHRISTOPHER.

Bathurst, N.B.
Aug. 30, 1955.



EASTERN SMELTING & REFINING CO. LTD.

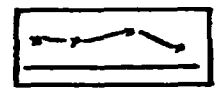
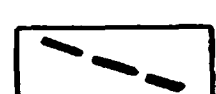

Lynx Lake Area

KENORA MINING DIVISION - ONT.

ELECTROMAGNETIC SURVEY

Scale 1" = 400'

LEGEND.

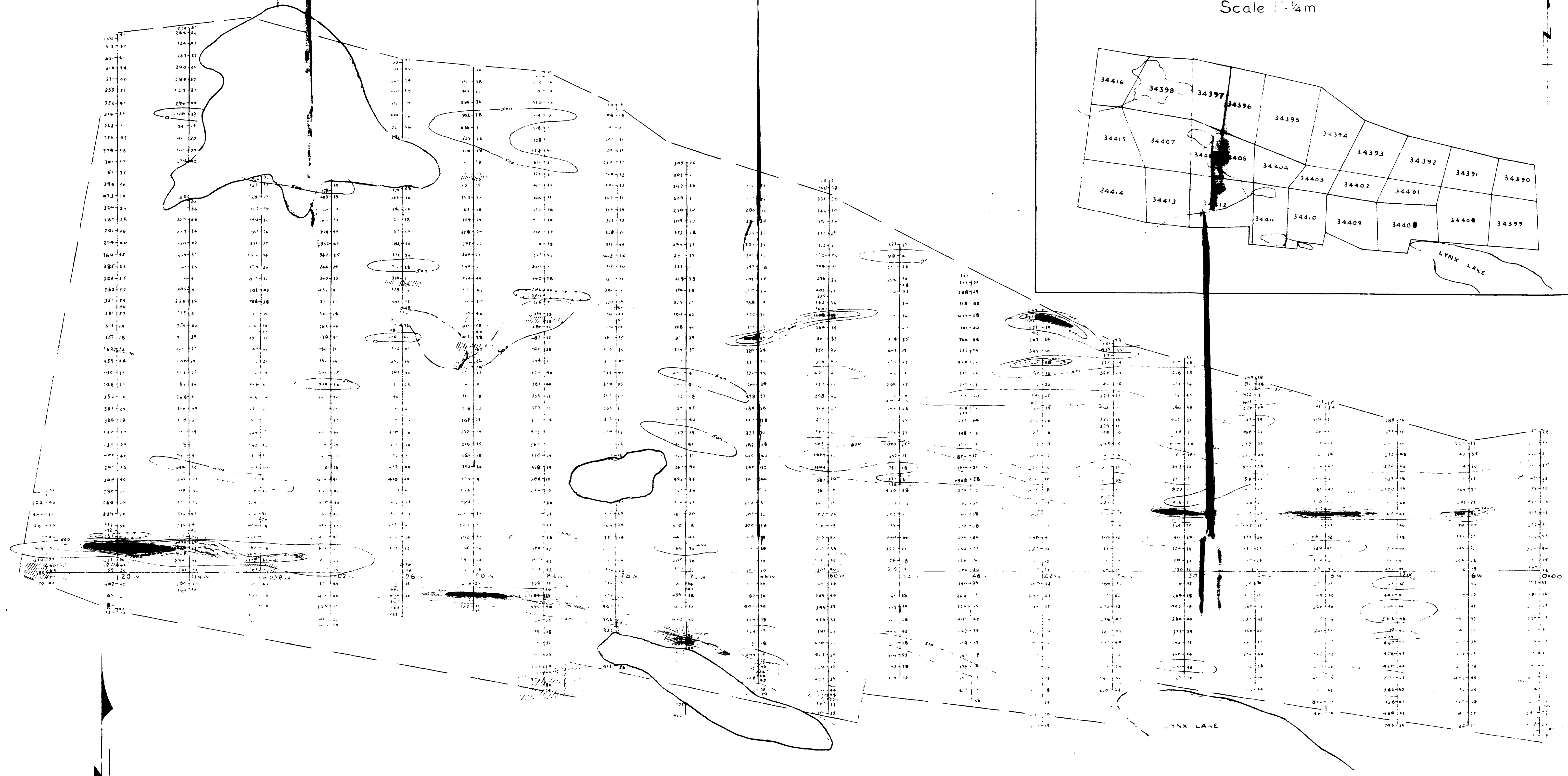
-  ELECTROMAGNETIC PROFILE.
-  ELECTRICAL CONDUCTOR.
-  SUGGESTED D. D. H.



J. G. Smith Sept. 1955

CLAIM GROUP

Scale 1"=4m



EASTERN SMELTING & REFINING CO. LTD.

Lynx Lake Area

KENORA MINING DIVISION - ONT.

MAGNETIC & RADIATION SURVEYS

Scale 1"=400

Shelton & Co.

