EAGLEROCK LAKE GROUP

SCHOLES TOWNSHIP

DISTRICT OF TEMISKAMING

ONTARIO

General

A group of thirty-eight unpatented mining claims in Scholes Township, District of Temiskaming, staked by employees of this Company in June, November and December, 1955, was surveyed by magnetic and electromagnetic methods during the months of November, 1955 - June, 1956. These claims are numbered as follows:

T.36503-4-5-6
T.36978-9-80-1-2-3-4-5-6-7-8-9-90-1-2-3-4-5-6-7-8-9
T.37000-1-2
T.37238-9-40-1-2-3-4-5-6

Purpose of Survey

The purpose of the survey was to locate magnetic anomalies and electromagnetic conductors that may represent or lead to the discovery of valuable sulphide ore.

Company Conducting Survey

The dip needle and electromagnetic surveys were conducted by technicians employed by Noranda Mines, Limited and Crone Geophysics during the period November 18, 1955 - June 27, 1956.

Results of Electromagnetic Survey

The results of the electromagnetic survey are shown on the map accompanying this report. The receiver coil dip angle readings were taken at 100 foot intervals along east-west traverse lines 400 feet apart over the whole property (except water) and 200 feet apart over an area of about one claim in the showing area. Readings indicated as + (positive) represent a receiver coil dip angle to the right, and readings indicated as - (negative) represent a receiver coil dip angle to the left. All readings were taken with the transmitter set up at the location indicated

by the number at the end of each line of readings.

Following is the discussion of results supplied to this Company by Crone Geophysics.

"Electro Magnetic Survey Report
Eagle Rock Lake Property.

Part "A"

Conductors (1) and (2) occur in mineralized, graphitic, iron formation. They are weak conductors most likely representing the graphite.

Conductors (3) and (4) are similar in that they have the same strike, are associated with strong magnetic highs and occur entirely within the porphry. Further exploration of these anomalies is recommended.

Conductor (5) follows the porphry diabase contact and is most likely caused by graphite in a small band of iron formation which also follows the contact.

Part "B"

The detailed region west of the camp contains a multitude of strong conductors. Conductors (1) and (2) are long, strong and appear to be connected with some major structure which could be faulting or iron formation.

Numerous short strong conductors occur at the end of conductors (1) and (2) generally striking N.30 to 60 E. These conductors are undoubtedly connected with the numerous pyrrhotite bands shown in the trenches and correspond with the general strike of the iron formation.

Other conductors shown in the area are weak and generally associated with the iron formation.

Further exploration should be concentrated on the (1) and (2) conductors."

Instrument and Sensitivity

The instrument used on the electromagnetic survey was a 500 watt - 1,000 cycle unit capable of a 1,500 foot range. This provides a 10° null at 1,500 feet. The E.M. unit consists of a transmitter assembly and a receiver assembly.

Stations Established

A total of 1,237 receiver stations were established, and 18 transmitter stations were set up. Twenty-four and one half miles of line was cut on the land area of the claim group, and 4.48 miles of grid was established on the lakes for winter work.

Dip Needle Survey

The results of the dip needle survey are shown on the map accompanying this report. This survey was done previous to the electromagnetic survey, and assisted in the interpretation of this survey and the geological survey.

In general the area underlain by Eaglerock Lake and the land area south of the south boundary of 36,992 is flat magnetically, ranging from 0° to 5° dip, the general trend is for larger overall dips to occur on the north portion of the property.

Most of the anomalies obtained in the claim group can be attributed to the pyrrhotite-bearing iron formations which are most extensively developed in the area west of the camp on Eaglerock Lake, and in the far northwest corner of the claim group.

On lines 92 N. and 112 N., about 4-500 feet east of the base line, isolated anomalies occur in an area underlain by feldspar porphyry intrusive. A small vein of magnetite was noted near the location of the anonaly on line 92 N.

Instrument and Sensitivity

The instrument used on the dip needle survey was a Sharp.Super dip unit having a sensitivity of about 100 gammas per scale division. All readings were taken on the swing. The instrument was slightly adjusted to read zero at 54 N. 1150 E.

Stations Established

A total of 2,828 instrument stations were established. In addition to the 24.5 miles of line cut for the E.M. and dip needle surveys on land a grid totalling 4.48 miles of line was established on the ice surface of the lake.

General Geology

The property is underlain by Keewatin type greenstones and iron formation, Huronian sediments, and by feldspar porphyry, and Nipissing diabase intrusives.

The Keewatin rocks, altered basic and intermediate volcanics and at least two bands of siliceous iron formation strike east-west across the north part of the group, and generally north-south in the eastern portion west of Eaglerock Lake. They there form a large fold, but because of the lack of structural (top determination) data it is not possible to tell whether it is a syncline or anticline.

Unconformably overlying the Keewatin rocks the Huronian conglomerate, greywacke, and quartzite are best exposed around the west shore of Eaglerock Lake near and on the island.

Quartz and feldspar porphyry intrusives cut the Keewatin rocks, notably in the north portion of the group, but the relationship with the Huronian sediments are unknown as nowhere were the two formations seen in contact.

Nipissing diabase outcrops as prominent steepsided, flat-topped hills, and is a capping over much of the older rocks. It represents a flat-lying dyke, but nowhere were older rocks seen on the upper surface, so its original thickness is not known.

In general the property has a medium to heavy covering of glacial debris, and outcrops are relatively scarce.

Respectfully submitted,

R. S. WOOLVERTON
GEOLOGIST.

RSW:s
Aug. 27/56.

STATEMENT OF WORK

GEOPHYSICAL SURVEY

EAGLEROCK LAKE GROUP

Line Cutting, Picketing, Chaining			
Eiler Maki, Worthington, Ont.	Nov. 18 - Dec. 20, 1956	32	
Wayne Cameron, Worthington, Ont.	Nov. 18 - Dec. 20, 1956	32	
Leo Turcotte, Ottawa, Ont.	Apr. 1 - May 5, 1956	35	
G. Lafleche, Trout Creek, Ont.	Apr. 1 - May 5, 1956	35	134
Instrument Work			
W.H. Reed, Sault Ste. Marie, Ont.	Jan. 5 - Feb. 15, 1956	40	
G. Lafleche, Trout Creek, Ont.	Jan. 5 - Feb. 15, 1956	40	
R. McCullough, Toronto, Ont.	May 1 - June 22, 1956	52	
G. Lalievre, Toronto, Ont.	May 1 - June 22, 1956	52	
W. Woychuk, Toronto, Ont.	May 15 - June 22, 1956	37	221
			355
Consultation and Supervision			
R.S. Woolverton, Don Mills, Ont.	Nov. 30 - June 27, 1956 (Equivalent 8 hour days)		15
D. Crone, Cooksville, Ont.	Jan. 1 - June 27, 1956 (Equivalent 8 hour days)		15
Field Draughting			
W. Woychuk, Toronto, Ont.	May 15 - June 22, 1956 (Equivalent 8 hour days)		9
Office Draughting			
C. King, Toronto, Ont.	Mar. 22 - June 27, 1956 (Equivalent 8 hour days)		19
Report Preparation			
R.S. Woolverton, Don Mills, Ont.	Nov. 30 - June 27, 1956		4
D. Crone, Cooksville, Ont.	Jan. 1 - June 27, 1956		4
Total 8 hour man days			421

Assessment work days $\frac{421 \times 4}{38} = 44$ days per claim

Amount submitted per claim 40

Certified by

R.S. Woolverton,
Geologist.

RSW:s
Aug. 23/56.

TIMISKAMING MINING DIVISION

NUMBER

NAME Eaglerock Lake property of Noranda Mines Ltd.

LOCATION Scholes township – Eaglerock Lake, T 36505 to 36506
T 36978 to 37002
T 37238 to 37246

OWNERSHIP Noranda Mines Ltd.

PRINCIPAL METALS PRESENT Copper

DEVELOPMENT Test pits and trenches; electromagnetic and magnetic surveys; geological surveying.

GEOLOGY Mineralized zones in siliceous iron formation in Keewatin-type greenstones. Main zone is 200 feet long and from 2 to 30 feet wide. Mineralization consists of pyrite, pyrrhotite, low chalcopyrite, minor chalco sphalerite.

PRODUCTION (Production figures, if any, will be supplied by the Ontario Department of Mines Statistician)

ORE RESERVES OR DIMENSIONS AND GRADE OF BODIES

No copper ore indicated to date. Mineralization over 200 feet, varies from 2 to 30 feet wide. Best channel sample 0.51% Cu over 3 feet. At each end channel sample average 0.20% Cu over 28 feet.

SELECTED REFERENCES

REMARKS Further work by Noranda directed toward drilling of E.M. anomaly.

(Signed) P. W. Sobolewski

Please return to:

Resident Geologist,
Ontario Department of Mines,
Box 48,
Swastika, Ontario.

SEE ACCOMPANYING MAP(S) IDENTIFIED AS

SCHOLES-0020-A1-#1

#2

#3

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

EAGLE ROCK LAKE

ISLAND

CAMP

LAKE

LAKE

LAKE

LAKE

LAKE

N
AST.

KEY PLAN

SCALE
50 Chs. = 1 Inch.

AFTON

SCHOLES

EAGLE ROCK LAKE

EMERALD LAKE

PROPERTY BOUNDARY

NORANDA MINES LTD.

EAGLE ROCK LAKE GROUP

DIP NEEDLE SURVEY

SCALE

1 Inch = 400 Feet

SCHOLES-0020-A1-#1

BASE LINE

BASE LINE

37246

37244

37241

37238

37245

37240

37239

37000

36998

36997

36999

36504

36506

36503

36505

37001

37002

112 N

108 N

104 N

100 N

96 N

92 N

88 N

84 N

80 N

76 N

⑥ Strong conductor in small bands of Iron formation along Porphyry Diabase contact.

③ ④ ⑤ Strong conductors occur entirely in Porphyry. Area of Magnetic high.

① Corresponds with Graphitic shale formation which contains some Chalcopyrite.

② Mineralized Graphitic shales. This formation is highly magnetic, however, the cross-over occurs in an area of low magnetics. Thus the conductor is not likely due to graphite as most of the mineralization has associated Magnetite or Pyrrhotite.

KEY PLAN

PART "A"

PART "B"

EAGLE ROCK LAKE

SCHOLES

AFTON

EAGLE ROCK LAKE GROUP

ELECTROMAGNETIC SURVEY

SCALE

1 INCH = 200 FEET

PART "A"

SCHOLES-0020-A1-#2

EAGLE ROCK LAKE

36994 36995 36996 36993

36988 36992 36978 36980 36983

36989

36990 36991 36979 36981 36982

36987

37242 37243

BASE LINE

84N 80N 76N 72N 68N 64N 62N 60N 58N 56N 54N 52N 50N 48N 44N 40N 36N 32N 28N 24N 20N 16N 12N 8N 4N 0

Conductor over known showing of iron formation

Conductor probably in iron formation

Broad conductor in iron formation.

Strong conductor in iron formation

Broad conductor partially in Porphyry.

(3) Numerous short yet strong conductors generally striking in a direction perpendicular to 1 & 2

(2) Very strong conductor — partially follows Porphyry contact.

(1) Very strong conductor — follows Porphyry contact (approx)

(1) (2) Appears to be a structural significance to these two conductors i.e. Fault or Iron Formation.

N

KEY PLAN

PART "A"

PART "B"

SCHOLES — 1 — TION

EAGLE ROCK LAKE GROUP

ELECTROMAGNETIC SURVEY

SCALE

1 INCH = 200 FEET

PART "B"

JULY 1976 JC

SCHOLES-0020-A1-#3