52J04SW0029 52J04SW0015C1 DRAYTON

ELECTROMAGNETIC SURVEY

McCOMBE MINING AND EXPLORATION OPTION

MINNITAKI LAKE

PATRICIA MINING DIVISION

ONTARIO

General

A group of 77 unpatented mining claims in the vicinity of the north-east arm of Minnitaki Lake, Patricia Mining Division were surveyed by electromagnetic methods during the period October, 1957 to March 1958. These claims are as follows:

Pa 18296-18313 18
Pa 18622-18651 30
Pa 18961-18983 23
Pa 19995-19999. 5
76

Reason For Survey

The purpose of the survey was to locate electromagnetic anomalies that may represent, or lead to the discovery of, valuable sulphide ores.

Company Conducting Survey

The electromagnetic survey was conducted by technicians employed by Noranda Mines, Limited and by Crone Geophysics, a Noranda geophysical organization, during the period November 1, 1957 to March 15, 1958.

Instruments And Sensitivity

The instrument used on the electromagnetic survey was a 500 watt - 1000 cycle vertical coil transmitter capable of a 1500 foot range. This provides a 10° null at 1500 feet. The E.M. unit consists of a transmitter assembly and a receiver assembly. In the south-west land area of the property and on detail over cross-

over areas detected by the fixed transmitter E.M., a portable electromagnetic unit was used. This unit uses a frequency of 1800 cycles and a constant transmitter-receiver spacing of 200 feet.

Stations Established And Lines Cut

A total of 42 transmitter stations were established for the large E.M. unit and a total of 2393 receiver stations set up. For the area covered by traversing E.M. unit and detail on other areas a total of 326 transmitter-receiver stations were established.

A total of 22 miles of line was cut on mainland and island area. Approximately 50 miles of picketed grid was established on the lake ice. Line spacing was 400 feet.

Results of Survey

The results of the electromagnetic survey are shown on the accompanying map. The receiver coil dip angle readings were taken at 100 foot intervals along north-south traverse lines 400 feet apart. Readings preceded by the sign + (positive) represent a receiver coil dip angle to the right, i.e. a conductor lying to the left, and readings prefixed by the sign - (negative) represent a receiver coil dip angle to the left, i.e. a conductor lying to the right of the receiver as he faces the transmitter at any particular station. All readings were taken with the transmitter set up at the location indicated by the number at the end of each line of dip angle readings.

The following is the report received from Crone Geophysics regarding the results obtained on this property:

"The main area was covered with a large E.M. unit. This is the standard vertical loop, 1000 cycle-null detection equipment. Only a few conductors were detected, these are marked on the maps. In some places angles were obtained usually associated with 'noisy' readings. This is an indication of conducting overburden.

The only strong cross-over occurs on L52W 6/50N. This was checked with portable E.M. without any results. It is therefore concluded that the cross-over is due to conducting clay in the lake. The remaining cross-overs are weak and isolated.

The main showing near L56W, 4000S was not detected as a conductor. This is probably due to its smallness in size and lack of continuity. The showing also failed to produce any definite results when traversed with the portable E.M. unit.

The south-west corner of the property was covered by portable E.M. equipment. This unit uses a frequency of 1800 cycles and a man spacing of 200 feet. Several weak conductors were detected and are marked on the map. None of the conductors are strong enough to suggest an economic concentration of sulphides, thus, without geological support, they are of little interest."

General Geology

Geological surveying was not conducted on the property because of winter conditions. About 70% of the claim group is under the waters of Minnitaki Lake. The land area is composed mainly of peninsulas and islands of various sizes and is only

lightly covered with overburden; most of the shore line is rocky.

The geology of the claim area is shown on map 41H of the Ontario Department of Mines. This shows the property as underlain by Keewatin type greenstone intruded by plugs and bosses of Algoman syenite, diorite and granodiorite. One such intrusive, elongated E-W underlies a large portion of the south part of the claim group and contains large inclusions of greenstone. The main sulphide showing on the property occurs in a pocket of intrusion breccia in diorite close to one of the largest inclusions of greenstone.

Respectfully Submitted,

R. S. Woolverton.

RSW:mem
April 3, 1958.

STATEMENT OF WORK

McCOMBE MINING AND EXPLORATION OPTION

ELECTROMAGNETIC SURVEY

Line-cutting, Picketing, Chaining

Tom Buchan,	Sioux Lookout,	November 1 - December 15, 1957	16 days
Roger Coltrew,	Sioux Lookout,	November 1 - December 15, 1957	4 days
Gilbert Vezina,	Sioux Lookout,	November 1 - December 15, 1957	10 days
Adrian McTravis,	Sioux Lookout,	November 1 - December 15, 1957	12 days
W.H. Reed,	Sault Ste.Marie,	January 8 - February 15, 1958	30 days
Earl Crissler,	Winnipeg, Man.,	January 8 - February 15, 1958	29 days
			101 days

Instrument Work

John Black,	Bathurst, N.B.	December 10 - 15, 1957	4 days
		January 8 - February 15, 1958	38 days
G. E. Lafleche,	Trout Creek, Ont.	December 10 - 15, 1957	4 days
		January 8 - February 15, 1958	38 days
R. M. Davidson,	Sudbury, Ont.	January 8 - February 15, 1958	10 days
			94 days

Drafting

Field Drafting

R. M. Davidson,	Sudbury, Ont.	January 8 - February 15, 1958	4 dys.eq

Office Drafting

G. B. Swan,	Millbrook,Ont.	February 18 - March 10, 1958	6 dys.
			10 days

Supervision and Consultation

R. M. Davidson,	Sudbury, Ont.	January 8 - February 15, 1958	18 dys.eq
J. D. Crone,	Erindale, Ont.	November 1 - February 28,1958	8 days "
R.S.Woolverton,	Don Mills,Ont.	November 1 - February 28,1958	5 days "
			31 days

Interpretation and Report Preparation

J. D. Crone,	Erindale, Ont.	February 28 - March 15, 1958	3 days "

Total Number of Days:

101
94
10
31
3
239 days.

Assessment Man Days (239 x 4) 956

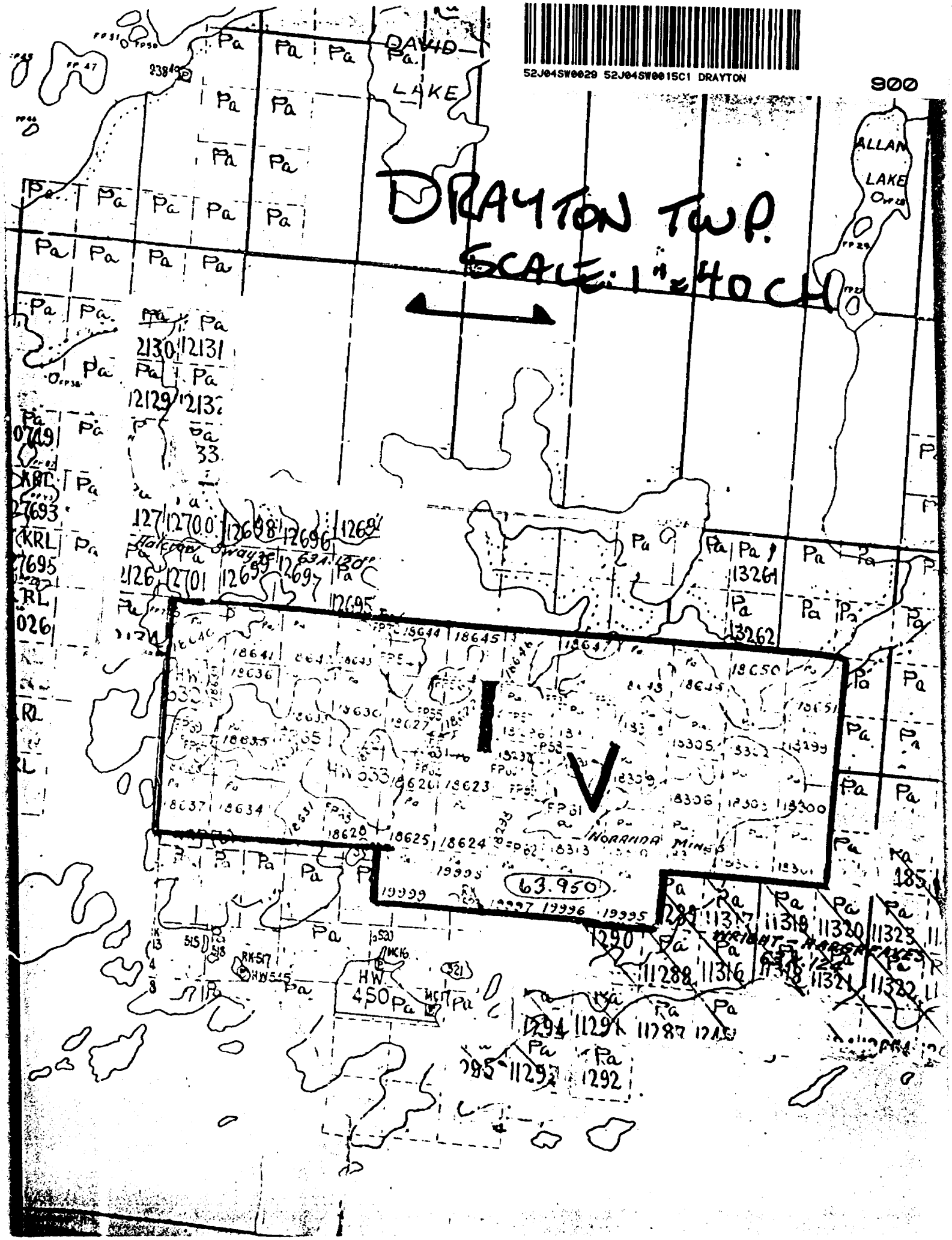
Assessment work per claim $\frac{956}{77}$ = 12.4 days.

Certified By,

R.S.Woolverton,
Geologist,
Noranda Mines, Limited,

RSW:mem
April 9, 1958.

52J04SW0029 52J04SW0015C1 DRAYTON



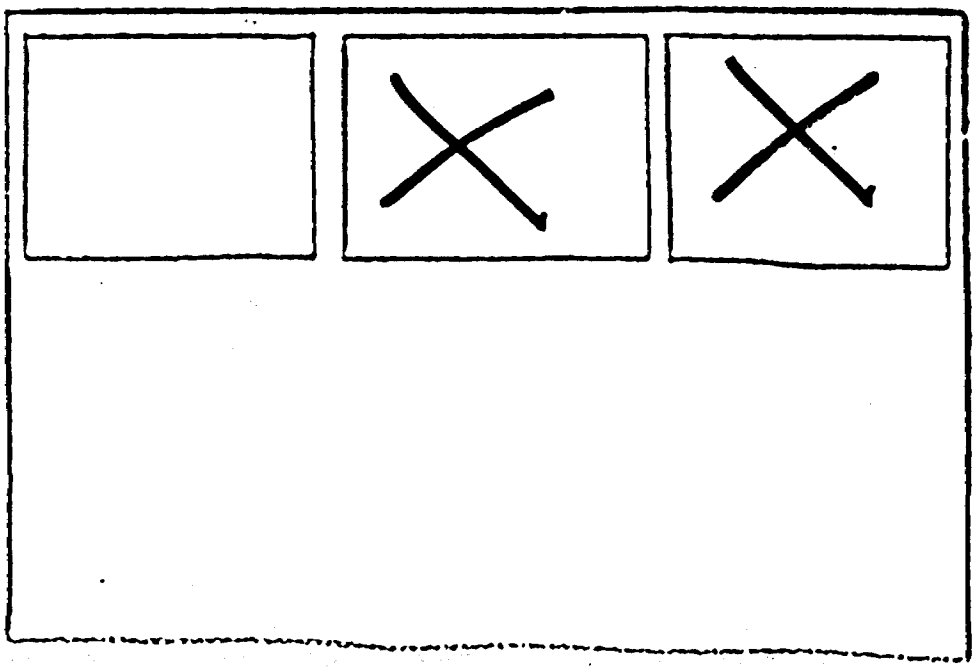
SEE ACCOMPANYING

MAP(S) IDENTIFIED AS

52T/045W-0015-C1-#1

#2

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



+ ve. INDICATES CONDUCTOR TO LEFT OF RECEIVER FACING TRANSMITTER

− ve. " " " RIGHT " " " "

• CROSSOVER

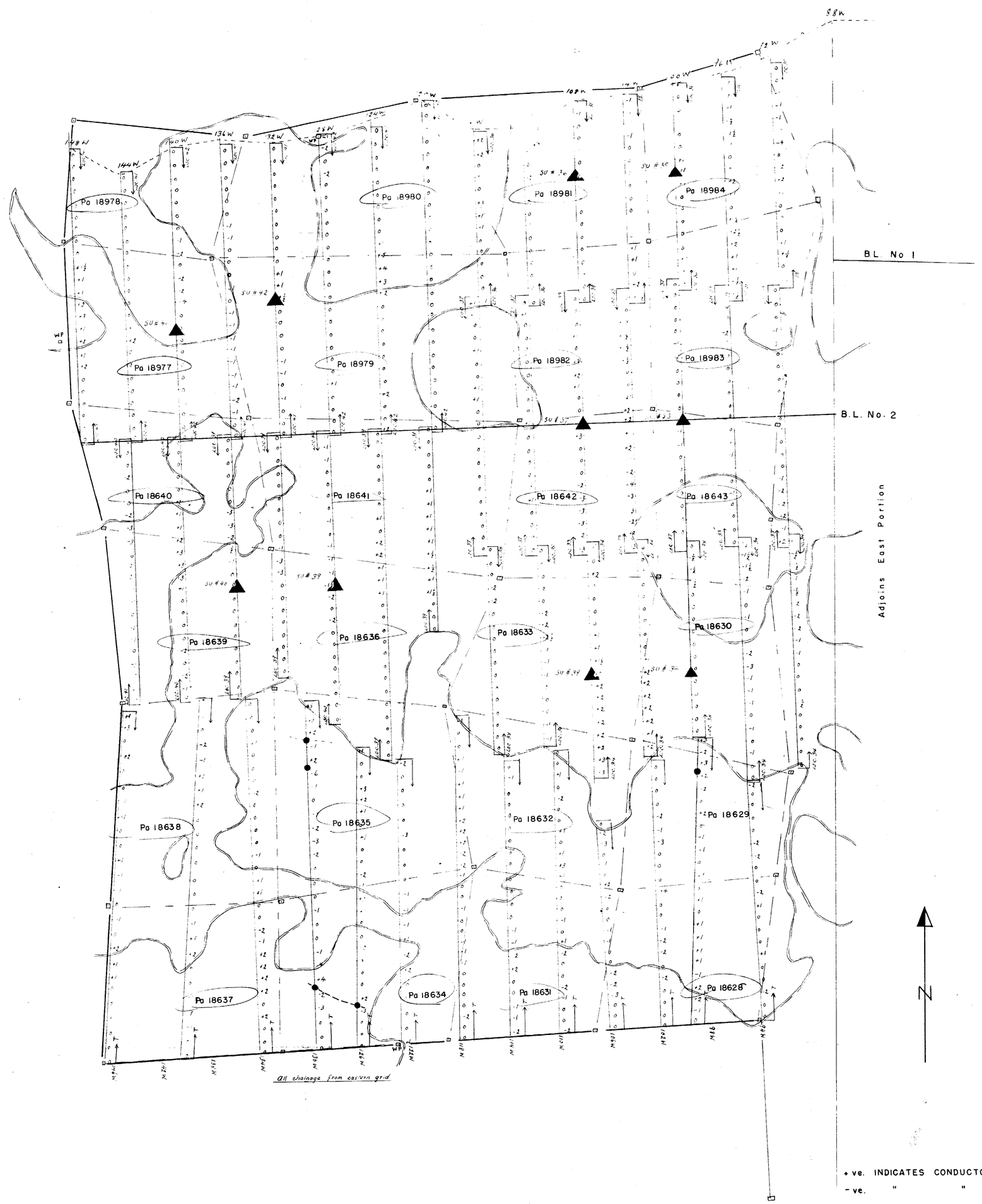
NOTE: Traverse E.M. PLUS readings indicate conductor to south of station

52J/04SW-0015-C1-#1

NORANDA MINES LTD. EXPLORATION DEPT.	SCALE 1" = 400'	DATE MAR. 1958	
TITLE: McCOMBE OPTION	SURVEY BY CRONE	DRAWN BY GBS	
E.M. SURVEY EAST PORTION	PROVINCE	MINING DIV.	PROPERTY	DRAWING NO.
	ONT.	PATRICIA	McCOMBE	1

SHEET 1 OF 2

200



+ve. INDICATES CONDUCTOR TO LEFT OF RECEIVER FACING TRANSMITTER

-ve. " " " RIGHT " " " "

• CROSSOVER

NOTE: Traverse E.M. PLUS readings indicate conductor to south of station

52F/04SW-0015-C1-#2

NORANDA MINES LTD. EXPLORATION DEPT.	SCALE 1" = 400'		DATE MAR. 17, 1958	
	SURVEY BY CRONE		DRAWN BY DAL	
TITLE: McCOMBE OPTION E.M. SURVEY WEST PORTION (T⟶ Traverse E.M. Unit)	PROVINCE ONT.	MINING DIV PAT.-	PROPERTY McCOMBE	DRAWING NO. 1

SHEET 2 OF 2

52J04SW0029 52J04SW0015C1 DRAYTON