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SELF POTENTIAL SURVEY REPORT

NEW FAR NORTH EXPLORATIONS LIMITED

BROUGHAM TOWNSHIP, EASTERN ONTARIO

INTRODUCTION:

Due principally to the increased demand for molybdenite, New Far North Explorations Ltd. acquired two former producers of the metal. Both properties are situated in Eastern Ontario.

As molybdenite is often associated with iron sulphides appearing in disseminated form, self potential geophysical methods were recommended for prospecting as these methods are specifically well-suited for locating sulphide bodies of the non massive variety.

Linecutting began on the Brougham township property January 28th, 1965, and the geophysics concluded on March 13th.

PROPERTY: Location, Access

The Brougham township property, known as the 'Hunt' mine location, consists of four mining claims each totalling 50 acres and located in lots 7 and 8, concession eleven. The claims, situated in the Eastern Ontario Mining Division, are numbered as follows: E.O. 28365-368 incl.

Access to this group is best achieved by travelling a gravel road, eight miles long, from the village of Dacre, Ontario, on highway No. 41, some 18 miles southwest of the town of Renfrew, Ontario.

HISTORY:

Mining claim No. E.O. 28365 contains the underground workings

of the old Renfrow Molybdenite Company which operated from 1915 to 1918. During this time, a tonnage was mined and milled on site. Some 2,000 ft. of drifting and crosscutting was done on four levels to a depth of 150 ft. Stopping, with faces up to 40 ft. in width, was done on the No. two level. On levels one, two, and three, drifting was done along the molybdenite-bearing pyroxenites.

Presently, this mine area is receiving an evaluation through underground channel sampling and diamond drilling. Crosscutting is planned to explore drill intersections.

GEOLOGY:

A study of G.S.C. Map 1046A reveals that the four claims are underlain by limestone of the Grenville Series except for an area in the south portion of claim E.O. 28365, the area of the underground workings, and in the north portion of claim E.O. 28368, both of which contain massive pegmatite. Considerable rock outcrop exists in the northwest portion of this claim group.

GEOPHYSICS:

Purpose of The Survey: The self potential survey was completed in order to measure the natural electro-motive force of any oxidizing sulphide body in an effort to locate additional deposits of molybdenite. This was done through the use of a Sharpe V.P. 6 Ground Voltmeter.

Method of Operation: From a west to east base control line having a bearing of 68° Az., crosslines 100 ft. apart and normal to the control line were cut, picketed, and chained to property limits.

Exploratory readings were taken each 25 ft. along the crosslines. All readings have been reduced to the absolute readings of the first phase of the control line through a three station overlap. The corrected numerical values appear on the accompanying map.

A total of 3,512 stations were established in the 16.6 mile survey.

Interpretation: The anomalous threshold is considered to be a relative difference of 50 millivolts. Low grade anomalies possess a relative difference of between 50-100 M.V.; medium grade anomalies have a relative difference of between 100-200 M.V. and high grade anomalies exist where the relative difference exceeds 200 M.V. It is understood that a more positive value will be recorded for the same body at depth than near surface.

DISCUSSION OF ANOMALIES:

Anomaly 'A', situated in the extreme northeast portion of the property, is viewed with interest because of its 1,400 ft. length, its average 150 ft. width, and its 1,000 ft. long high grade anomalous zone with recordings up to -260 M.V.

In order to nullify spurious effects from electrical induction, electric power lines crossing the property were switched off. As a further precaution against the effects of ground currents caused by alternating generators, a 0.039 microfarad capacitor was employed across the poles of the potentiometer.

Diamond drilling on crosslines 23N and 19N failed to disclose the cause of anomaly 'A'. Because a gossan appearance characterizes the rock where exposed in this area, it is concluded that a thin capping of rock containing amounts of iron sulphides is the source of this anomaly from crossline 19N and eastwards.

Drilling on crossline 16N over this anomaly intersected near surface 19 ft. of true pyroxenites containing up to 10% iron sulphides through visual inspection. This band of mineralized pyroxene is likely the source of anomaly 'A' in the area of crossline 16N.

Anomaly 'B', situated in the southwestern portion of claim E.O. 28365, superimposes the underground workings of the 'Hunt' mine location and the source of this anomaly, therefore, is concluded to be sulphide mineralization known to exist in this area. Lateral fluxing effects have extended the anomalous boundaries beyond the known limits that sulphides exist underground.

Anomaly 'C', situated in the centre of the four claim group, extends for an east-west distance of 1,200 ft. It is noteworthy that 'C' anomaly corresponds in strike to 'B' anomaly - that which exists over the mine workings. The two anomalies have essentially the same intensity and grade. It is suggested that one might be the continuation of the other, disjoined by a northeast trending fault with a 300 ft. displacement. In the area covered by this anomaly near claim posts in the centre of the property, channel sampling by the author in trenches assayed up to 0.34% MoS₂.

According to G.S.C. Map 1046A, anomalies 'B' and 'C' are located along the south boundary of an intrusive pegmatite in contact with crystalline limestone. This zone would be geologically favourable for the deposition of molybdenite-bearing pyroxenite as most deposits in the area are classified as being of the contact metamorphic variety.

Anomalies 'D', 'E', and 'F' are small and low grade except for a small portion in the north part of anomaly 'F' which has a reading of -150 M.V. Of the three, anomaly 'E' holds the most interest as it is located on the north contact of the same pegmatite tongue on which the 'Hunt' mine is located. This is considered as a favourable zone for molybdenite deposition.

Anomaly 'G' may be due to spurious effects characteristic of wintertime self potential surveys.

CONCLUSIONS AND RECOMMENDATIONS:

Geophysical prospecting with self potential equipment was employed on the Brougham township property of New Far North Explorations Ltd. as a means of detecting disseminated iron sulphides with which molybdenite in the area is thought to be normally associated.

A total of six distinctive anomalies and one dubious anomaly were recorded. Similar characteristics exist between anomaly 'B', that which is over the underground workings, and anomaly 'C', that which is on strike with 'B'. Both of these anomalies are on the same favourable

geological structure and there is visual evidence of quantities of molybdenite appearing on surface within the boundaries of 'C' anomaly.

Anomaly 'E' is situated on favourable geological structure.

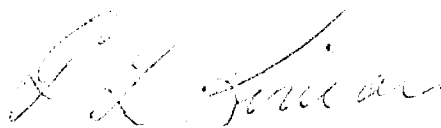
Overburden on this property appears to be light to medium becoming deeper in the southeast portion of the claim group.

It is recommended that diamond drilling continue over the anomalous conditions and that the next target area after 'A' anomaly be 'C'. Each anomaly should be tested with drilling. Where possible, plugger holes for blasting to prepare for sampling should be put down on selected portions of anomalies. Anomaly 'G' should be tested for continuity on strike.

Estimated Costs:

Diamond Drilling: (Inclusive of engineering)		
3,000 ft. @ \$5.00 per foot	\$15,000.00	
Assaying:	\$ 300.00	
Plugger Work	\$ 400.00	
	TOTAL	<u>\$15,700.00</u>

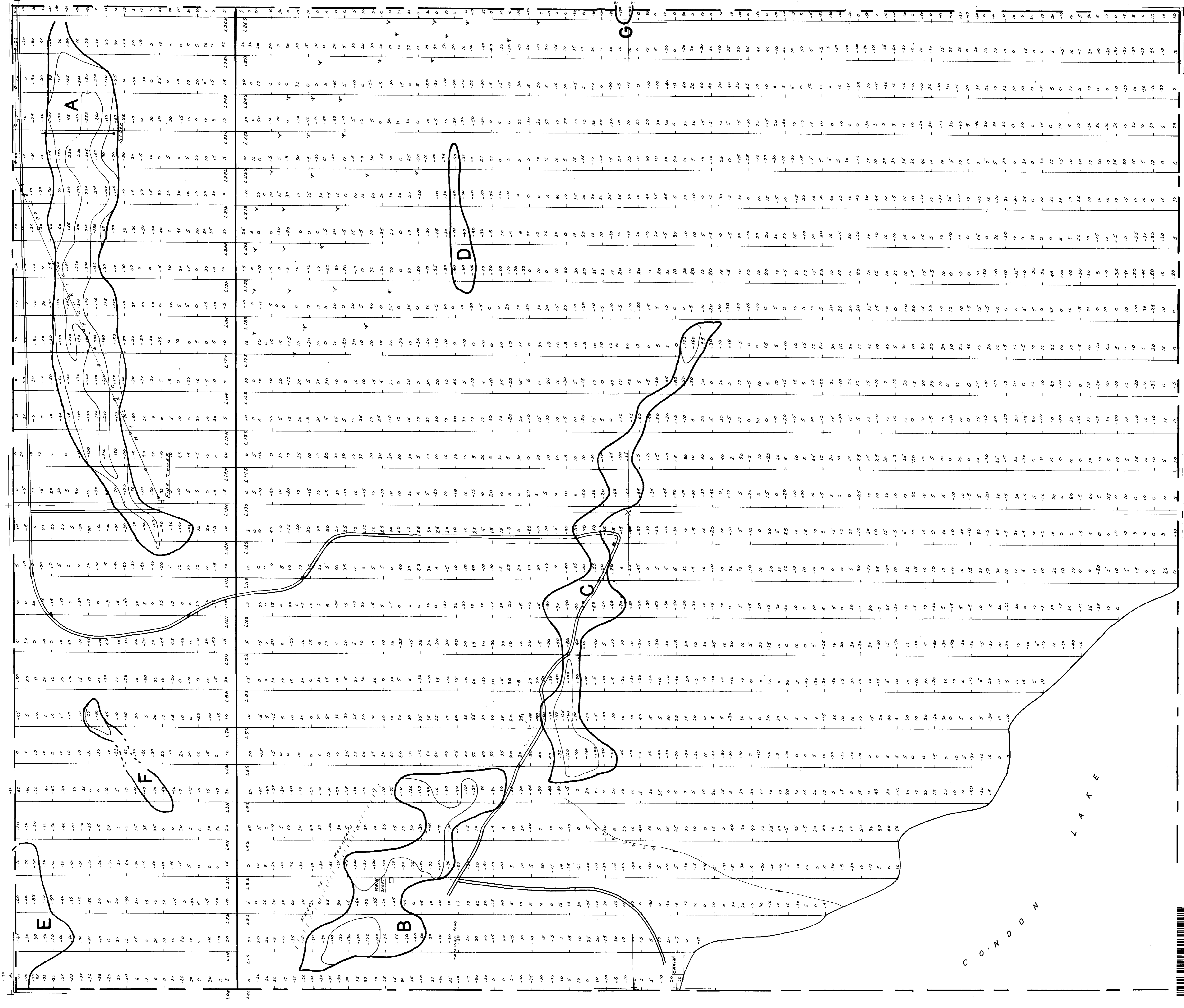
All of which is respectfully submitted



G.L. Kirwan, B.Sc., F.R.G.S.
Consulting Geologist

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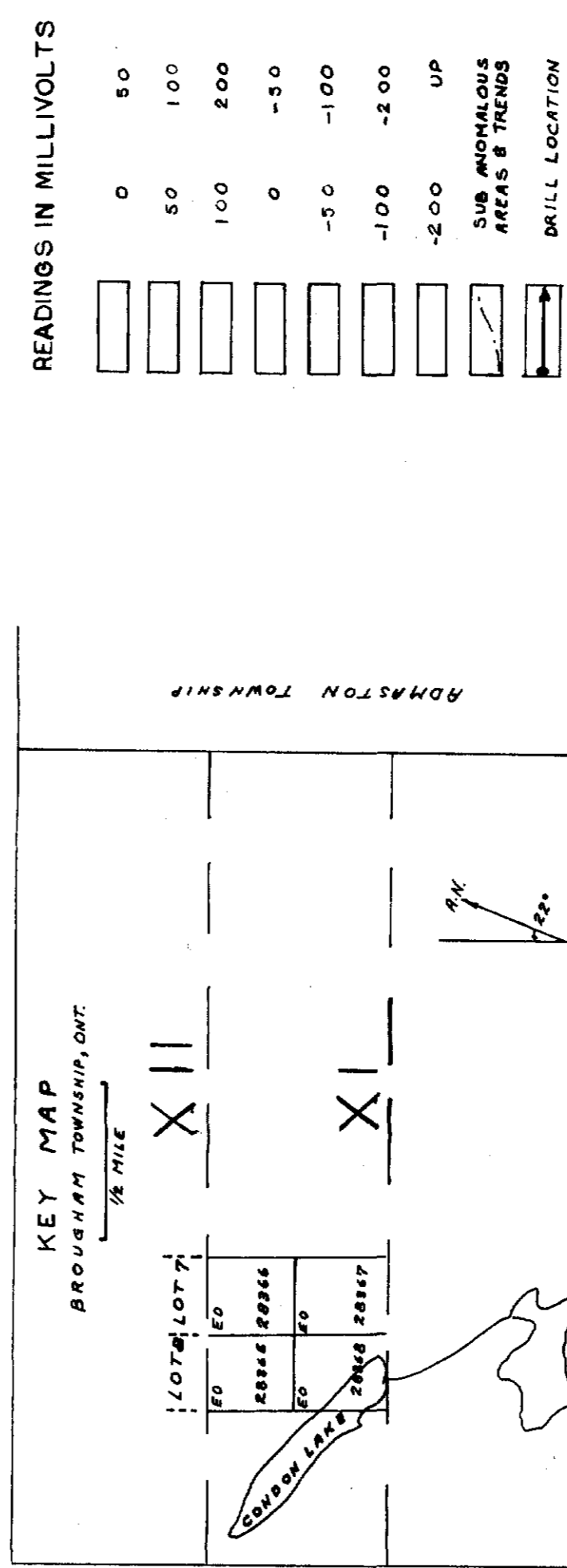
Toronto, Ont.
May 28, 1965



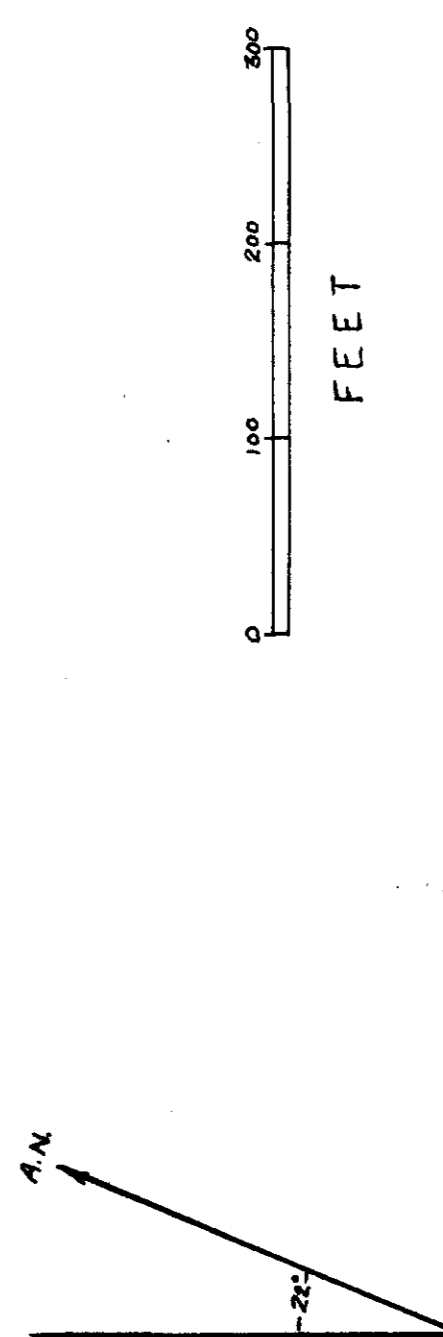
SELF POTENTIAL SURVEY DATA

NEW FAR NORTH EXPLORATIONS LTD.

BROUGHAM TOWNSHIP, EASTERN ONTARIO MINING DIVISION, ONTARIO.



CLAIM POST & CLAIM LINES



GEOPHYSICAL SURVEY BY

ADVANCE GEOLOGY & GEOPHYSICS LTD.

APRIL 1986