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**PARKIN PROSPECTING SYNDICATE**

by

**Paul C. McLean M.A.Sc.**

**Mining Geologist**

December 18, 1963.

## PARKIN PROSPECTING SYNDICATE

### Introduction:

The writer has been requested to submit a report on the property of Parkin Prospecting Syndicate, having reference to the geophysical work undertaken during the past season.

### Abstract:

A brief description of the geology of the property is contained herein. The results of a self potential survey undertaken on parts of the group and recommendations for future development work are contained within this report.

### Location and Means of Access:

The Parkin Prospecting Syndicate property consists of a group of 32 unpatent mining claims which are numbered as follows:

|          |          |          |          |
|----------|----------|----------|----------|
| S-117085 | S-117808 | S-118678 | S-119397 |
| S-117086 | S-117809 | S-118679 | S-119398 |
| S-117087 | S-117810 | S-118680 | S-119399 |
| S-117803 | S-118673 | S-118690 | S-119400 |
| S-117804 | S-118674 | S-118691 | S-119401 |
| S-117805 | S-118675 | S-118692 | S-119402 |
| S-117806 | S-118676 | S-118693 | S-119403 |
| S-117807 | S-118677 | S-118694 | S-119404 |

The group which comprises approximately 1,280 acres is situated in the south central section of Parkin Township in the Sudbury Mining Division, Ontario.

The claims are readily accessible by road from the Town of Capreol which is located some 8 miles to the south of the group. A power line to the Jonsmith Mine crosses the southern part of the property.

General Geology of the Area:

The area lies a few miles north of the north rim of the Sudbury Basin and is partly underlain by Keewatin volcanic rocks and partly by Huronian sediments. The formations have been steeply folded and trend northwest in the area. The older Keewatin and Huronian rocks have been intruded by

dykes and sills of Howenawan olivine diabase and quartz diabase.

Economic Geology:

A number of years ago Jonsmith Mines Limited outlined a copper-nickel-platinum creshoot on the claims adjoining east of the Parkin Prospecting Syndicate property. The creshoot was reported to contain 200,000 tons of 1.69% copper, and 1.35% nickel. A shaft was sunk to a depth of 477 feet and the ore was subsequently mined and shipped to the Falconbridge smelter at the rate of 300 tons per day. Production valued at \$5,500,000 is reported from this mine. An examination of the old surface showing suggests that the ore was associated with a quartz diorite intrusive located near the Bruce Limestone formation.

Huelif Mines Limited has exposed a number of mineralized zones which occur in the Keewatin tuff in the vicinity of the lower Huronian contact. These showings are located approximately 250 feet south of the Parkin Prospecting Syndicate property, and good values of gold and silver have been reported.

Geology of the Parkin Prospecting Syndicate Property:

The Parkin Prospecting Syndicate claims are partly

underlain by Keewatin lava and partly by Huronian sediments. The southern part of the group is underlain by the lava while the northern three quarters of the property is underlain by Mississagi quartzite and Bruce limestone. A northwest trending sill of quartz diabase intrudes the lava-quartzite contact on the southeast part of the group.

Geophysical Surveying:

Gold values on the Huelif property are associated with a zone of sheared and mineralized tuff, located a short distance south of the south boundary of claim S-117087. In view of the association of gold with disseminated sulphides several test lines were run over the showing to determine if a self potential anomaly would result. An anomalous zone was found and was subsequently traced across the south boundary onto the Parkin claims by means of the self potential equipment. Upon the discovery of disseminated sulphides on the south boundary line, a grid of picket lines was laid out at 50 foot intervals and a detailed self potential survey was undertaken. With reference to the smaller of the enclosed maps, it will be noted that a series of anomalies extend northeast from the south claim line of S-117806 for a distance of at least 650 feet. A limited amount of trenching has disclosed low gold values associated with pyrite, galena and chalcopyrite.

On the east side of the group a self potential survey was undertaken in the hopes of locating a sulphide lens similar to that on the Jonsmith property. Two claims and part of a third claim were covered by this work. Picket lines were run east-west at 100 foot intervals. With reference to the larger of the enclosed maps, it will be noted that negative results were obtained on claims S-117803 and S-117804 but that an interesting anomaly was discovered on claim S-117085. Due to the depth of the overburden in this area no explanation of the cause of this anomaly can be given; although it is thought to be due to the presence of sulphides.

The self potential work on the property was carried out between June 2nd and November 27th, 1963. A total of 1,071 readings were taken over 9 miles of picket lines. The instrument used was a Sharpe V.P. 6 ground voltmeter which is calibrated to read to 2 millivolts. The self potential equipment is owned by the author.

Recommendations and Conclusions:

A) Huclif area. Due to the similarity of the mineralization encountered on the south boundary to that of the Huclif gold showing, it is felt that the anomalous area to the northeast should be explored by diamond drilling.

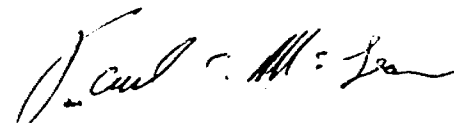
It is recommended that a series of shallow holes be drilled across these anomalies, bearing  $S30^{\circ}E$  at  $-45^{\circ}$ . Any mineralization should be assayed for gold. A total of 750 feet of diamond drilling will be required to complete this phase of the programme.

B) Claim S-117085 It is recommended that two shallow holes be drilled to ascertain the cause of the self potential anomaly on this claim. A total of 250 feet of drilling will be required for these holes.

It is also recommended that the self potential survey be completed on claims S-117085 and S-117086, and that the self potential prospecting be continued along the claim lines. If additional anomalous readings are located picket lines should be out and detailed surveys should be undertaken.

A total of 1,000 feet of diamond drilling has been recommended in order to investigate the anomalies outlined to date on the Parkin Prospecting Syndicate claims. Additional geophysical work has also been suggested.

Respectfully submitted,



Paul C. McLean M.A.Sc.  
Mining Geologist.

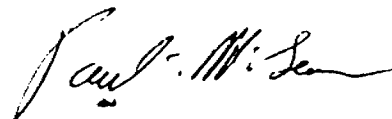
CERTIFICATE

I, Paul G. McLean, of the City of North Bay, in the District of Nipissing do hereby certify as follows:

1. I am a consulting Mining Geologist, residing in the City of North Bay, Ontario, Canada.
2. I am a graduate of the University of Toronto Faculty of Applied Science and Engineering, in the course of Mining Geology, 1950. I hold the degrees of B.A.Sc., and M.A.Sc. in Mining Geology.
3. The accompanying report is based on the author's personal knowledge of the property and was written with reference to a previous report by the author.
4. The writer has visited the property of Parkin Prospecting Syndicate on a number of occasions during the past year.

Dated at North Bay, Ontario

This 18th. day of December, 1963.



Paul G. McLean M.A.Sc.  
Mining Geologist.





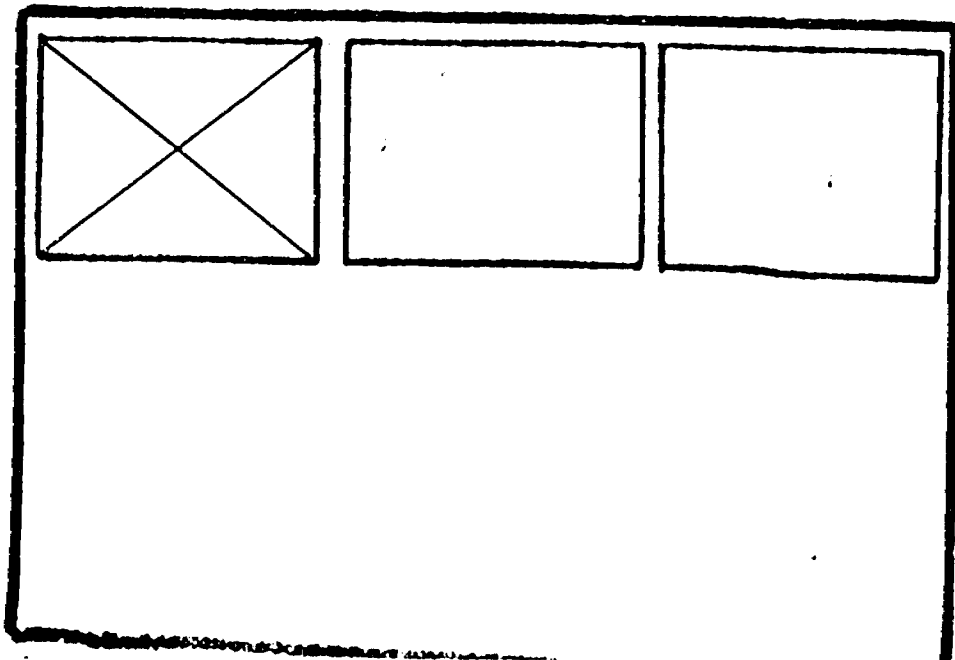
SEE ACCOMPANYING  
MAP(S) IDENTIFIED AS

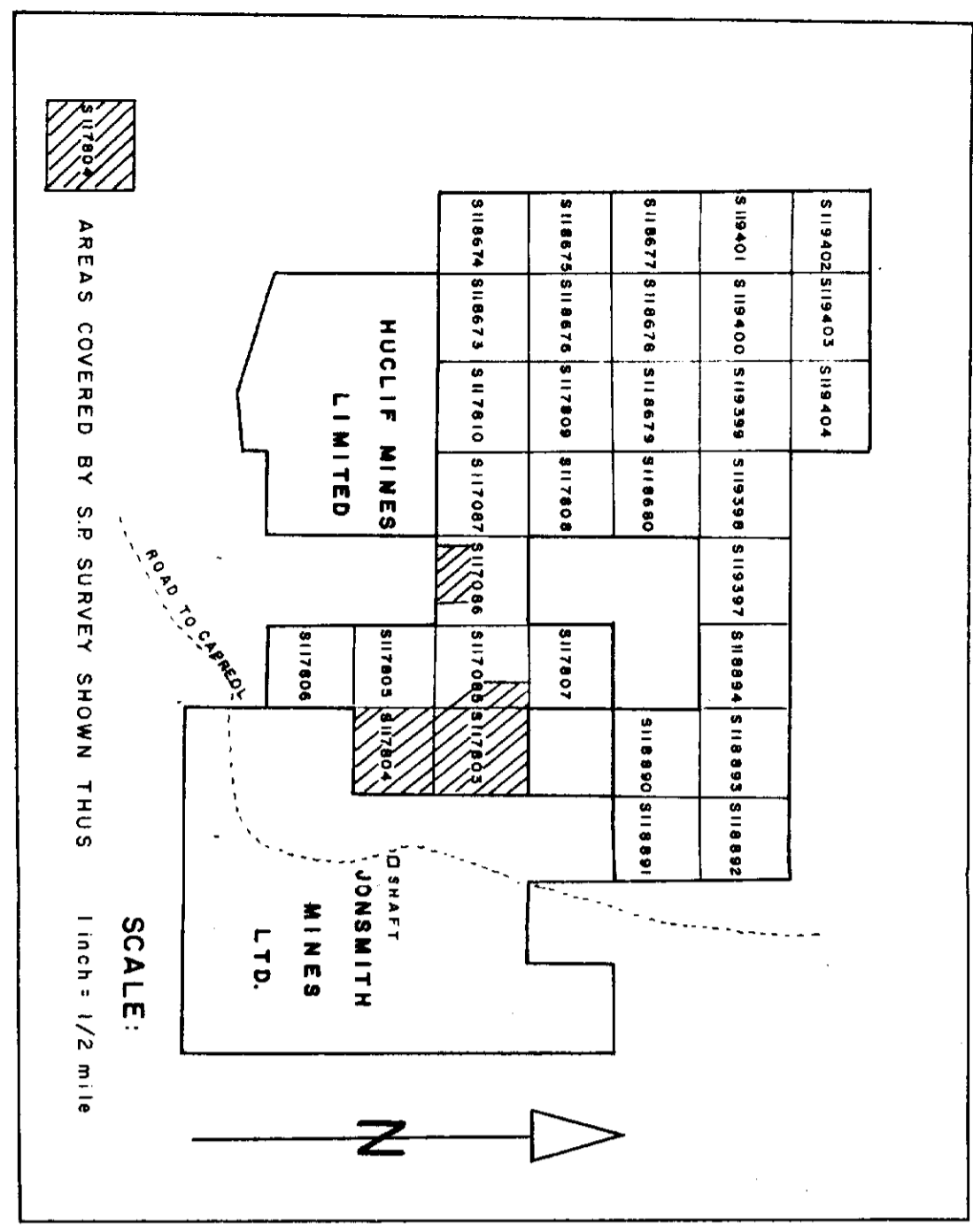
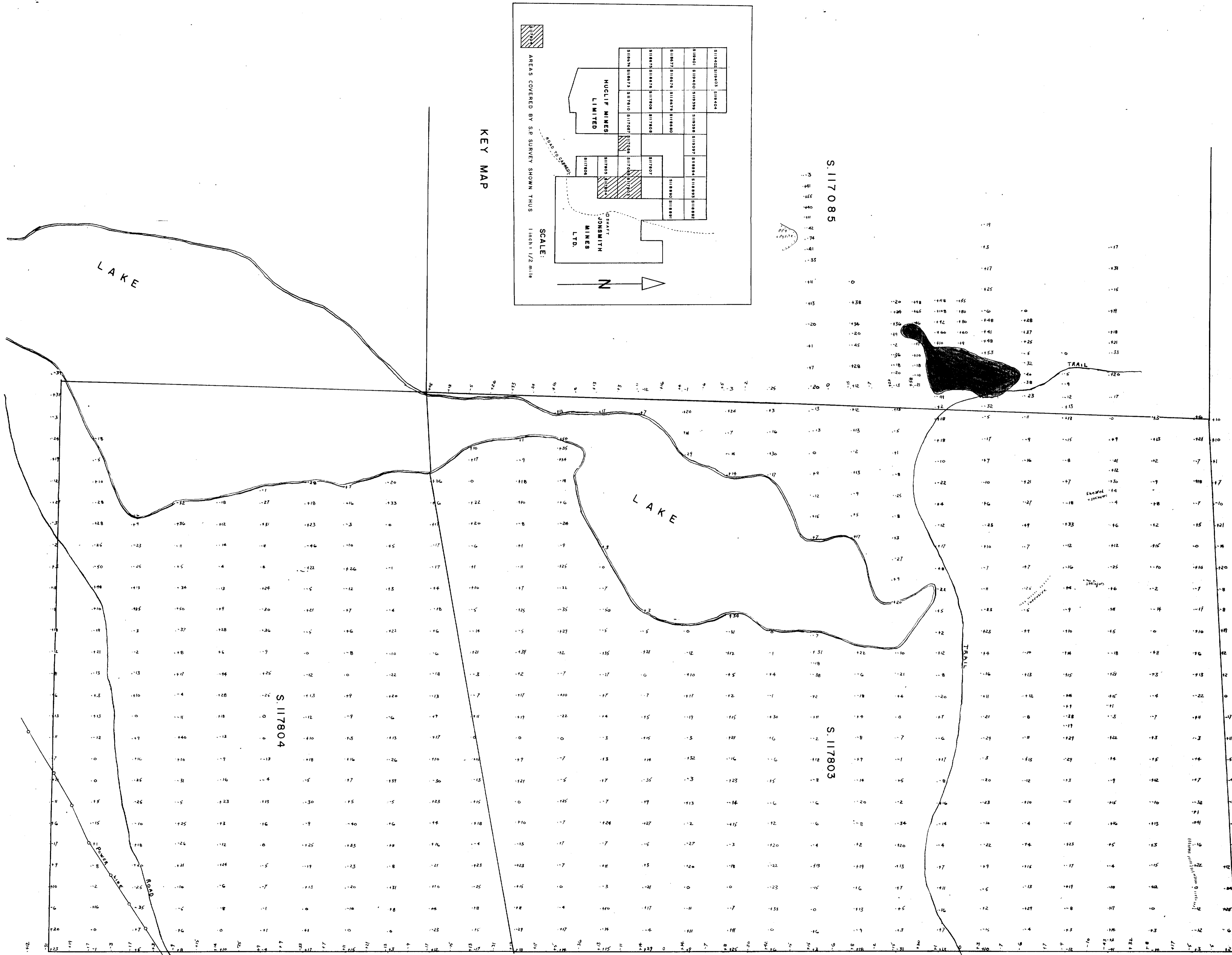
PARKIN-0025-A1, #1

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





S.117085

|    |    |    |    |    |    |    |    |    |    |   |   |   |   |   |   |   |   |   |   |    |    |    |    |    |    |    |    |    |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |      |
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| 19 | 18 | 17 | 16 | 15 | 14 | 13 | 12 | 11 | 10 | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | -1 | -2 | -3 | -4 | -5 | -6 | -7 | -8 | -9 | -10 | -11 | -12 | -13 | -14 | -15 | -16 | -17 | -18 | -19 | -20 | -21 | -22 | -23 | -24 | -25 | -26 | -27 | -28 | -29 | -30 | -31 | -32 | -33 | -34 | -35 | -36 | -37 | -38 | -39 | -40 | -41 | -42 | -43 | -44 | -45 | -46 | -47 | -48 | -49 | -50 | -51 | -52 | -53 | -54 | -55 | -56 | -57 | -58 | -59 | -60 | -61 | -62 | -63 | -64 | -65 | -66 | -67 | -68 | -69 | -70 | -71 | -72 | -73 | -74 | -75 | -76 | -77 | -78 | -79 | -80 | -81 | -82 | -83 | -84 | -85 | -86 | -87 | -88 | -89 | -90 | -91 | -92 | -93 | -94 | -95 | -96 | -97 | -98 | -99 | -100 |
|----|----|----|----|----|----|----|----|----|----|---|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|

PARKIN PROSPECTING SYNDICATE

SELF POTENTIAL SURVEY



200 025-A1, #1 SCALE: 1 inch = 100 feet

Paul C. M. Lee

Readings in millivolts

PARKIN-0025-A1, #1