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GEOLOGY REPORT
18 CLAIM GROUP, SOTHMAN TOWNSHIP
OF
CANEX AERIAL EXPLORATION LTD.
D.B. SIROLA OPTION

LOCATION AND ACCESS:

The claim group is situated in the vicinity of Sinclair, Reading, Little Reading, Sothman and Bardwell Lakes, west central Sothman Township, Ontario, approximately 45 miles south of Timmins and 40 miles west of Matachewan.

A serviceable, abandoned logging road passes through the claim group and connects with the Wick's logging road approximately 14 miles north. Wick's road in turn connects with Highway 566 on the west side of Matachewan. By the same network of logging roads it is possible to travel to Timmins and to the Shinning Tree-Gowganda Highway 560.

Sothman Lake is suitable for float equipped aircraft. A bush service is available at South Porcupine.

PROPERTY DATA:

Canex Aerial Exploration Ltd. is the registered holder of the 18 claims numbered:

265539 - 265548 inclusive
213552 - 213559 inclusive

Mapping was performed in whole or in part only on claims 265541, 265543 to 265547, 213558 and 213559 using 5.6 miles of cut lines spaced at 400 foot intervals. The work was done on May 22 and June 3, 1971.

OVERBURDEN AND FOREST COVER:

The area is extensively covered by sand hills and dunes. From the one hole drilled by Canex on the property, the overburden is known to reach 25 feet. Over 100 feet of overburden is recorded in the drill logs of other holes drilled in the immediate vicinity.

Small swamps with the usual accumulation of organic matter are scattered throughout the claim group.

A forest fire in 1951 covered most of the area staked. Immediately after the fire the Feldman Timber Co. carried out salvage timber operations. The result of these two events is that the area is extensively covered by new growth, mainly jackpine, poplar, birch, alder and balsam. Some large timber, mainly cedar, red and white pine, and spruce can be found along lake shorelines and swamps that were passed by the fire.

contd. ...

PREVIOUS WORK:

Dominion Gulf performed an extensive magnetometer survey over most of the same ground in 1951. No record of additional work could be found.

PCE Explorations were active in the area in 1966. Canex's 'Baseline A' grid overlies PCE's Grid #1 and extends from it. Vertical loop EM and magnetometer surveys were performed. Drilling was recommended but not executed.

Grid II of PCE is partially within the boundaries of the Canex claim group. Vertical loop EM and magnetometer surveys, plus two diamond drill holes were completed. The drill holes are within the Canex boundaries.

GENERAL GEOLOGY:

E.M. Abrahams mapped the township in 1951 and his work was subsequently published in 1954 as Part 6 of Volume 66 of the Ontario Department of Mines. The accompanying map is numbered 1953-3.

The mapping shows the area as being underlain by peridotites. Huronian sediments lie to the west.

There is only one outcrop on the grid.

TABLE OF FORMATIONS:

Cenozoic:

Recent - Wind blown sand, stream deposits, organic accumulations.

Pleistocene - Sand, gravel, boulders

Great Unconformity

Precambrian:

Archean

3 Mafic and ultramafic rocks.

(a) diorite

(b) olivine gabbro

(c) serpentized peridotite and dunite

Intrusive Contact

2 Metasediments

(a) graphitic phyllites

1 Felsic Metavolcanics

(a) amygduloidal

(b) tuffaceous

(c) graphitic

(d) porphyritic

contd. ...

DESCRIPTION OF FORMATIONS:1 Felsic Metavolcanics

All metavolcanics seen are similar, being hard, light grey to green, very fine grained and conchoidal fracturing. All types were cut in DDH 119-8.

1(a) Up to 5% quartz-calcite amygdules to 1/4" in diameter are present in some units. Pyrite also may be a filling mineral.

Amygdules were used for top determinations. The larger, white quartz, open amygdules were regarded as the top of the unit whereas the smaller, grey quartz, tight amygdules were interpreted as the bottom of the unit.

1(b) Footage 234.5-236.5 (DDH 119-8) is one section regarded as being tuffaceous. However, the fine grained nature of the rock, plus 50% pyrrhotite mineralization, makes a description difficult.

1(c) Graphitic volcanics \pm phyllites occur between units of the volcanics. Usually the section is less than 6" wide.

1(d) Pink and white feldspar phenocrysts 1/8" in size are found in quantities of up to 20% of the rock.

2 Metasediments

2(a) Graphitic phyllites were seen in DDH 66-S-1 of PCE Exploration. The phyllite is black and very fine grained. 5% pyrite is also present.

3 Mafic and Ultramafic Rocks

3(a) Diorites are reported in the drill logs for PCE holes 66-S-1, 66-S-2a and 66-S-2b. A description is not given.

3(b) As described in the log of DDH 119-8 the olivine gabbro is medium grained, dark green and composed of white feldspar 40%, magnetite 2%, pyrrhotite, plus pentlandite 1% and olivine 57%.

3(c) As elsewhere the peridotite is medium grained, dark green to black and serpentinized.

The dunite is light green, medium grained and composed of 95% olivine and 5% magnetite.

STRUCTURAL GEOLOGY:

The general trend of the volcanics, as taken from the outcrop, is N30°E. This strike is the same as the axis of the horizontal loop EM conductor but cross-cutting to the strike of the magnetometer high. Thus the peridotite body crosscuts the volcanics.

Top directions as determined from the amygdule variation in units cut in DDH 119-8 indicate tops to be down the hole, or northerly.

contd. ...

ECONOMIC GEOLOGY:

Sulphide mineralization in the area is widespread. The outcrop on line 24E is heavily gossan stained. Pyrite, pyrrhotite and graphite are abundant. Chalcopyrite was seen in trace amounts.

In DDH 119-8 massive sulphide units of up to 75% and up to 1 foot thick pyrite are present. A sample from one of these sections returned only trace amounts for both gold and silver.

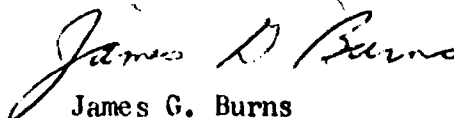
The olivine gabbro and peridotite cut in DDH 119-8 contained significant amounts of nickel mineralization. Values of .40 tNi over 10 feet and .34 SNi over 10 feet were recorded. At this time the extent of this mineralization is not known.

Cross and slip fibre asbestos were also seen in 119-8. The amounts are insignificant.

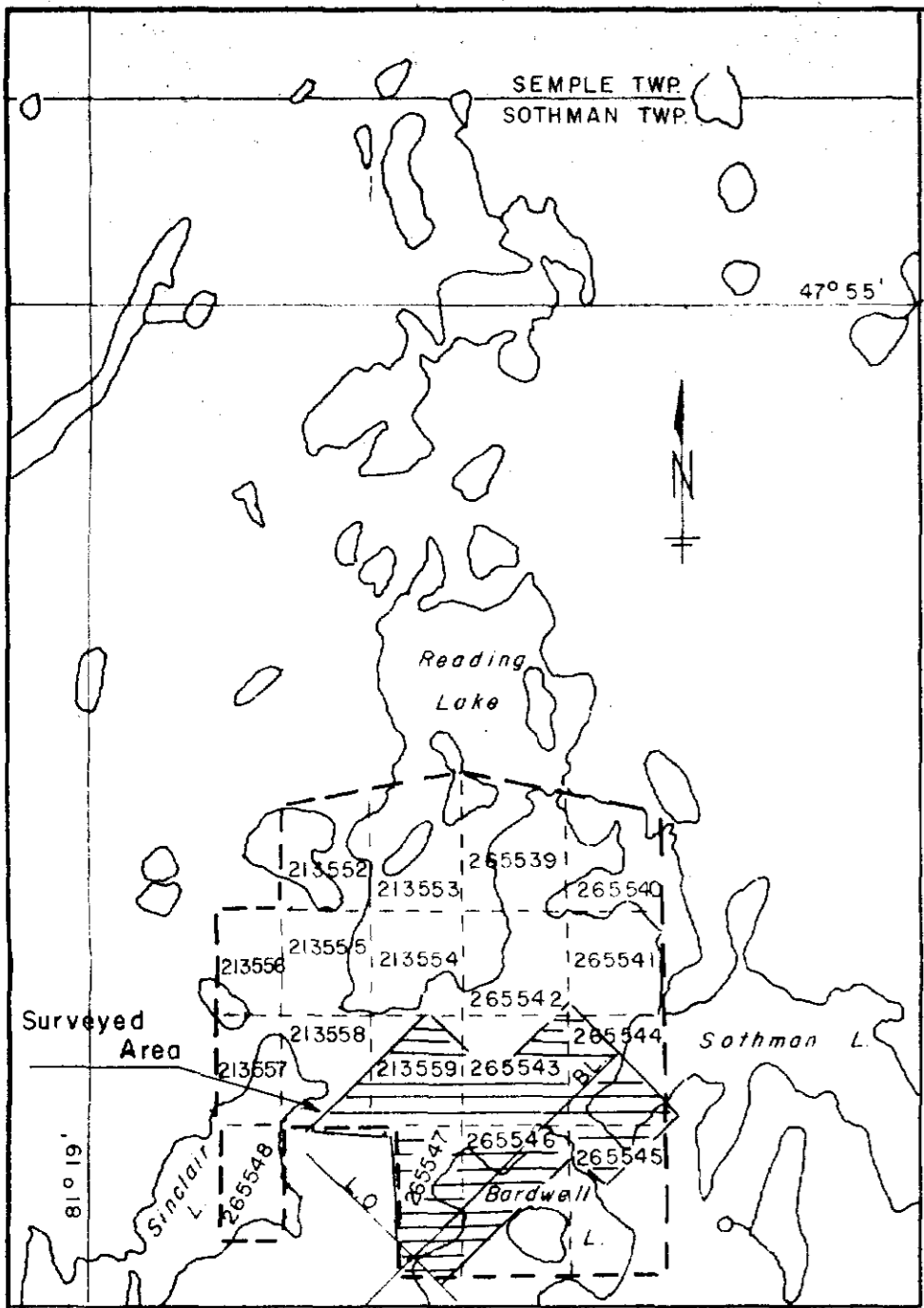
CONCLUSIONS:

Nickel mineralization found is significant. Attempts should be made to locate higher grade mineralization.

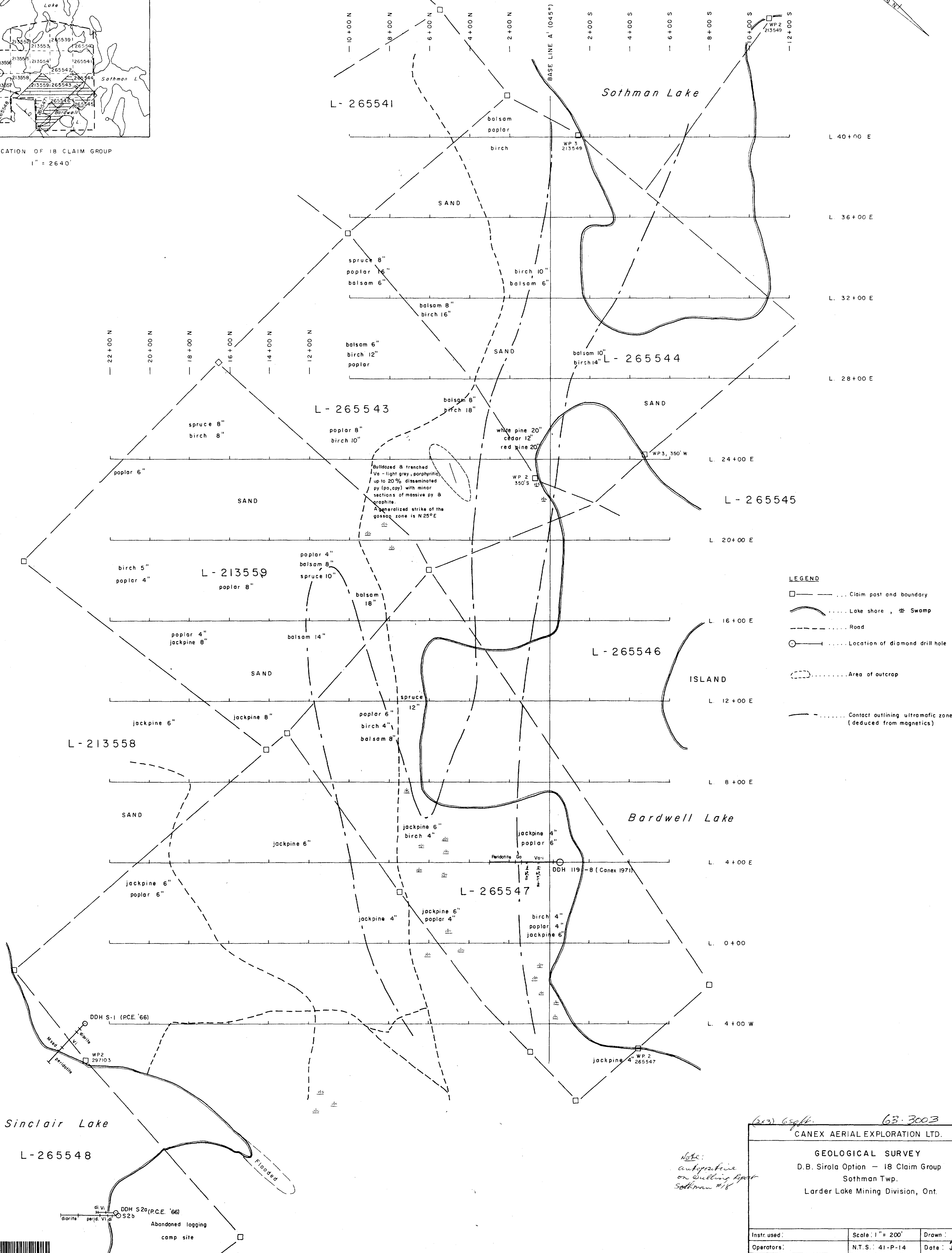
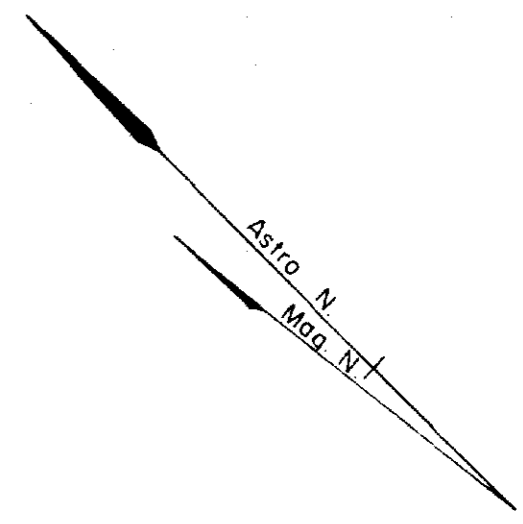
Respectfully Submitted,


James G. Burns

JGB/of



LOCATION OF 18 CLAIM GROUP
1" = 2640'



- LEGEND**
- — — — — — Claim post and boundary
 - — — — — Lake shore, * Swamp
 - — — — — Road
 - — — — — — Location of diamond drill hole
 - — — — — Area of outcrop
 - — — — — Contact outlining ultramafic zone (deduced from magnetics)

(213) 6544 63-3003

CANEX AERIAL EXPLORATION LTD.

GEOLOGICAL SURVEY
D.B. Sirola Option - 18 Claim Group
Sothman Twp.
Larder Lake Mining Division, Ont.

Instr. used:	Scale: 1" = 200'	Drawn: JW
Operators:	N.T.S.: 41-P-14	Date: July 1971
Date surveyed: June/71 by J. Burns	Venture: 119	Dwg. No. 5

Note:
Anticipative
on Bulling Report
Sothman #18

