SHERRITT GORDON MINES LIMITED
LYNN LAKE, MANITOBA

Report on Magnetometer Survey
Knucklethumb Lake Area, Ontario
Oboshkegan Twp
NTS 42L-4 NE
Thunder Bay Mining Division

Claims 762782 - 762788 inclusive
773614, 773615, 784355, 784356

Project No. 1799

October 4, 1984

P. A. PAWLIIW
Chief Geophysicist
This interpretative report describes work conducted for Sherritt Gordon Mines Limited, Dryden, Ontario, by Phantom Exploration Services Ltd., Thunder Bay, Ontario, during March 1984. The work included preparation of a grid, followed by a total field magnetometer survey. Claims 762782 - 762788 inclusive, optioned from R. Knappett, Rexdale, Ontario, plus claims 773614, 773615, 784355 and 784356, held by Sherritt, cover the area surveyed. These claims are accessible by float plane from Jellico to Knucklethumb Lake, approximately thirty-five air miles north of Jellico.

The grid preparation involved 23.8 km of picket line and 2.1 km of base line, with picket lines at 60 m. intervals along a base line bearing 090° astro. Stations were established at 30 m. intervals.

The field readings were taken by a Scintrex MP-2 proton magnetometer and levelled against a Scintrex BSR-2 recording base station. The levelled readings were plotted on a plan at a scale of 1:2500, relative to a base of 59,000 nanotesla. This plan was subsequently contoured (contour interval 25 nanotesla - space permitting) by myself and qualitatively interpreted.
DISCUSSION

The magnetometer survey warrants only qualitative consideration. In general, the map contains only very limited magnetic relief (of the order of 150 nanotesla, except at the east end and northwest corner where it reaches about 1,800 nanotesla). Except for local portions, line to line correlation of magnetic field peaks are quite weak. Nevertheless, an attempt has been made to generate a pseudo-geological trend map, and the emerging picture is of an approximately east-west treading anticline. The units show local short bends which may not necessarily be real. The innermost magnetic unit, next to the anticlinal axis, consists of sericitized felsic tuffs which also contains interesting lithogeochemical gold values (communication with V. Scime, Sherritt, Dryden Office). This unit may be bounded on the top by an interval of shear movement. Overlying, are more, though relatively unsericitized, felsic tuffs, followed by intermediate tuffs. The central core area of the anticline, including the first magnetic unit, is considered to be of primary interest, particularly where there may be local drag folds or local magnetic anomalies.

RECOMMENDATION

Subject to positive encouragement from the lithogeochemical sampling program, locations such as the following should be
RECOMMENDATION - continued

carefully prospected (if outcrop area permits):

@ 21 + 40 W, 0 + 50 N
@ 22 + 00 W, 1 + 70 S
@ 25 + 60 W, 2 + 00 S
@ 28 + 60 W, 2 + 00 S
@ 29 + 20 W, 2 + 30 S

An induced polarization survey (a = 30 m, n = 1-4 inclusive) may be warranted. The central core should be totally surveyed, along with a number of selected profiles totally across the width of the grid. This would provide a check as to whether any other sulfide bearing horizons are present.

ENCLOSURES

1) Magnetometer Survey...plotted measurements
2) Magnetometer Survey...contoured plan
3) Magnetometer Survey...contoured plan with interpreted correlations
Mining Lands Section

Control Sheet

File No 27810

TYPE OF SURVEY

☐ GEOPHYSICAL
☐ GEOLOGICAL
☐ GEOCHEMICAL
☐ EXPENDITURE

MINING LANDS COMMENTS:

________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Signature of Assessor

L D

15/10/84

Date
**Report of Work**

(Geophysical, Geological, Geochemical and Expenditures)

**Ministry of Natural Resources**

**Ontario**

**Rgsoi Report of Work**

**The Mining Act**

Instructions:
- Please type or print.
- If number of mining claims traversed exceeds space on this form, attach a list.
- Note: only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
- do not use shaded areas below.

<table>
<thead>
<tr>
<th>Townshipt or Area</th>
<th>Oboshkegan Twp G-173</th>
</tr>
</thead>
</table>

**Type of Survey(s)**

| MAGNETOMETER |

**Claim Holder(s)**

| R. Knappett |

**Address**

| 157 Jeffcoat Drive, Rexdale, Ontario M94 3C4 |

**Survey Company**

| Phantom Exploration Services, Thunder Bay |

**Prospector's Licence No.**

| H124222 |

**Date of Survey (from & to)**

| 28 03 84 | 28 03 84 |

**Total Miles of line Cut**

| 10.2 |

**Prospector's Licence No. of Survey (from a to)**

| 03 84 |

**Credits Requested per Each Claim in Columns at right**

**Special Provisions**

| 40 days. (this includes line cutting) |

**For each additional survey:**

| Enter 20 days (for each) |

**Days per Claim**

| Geophysical |

| Magnetic |

| Radiometric |

| Other |

| Geological |

| Geochemical |

**Man Days**

| Complete reverse side and enter total(s) here |

**Expenditures (excludes power stripping)**

**Type of Work Performed**

**Performed on Claim(s)**

**Calculation of Expenditure Days Credits**

| $ | 15 |

**Total Days Credits**

| 6 |

**Instructions**

Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

**Date**

| Aug. 13, 1984 |

**Certification Verifying Report of Work**

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

**Name and Postal Address of Person Certifying**

| Vincent Scime Sherritt Gordon Mines Ltd. P.O. 723 Dryden Ontario |

**Date Certified**

| Aug. 13, 1984 |

**For Office Use Only**

| 240 |

**Mineral Recorder**

| Gooddy M. Helpip |

**Date Recorded**

| 1984-08-16 |

**Date Certified**

| 1984-08-16 |

**Certification**

| Gooddy M. Helpip |
SHERRITT GORDON MINES LIMITED
OBOSHKEGAN LAKE PROJECT
OBOSHKEGAN TWP.
NIPIGON - GERALDTON DISTRICT

MAGNETOMETER SURVEY
INSTRUMENT: SCINTREX MP-2 PROTON MAG.
DATUM: 59000
CONTOUR INTERVAL:

BASE STATION RECORDER INFORMATION
INSTRUMENT: SCINTREX BSR-2
RECORDER RANGE: 100
RECORDING INTERVAL: 10 SECONDS
CHART SPEED: 22 MM/SEC

TOPOGRAPHY
CLAIM POST:
CLAIM LINE
SWAMP:
SHORELINE

Date: March, 1984
Scale: 1" = 2500 NT.
S. 42-L-4

PHANTOM EXPLORATION SERVICES LTD.