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MINING LANDS SECTION

REPORT ON THE SWAIN LAKE PROPERTY

Project Code # 1243

N.T.S. 52N-7-SE

M-2065

Claims: 509420 - 509431 inclusive

509746 - 509750 inclusive

533135 - 533139 inclusive

Date: October 21, 1981

Author: D. Clement

REPORT ON THE SWAIN LAKE PROPERTY



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509746 - 509750 inclusive

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INTRODUCTION

The Swain Lake Property consists of 25 mining claimslocated in the Shabumeni Lake Area (M-2665), Honeywell Township. During the period of Sept. 1980 a grid was completed on the property followed by a verticle magnetometer survey in March 1981.

LOCATION AND ACCESS

The Swain Lake Property is located in the Red Lake Mining Distric (Shabumeni Lake Area (M-2665) approximately 55 miles northeast of Red Lake. Access is solely by airplane.

OWNER

The property is held by Rodney Knappett
157 Jeffcoat Drive
Rexdale, Ontario

and by Sherritt Gordon Mines Limited
Box 28 Commerce Court West
Toronto, Ontario
M5L 1B1

GENERAL GEOLOGY

N.T.S. 52-N-&-SE

The general geology of the Swain Lake Property and immediate surrounding area consists of Precambrian rocks: lower volcanics, timiskaming type (shabu series) sediments and Algoman type granite porphry's. The most common rock types occurring in the Lower volcanic group dre green stone, some rhyolite schist's of which

rhyolites occur in minor amounts about a mile north west of the east end of Swain Lake.

The Timiskaming Type sediments constitute a folded syncline underlying Shabumeni Lake. The south end of the "east limb" was found a short distance northeast of the post of the Ontario Forestry Branch on Swain Lake and curves north eastward through the central south part of the lake, along the north shore of the north end where it is separated from the north limb by a narrow belt of chlorite schist which is exposed on the islands. At the north end most of the sediments are cut out by granites and metamorphosed to horneblende schists which appear to mix with the layas.

The Algomanian Type granitic rocks vary greatly. At the east end of Swain Lake there is a medium-grained hornblende syerite bearing traces of quartz. Parts of the batholith are quartz and feldspar porphyry. This mass constitutes a steep hill about 145' high immediately south of the lake. The sulphide mineralization of this area occur as chalcopyrite, sphalerite, galena and arsenopyrite. Cobaltite was also found.

PRESENT WORK

(a) Linecutting: the linecuttingwas completed by Alex Kozy,
Ignace, Ontario. The grid consists of 1.55 miles of EW
baselines @ 50° mag. and NS tie line @ 90° to the baseline.
@ 50° Magnetic -1200 - N/S 800' -6200

EW baseline @ True

Total baseline 1.55 miles
Total picketlines 27.50 miles

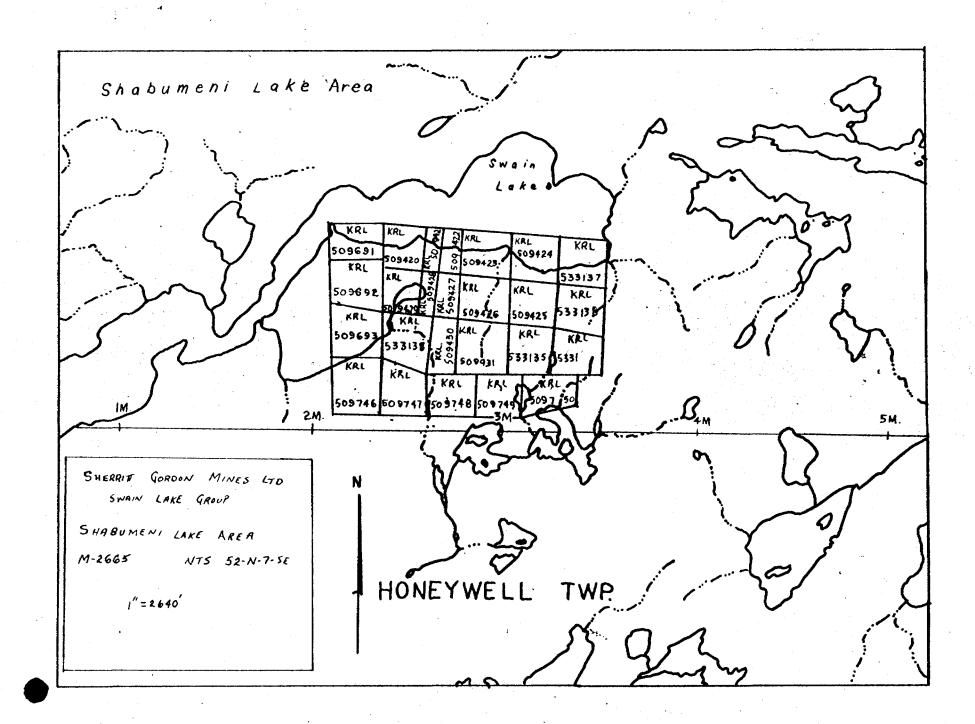
28.5 miles

(b) Geophysical Survey: the magnetometer survey was completed with a Scintrex Vertical Fluxgate Magnetometer MF-2.

Readings were taken @ 50' intervals. Base stations were located on the base lines and looped into the cross-section lines. Maps are plotted @ Horizontal scale 1"=20%.

Submitted October 21, 1981

Donald G. Clement.



INTERPRETIVE NOTES



Swain Lake

Swain Lake Magnetometer Survey

Mining Claims 509420 - 509432 inclusive

509746 - 509750 inclusive

533135 - 533139 inclusive

The area comprises several magnetic units which appear to delineate the rocks formations in the claim block. The most prominent magnetic feature appears to be a broad zone of magnetics about 800-1400' wide, which forms a horseshoe pattern on the north, west and east areas of the map, being open ended toward the east. The area is located over part of a small batholith which occupies the area south east of Swain Lake.

The magnetometer survey has outlined a central area of the claim group where lower magnetic intensities of 800 to 1000 gammas are in contrast with a magnetic rim of from 3000-8000 gammas on the North east and of much lesser intensities to the south-west.

Within the central core (2000 diameter) are small magnetic anomalies of 1000 to 2000 gammas above a background of about 800 gammas. Associated with these are linear shaped magnetic lows of -400 to -500 gammas. Several of these minor anomalies appear to have a northwesterly strike. The central core area of the magnetics is known to have associated copper and cobalt mineralization.

Geological reports of the area infer that the pluton varies in composition from feldspar porphyry to syno-diorite. Without the aid of an EM survey to interpret areas of better conductivity, areas of further examination can only be inferred.

Any further work should be to examine the area of the pluton where it is in contact with the surrounding country rock. The magnetic highs and lows within the central magnetic low should be examined as a possible area of sulphide mineralization. These smaller anomalies within the central area may represent late magnetic differentiates intruding the main pluton mass or exenolithic material rafted from the surrounding country rock. Whatever their cause they may be an important structural element related to any mineralization within the pluton mass.

Submitted Uctober 21, 1981

Verdun Venn.





SCINTREX VERTICLE FLUXGATE MAGNETOMETER MF2 - 100

The MF2-100 fluxgate magnetometer weighs 2.9 Kg in the field and is powered by 24 VDC cells, 4 D cells or a 6 V Pb acid battery. It measures the vertical components of the earth's magnetic field, and in survey use is carried around the operator's neck. The range of the MF2-100 is ± 1,000,000 having a meter readout device with the highest sensitivity selectable usually being 10 or 20 % per small division.

In the field the base central station is set in relation to a general magnetic background within easy accessibility in relation to the area being surveyed; usually the base line on a grid survey. The magnetometer is set to reach between o and 200 with an an arbitrary value of 1000 to 800 % added to avoid small negative readings.





900

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) Geophysical	•		
Township or Area Honeywell Township (Shabumeni Lake			
Claim Holder(s) Rodney Knappett List numerically			
. Sherritt Gordon Mines Limited	<u> </u>		
Survey Company Sherritt Gordon Mines Limited	KRL 509420		
Author of Report V. Venn; D. Clement	(prefix) K 509421		
Address of Author Box 723, Dryden Ontario P8N 2Z4 "	к 509422		
Covering Dates of Survey March 1981	N 509422		
Total Miles of Line Cut 29.5	к 509423		
The second secon	к 509424	İ	
SPECIAL PROVISIONS CREDITS REQUESTED Combusical per claim	к 509425	attach list	
Geophysical Electromagnetic	к 509426		
ENTER 40 days (includes line cutting) for first -Magnetometer 40	к 509427	insufficient,	
survey. —Radiometric	к 509428		
ENTER 20 days for each additional survey using Geological	к 509429	If space	
same grid. Geological Geochemical	к 509430		
AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)	к 509431		
Magnetometer Electromagnetic Radiometric (enter days per claim)	к _ 533135		
DATE: (let 20/8/ SIGNATURE: D) (let)	к 533136		
Author of Report or Agent	к 533137		
	к 533138		
Res. Geol. Qualifications 63,1102 "	к 533139		
File No. Type Date Claim Holder	к 509691		
	к 509692		
	к 509693		
	к 509746		
	TOTAL CLAIMS 25		

APPENDIX

To be attached to Technical Data Statement filed by Sherritt Gordon Mines Limited and Rodney Knappett on October 21, 1981

к 509747

к 509748

K 509749

к 509750

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MINING LANDS SECTION

GEOPHYSICAL TECHNICAL DATA

GRO D SURVEYS - If more than one survey, specify data for each type of survey

N	umber of Stations 2952 Number of Readings	2952
S	tation interval 50. Line spacing 200.	
P	rofile scale 1" = 20%	-
	ontour interval 100 X	
_		
	Instrument Scintrex Fluxgate (verticle magnetometer) MF-2	
ij	Accuracy - Scale constant 10 gammas on 1000 scale	i as contra
MAGNETIC	Diurnal correction method Scintrex MB/2 base station plus looping	
MA	Base Station check-in interval (hours) between base line	
r-4	Base Station location and value on base line	
일	Instrument	
ELECTROMAGNETIC	Coil configuration	
AG.	Coil separation	
WC.	Accuracy	
TR	Method: Fixed transmitter Shoot back in the	☐ Parallel line
CEC	Frequency (specify V.J. F. station)	
回	Parameters measured	•
		· .
	Instrument	
	Scale constant	:
IIX	Corrections made	7.54.
AV		
GR	Base station value and location	
• •		
	Elevation accuracy	· · · · · · · · · · · · · · · · · · ·

	Instrument	
z	Instrument ☐ Frequency Domain ☐ Frequency Domain	
TIO	Parameters On time Frequency	
	- Off time Range	
AR IVI	– Delay time	
INDUCED POLARIZATION RESISTIVITY	- Integration time	
	Power	, ,
	Electrode array	
\sim 1 ·	· 	and the second s
GNI	Electrode array Electrode spacing Type of electrode	

1983 08 10

2.4225

Mining Recorder
Ministry of Natural Resources
Ontario Government Building
Box 324
Red Lake, Ontario
POV 2MO

Dear Sir:

RE:

Geophysical (Magnetometer) Survey on Mining Claims KRL 509420 et al in the Township of Honeywell.

The Geophysical (Magnetometer) Survey assessment work credits as listed with my Notice of Intent dated July 13, 1983 have been approved as of the above date.

Please inform the recorded holder of these mining claims and so indicate on your records.

Yours very truly,

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3 Phone: 416/965-1380.

D. Kinvig:sc

cc: Sherritt Gordon Mines Ltd

Toronto, Ontario

cc: Donald Clement Dryden, Ontario cc: Rodney Knappett Rexdale, Ontario.

cc: Resident Geologist
Red Lake, Ontario



Technical Assessment Work Credits

File	
2	1225

1983 07 13

	2000 07 20	
Recorded Holder RODNEY KNAPPETT		
Towww.skin.xx.Area SHABUMENI LAKE		
Type of survey and number of Assessment days credit per claim	Mining Claims Assessed	
Geophysical		
Electromagnetic days		
Magnetometer 40 days	KRL 509421 to 23 inclusive 509425 to 31 "	
Radiometric days	509692-93 509746 to 50 inclusive	
Induced polarization days	533135 to 38 "	
Section 86 (18) days		
Geologicaldays		
Geochemical days		
Man days ☐ Airborne ☐		
Special provision 🛛 Ground 🖾		
Credits have been reduced because of partial coverage of claims.		
Credits have been reduced because of corrections to work dates and figures of applicant.	·	
77(16)		
Special credits under section 86 ≭19⁄a) for the following ו	mining claims	
20 days Mag		
KRL 509420 509424 509691		
No credits have been allowed for the following mining claims		
	Insufficient technical data filed	
KRL 533139		

The Mining Recorder may reduce the above credits if necessary in order that the total number of approved assessment days recorded on each claim does not exceed the maximum allowed as follows: Geophysical — 80; Geological — 40; Geochemical — 40; Secxion 2042 (19)



Ang 3, 1983

Your file:

1983 07 13

Our file: 2.4225

Mining Recorder
Ministry of Natural Resources
Ontario Government Building
Box 324
Red Lake, Ontario
POV 2MO

Dear Sir:

Enclosed are two copies of a Notice of Intent with statements listing a reduced rate of assessment work credits to be allowed for a technical survey. Please forward one copy to the recorded holder of the claims and retain the other. In approximately fifteen days from the above date, a final letter of approval of these credits will be sent to you. On receipt of the approval letter, you may then change the work entries on the claim record sheets.

For further information, if required, please contact Mr. F.W. Matthews at 416/965-1380.

Yours very truly,

E.F. Anderson
Director
Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3 Phone: 416/965-1316

D. Kinvig:sc

cc: Sherritt Gordon Mines Ltd

Toronto, Ontario

cc: Donald Clement Dryden, Ontario

Rodney Knappett Rexdale, Ontario

cc: G.H. Ferguson

Mining & Lands Commissioner

Toronto, Ontario

Encls:



Notice of Intent for Technical Reports

1983 07 13

2.4225

An examination of your survey report indicates that the requirements of The Ontario Mining Act have not been fully met to warrant maximum assessment work credits. This notice is merely a warning that you will not be allowed the number of assessment work days credits that you expected and also that in approximately 15 days from the above date, the mining recorder will be authorized to change the entries on his record sheets to agree with the enclosed statement. Please note that until such time as the recorder actually changes the entry on the record sheet, the status of the claim remains unchanged.

If you are of the opinion that these changes by the mining recorder will jeopardize your claims, you may during the next fifteen days apply to the Mining and Lands Commissioner for an extension of time. Abstracts should be sent with your application.

If the reduced rate of credits does not jeopardize the status of the claims then you need not seek relief from the Mining and Lands Commissioner and this Notice of Intent may be disregarded.

If your survey was submitted and assessed under the "Special Provision-Performance and Coverage" method and you are of the opinion that a re-appraisal under the "Man-days" method would result in the approval of a greater number of days credit per claim, you may, within the said fifteen day period, submit assessment work breakdowns listing the employees names, addresses and the dates and hours they worked. The new work breakdowns should be submitted direct to the Lands Management Branch, Toronto. The report will be re-assessed and a new statement of credits based on actual days worked will be issued.



Ministry of Natural Resources



Notification of recording

of assessment work credits

Lands Administration Branch Mining Lands Section Ministry of Natural Resources Room 1617, Whitney Block Oueen's Park, Toronto M7A 1W3

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DEC 29 1982

MINING LANDS SECTION

Date of recording of work: June 30, 1981	
Recorded holder: Rociney Knappett	
Address: 157 Jeffcoat Drive, Rexo	dale, Ontario
Township or Area: M. 2665 Shabumeni Lake	
Type of survey and number of Assessment days credit per claim	Mining claims
Geophysical	KRL.509420-509431 inclusive.
Electroniagneticdays	
Magnetometer 40 days	
Padiometricdays	
Induced polarizationdays	
Section 86 (18)days	See John Stranger
Geologicaldays	- 10 State State 0.
Geochemical days	Se Mary
Mari days [] Airborne []	√ ′
Special provision [X] Ground [X]	
Notice to recorded holder:	
Survey reports and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.	Acting Mining recorder Ronna F. Pento
[] Reports and maps are being forwarded to the Lands Administration Branch with this letter.	P.O. Box 723 DRYDEN, Ontario

792 (6/77)

LA. 065

These claims have since been cancelled October 28, 1981.

att Kuitt

MINING RECORDER

FILE: 2.4225

GEOTECHNICAL REPORT	APPROVAL Com 6/83
MINING LANDS COMMENTS:	Moneyvic)
GEOPHYSICS MR Bail	ew .
DATE: My 11 /83 SIGNATURE: BIL	APPROVED WISH TO SEE AGAIN WITH CORRECTION
GEOLOGY - EXPENDITURES	
DATE: SIGNATURE:	WISH TO SEE AGAIN WITH CORRECTIONS
GEOCHEMISTRY	
L.D.	
DATE: SIGNATURE:	APPROVED WISH TO SEE AGAIN WITH CORRECTION

RITHER TO F. W. MATTHEWS, ROOM 6452 WHITNEY BLOCK (5-1380)

Mining Recorder's Office Ministry of Natural Resources 808 Robertson Street, Kenora, Ontario P9N 3X7

Dear Sir;

We have received reports and maps for a Geophysical (Magnetometer) survey submitted under Special Provisions (credit for Performance and Coverage) on mining claims X 509420 et al in the Township of Honeywell.

This material will be examined and assessed and a statement of assessment workcredits will be issued.

Yours very truly

E.F. Anderson Director Land Management Branch

Whitney Block, Room 6450 Queen's Park Toronto, Ontario M7A 1W3 Phone \$16/965-1380

Joan Skura

cc: Sherritt Goudon Mines Limited Dryden, Ontario



Ministry of Natural Resources

Notification of recording

of assessment work credits

donas do d

Land: Administration Eranch Mining Lands Section Ministry of Natural Resources From 1617, Whitney Block Gueen's Park, Toronto M7A 1W3

RECEIVED.

JAN 5 1983

MINING LANDS SECTION

Date of recording of work: September 14, 1981		
Recorded members Sherritt Gordon Mines	lámite c	
Address Box 28, Connerce Court Mountain or Area: M. 2665 Shabumeni Lake	West, Toronto, Ontario MSL 181	
Type of survey and number of Assessment days credit per cislm	Mining claims	
Geophysical	KRL.509691-509693 incl., KRL.533135-533139 incl., KRL.509746-509750 incl.	
Magnetometer		
Rapiometric days		
Induced polarizationdays		
Section 86 (18)days	·	
Geological days		
Geochemicaldays		
Manidays Discharge Dischar		
Special provision 🏝 Ground 🖺		

Notice to recorded holder:

- Survey repons and maps in duplicate be submitted to the Lands Administration Branch, Toronto within 60 days from the date of recording of this work.
- Reports and maps are being forwarded to the Lands Administration Branch with this letter.

Acting Mining recorder Ronna P. Pento

C.C.

Donald Clement P.O. Box 723 DEVIVN, Contario

TT GORDON MINES LIMITED / MINING AND MILLING DIVISION Lynn Lake, Manitoba, Canada, ROB OWO / Telex 0766-220 P.O. BOX 723 DRYDEN, ONTARIO PSN 2Z4 (807)223-5365 RECEIVED October 21, 1981 0CT & 6 1981 MINING LANDS SECTION E. F. Anderson Director Lands Management Branch Whitney Block Queen's Park Toronto, Ontario M7A 1W3 Dear Sir: Please find enclosed duplicate copies of reports and maps for a geophysical survey applied for assessment against 25 claims in the Shabumeni Lake Area (M-2665). The amount of assessment was calculated according to Special Provisions with 40 days/claim for line cutting and a magnetometer survey. Also I would like to add that assay determination costs of \$1,260.97 for assay yields of 84 days work according to section 86(18), (Report of work Sept. 8, 1981 by Frank M. Forsgren) have been applied at 12 day each on claims: 509691; 509421; 509422; 509423; 509424; 533137. I hope these submissions will suffice to fullfil the coverage needed due to the unavailability of the geophysics crew to operate water extensions of the forementioned claims. Please note that claims 509420 to 509431 inclusive are recorded under licence # A35220, with claims 509691 to 509693 inclusive K533135 to 533139 inclusive, and K 509746 to 509750 inclusive are recorded under licence #T-842.

Thank you.

Don Clement

Yours truly,

Sherritt Gordon Mines Limited

Dryden Operation

DC: jl

