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REPORT OF MAGNETOMETER SURVEY

DURING NOVEMBER, 1983

ON THE BENNETT CLAIM - L-644018

MAISONVILLE TOWNSHIP

LARDER LAKE MINING DIVISION, ONTARIO

RECEIVED

FEB 21 1984

MINING LANDS SECTION

BY: CARL P. FORBES

KIRKLAND LAKE, ONTARIO  
JANUARY 25, 1984

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INTRODUCTION

LOCATION

- The Bennett claim, L-644018 is the north half of concession two, the north-west quarter of lot nine Maisonville Township, Larder Lake Mining Division, Ontario. The claim is owned outright by this writer. It is located in the heart of the old Sese kinika gold area, some 10 miles north-west of Kirkland Lake.

ACCESS

- On Highway 11 about 18 miles north-west from Kirkland Lake, secondary Highway 570 branches south-easterly to the hamlet of Sese kinika on Sese kinika Lake, Maisonville Township. Highway 570 is an all-weather road that is plowed in the winter. Approximately one mile down 570 from Highway 11 an old road branches northerly to the Bennett shaft, a distance of almost a mile. The road is driveable in dry weather with one bad swamp close to the south claim line. A culvert and a little fill would make the claim readily accessible by truck.

HISTORY

- The claim was operated by the Bennett Mining Company Limited, circa 1927 . Earlier information is scant, but the writer has some knowledge of the sequence of events in the Sese kinika area. A number of high-grade, sometimes spectacular showings of gold were found near Sese kinika Station from 1912 to 1914 by James Hughes et al. Some trenching, drilling and underground work developed the showings, but information is scant to say the least. In the southeast quarter of claim L-644018

the Bennett Mining Company sank a two-compartment shaft to a depth of 530 feet and levels were cut at 125 foot intervals. Crosscutting and drifting were reported early in 1927, but in June of that year the plant was dismantled. From old plans at least 1500 feet of lateral work shows on the 500 foot level. Old pictures of the mine show an extensive surface plant. In 1958 S. A. Pain drilled two holes (133 and 174 feet) near the southwest corner of the claim and low gold values were obtained in at least one of the holes. Old pits and trenches everywhere attest to the volume of prospecting activity on the Bennett claim in the early days. No work of any consequence has been done since.

GEOLOGY

- The oldest rocks in the Sesekinika area are mafic to intermediate metavolcanics and consist mainly of pillowed and massive andesite and basalt, as well as tuff and agglomerate. Porphyritic, amygdaloidal and variolitic andesite, and altered mafic volcanics are present in lesser amounts. Some basalts are coarse-grained enough to be indistinguishable from intrusive gabbro or diorite. The metavolcanics are extensively intruded by Haileyburian-type mafic rocks, and gabbro and diorite are prominent in the Sesekinika area. They are typically coarse-grained, massive rocks that are sheared much less than the metavolcanics. A number of quartz or quartz-carbonate veins are present on the Bennett claim. Known veins are generally narrow, but contain free gold and

tellurides, as well as sulphide mineralization. The veins on the Bennett claim and the majority of veins in the Sesekinika area are generally oriented to a northerly trend. Outcrop exposure is good, probably being 30% on the Bennett claim.

MAGNETIC SURVEY  
GENERAL

- During the latter part of October, 1983 a control system of base and picket lines was cut over the Bennett claim by Leo-Paul Pilon and George Harkin. A central baseline was established on the south boundary of the claim and carried due north for 965 feet, disclosing that the claim is undersized. At the odd number (1N, 3N, 5N, 7N, 9N) stations picket lines were cut east and west to the claim boundaries. All lines were chained at 100 foot intervals. A total of 1.33 miles of control line was established and a magnetic survey was completed by this writer on Nov. 10, 1983. The objective of the survey was to outline anomalous areas associated with the previously mentioned geological features and past exploration data.

MAGNETIC SURVEY- A Geometrics G816/826 proton precession magnetometer was used to conduct the magnetic survey on Nov. 10, 1983. This instrument measures the earth's total magnetic field to within one gamma with a digital readout. Survey procedure involved reading the baseline and then the picket lines, with all readings adjusted for drift. The values have been plotted on a map scaled at one

inch equalling 100 feet and contours were drawn at 100 gamma intervals, with higher contour intervals where space is limited. A base value of 50,000 gammas must be added to all map values to register the total magnetic field.

RESULTS OF MAGNETIC

SURVEY

- Considerable magnetic variation is present on the Bennett claim with a difference of 8,250 gammas between the highest and lowest readings. Most of the central part of the claim exhibits high magnetism, reflecting a high magnetite content in the underlying gabbroic rock. A northeast-southwest trending anomaly on the western portion of the claim is roughly coincident with a prominent gully, the sides of which are known to contain vein systems. The area of lower magnetic intensity on the northwest part of the claim may reflect volcanic rocks, and not basic intrusives as shown on the geology map. The high magnetic anomaly in the southeast corner of the claim remains unexplained. The area adjacent to the shaft is much lower in magnetic intensity than the surrounding area and could reflect carbonatization with magnetite depletion of the gabbro in the vicinity of the shaft vein.

CONCLUSIONS AND

RECOMMENDATIONS

- The magnetic survey was successful in mapping the structure on the Bennett claim. Prospecting is recommended along the gully-anomaly area and the high mag-

netic anomaly in the southeast corner of the claim should be checked as it is on high ground. If the northeast part of the claim is underlain by volcanic rocks (that may be similar in appearance to the basic intrusives), prospecting should be done along the contact as several veins are found in proximity to the suggested contact area. A VLF-EM survey should be carried out to see if there are any conductive zones coincident with any of the magnetic features previously discussed.

Respectfully Submitted by:

*Carl P. Forbes*

Carl P. Forbes  
January 25, 1984





Mining Lands Comments


To: Geophysics Mr. Barlow.

Comments

<input checked="" type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date <u>April 18/89</u>	Signature <u>R. Reedy</u>
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To: Geology - Expenditures

Comments

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Geochemistry

Comments

L.D.  
[Signature]

<input type="checkbox"/> Approved	<input type="checkbox"/> Wish to see again with corrections	Date	Signature
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To: Mining Lands Section, Room 6462, Whitney Block. (Tel: 5-1380)



To S. E. Yarnall  
Director, Land Management Branch

Re: file # 2.6418

According to your letter of March 14/84,  
no maps were received, but the reports  
must have been as the survey is acknowledged.

I don't know how this can be, but I have  
enclosed two more maps made from my  
original mylar.

Respectfully,

Carl P. Forbes.

<b>RECEIVED</b>	
Land Management Branch	
SEARCHED	<input type="checkbox"/>
INDEXED	<input type="checkbox"/>
MAR 17 1984	
FBI - COOD	
U.S. GPO: 1984 O. N. 6643	

**RECEIVED**  
MAR 17 1984  
MINING LANDS SECTION

Our File: 2.6418

March 14, 1984.

Mr. Carl P. Forbes  
33 Premier Avenue West  
Kirkland Lake, Ontario  
P2N 2S7

Dear Sir:

RE: Geophysical (Magnetometer) survey submitted on mining  
claims L 644018 in the Township of Maisonville.

We have received the above mentioned survey but there were no maps to accompany it. Please submit to this office a set of Magnetometer maps (in duplicate) at your earliest convenience. Please quote our file #2.6418.

For further information please contact Mr. F.W. Matthews at 416/965-6918.

Yours sincerely,

S.E. Yundt  
Director  
Land Management Branch

Whitney Block  
Room 6643  
Queen's Park  
Toronto, Ontario  
M7A 1W3  
Phone: 416/965-6918

A. Barr:dg

cc: Mining Recorder  
Kirkland Lake, Ontario

