GETTY CANADIAN METALS, LIMITED

MACMILLAN JOINT VENTURE

ASSESSMENT REPORT

Title: Geophysical Survey - Grid 11 East

Author: C.W. Payne

Date: July, 1981

Commodities: Lead, Zinc, Silver

Location: Name of Claim Group - SUE claims
Claim Sheet Numbers - 105L, 15
Co-ordinates - Latitude 62°49'N
Longitude 135°00'W

Date Work Was Done: March 20-23, 1981

090852
This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of $2,749.90.

Resident Geologist or
Resident Mining Engineer

Considered as representation work under Section 33 (3) of the Quartz Mining Act.

Ruth O'Brien, Oct 15, 1916
Commissioner of Yukon Territory
Supervising Mining Recorder of Whitehorse, Y.T.

☐ NEW APPL'N for PLACER LEASE to PROSPECT: Name:

☐ RENEWAL APPL'N PLACER LEASE to PROSPECT: Name:

☐ AFFIDAVIT of EXPENDITURE on PLACER LEASE: Name:

☐ ASSIGNMENT of PLACER LEASE No. ..............................

From: 

To:

☐ GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.

Owner:

☐ DIAMOND DRILL LOGS:

Claims:

Claim sheet no.:

☐ QUARTZ ASSESSMENT REPORT:

Claims: SUE

Type of report: GEOPHYSICAL SURVEY

Cts. work performed on: SUE 389 - 391

Claim sheet no. 105 L 1/15

Submitted by: GETTY CANADIAN METALS LIMITED

$ Req. for ren application 21,494.90

Signature 18 Aug. 1981

Date Rec.

090852
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LIST OF FIGURES

Figure 1: MacMillan Joint Venture - Location
Scale 1:6,336,000 ....................... 5

Figure 2: Max Min II EM Profiles - 1777 Hz
Scale 1' to 200'

Figure 3: Max Min II EM Profiles - 444 Hz.
Scale 1" to 200'

Back Pocket
LIST OF SUE CLAIMS ON WHICH GEOPHYSICAL SURVEY WAS CARRIED OUT - MARCH, 1981

<table>
<thead>
<tr>
<th>Grant No.</th>
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<tr>
<td>Y 81039</td>
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<td>Y 81044</td>
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holder of claims - Getty Canadian Metals, Limited
SUMMARY AND CONCLUSIONS

This report describes the results of an electromagnetic survey (Max Min II) carried out during March 1981, on a selected airborne EM anomaly, Grid 11 East.

The two conductors as defined by the ground Max Min II EM survey on Grid 11 East indicate that the conductivity is caused by graphite and/or massive sulphides. Both conductors have a strike length of 2,000' with the conductors remaining open to the east.

Conductivity, strike length (2,000') and width of the conductors suggest a potential for strataform massive sulphides.
RECOMMENDATIONS

Further exploration is warranted. Mapping-prospecting, soil geochemistry, proton magnetometer and gravity surveys would be useful techniques to further evaluate the anomalies. If success is met with the above techniques, diamond drilling is recommended to test the anomalies.
INTRODUCTION

The Sue claims are currently held by Getty Canadian Metals, Limited and Essex Minerals Canada for the MacMillan Joint Venture.

The claims are located to cover geological formations believed to be similar to those at Vangorda Creek, sixty miles to the southeast.

During March, 1981, a Max Min II EM survey was carried out on part of the Sue Claims Group as a follow-up to an airborne input EM survey done in late 1978.

A total of 6.5 miles of picket lines, including baselines and tie lines, were cut and chained to establish Grid 11 East. This grid was established to locate and define an airborne EM conductor on the ground.

The work described herein was conducted by and under the direct supervision of C.W. Payne. The writer laid out the programme and evaluated the results based on the data presented herein.

Location and Access

The MacMillan Joint Venture claim group, centered at
62°49'N latitude, 135°05'W longitude, is located east of the confluence of the MacMillan and Pelly Rivers, central Yukon (see figure 1). Access can be gained in three ways:

i) via fixed-wing aircraft from Whitehorse or Pelly Crossing, distances of 160 and 40 miles respectively. A dirt airstrip, 150' wide and 3,000' long, situated immediately west of the Clear Lake deposit, can accommodate planes up to a DC-3.

ii) via helicopter from a base in Carmacks, a distance of 50 miles.

iii) via winter tote road from Pelly Crossing, road distance of approximately 40 miles.

Access during the 1981 winter geophysical programme was via fixed-wing aircraft and helicopter.

Physiography and Climate

The Venture area covers a series of gently rolling hills and ridges referred to as the Tummel Basin. Elevations range from 1,760' ASL at Pelly River to 2,400' ASL on the hill tops.
The climate is sub-arctic with long cold winters and short cool summers. Temperatures range from $-40^\circ F$ to $80^\circ F$. Annual precipitation is 20-30 inches.

The Joint Venture claims area is underlain by numerous small lakes and swamps which make line-controlled ground geophysical surveys very difficult in summer, therefore, most geophysical surveys have been carried out during the winter months.

**GENERAL GEOLOGY**

The area of interest comprises a belt of Paleozoic metasedimentary and metavolcanic rocks which are similar to and along strike to the northwest of the Anvil mining district. The favourable horizon is a series of Cambrian-Ordovician aged phyllites which are locally, strongly graphitic. The latter rocks have been observed on the SUE claims both in outcrop and drilling.

Reconnaissance mapping of the SUE claims indicates very little outcrop is present and locally, overburden depths may exceed 100'.

Earlier mapping in the SUE claims area (105L) was done by R.B. Campbell (1967). Further mapping to the east and southeast was done by Roddick & Green (1961) and Templeton-Kluit (1972).
MAX MIN II ELECTROMAGNETIC SURVEY - GRID 11 EAST

Description of Method and Equipment

The survey was completed using an Apex Parametrics Max Min II horizontal loop EM system (instrument specifications Appendix I). Coil separation was maintained at 400'. Readings were obtained at 100' station intervals along picket lines. Readings were taken at two frequencies, 444 Hz and 1777 Hz.

Discussion of Results

Two conductors were outlined on Grid 11 East (see figs. 2 and 3).

Conductor 1 and conductor 2 were traced for 2,000' in length with their east end remaining open. Both conductors parallel each other and have a strike direction of 116°.

Conductor 1 is 450' wide on line 280W and appears to narrow to the east where on line 260W it is 350' wide. Conductivity is moderate and increases in strength to the east.

Conductor 1 is caused by graphitic phyllite or massive sulphides.

Conductor 2 is only picked up on the 1777 Hz frequency and may not be a legitimate conductor.
REFERENCES


APPENDIX I

APEX MAXMIN II EM SYSTEM SPECIFICATIONS

OPERATING FREQUENCIES: 222, 444, 888 and 1777 Hz

COIL SEPARATIONS: 100, 200, 300, 400, 600 and 800 feet

MODES OF OPERATION:
(a) Tx coil plane and Rx coil plane horizontal (Horizontal loop mode).
(b) Tx coil plane horizontal and Rx coil plane vertical (Minimum coupled mode).

PARAMETERS MEASURED: In-Phase and Quadrature component of the secondary field.

READOUTS: Automatic, direct readout on 3½" size meters.

SCALE RANGES:
In-Phase: ±20% normal, ±100% by switch.
Quadrature: ±20% normal, ±100% by switch.
Inclinometers: ±50° tilt.

READING REPEATABILITY: ±½ to ±1°

RX BANDWIDTH (-3dB): 0.2 Hz nominal

RX INTERNAL NOISE: Negligible

TX DIPOLE MOMENTS: 150 Atm² @ 222 Hz, 150 Atm² @ 444 Hz,
75 Atm² @ 888 Hz, 50 Atm² @ 1777 Hz.

TX POWER SUPPLY: Four 9V batteries (transistor radio type)

TX POWER SUPPLY: Three 6 V alkaline lantern batteries in a separate battery pack. Optionally one 12V 8Ah rechargeable Gel Cell.

REFERENCE CABLE: Light weight, low friction unshielded cable. Unit supplied with 200, 400 and 600 ft cables, other lengths optional.

WEIGHT OF RX UNIT: 13 lbs.

WEIGHT OF TX UNIT: 30 lbs.

OTHER MAIN FEATURES: Built-in Intercom system for communication between receiver and transmitter unit. Signal and reference warning lights to indicate erroneous readings.

FOR MORE INFORMATION, PHONE (415) 491-6368 OR WRITE TO:
APEX PARAMETERICS LTD.
255 YORKLAND BLVD, WILLOWDALE, ONTARIO, CANADA M2J 1S3
APPENDIX II

PERSONNEL

C.W. Payne
Getty Mines, Limited
509-700 West Pender Street
Vancouver, B.C. V6C 1G8

Dave C. Bingham
Can-Lake Explorations Ltd.
#1, 4001-19th Street N.E.
Calgary, Alberta T2E 6X8

Henry Zurloff

Sean Willis

Stan Martin
APPENDIX III

Linecutting, Chaining and Geophysical Work

MacMillan Joint Venture
March, 1981

<table>
<thead>
<tr>
<th>Grid</th>
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APPENDIX IV

Statement of Expenditures
MacMillan Joint Venture
SUE Claim Group

March, 1981, EM (Max Min II) Survey

Salaries

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Equipment Rental

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Aircraft

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TOTAL $2,749.90

I certify the above to be a true and correct statement of costs and expenditures.

C.W. Payne
GETTY CANADIAN METALS, LIMITED
APPENDIX V

Certificate of Author

I, C.W. Payne, hereby certify that:-

1. I am a geologist residing at 401-2326 Eton Street, Vancouver, B.C.

2. I received a Master of Science degree in Geological Science from Brock University in 1979 and have been practising my profession since that time.

3. I am the author of this report and directed the overall conduct of the programme described herein.

4. I am employed as a geologist by Getty Mines, Limited.

C.W. Payne
Geologist