GEOCHEMICAL GEOPHYSICAL REPORT RIVER JORDAN SYNDICATE

Loss mineral claims 5 miles west of Jordan River, Victoria Mining Division, B.C. Lat. 48°29'N Long. 124°10'W N.T.S. 92 C/8

AUTHOR: Glen E. White, Geophysicist

P. ENG: E. D. Cruz

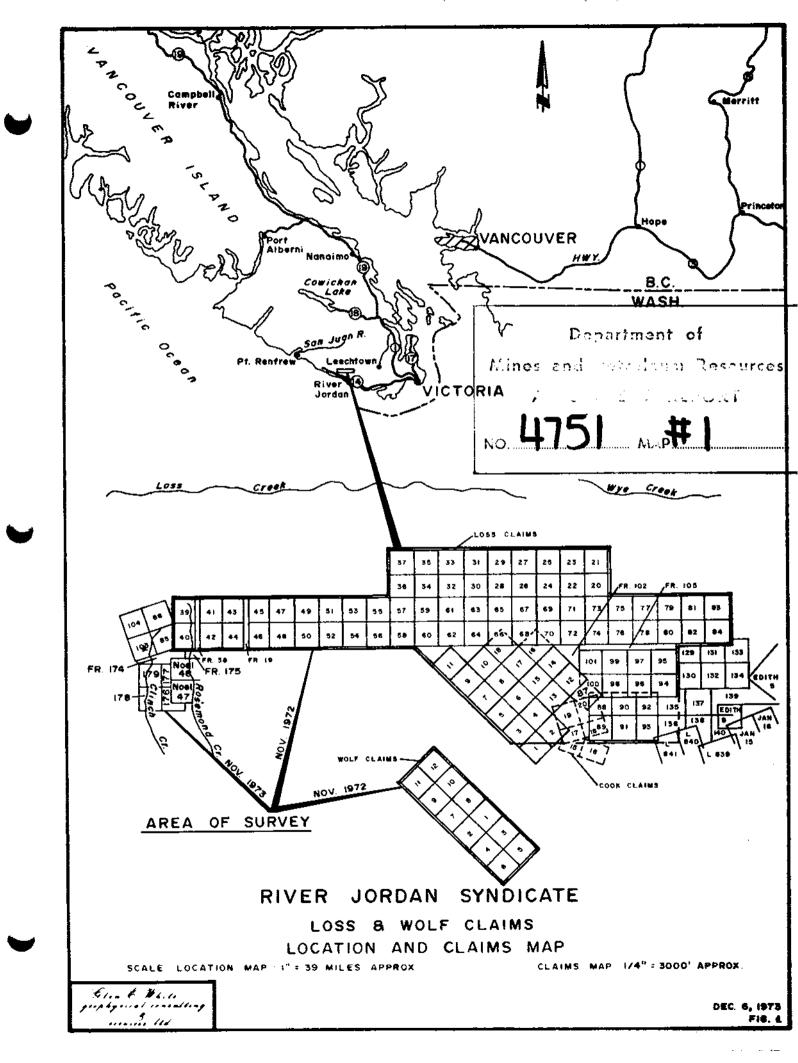
DATE OF WORK: October 29 - November 4, 1973 DATE OF REPORT: December 6, 1973

92C/8E

Denoriment of

Mines and Jahranam Resources

ASSESSMENT REPORT



# CONTENTS

### INTRODUCTION

From October 29 to November 4, 1973, a program of geochemical soil sampling and electromagnetometer surveying was conducted over a portion of the Loss claim group, Jordan River area, Victoria Mining Division, B.C., by Glen E. White Geophysical Consulting and Services Ltd. on behalf of the River Jordan Syndicate.

### PROPERTY

The mineral claims discussed in this report consist of the Loss 85, 86, 103, 104, 174fr. and 176-179, which are the western extension of a larger block of Loss mineral claims.

### LOCATION AND ACCESS

The Loss mineral claims are located some 6 miles west of the small village of Jordan River on the southern tip of Vancouver Island, Victoria Mining Division, B.C., Latitude 48°29'N, Longitude 124°10'W, N.T.S. 92°C/8.

Access to the mineral claims is by four wheel drive vehicle up the Rosemond Creek road which turns north off the Jordan River - Port Renfrew highway some 4.1 miles from the bridge at Jordan River.

### GENERAL GEOLOGY

This survey area was logged a number of years ago and varies from sparce second growth to dense, almost impassable sections.

The general geology of the survey area consists of Metchosin basalts, andesites, pillow lavas, flow breccias and coarse to fine bedded tuffs and agglomerates which have been intruded by a sill-like mass of gabbro. The gabbro is commonly called the Sooke gabbro, is Late Eocene or Early Oligocene in age and occurs throughout the southern tip of Vancouver Island.

### SURVEY SPECIFICATIONS

### Survey Grid

The survey grid is an extension of the survey grid used to control the exploration work on the large block of Loss mineral claims during 1972. For this survey, the central "A" baseline was extended to the west in an east-west direction. Chained and flagged lines were turned off at 400 foot intervals in a north-south direction. A second baseline "C" also running east-west was used to control the grid lines on claims Loss 176-179.

Some 6 line miles of traverse grid was established and surveyed.

### Electromagnetometer Survey

This survey was conducted using a Ronka EM-16 V.L.F. electromagnetometer. This instrument acts as a receiver only. It utilizes the primary electromagnetic fields generated by VLF marine communication stations. These stations operate at a frequency between 15-25 KHZ, and have a vertical antenna-current resulting in a horizontal primary field. Thus, this V.L.F. - E.M. measures the dipangle of the secondary field induced in a conductor.

For maximum coupling, a transmitter station located in the same direction as the geological strike should be selected, since the direction of the horizontal electromagnetic field is perpendicular to the direction of the transmitting station.

Readings were taken at 50 foot intervals and the data filtered in the field by the operator as described by D. C. Fraser, Geophysics Vol. 34, No. 6 (December 1969). The advantage of this method is that it removes the dc and attenuates long spatial wave lengths to increase resolution of local anomalies, and phase shifts the dip-angle data by 90 degrees so that crossovers and inflections will be transformed into peaks to yield contourable quantities.

### Geochemical Survey

Soil samples of the "B" horizon were obtained with mattocks at 200 foot intervals along the grid lines and placed in water-resistant soil envelopes provided by Chemex Labs Ltd. of North Vancouver, B.C. The soil samples were delivered to the above lab where -80 mesh sieving, digestion by perchloric acid and analysis by atomic absorption were carried out under the supervision of professional geochemists. Some 145 samples were analysed for copper and cobalt.

### DATA PRESENTATION

The data accompanying this report is at a horizontal scale of 1" = 400 feet as follows:

Figure 2 - Electromagnetometer Map - filtered dip-angle %

" 3 - Geochemical Map - Copper p.p.m.

" 4 - " - Cobalt p.p.m.

### DISCUSSION OF RESULTS

The filtered inphase V.L.F. electromagnetometer data shows several definite electromagnetic conductors with weak conductor trends. These conductors are located on Lines A-4W, A-12W, A-2OW and C-12W.

The copper geochemical results located several anomalous trends with significant above background values. In this particular area, with the high rainfall and acid soil conditions, low geochemical values in the order of 60 p.p.m. and over can be significant. A high of 1320 p.p.m. was detected near a pyrite-chalcopyrite vein which assayed 10 feet of 0.17% copper.

The cobalt geochemical assays give a number of anomalous values, the highest of which was 180 p.p.m. Several of these were coincident with anomalous geochemical values of copper.

Correlation of the electromagnetometer and geochemical data indicates that the good conductor on Line A-12W is directly associated with values of copper and cobalt. The area of the known showing also has a moderate conductor with coincident copper-cobalt values. This anomaly is open to the west. The strong value of 180 p.p.m. cobalt on Line A-20W is associated with anomalous copper values and a weak electromagnetic response. The strong conductors on Lines A-4W and C-12W are associated with weak geochemical values while the weak electromagnetic conductor on Lines C-0, C-14 and A-24 are coincident with good geochemical values of copper and/or cobalt.

### CONCLUSIONS AND RECOMMENDATIONS

During the fall of 1973, a program of geochemical soil sampling and electromagnetometer surveying was conducted over a number of the Loss mineral claims at the western end of a large block of Loss mineral claims.

This survey located an interesting electromagnetic conductor coincident with the copper showing. A slightly better conductor on Line A-12W is associated with good geochemical values of copper and cohalt. Two other interesting electromagnetic conductors, one on Line A-4W and the other on C-12W, are coincident with weak geochemical values while the weak conductors on Lines C-14W and A-20 have good geochemical values of either copper and/or cobalt.

Thus, the coincident anomaly on Line A-12W and possibly the stronger conductors with weak geochemical values should be further investigated, possibly by prospecting and then trenching and/or packsack diamond drilling.

Respectfully submitted, GLEN E. WHITE GEOPHYSICAL CONSULTING & SERVICES LTD.

Glen E. White B.Sc. Geophysicist

# STATEMENT OF QUALIFICATIONS

Name:

WHITE, Glen E.

Profession:

Geophysicist

Education:

B.Sc. Geophysics - Geology

University of British Columbia

Professional

Associations:

Associate member of Society of Exploration

Geophysicists.

Active member B.C. Society of Mining

Geophysicists.

Experience:

Pre-Graduate experience in Geology -Geochemistry - Geophysics with Anaconda

American Brass.

Two years Mining Geophysicist with Sulmac Explorations Ltd. and Airborne Geophysics with Spartan Air Services Ltd.

One year Mining Geophysicist and Technical Sales Manager in the Pacific north-west for W. P. McGill and Associates.

Two years Mining Geophysicist and supervisor Airborne and Ground Geophysical Divisions, with Geo-X Surveys Ltd.

Two years Chief Geophysicist Tri-Con Exploration Surveys Ltd.

Two years Consulting Geophysicist.

Active experience in all Geologic provinces of Canada.

### APPE'NDIX

### Instrument Specifications

### ELECTROMAGNETOMETER

### A. Instrument

(a) Type - Geonics VLF - EM(b) Make - Ronka Em 16

# B. Specifications

Measurement (i

- (i) Utilizes primary fields generated by VLF marine communication stations, measures the vertical field components in terms of horizontal field present.
- (ii) Frequency range 15-25 KHZ
- (iii) Range of measurement in phase = 150% or = 90° - quadrature = 40%
  - (iv) Method of reading null detection by earphone, real and quadrature from mechanical dials.
    - (v) Accuracy = 1% resolution

# C. Survey Procedures

Method (a) Select closest VLF station perpendicular to traverse lines.

(b) In-phase dial measures degree of tilt from vertical position.

(c) Quadrature dial calibrated in percent - null.

(d) Station plot - plot values read at station surveyed.

(e) Manually filter dip-angle data.

## CERTIFICATE

- I, Ernesto D. Cruz, DO HEREBY CERTIFY AS FOLLOWS:
- (1) That I am a Consulting Mining Engineer and reside at 8596 Terrace Dr., Delta, B.C.
- (2) That I am a Graduate of Mapua Institute of Technology Phillipines (B.A.Sc.) and University of Washington (M.A.Sc.) in the Faculty of Mining Engineering.
- (3) That I am a registered P.ENG in the Association of Professional Engineers in the Province of British Columbia.
- (4) That I have practised geological engineering for ten (10) years.
- (5) That I have reviewed a report dated December 6, 1973 based on work conducted by Glen E. White Geophysical Consulting and Services Ltd. under the supervision of Glen E. White, B.Sc., Geophysicist, and concur with the findings therein.
- (6) That this report consists of 7 typewritten pages and three maps.
- (7) That I have no interest directly or indirectly in the Loss mineral claims or the securities of River Jordan Syndicate nor do I expect to acquire or receive any.

DATED at Vancouver, British Columbia, this 6th day of December, 1973.

ERNESTO PESSANIZ, P. ENG

ERNESTO D. CRUZ

Ernesto D. Cruz, P. ENG

# PROVINCE OF BRITISH COLUMBIA. To WIT: BLECTROMA GNETOMETER SURVEYING, LOSS MINERAL CLAIMS Wilness and Advances A 151 Of Glen E. White Geophysical Consulting and Services Ltd. in the Province of British Columbia, do solemnly declare that the costs for the above

PERSONNEL	PERIOD	WAGES	TOTAL
C. Ashworth	.Oct. 29 - Nov. 4/73	\$75/day	.\$525.00
P. McKenzie	***************************************	55/day	385.00
Meals and Accomoda	tions	• • • • • • • • • • • • • • •	280.00
Electromagnetometer Lease			
Vehicle 4x4 includ	ing gas	* * * * * * * * * * * * * *	175.00
Materials45.00			
Topochaix Lease (2) @ \$5/day			
Transportation Cos	ts	• • • • • • • • • • • • • • • • • • • •	28.00
Geochemical Analys	is	• • • • • • • • • • • • • • • • • • • •	241.00
Interpretation, Ma	ps and Reports	• • • • • • • • • • • • • •	450.00
	Total	• • • • • • • • • • • • • •	\$2269.00

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

of Mulauli , in the Province of British Columbia, this 10

were as follows:

A Commissioner for taking Affidavits for British Columbia or A Notary Public in and for the Province of British Columbia.

Sub-mining Recorder

