

ELECTROMAGNETIC SURVEY

for

AROYLE SECURITIES LIMITED

'EX' CLAIM GROUP

MERRITT, B. C.

by

Shield Mining Surveys Limited

April 2,

1957.

Ottawa.

Ontario.

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Plan showing Electromagnetic readings and results..in pocket at back of report.

Electiomagnetic Survey for <u>Argyle Securities Limited</u> <u>"BX" Claim Group</u> Merritt, B. C.

Location-

The "BX" Mineral Claim Group is located 8 miles east and 3 miles south of the town of Merritt, B. C., in the Corbett Lake area, Nicola Mining Division.

Access-

The group is easily accessible from the town of Merritt, B. C. by following the Princton highway for approximately 9 miles from that town, at which point a secondary road to the northeast for 1 mile leads directly to the group.

Description of the "BX" Claim Group-

The "BX" Mineral Claim Group consists of a solid block of 16 Mineral Claims of approximately 50 acres each, and 10 Fractional Mineral Claims, more specifically described as follows:

Mineral Claim Numbers	Mineral Claim Numbers
B13197	210529
B13198 B13199	21053 0 2 105 31
B13200	210532
210713	210533
210714 210715	210534 210535
210716	210536

Purpose of the Survey-

The purpose of the survey was to detect sub-surface

conductors of electricity on the claims listed above. Examples of such conductors are wet or mineralized shears, graphites, and sulphides.

Method of Survey-

In the present survey a vertical-loop, single phase electromagnetic unit was used. For this system of grid lines a conductor exists when the readings change from west to east angles while proceeding <u>from</u> the west. This change in the direction of the readings is known as a 'right-way cross-over', and this lies above the axis of the conductor. In the case of parallel conductors, the effect of one may overshadow the effect of another, resulting in a cross-over over one and only a'dip' or 'rise' in the magnitude of the readings in the vicinity of the other.

All conducting zones are shown on the map by dashed lines. Where the existance of a conductor is uncertain, the line is accompanied by question marks.

Discussion of Results and Conclusions-

All the anomalous indications are those of very weak conductors. Such conditions are not uncommon in shear zones containing disseminated sulphides. This, however, does not exclude the possibility that the conductors may consist of commercial sulphides.

The strike pattern of the conductors is approximately north 30 degrees east.

The results indicate that the inclined shaft (25 00N 8 00W of BL'B') could lie on a conducting zone, the strongest part of which is to the north on lines 30 00N and 35 00N at 8 00 and 7 50 west of BL'B' respectively.

Another interesting looking conducting zone exists nearby and extends from line 40 00N, 1 00W of BL'B' to line 0 00N, 12 50W of the same base line. No trace of this anomaly was found on line 22 50N and 7 50N, which is probably due to extremely weak conductivity in these sections of the zone.

Other short contiguous conductors exist in the southwest section of the property.

Two parallel conductors exist midway between BL'B' and BL'C', and extend between lines 15 00N and 25 00N.

Another: set of conductors exists to the east of BL'C'. Recommendation:-

It is recommended that the proceedure outlined below should be followed in the further development of this property.

(1) A detailed geological study and mapping programme of all anomalous areas.

(2) A geochemical and/or a self-potential survey of all anomalous areas. Both of these tests will give added information as to the nature of the conductors.

(3) Pending the results of (1) and (2), the following areas are worthy of investigation by stripping, trenching, and a limited amount of diamond drilling.

(a) North of the inclined shaft, on lines 30 00M and 35 00N at 8 00W and 7 50W of BL'B', respectively.

(b) Lines 35 00N, 30 00N, 27 50N, and 25 00N, at 1 50W, 1 70W, 2 80W, and 3 50W of BL'B', respectively. (c) In the south part of the property west of

BL'B'.

(4) Where results from (1) and (2) are favourable and particularly where they coincide with the anomalies found during the course of the present survey, stripping, trenching, and diamond drilling should be done.

SHIELD MINING SURVEYS LIMITED

han E. Bet, M.a.

John E. Betz, M. A. Geophysicist.

William T. Yang.

William L. Young, Ph.D., Geologist.

<u>C E R T I F I C A T E</u>

I, William Lee Young, of Ottawa in the Province of Ontario, certify:

1. THAT I am a geologist and maintain an office at Ottawa, Ontario.

2. THAT I am a graduate of McGill University, Ph. D. 1953, and that I have been practising my profession as a geologist for four years.

3. THAT I have no direct or indirect interest whatsoover in the Mineral Claims covered thereby and referred to herein the accompanying report on the Electromagnetic Survey of the 'BX' Mineral Claim Group, Merritt, B. C., dated this 2nd day of April, 1957, or expect any interest in the securities of the company that ownes, or may own this Mineral Claim "roup.

4. THAT the accompanying report is based on a survey conducted by personnel of Shield Mining Surveys Limited, interpretation of the results by Mr. John Betz, M.A., consulting geophysicist, and on personal observations made during a one day visit to the property in January, 1957.

DATED this second day of April, A. D. 1957.

William Cre Young

William Lee Young, Ph. D. Geologist.

Shield Mining Surveys Limited

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CERTIFICATE

I, John E. Betz, of Toronto in the Province of Ontario, certify:

1. THAT I am a geophysicist and have mailing addresses at Chibougamau, P. Q. and Toronto, Ont.

2. THAT I am a graduate of the University of Toronto, B. A. 1952 and M. A. 1954, and have been practising my profession as a geophysicist for over four years.

3. THAT I have no direct or indirect interest in the Mineral Claims covered thereby and referred to herein the accompanying report on the Electromagnetic Survey of the 'BX' Mineral Claim Group, Merritt B. C., dated this 2nd day of April, 1957, or expect any interest in the securities of the company that owns, or may own this Claim Group.

4. THAT the interpretation involved in the accompanying report is based on field results and information supplied by the personnal of Shield Mining Surveys Ltd. plus my knowledge of the electromagnetic method of geophysical exploration.

DATED this second day of April, A. D. 1957.

John E. Ket, m.a.

J. E. BETZ, M.A., GEOPHYSICIST



