



**MACDONALD CONSULTANTS LTD.**

SUITE 12 - 425 HOWE STREET, VANCOUVER 1, B.C.

**Report**

**on the**

**1968 Exploration Program**

**on the**

**AM 1 - 32 Mineral Claims**

**of**

**Altair Mining Corporation Ltd.**

**in the**

**Anvil District**

**Yukon Territory**

**by**

**MacDonald Consultants Ltd.**

**12 - 425 Howe Street**

**Vancouver 1, B. C.**

**H. Wober, P. Eng.**

**August 31, 1968**

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Maps 219-1-22 to 219-1-32 inclusive

Attached: Report on a Gravity Survey by Roving Explorations Ltd.

## INTRODUCTION

In accordance with the recommendations of our Report on the property dated January 26, 1968, MacDonald Consultants have carried out further exploration work from June 17 to July 13, 1968.

The writer was on the property from July 3 to July 13 carrying out the elevation survey for the gravity program and interpreting the geophysical results on the spot in order to decide whether to continue with follow up work or to terminate the program.

The camp was demobilized on July 13 and all equipment including the diamond drill which was left on the property in the fall of 1967 were brought to Whitehorse.

## EXPLORATION WORK CARRIED OUT IN 1968

### A.) Picket Lines

A total of 65,200 feet of line (12.35 miles) were established in extension of last year's grid. The line spacing from 8E to 20W is at 200 feet from 15+00 S to 45+00 S, the remainder of the lines were put in at 400 foot spacing.

Pickets were set at 100 foot intervals along the lines.

In the northern part of the property lines 12W, 20W, 28W and 36W were extended to the north to 44N, 40N, 40N and 35N respectively.

### B.) Geochemical Survey

Soil samples were taken on all stations on the extended and new lines established in 1968. Check samples were taken on lines established in 1967 in the southeastern part of the original grid where a lead-anomaly was encountered.

A total of 943 samples were taken and shipped to Bondar-Clagg & Co. for geochemical assaying for copper, lead and zinc.

The lab used hot aqua regia digestion and the atomic absorption method to determine the values of the -80 mesh fraction.

The 1967 and 1968 results correlated very well where the check samples were taken. The lead anomaly in the southwestern part of the 1967 grid was defined.

In view of the 1967 results and their correlation with EM and gravity surveys in 1967 and 1968 none of the geochemical anomalies defined in 1968 can be regarded as significant indicators of a mineral deposit of the Faro type. Other types of deposits of economical interest have to date not been located in the Anvil Camp.

### C.) Geophysical Surveys

Crone EM Survey - A survey with a Crone EM dual frequency instrument over all new lines established in 1968 using both low and high frequency and 200 as well as 300 foot coil separations in conductive areas indicated several conductors which warranted follow up work by a gravity survey. The conductors appeared to be at greater depth than the first conductors located on the property in 1966 and 1967. High to low frequency ratios within the range attributed to sulphide deposits were encountered using the greater coil separation.

Gravity Survey - A gravity survey was carried out over the conductive areas totalling 6.04 miles in 319 station observations by Roving Explorations Services Ltd.

Survey (elevation) control was provided by MacDonald Consultants Ltd., the writer carrying out the survey and survey calculations personally.

A copy of the Report by Roving Explorations is attached.

Preliminary computations of the field data were carried out in the field by Mr. W. Pelten, geophysical operator MacDonald Consultants Ltd. and Mr. G. DuPre geophysical operator Roving Explorations in order to make a field interpretation possible, so that the writer could decide whether to demobilize the entire camp and drill equipment.

A later comparison with the data computed by Roving Exploration in their Calgary office showed that the field calculations were correct.

The interpretation of the results in the field by correlation and comparison with the geophysical, geochemical and drill results of 1967 gave no encouragement for follow up work by diamond drilling.

#### RESULTS AND INTERPRETATION

Correlation of the EM and gravity results in comparison with previously obtained information on the property by the same methods plus diamond drilling indicate the presence of stratigraphic conductors of low density most probably representing beds of graphite schist.

With the gravity data determining the nature of the conductors, the geochemical results must be viewed in different light. Small amounts of sulphide mineralization are a common feature in the schistose formations of "map unit 7" (G.S.C. Map 13-1961 Tay River) close to the granite contact. The geochemical response on the property is interpreted as somewhat higher concentrations of these sulphides in the footwall portions of the graphite schist layers. Some secondary structural control appears to be present as well. There is no indication, however, that these occurrences are of economic interest.

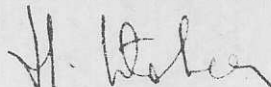
Diamond drilling in 1967 has tested one of these situations and there is no reason to believe that the very similar results of the geophysical and geochemical work carried out in 1968 have any different significance.

#### RECOMMENDATIONS AND CONCLUSIONS

No further work can be recommended on the Am 1 - 32 group of mineral claims. The property has received a thorough investigation over the past three years.

Respectfully submitted,

MACDONALD CONSULTANTS LTD.



H. Wober, P. Eng.

