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REPORT ON
GEOLOGICAL MAPPING
AND GEOPHYSICAL SURVEYS



July 28, 1979 to Sept. 13, 1979

TUCHITUA PROPERTY
HIRALPH 1-8 AND TISNOT 1-16 CLAIMS
TESLIN JOINT VENTURE

WATSON LAKE MINING DISTRICT, Y.T.

CLAIM SHEET 105.H/5

Latitude 61°17'N

Longitude 129°47'W

R.J. Cathro, P.Eng.

January 10, 1980

090578

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

Representation Work

\$ 9500.00

J A Mann
Mining Engineer

Considered as representation work under Section 10 of the Quartz Mining Act

R Geologist Official

B. R. BAXTER
Supervising Mining Recorder

[Signature]
Commissioner of Yukon Territory

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Figure FL2	Geology: Hiralph-Tisnot Claims Scale: 1:5,000 -----	in pocket
Figure FL3	Magnetic Survey: Hiralph-Tisnot Claims Scale 1:5,000 -----	in pocket

INTRODUCTION

The Tuchitua property was staked for Teslin Joint Venture (Cassiar Asbestos Corporation Ltd., Cominco Limited and Exploram Minerals Ltd.) between February, 1979 and September, 1979. It covers a poorly exposed serpentinite body with potential for hosting economic concentrations of chrysotile.

Previous work on the property was confined to the immediate areas of the showings due to extensive overburden. However, the geologic setting was considered favourable because of the well serpentinitized nature of the ultramafites and the presence of fair quality fibre in the only exposed areas.

Following brief prospecting examinations of the property on 28 July and 23 August, 1979, the claims were revisited and examined in more detail from 5 to 13 September. This program consisted of a magnetometer survey, geological mapping and collection of soil samples for future analysis. Approximately 4,500 m of baseline was cut and picketed and compass lines totalling 13,350 m were established at 200 m intervals along the baseline. A total of 635 soil samples were collected for future analysis.

The program was managed by Archer, Cathro & Associates Ltd. The crew was led by geologist E. Onasick, P.Eng. and included magnetometer operator S. Murray and line cutter/soil samplers D. Blanchet and B. Granger. Part-time employee R. Linseman recorded magnetic data when required. Helicopter transportation was supplied by Trans North Turbo Air Ltd., Whitehorse.

HISTORY AND PREVIOUS WORK

The Tuchitua property has been explored several times during the past, initially for asbestos and, since 1970, for jade. The northwesterly showing (Tisnot) was previously staked by J. Smarch in 1958 (Porkpine, Eko claims), by G. Rapson, E. Brodhagen and N. Zinchuk in 1959 (Gen claims), by CAC in 1960 (Dim claims) and by G. Bouchard in 1976 (Green Stuff claims), who optioned to Petra Gem. Previous work includes mapping, drilling of 19 x-ray holes in 1960 (147 m) and the construction of a tote road in 1971. Several tons of jade have been shipped from the property in recent years.

The southeasterly showing (Hiralph) was previously staked by Rapson, et al (Gen claims) in 1959, by H.C. Fromme in 1964 (Patsy claims) and by K. Ebner in 1970 (Sowden claims). It was hand pitted in 1960.

PROPERTY, LOCATION AND ACCESS

The Tuchitua property consists of twenty-four contiguous mineral claims recorded in the name of Archer, Cathro in the Watson Lake Mining District as follows:

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
Hiralph 1-8	YA34742-YA34749	7 Feb/81
Tisnot 1-12	YA45097-YA45108	3 Aug/80
Tisnot 13-16	YA45707-YA45710	13 Sept/80

The claims are located at latitude 61°17' north and longitude 129°47' west, straddling NTS claim sheets 105H/4 and 105H/5, about 11 km west of the Campbell Highway and 142 km northwest of Watson Lake. A bulldozer trail has been built to the property but it is impassable to wheeled vehicles and access was by helicopter in 1979.

GEOMORPHOLOGY AND GLACIATION

The property is situated in the Campbell Range, part of the rugged Pelly Mountain system, with relief up to 900 m and peaks carved by alpine glaciation up to 1900 m. Surrounding broad U-shaped valleys and elongated lakes were formed during deglaciation of the Pleistocene ice sheet which covered all but the highest peaks. Glacial and glaciofluvial drift cover the lower slopes of the main valleys and forest cover is extensive but thin.

On the claims, the local relief is about 600 m and the highest peak is about 1850 m. Treeline is about 1500 m elevation. The upper eastern slopes are generally free of glacial drift cover but thick glacial debris is present near the lakes on the southeast portion of the claims at about 1250 m elevation. The western slopes have significant glacial debris to at least 1700 m elevation. Relatively thin but extensive talus and felsenmeer cover the slopes above the glacial drift covered areas and outcrops of unbroken rock are rare except in areas of extreme local relief.

GEOLOGY AND MINERALIZATION

The geological history of the region is complex, but the most recent model suggests a stacking of several overthrust allochthonous sheets onto the southwesterly-dipping imbricated shelf strata of the North American platform in late Jurassic. This was followed by a single dextral strike-slip movement of 450 km along the Tintina Fault, which displaced the leading edge of the allochthonous rocks to the southeast in the late Cretaceous. Their present boundaries are approximately marked by the Tintina valley on the southwest and the Campbell Highway on the northeast. Further details are given in GSC Paper P79-14 by D.J. Tempelman-Kluit.

The alpine-type serpentinite body at the Tuchitua property is not well exposed over most of its interpreted length, although the overburden appears to be thin based on the nature of rock chips in the sample pits. The few outcrop exposures, including one contact, indicate one or more sill-like structures conformably intruded between the metavolcanics and less competent argillite. The geology of the Tuchitua property (Hiralph-Tisnot claims) is shown on Figure FL2 (Pocket 1).

In general, the ultramafic rocks seen on the property consist of pale green-weathering, medium green, magnetic, well serpentinitized peridotite with bastities. Fish-scale is rare, but moderate shearing is common. Dark green to black, sheared serpentinite is present at the Hiralph showing. Host rocks are probably Paleozoic in age and may be Cache Creek Group equivalents. They are comprised of quartz-chlorite phyllite, calc-silicate gneiss, graphite schist and minor grey limestone. Rodingite dykes and quartz-carbonate alteration are sometimes present, notably at the Tisnot showing. Weathering has crumbled outcrops, except at higher elevations, and exposure is generally poor.

Asbestos fibre rarely exceeds 3 mm where present but reached 9 mm at the Tisnot showing, where it occurs near the contact with a rodingite dyke. About 3 km to the southeast, 5 mm fibre is seen in sheared serpentine at the Hiralph showing. Magnetic evidence suggest the two may be related, as discussed below.

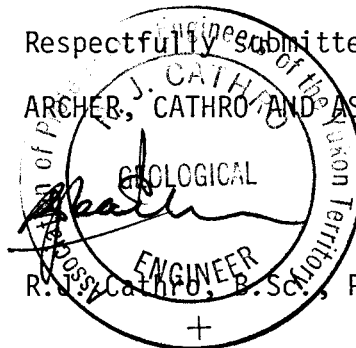
GEOPHYSICS

A magnetometer survey was conducted with a Scintrex MF-2 magnetometer. Readings were taken at 25 m stations on lines spaced 200 m apart, with a second magnetometer (Scintrex MF-1) kept at a fixed location to monitor diurnal variations. The results and a partial interpretation of this survey, illustrated on Figure FL3 (in pocket), support the model of one or more sheetlike structures dipping southwesterly, possibly controlled by the regional thrust-faulting or imbricated basement, over a strike length of more than 3 km.

CONCLUSIONS AND RECOMMENDATIONS

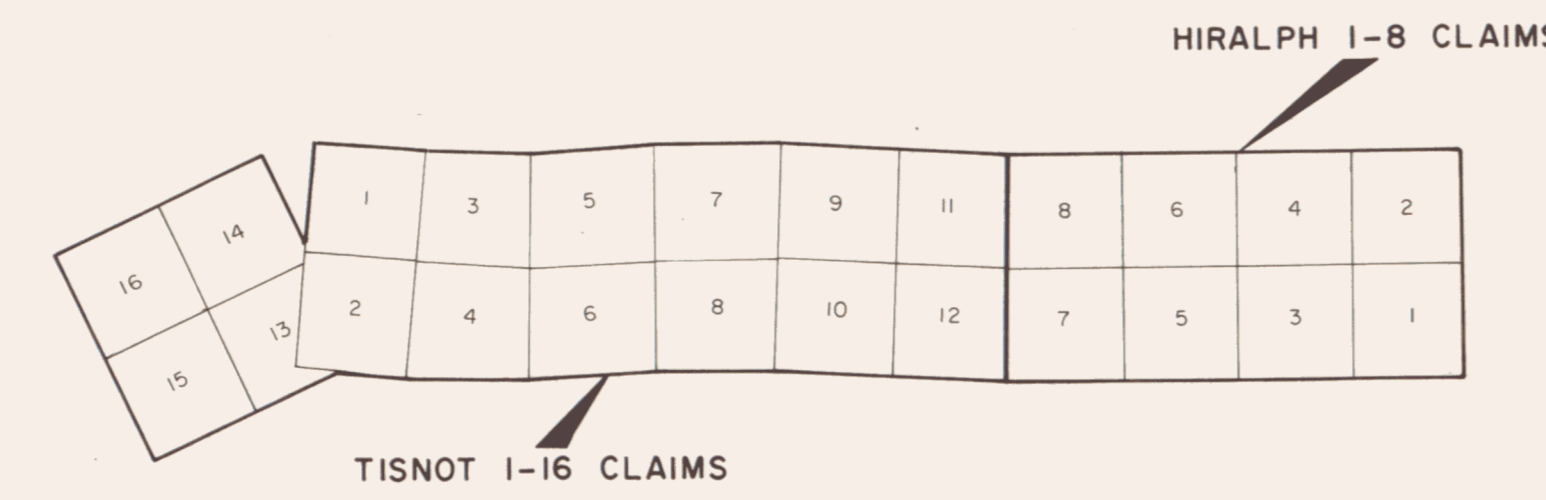
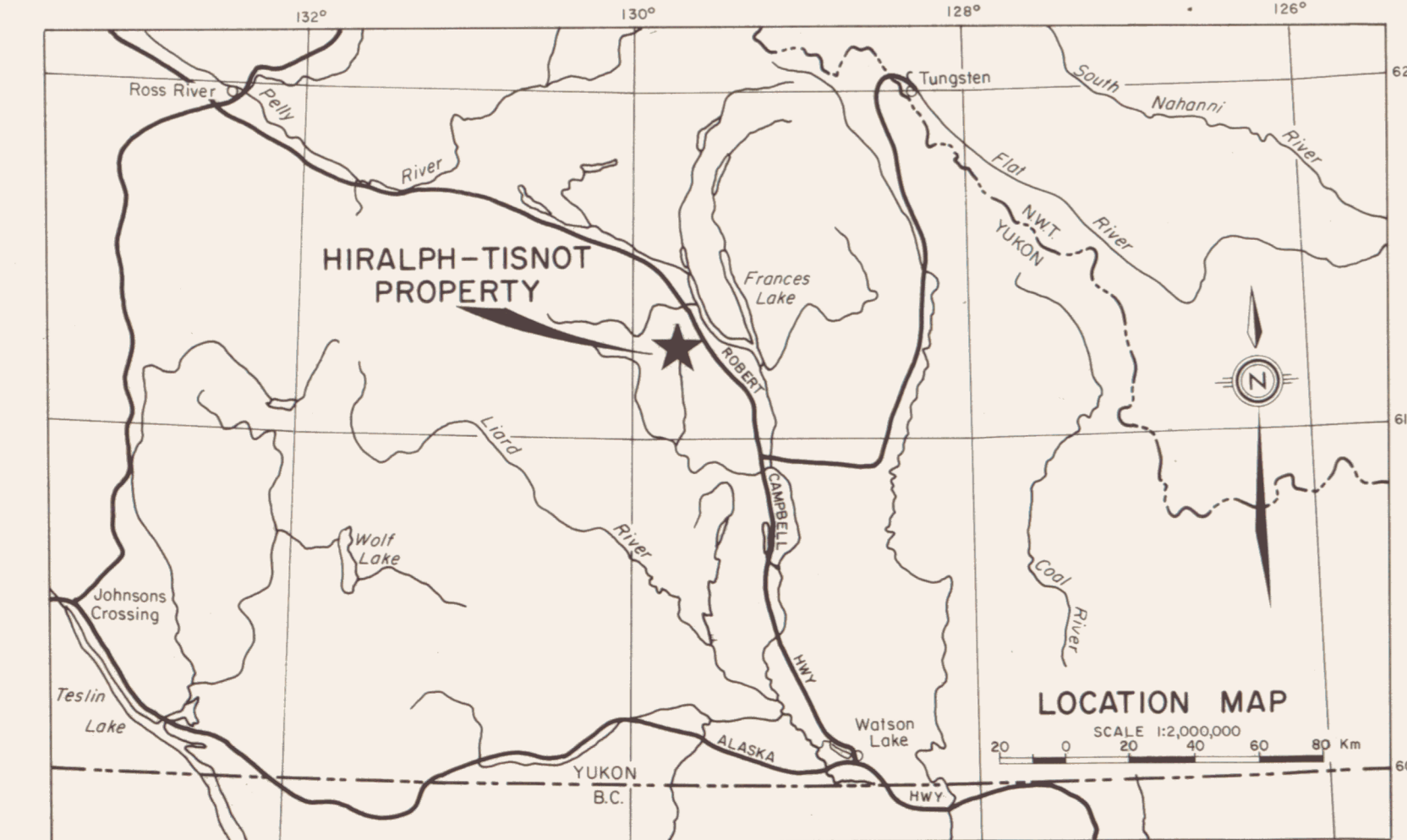
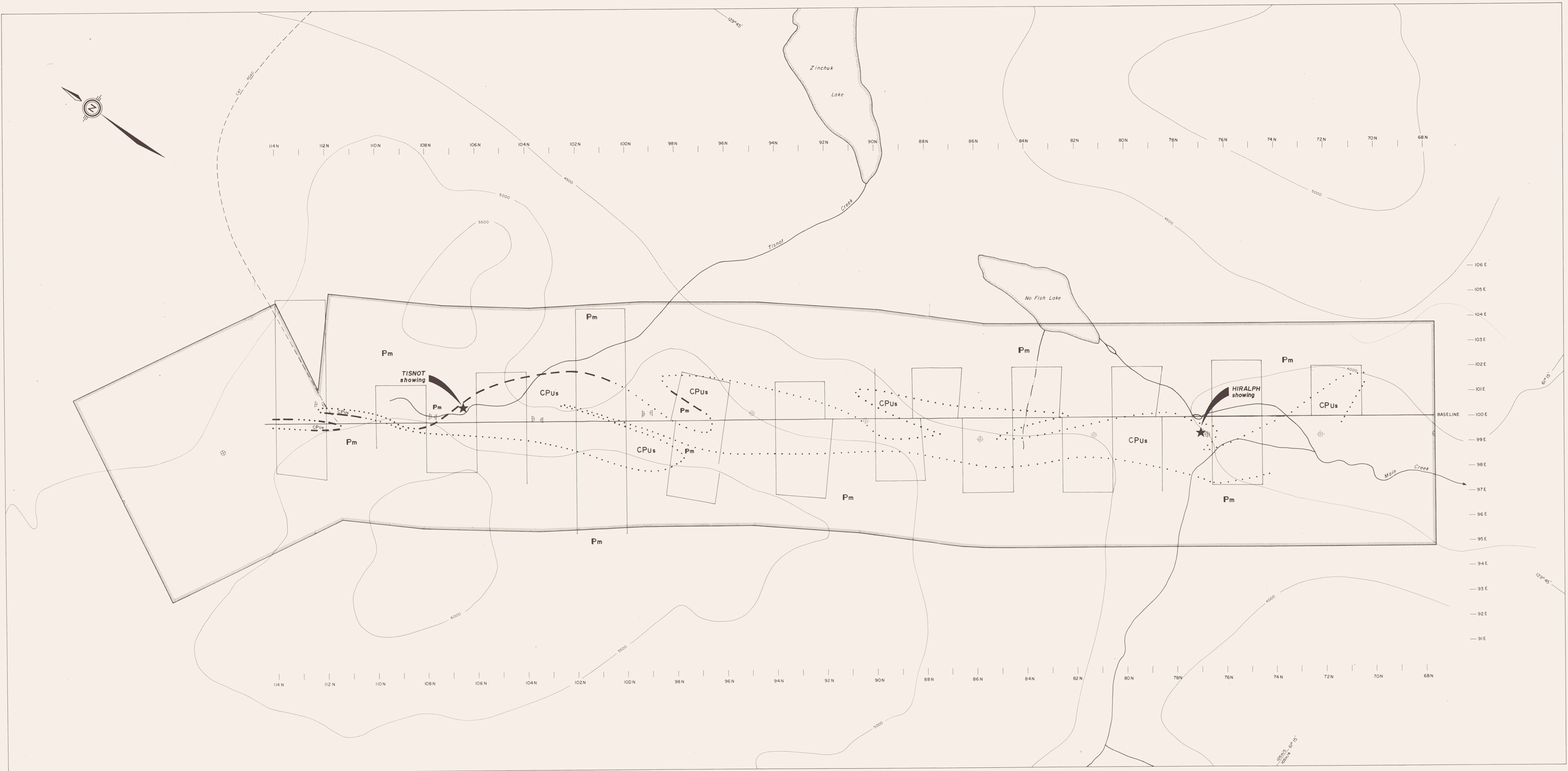
The fibre exposed at the Hiralph and Tisnot showings is not important enough, by itself, to warrant development of the Tuchitua property, but the potential is good for a commercial deposit within the 3 km long serpentinite connecting them. It can easily be explored by bulldozer, since the overburden is thin, and at relatively low cost, since a short trail already leads to the property. Further potential for mineralization exists along strike in both directions.

Respectfully submitted,
ARCHER, CATHRO AND ASSOCIATES LTD.



R. J. Cathro, B.Sc., P.Eng.

/mc



LEGEND

GEOLOGICAL LEGEND

MAP 105H

DESCRIPTION

CARBONIFEROUS TO PERMIAN

CPUs Pale green to dark green weathering, partially to totally serpentinized peridotite

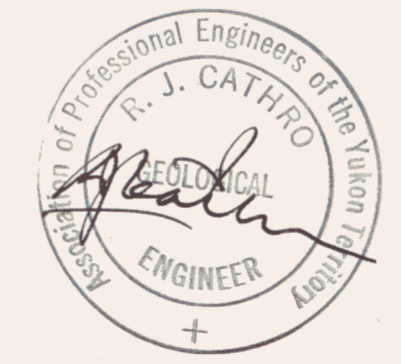
PALEOZOIC

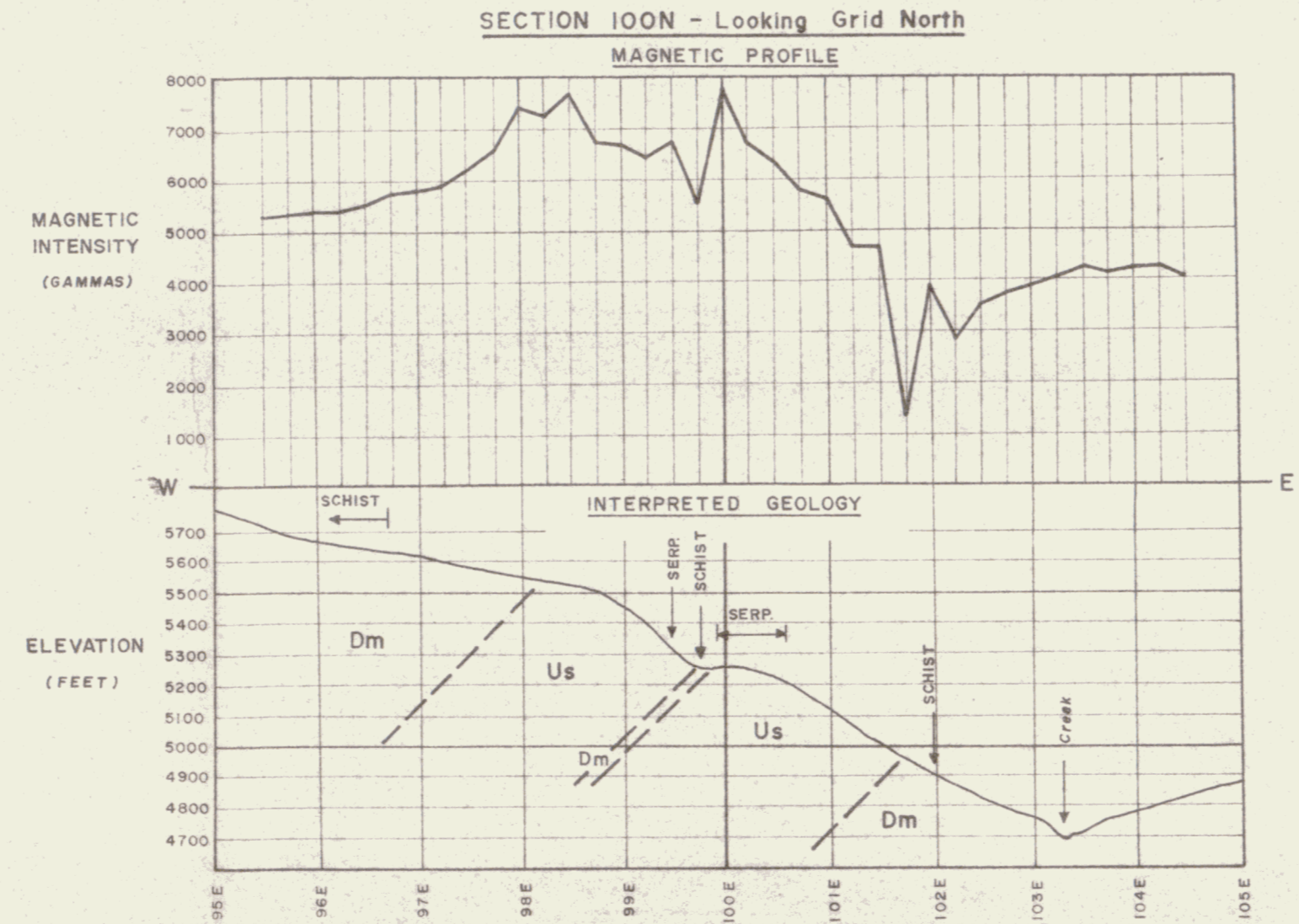
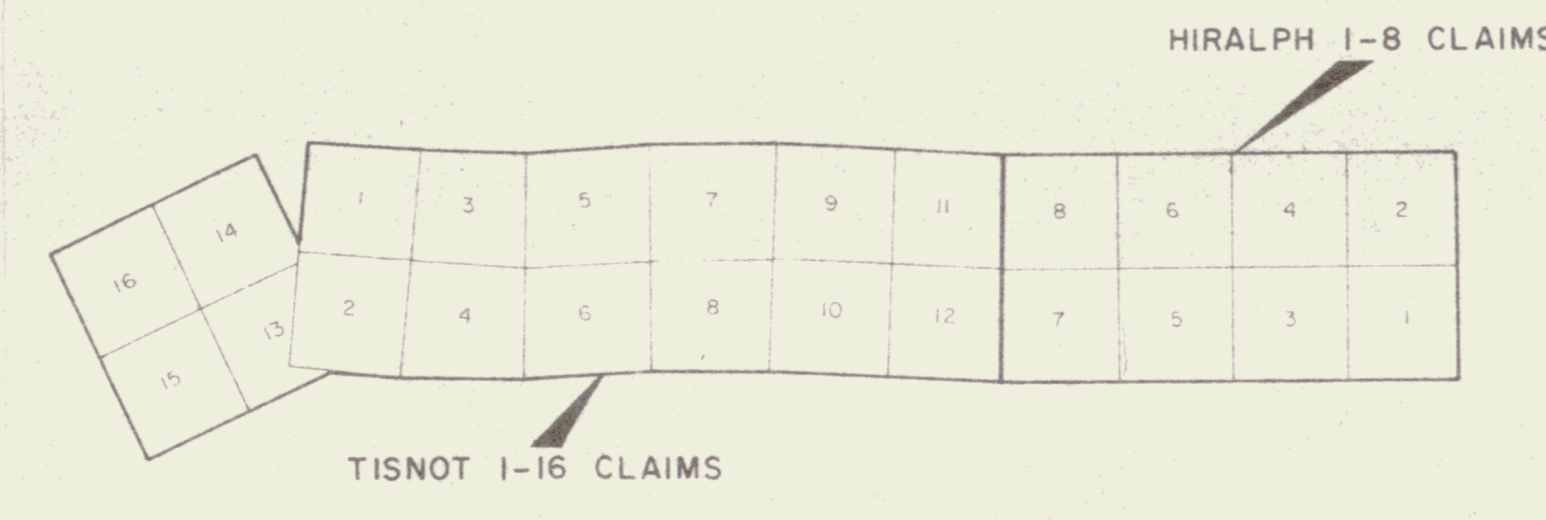
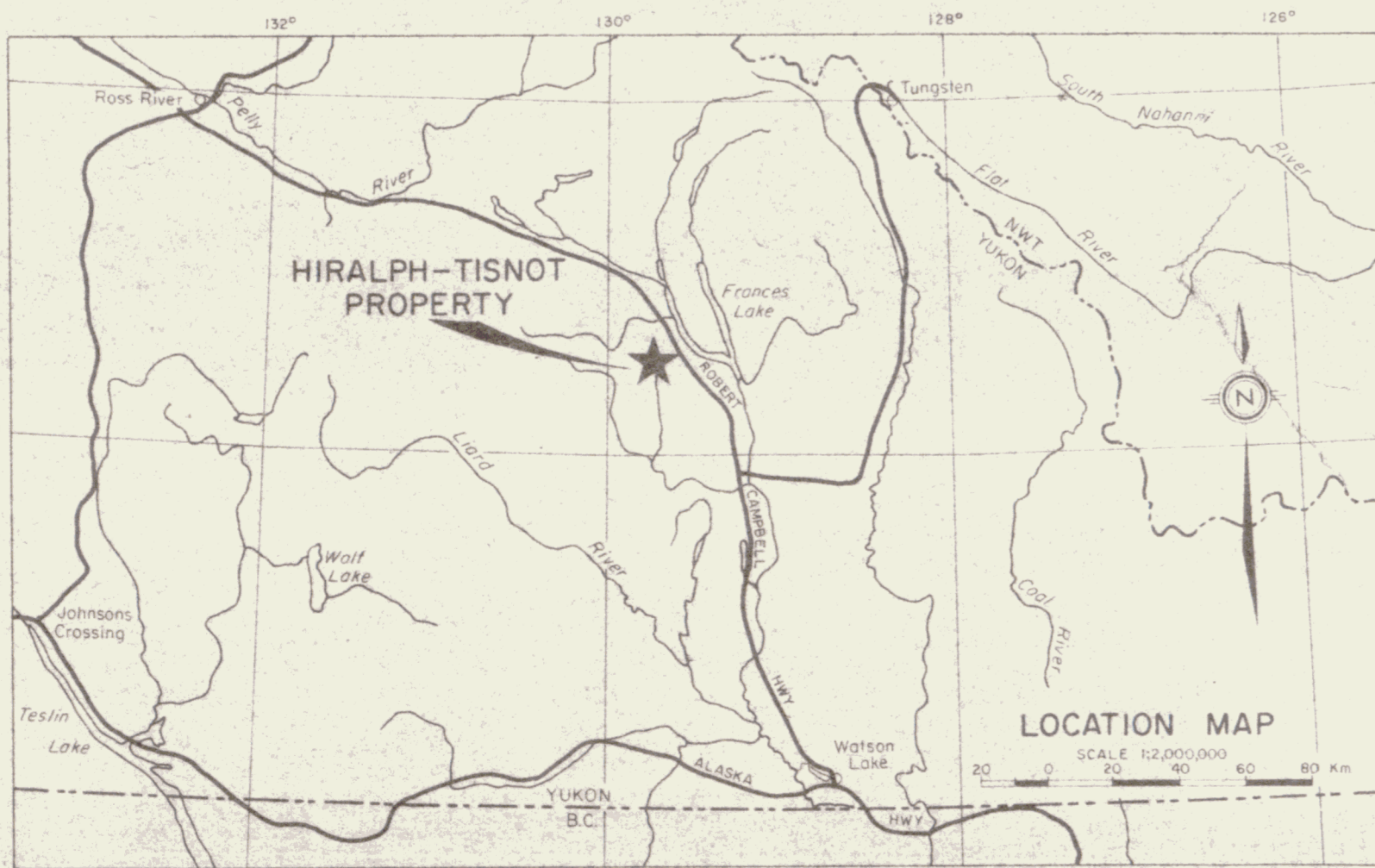
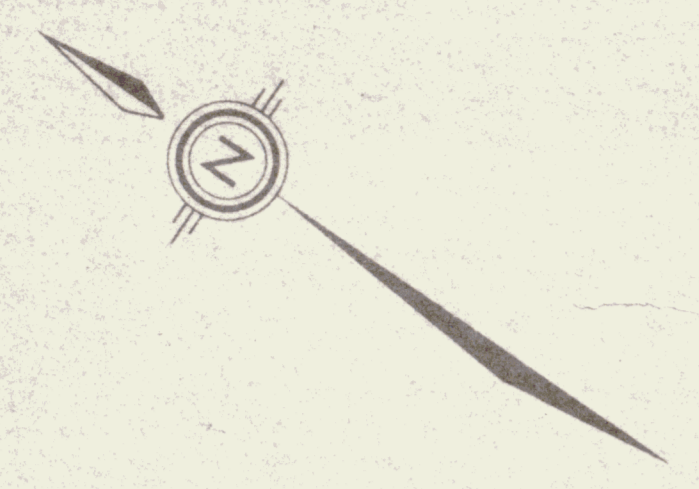
Pm Pale green chlorite quartz phyllite, grey to brown weathering calc-silicate gneiss, brown weathering mica schist, graphitic schist, minor grey limestone

FIGURE - T79-FL2
ARCHER, CATHRO & ASSOCIATES LTD

GEOLOGY
HIRALPH - TISNOT PROPERTY
TESLIN JOINT VENTURE

SCALE 1:5000
0 100 200 300 400 500 METERS





NOTES: 5000 X ADDED TO INSTRUMENT READINGS
SCINTREX MF-2 MAGNETOMETER
OPERATOR J.S. MURRAY

FIGURE T79-FL3
ARCHER, CATHERB & ASSOCIATES LTD
MAGNETIC SURVEY
HIRALPH-TISNOT PROPERTY
TESLIN JOINT VENTURE
SCALE 1:50,000

