

ARCHER, CATHRO

& ASSOCIATES LIMITED

CONSULTING GEOLOGICAL ENGINEERS

VANCOUVER, B.C. (604) 688-2568

Box 4127, WHITEHORSE, Y.T. Y1A 3S9 (403) 667-4415

1016 - 510 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1L8



REPORT ON

RECONNAISSANCE PROTON MAGNETOMETER SURVEY

LENA 1-42 CLAIMS

YA46194-YA46235

WATSON LAKE MINING DISTRICT, Y.T.

CLAIM SHEET 105G/6



Latitude 61°24'N

Longitude 130°31'W

FOR CHEVRON CANADA LTD.

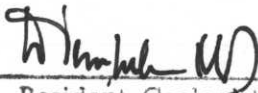
U. Schmidt, B.Sc.

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

JANUARY, 1981

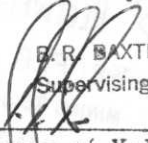
090734

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 \$ 5500



Resident Geologist or
Resident Mining Engineer

Considered as representation work under
Section 53 (4) Yukon Quartz Mining Act.



E. R. BAXTER
Supervising Mining Recorder



Commissioner of Yukon Territory



080594

TABLE OF CONTENTS

	<u>PAGE</u>
Summary and Recommendations -----	1
Property, Location and Access -----	2
Geology -----	2
Magnetometer Survey -----	2

LIST OF ILLUSTRATIONS

Figure GP80-LE1	Ground Proton Magnetometer Survey, Lena Claim Group (1:5000 horizontal scale)	IN POCKET
-----------------	--	-----------


SUMMARY AND RECOMMENDATIONS

The Lena claims were staked in September 1979 by Archer, Cathro on behalf of Chevron Canada Ltd. to cover a poorly mineralized tungsten occurrence previously staked as the Myda property.

The Lena claims were briefly examined by L. Dick of Chevron in 1979 and by L. Dick and his assistant T. Zanger in 1980. His examinations indicated that the geology was favourable for either tungsten or tin mineralization in thick exposures of skarn located in the previously unexplored southern end of the claim group. However, subsequent sampling by Dick and his assistant failed to find any encouragement.

A proton magnetometer survey was run by Archer, Cathro employees along six reconnaissance lines across the intrusive/metamorphic rock boundaries. This work confirmed the feasibility of using proton magnetometer survey to outline large scale geological features in overburden covered areas.

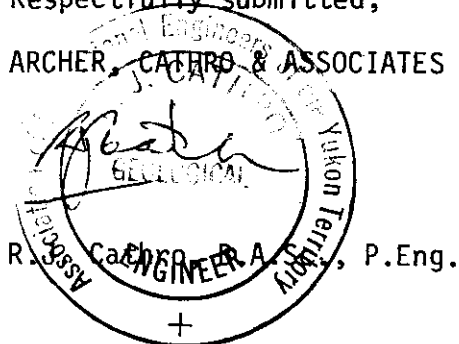
Further work on the claims should consist of a high resolution proton magnetometer survey to outline the large scale geological features such as intrusive and metamorphic rock boundaries. This data might indicate the presence of iron-rich varieties of skarn that would be more favourable host rocks.



U. Schmidt, B.Sc.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES LIMITED



PROPERTY, LOCATION AND ACCESS

The Lena 1-42 claims form a rectangular northeast-trending contiguous group that is recorded in Watson Lake Mining District in the name of Archer, Cathro & Associates Limited as follows:

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>Expiry Date</u>
Lena 1-42	YA46194-YA46235	January 4, 1982

The claims are located within NTS claim sheet 105G/7 at latitude 61°24' N and longitude 130°31' W, approximately 130 km southeast of Ross River. Access in 1980 was by helicopter from a base camp located on the Boot-Marmot claims 32 km to the west. The Campbell Highway, an all-weather gravel road connecting Ross River to Watson Lake, is located 28 km to the north.

GEOLOGY

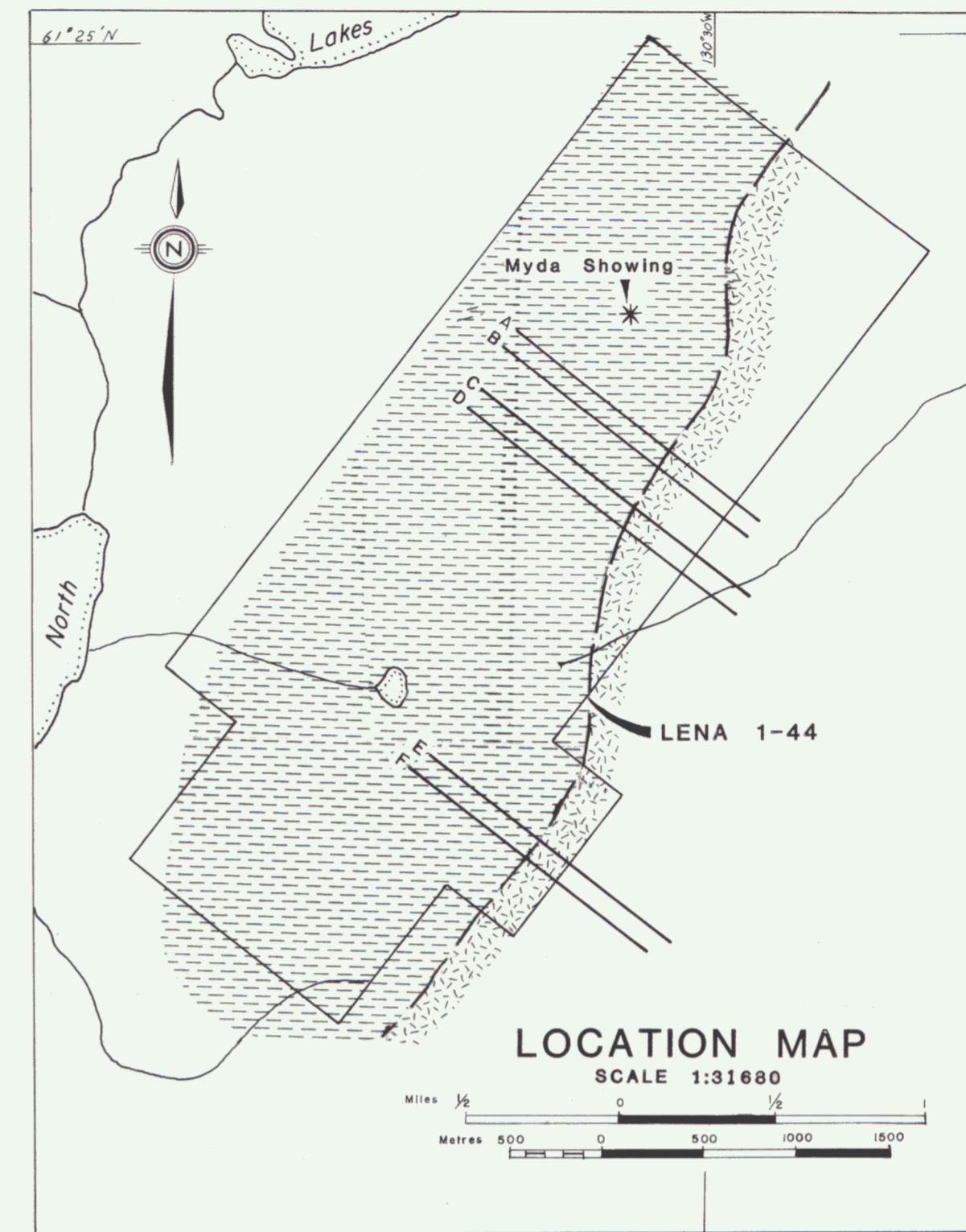
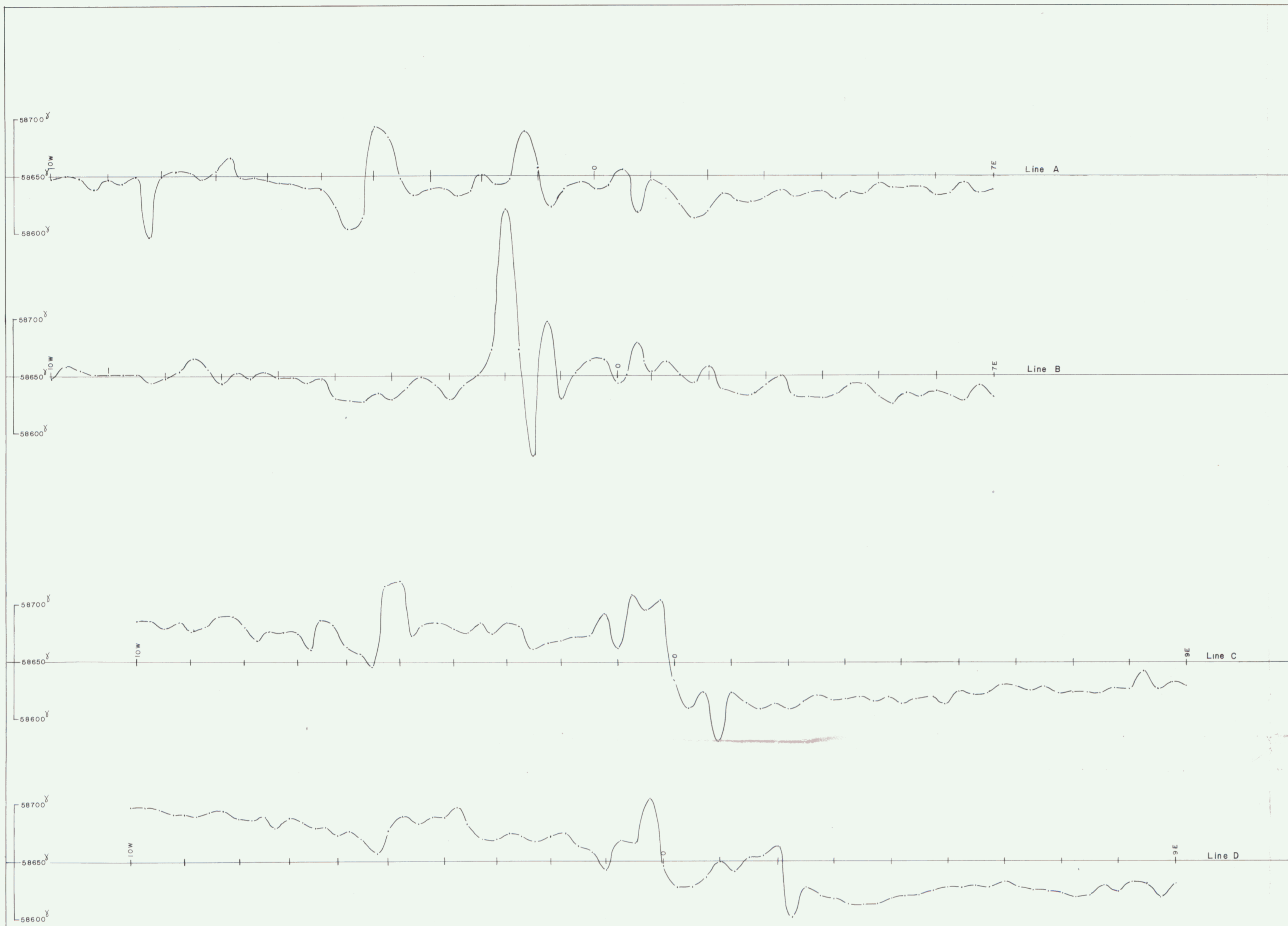
The northern half of the claim group was mapped in detail during an exploration program conducted on the Myda claims by geologists Uwe Schmidt and Earl Jensen in 1973, which was filed for assessment credit. The geology has been summarized in a general way in an inset on Figure GP80-LE1. This map shows the boundary between Cretaceous intrusive rocks and intruded allochthonous metamorphic rocks.

MAGNETOMETER SURVEY

A ground magnetometer survey was conducted along six reconnaissance lines using a Phoenix GP-70 Proton Precession instrument that measured total magnetic field with a 1 ± 0.5 gamma resolution. The six lines consist of 3 sets of two lines spaced 200 m apart. Lines are labelled A to F from northeast to southwest and are marked in the field by 1 m long 1/4" pickets at 100 m intervals. Readings were

taken at 25 m intervals along each line. Results are shown in profile on Figure GP80-LE1. Base stations were established on each line prior to the survey to ensure correlation between lines.

The proton magnetometer survey on Lena claims indicates that this method can be used to outline large scale geological features such as iron-rich skarn bands. This information may be useful for defining tungsten or tin targets.



- Kqm Quartz Monzonite
- PPk4 Allochthonous Metamorphic Rocks

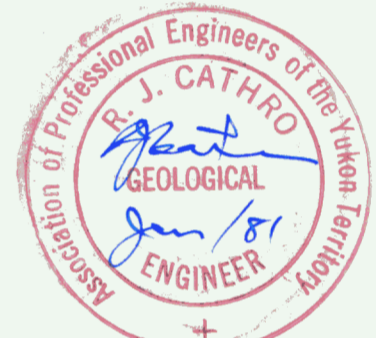


FIG. GP80-LE 1
 ARCHER, CATHRO & ASSOC. LTD
**GROUND PROTON
 MAGNETOMETER SURVEY**
 LENA CLAIM GROUP
 GRASS PROJECT
 HORIZONTAL SCALE 1:5000

LEGEND

GROUND PROTON MAGNETOMETER SURVEY PROFILES
 TOTAL FIELD RESPONSE IN GAMMAS

