

ARCHER, CATHRO

AND ASSOCIATES LTD.

CONSULTING GEOLOGICAL ENGINEERS

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

STANDARD BUILDING, VANCOUVER, B.C. 688-2568

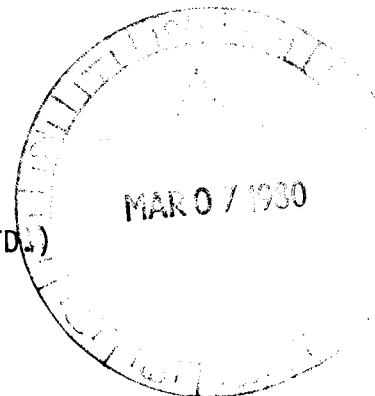
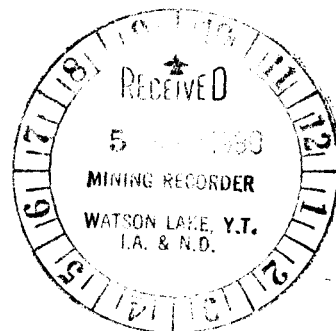
1016 STANDARD BUILDING
510 WEST HASTINGS STREET
VANCOUVER, B.C.
V6B 1L8

REPORT ON
GEOLOGICAL MAPPING
AND
GEOCHEMICAL SURVEY
CONDUCTED AUGUST 5-12, 1979

FOG 1-8 CLAIM GROUP

TAG NUMBERS: YA34844-YA34851

FOR
GRASS PROJECT (CHEVRON CANADA LTD.)



WATSON LAKE MINING DISTRICT, Y.T.

CLAIM SHEET 105G/11

LATITUDE 61°34'N

LONGITUDE 131°03'W

U. Schmidt, B.Sc.

A.R. Archer, B.A.Sc., P.Eng.

FEBRUARY, 1980

090570

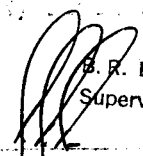
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
1200.00

J. A. Moir

Re: ...
Mining ...

Considered ... work under
Section 20 (1) of the Quartz Mining Act.


B. R. BAXTER
Supervising Mining Recorder

 Commissioner of ... Territory

INTRODUCTION

The Fog 1-8 claims were staked in 1978 by Grass Project (wholly financed by Chevron Canada Ltd.) to cover a tungsten skarn located by regional stream panning and prospecting. Work in 1979 consisted of geological mapping, grid soil panning and geochemical surveys. The program was supervised by geologist U. Schmidt on behalf of the project managers, Archer, Cathro and Associates Ltd. Grid panning and geochemical sampling were carried out by R. Rogers and G. Matthews during the period August 5 to 12, 1979.

PROPERTY, LOCATION AND ACCESS

The Fog 1-8 claims form a contiguous north-trending two-claim wide block. They are registered in the name of Archer, Cathro and Associates Limited in the Watson Lake Mining Recorder's office as follows:

<u>CLAIM NAME</u>	<u>GRANT NUMBER</u>	<u>EXPIRY DATE</u>
Fog 1-8	YA34844-YA34851	16 February, 1981

The property is located at latitude 61°34'N, longitude 131°03'W on claim sheet 105G/11. It lies 21 km south of the Campbell Highway at a point some 100 km by road from Ross River. Access during 1979 was by helicopter from a camp on the Boot claims 19 km to the south.

GEOLOGY

The property lies on a gentle, northwest-facing slope at approximately 4800 feet above sea level. Outcrop is not abundant but thin residual overburden allows bedrock composition to be crudely estimated for mapping purposes. The north end of the claim group is at treeline. Thick spruce forest cover lies north of this point and open low bush cover is found in the higher regions to the south.

The claims were staked to cover flat-lying scheelite-bearing skarn developed within calc-silicate gneiss and marble near the eastern contact of a Cretaceous porphyritic quartz monzonite (Unit Kqm) stock, as illustrated on Figure GP79-F1 in the pocket. The calc-silicate gneiss and marble are part of Unit P6sc, a lower Paleozoic-Proterozoic(?) biotite-garnet-muscovite schist. Toward the east, Unit P6sc grades into structurally conformable muscovite quartzo-feldspathic schist and gneiss of Unit P2Pk. The quartz monzonite contact is not exposed and has been defined by mapping float. A fine grained quartz monzonite sill cuts the calc-silicate unit in one outcrop. Gradational contacts between quartz monzonite, augen gneiss and P6sc schist unit, as suggested by GSC mapping, were not confirmed because of poor exposure.

MINERALIZATION

Two poorly exposed areas of skarn have been located, as illustrated in Figure F1. The northernmost area contains disseminated scheelite in a well-developed banded garnet, vesuvianite, pyroxene skarn. The best grade outcrop was chip sampled in two localities 10 m apart and returned assays of 0.20% WO_3 across 1 m and 0.23% WO_3 across 1.5 m.

The southernmost area contains coarse disseminations and thin, good grade veinlets of scheelite within less altered gneiss and marble. The best zone of scheelite mineralization can be traced for 10 m and is hosted by quartz-veined biotite and quartz-rich gneissic quartz monzonite sill. This zone was not sampled because of the erratic nature of the mineralization but is visually estimated at 1.0% WO_3 across 0.3 m.

GEOCHEMICAL SURVEY

Technique

A baseline with 50 m interval stations was established along the claims baseline by compass and topofil. Sample lines were run at right angles to the baseline at 200 m intervals using topofil and compass. Baseline stations were marked with 1 m lath pickets while sample stations on cross lines were marked with 50 cm lath pickets.

A total of 110 bulk (1.5 kg) soil samples were collected at 100 m intervals on the sample lines by digging to a B + C soil horizon with a grub-hoe. Samples were panned in base camp and the number of fine and coarse scheelite grains in the concentrate estimated under ultraviolet light. Coarse grains are those easily visible under ultraviolet light while fine grains are those only visible in complete darkness after a short period of eye adjustment. Grain counts of coarse fragments are fairly accurate in the smaller ranges but large grain counts, especially in the fine grain size, are merely careful estimates.

Soil samples were taken from each bulk sample and were shipped by air freight to Chemex Labs Ltd., North Vancouver, B.C. for geochemical analysis. Soil samples were dried, screened to minus 80 mesh, and analyzed for tungsten, tin and gold. Tungsten was analyzed with a colorometric determination after fusing with potassium bisulfate, leaching with concentrated HCl, extracting into an amyl acetate solution containing dithioltoluene, and reducing interfering elements with stannous fluoride in a hot water bath. The gold was done by atomic absorption spectrometry (AA) of a sample that had been ashed, double digested to dryness in aqua regia, leached in hydrochloric acid and extracted into methyl isobutyl ketone (MIBK) as a bromide complex. The procedure for tin consisted of sintering with ammonium iodide, leaching with dilute hydrochloric ascorbic acid to form a TOPO complex, extraction into MIBK and AA analysis.

Results

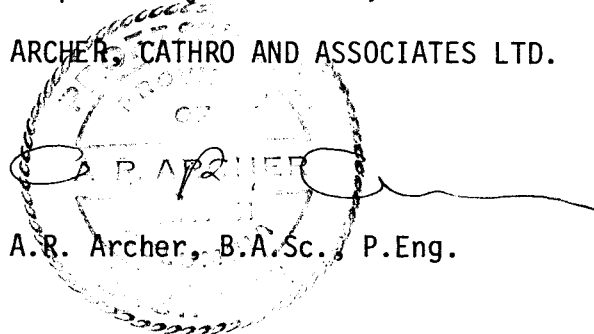
Soil panning and soil geochemistry returned only sporadic weakly anomalous results, all in the vicinity of the known mineralization, as illustrated in the insert on Figure GP79-F1 in the pocket. Soil panning concentrates exhibited 25 or less scheelite grains with the exception of one 100 grain sample near the northernmost skarn zone. Only ten soil samples exceeded 25 ppm W and all but one of them was in the vicinity of, or downhill from, the known mineralization. All samples assayed less than 3 ppm Sn and 10 ppb Au.

CONCLUSIONS

Soil panning and geochemistry failed to locate any new areas of interest. This target is mainly of interest because its geological setting is similar to the Boot Cirque showing. Further work will depend on favourable results on the Boot property.

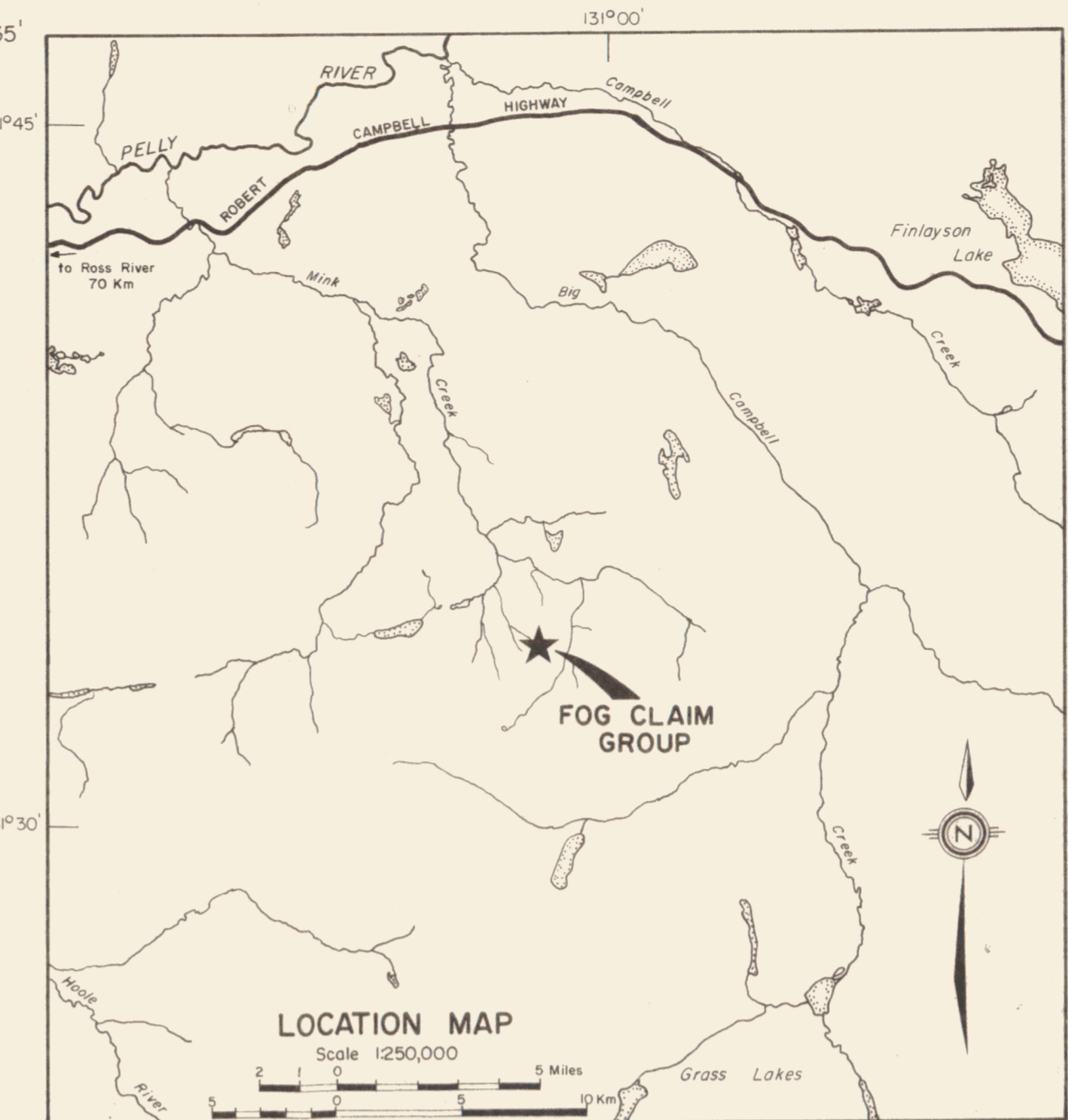
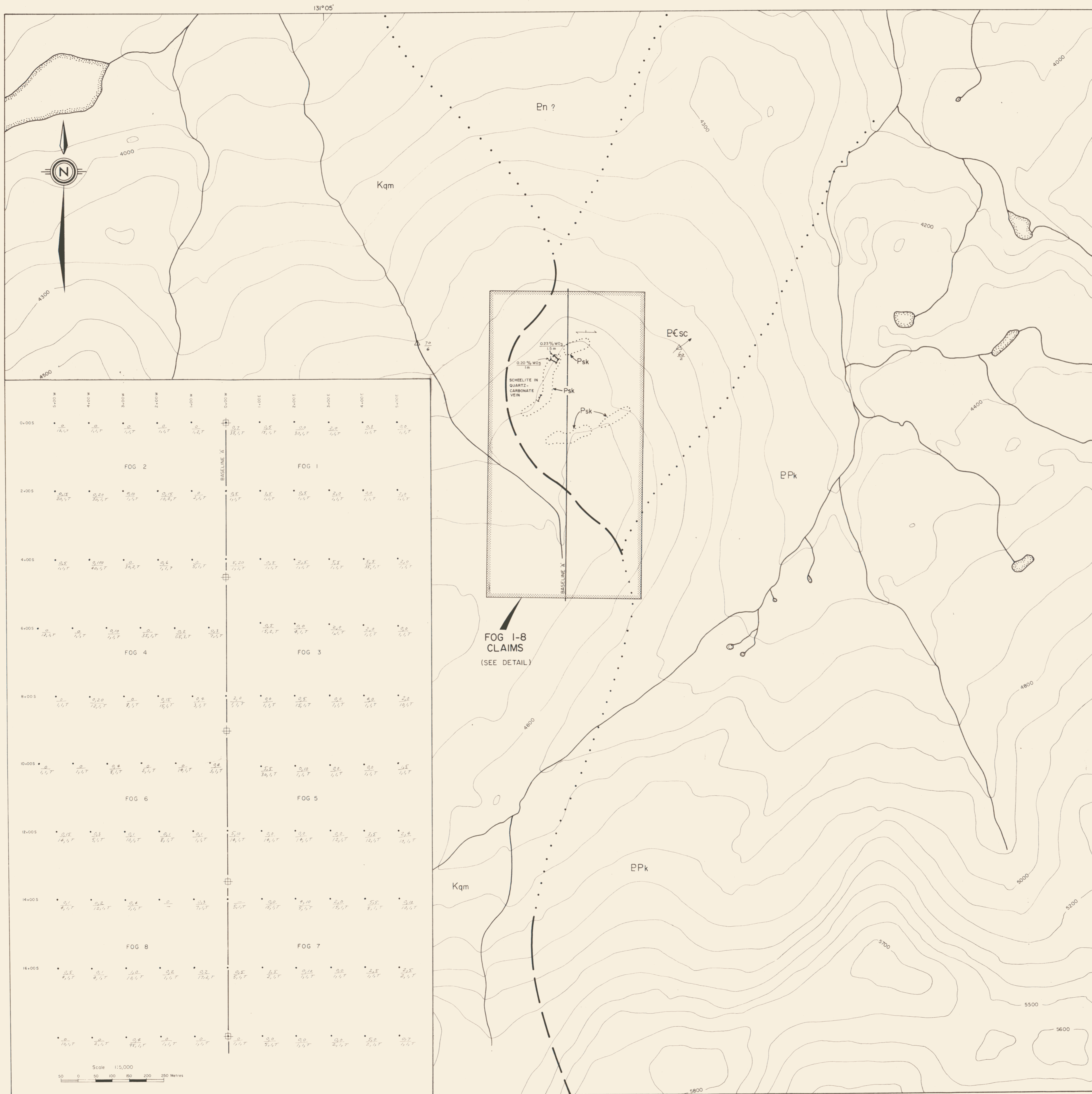
Respectfully submitted,

ARCHER, CATHRO AND ASSOCIATES LTD.



A.R. Archer, B.A.Sc., P.Eng.

U. Schmidt, B.Sc.



LEGEND

- CRETACEOUS**
Kqm QUARTZ MONZONITE
 grey, coarse grained and porphyritic quartz monzonite
- AGE UNKNOWN**
EPk KLONDIKE SCHIST
 grey, siliceous quartz-mica phyllite, spotted phyllite, schist and minor carbonate
- WINDERMERE AND CAMBRIAN ?**
PEsc BIOTITE - GARNET - MUSCOVITE SCHIST
 biotite-garnet-muscovite schist and minor marble
- Psk** CALCISILICATE GNEISS AND SKARN
 garnet-vesuvianite-pyroxene skarn, micaceous and calcisilicate gneiss and marble
- En** AUGEN GNEISS
 grey biotite-muscovite-feldspar quartz augen gneiss with grey porphyroblasts of K-feldspar

- Foliation: inclined
- Geological boundary: defined, approximate, assumed
- Limit of outcrop
- Creek panning location with estimate of scheelite grains over geochemical analysis in ppm W
- Soil sample with number of coarse, fine grains scheelite in panning concentrate over tungsten, tin (in ppm) and gold (in ppb) geochemical analysis
- T- gold below detection limit 10 ppb
- Claim posts

FIGURE GP79 F1
 ARCHER, CATHRO & ASSOCIATES LTD
**GEOLOGY, SOIL PANNING
 AND W, Sn, Au GEOCHEMISTRY**
 FOG CLAIM GROUP

GRASS PROJECT

Scale 1:10,000

