

MOUNTAINEER MINES LTD. - PAN OCEAN OIL LTD.

JOINT VENTURE

PRELIMINARY GEOLOGICAL REPORT

ON THE

OTTER 1-4 MINERAL CLAIMS

N.T.S. 106-C-13

64°59'N 133°47'W

YUKON TERRITORY

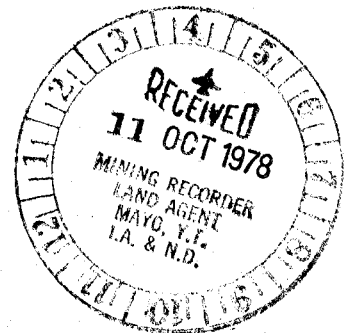
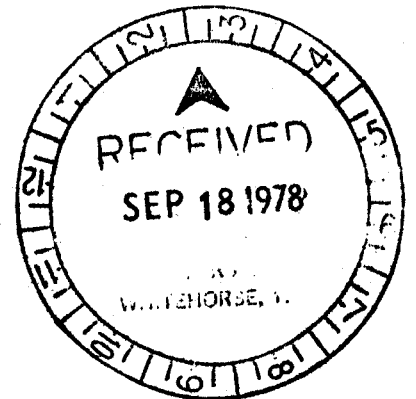
by

M. Stammers - Geologist

R. Yorston - Geologist

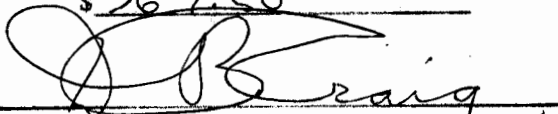
C. K. Ikona - P. Eng.

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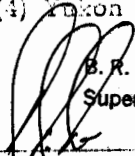
This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$ 267.50



Resident Geologist or
~~Resident Mining Engineer~~

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


B. R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

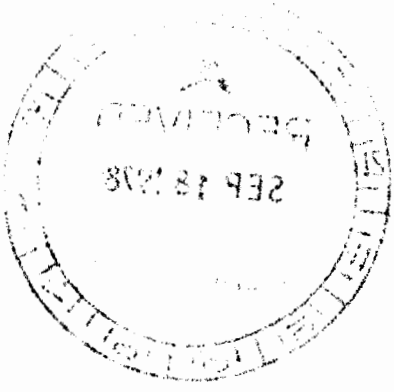


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~~Affidavit of Expenditures~~
~~List of Personnel~~

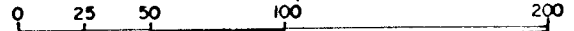
YUKON LOCATION MAP

OTTER MINERAL CLAIMS

NTS 106 C

13

SCALE IN MILES



DRAWN

Altair

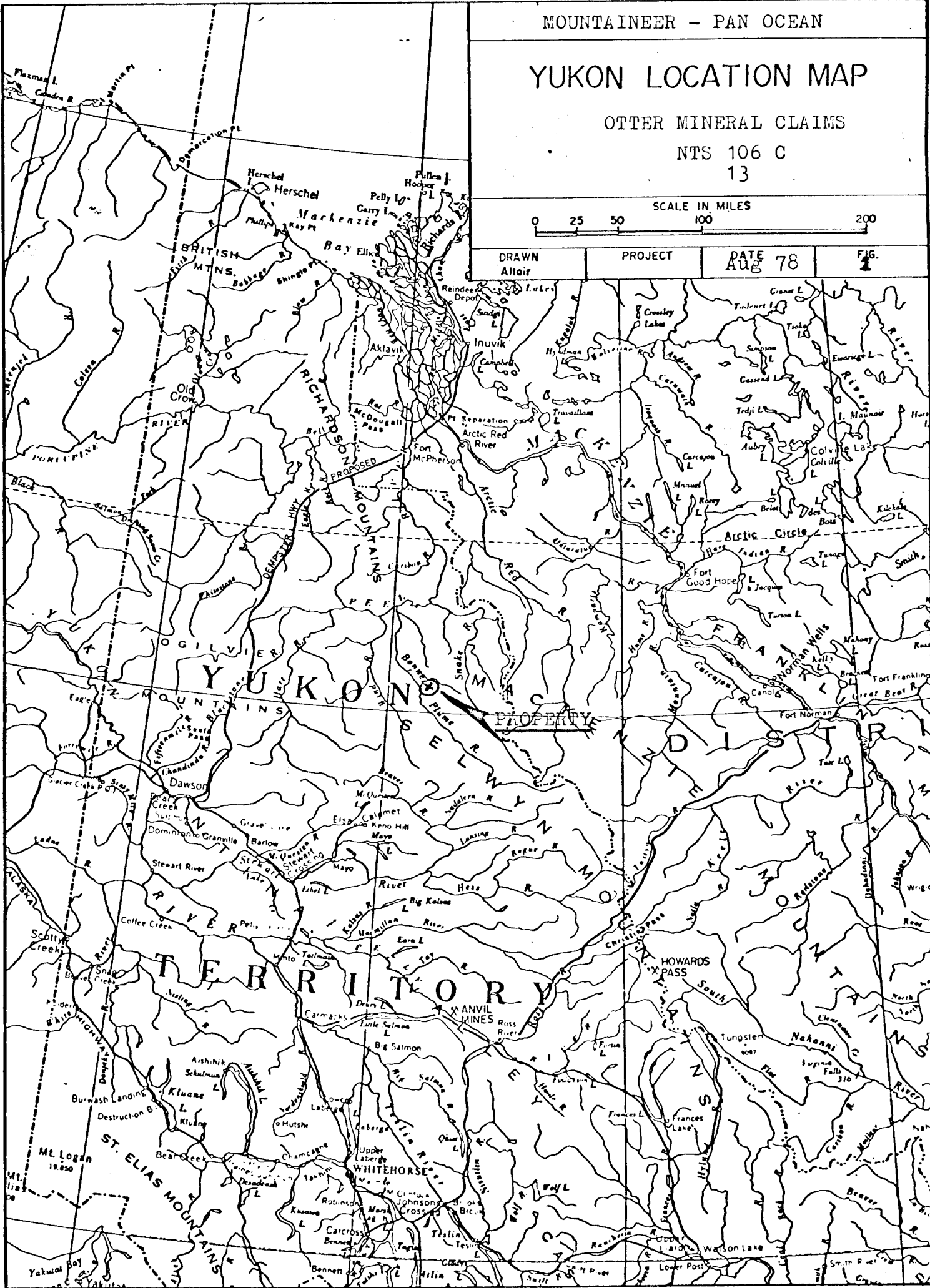
PROJECT

DATE

Aug 78

FIG.

1



INTRODUCTION

The OTTER 1-4 claims were staked on July 14, 1977 to cover uranium, cobalt and copper showings discovered during the regional Mountaineer Mines-Pan Ocean Oil joint venture exploration programme.

Preliminary prospecting and evaluation was carried out on June 28, 1978.

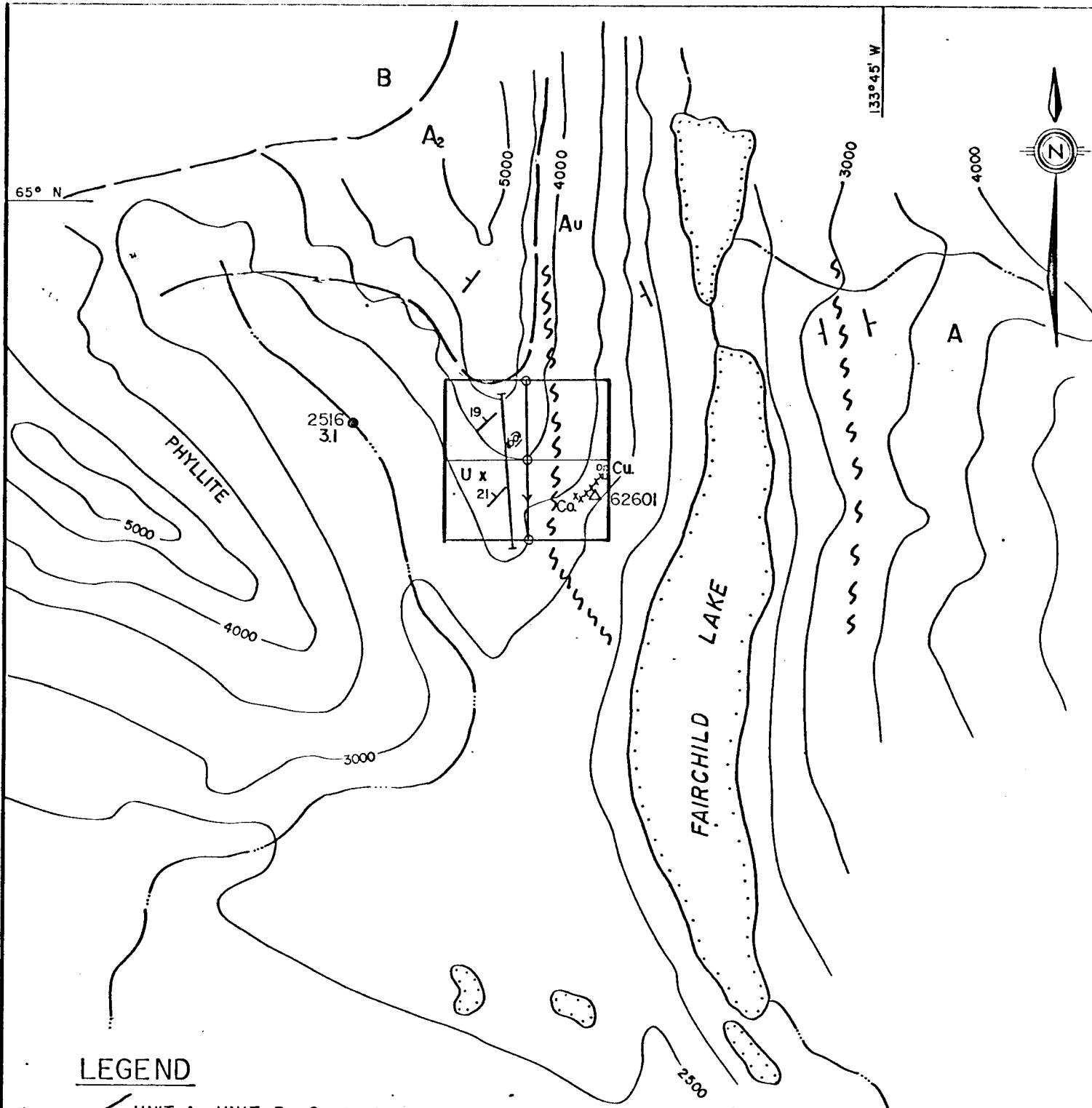
The claims are centered 3,300 feet west of Fairchild Lake in the northeastern Yukon Territory. Approximate co-ordinates are $64^{\circ}59'N$ and $133^{\circ}47'W$.

GEOLOGY

The OTTER claims cover sediments stratigraphically situated within the upper part of Unit A. A cross section showing the lithology, structure and unit thickness is included in this report.

The highest unit exposed on the property is a fine to medium grained dark brown weathering dolomite. The dolomite overlies a fine grained black slightly pyritic shale which in turn overlies a grey-green siliceous and calcareous siltstone exhibiting very strong chloritic alteration. A small breccia body (20 feet by 40 feet on the surface) intrudes the siltstone. The assemblage locally weathers red-brown due to abundant disseminated pyrite and magnetite.

Below the siltstone is a 300 foot section of limestone



LEGEND

- UNIT A UNIT B Contact
- Fault
- Bedding Attitude
- Cross Section
- 2516 3.1 Water Sample Number pbb U
- Δ62601 Assay Sample Location.
- U x Uranium showing
- Co x Cobalt showing
- Cu.° Copper showing

LITHOLOGY

CLAIMS COVER UNIT A ROCKS. SEE CROSS-SECTION MAP FOR DETAILED GEOLOGY.

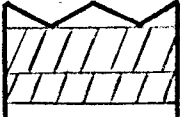

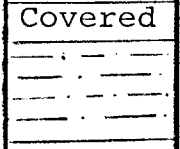
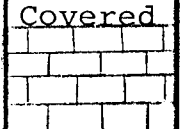
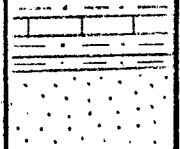
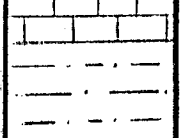
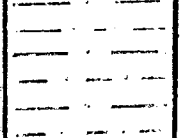
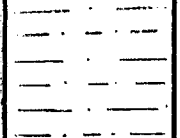

MOUNTAINEER-PAN OCEAN JOINT VENTURE

OTTER CLAIMS
 NTS 106 C 13
GEOLOGY & GEOCHEMISTRY
 YUKON TERRITORY



PAMICON DEVELOPMENTS LIMITED

DRAWN: Altair	PROJECT: Quartet-Fairchild	DATE: Aug 78	FIGURE: 2
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<u>Structure</u>	<u>Thickness</u>	<u>Lithology</u>
046°/19°NW -		Dark brown weathering Dolomite Black shale
038°/16°NW	Covered 	Altered sandstone and siltstone. Minor breccia, trace brannerite. Abundant pyrite and magnetite.
	Covered 	Less altered calcareous siltstone
045°/21°NW-	Covered 	Grey siliceous limestone
<u>Elevation</u> 4000'		Calcareous quartzite grading to siliceous limestone down section
~~~~~		Grey-green fine grained soft silt- stone.
145°/76°SW-		Cobalt and copper showings Pale green siltstone containing evenly disseminated magnetite
		Talcose siltstones
		Green slates

CROSS SECTION

OTTER CLAIMS SCALE 1" = 200'

and quartzite with the remainder of the section composed of soft pale grey-green siltstone and slate.

#### MINERALIZATION

Mineralization appears to be structurally controlled by faulting and/or shearing. Trace mineralization is associated with the intrusive breccia body.

A description of the occurrences are as follows: -

#### Cobalt (2 veins) OTTER #2 claim

Cobalt number one has been traced continuously for 1,000 feet. The size ranges from 4 to 16 inches thick and a random grab sample assayed at 4.75% cobalt. The matrix is calcite. Minerals are cobaltite and secondary erytherite. (Sample #62601).

The second vein is 2" thick and is found 40' below the cobalt number one vein. Both veins are conformable to bedding. The country rock is a dark grey banded siltstone which is bleached at the contact with the cobalt vein.

#### Copper

Several pinch and swell veins of massive chalcopyrite are found in the OTTER number 2 and 3 claims. Extensive malachite weathering is found with the chalcopyrite. Maximum thickness is 8".

#### Uranium

A limited uranium showing with coarsely crystalline brannerite was found on the OTTER number 4 claim in an area of light overburden. The showing requires sampling and geologic evaluation.



ASSAYS

Sample #62601 - 4.75 % Co.  
0.20 % Ni.  
0.007 % U₃O₈  
0.01 oz/ton Ag.  
0.018 oz/ton Au.

CONCLUSIONS AND RECOMMENDATIONS

The OTTER claim group has to date received only cursory examination. The structures located are small yet have returned some interesting values. Given the interesting Geological environment and known occurrences additional prospecting and mapping is warranted in the claims area.

Respectfully submitted,

C. K. Ikona, P.Eng.

