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GEOLOGICAL REPORT
ON THE
GOLD 1, 2 and 3 CLAIMS, HORSEFLY AREA
CARIBOO MINING DISTRICT
N.T.S. 93A15
52° 19'N 121° 30' W

for

ARK ENERGY LTD. and
PACIFIC RIDGE RESOURCES CORP.
810 - 675 West Hastings Street
Vancouver, B.C. V6B 1N2

by

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May 1, 1984

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INTRODUCTION

In April 1984, the principals of Ark Energy Ltd. and Pacific Ridge Resources Corp. retained the writer to recommend a program to explore the Gold 1 - 3 claims, Cariboo Mining District. The ground had been acquired under option from Mr. Frank Onucki, a prospector. Mr. Onucki had staked the ground based on his recollection of diamond drilling many years previously in which he had observed native copper and visible gold in gravels at the base of Tertiary flow basalts at a depth of approximately 225 feet (68.6 m).

The positions of the holes as supplied by Mr. Onucki are shown in Figure 2. The property is otherwise completely covered with Tertiary basalt and glacial deposits (see Figure 5). No previous work relating to the above drilling could be located by the present writer, however, other documented work in the area lends credence to the possibility of such an occurrence. The prolific Cu-Mo-Au mineralization and deposits of the Quesnel Trough in which this property is located provides additional potential for bedrock mineralization beneath the Tertiary flows.

This report summarizes some of the mineral occurrences in the Horsefly area and suggests a Stage 1 and contingent Stage 2 program for the Gold 1-3 claims. In light of the extensive glacial and Tertiary volcanic cover encountered by Mr. Onucki in his prospecting, a property visit was considered unnecessary. The report is based on an examination of assessment reports filed on properties in the Horsefly area and on the writer's previous exploration experience in the Quesnel Trough.

LOCATION, ACCESS, TOPOGRAPHY

The claims are located approximately 9 km west of Horsefly, B.C. straddling the highway that joins Horsefly with Williams Lake, Figure 1.

The topography is relatively flat and varies between 823 and 930 metres.

CLAIMS

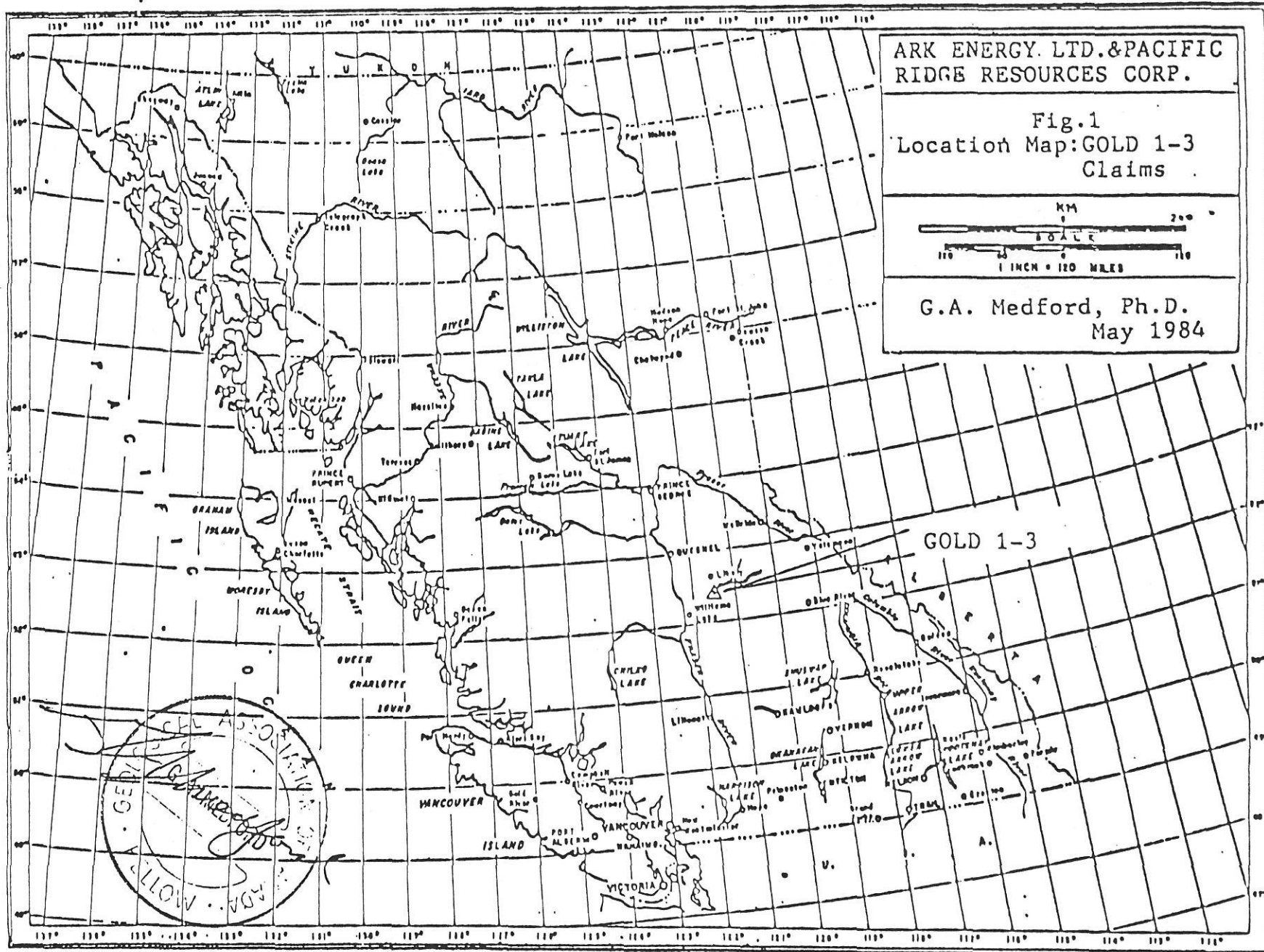
The claims were staked in 1981 by Mr. Frank Onucki their present owner. Claims records are as follows:

<u>Claim</u>	<u>Units</u>	<u>Record No.</u>	<u>Expiry Date</u>
Gold 1	1	3931	27 August 1984
Gold 2	1	3932	27 August 1984
Gold 3	9	3933	27 August 1984

They are presently under option to Ark Energy Ltd. and Pacific Ridge Resources Corp.

REGIONAL GEOLOGY

The property lies within the area referred to as the Quesnel Trough (Campbell and Tipper, 1970), a narrow northwest trending belt consisting of Upper Triassic and Lower Jurassic volcanoclastic and sedimentary rocks. Broad areas are covered by Eocene volcanics and sediments and by Miocene-Pliocene plateau lavas. The trough hosts many copper-molybdenum deposits mainly associated with granitic intrusions as well as numerous significant copper, gold and copper-gold deposits. The latter are associated with alkalic intrusive or volcanic activity. Locations of several of these deposits are indicated in Figure 4.



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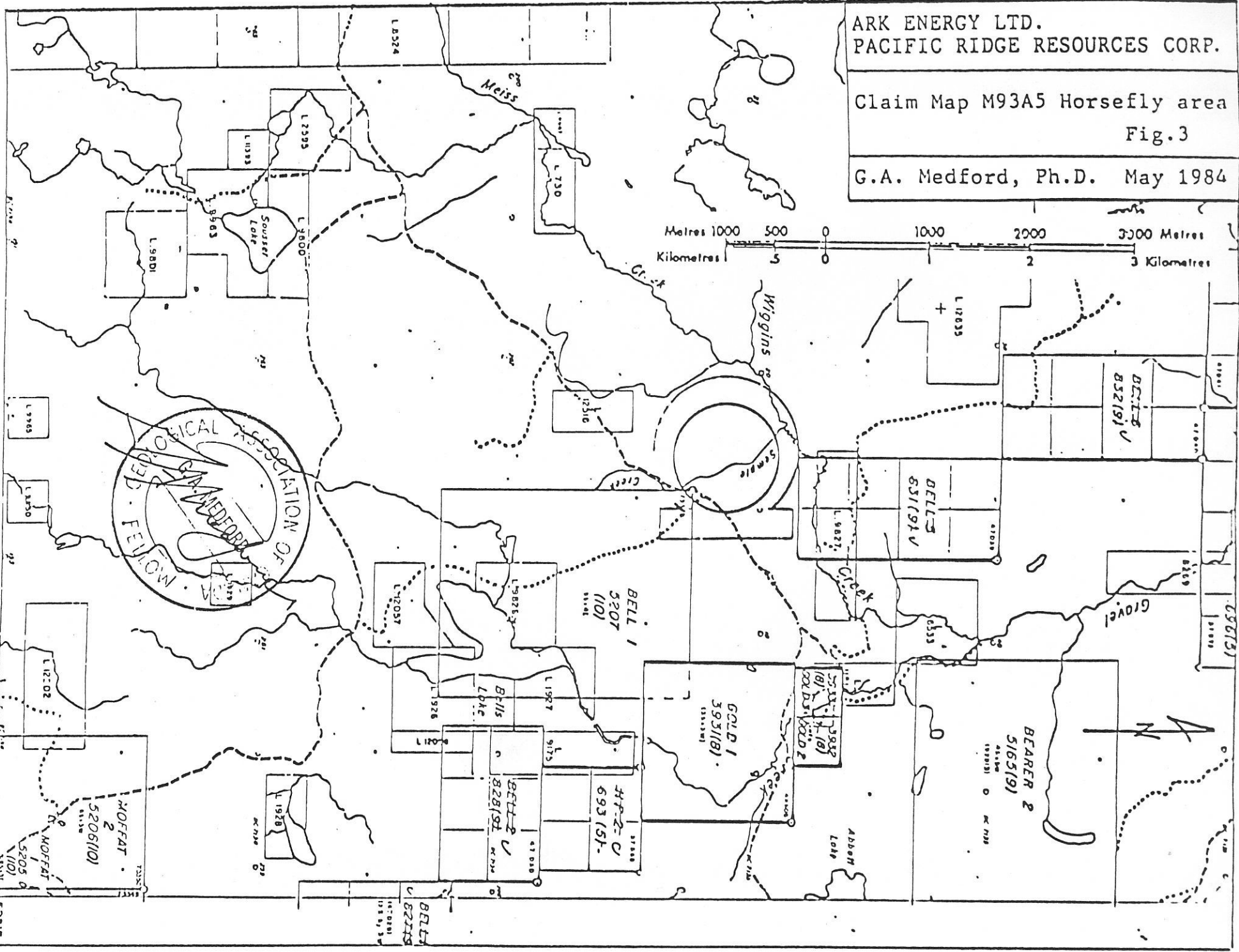
Claim Map M93A5 Horsefly area
Fig.3

G.A. Medford, Ph.D. May 1984

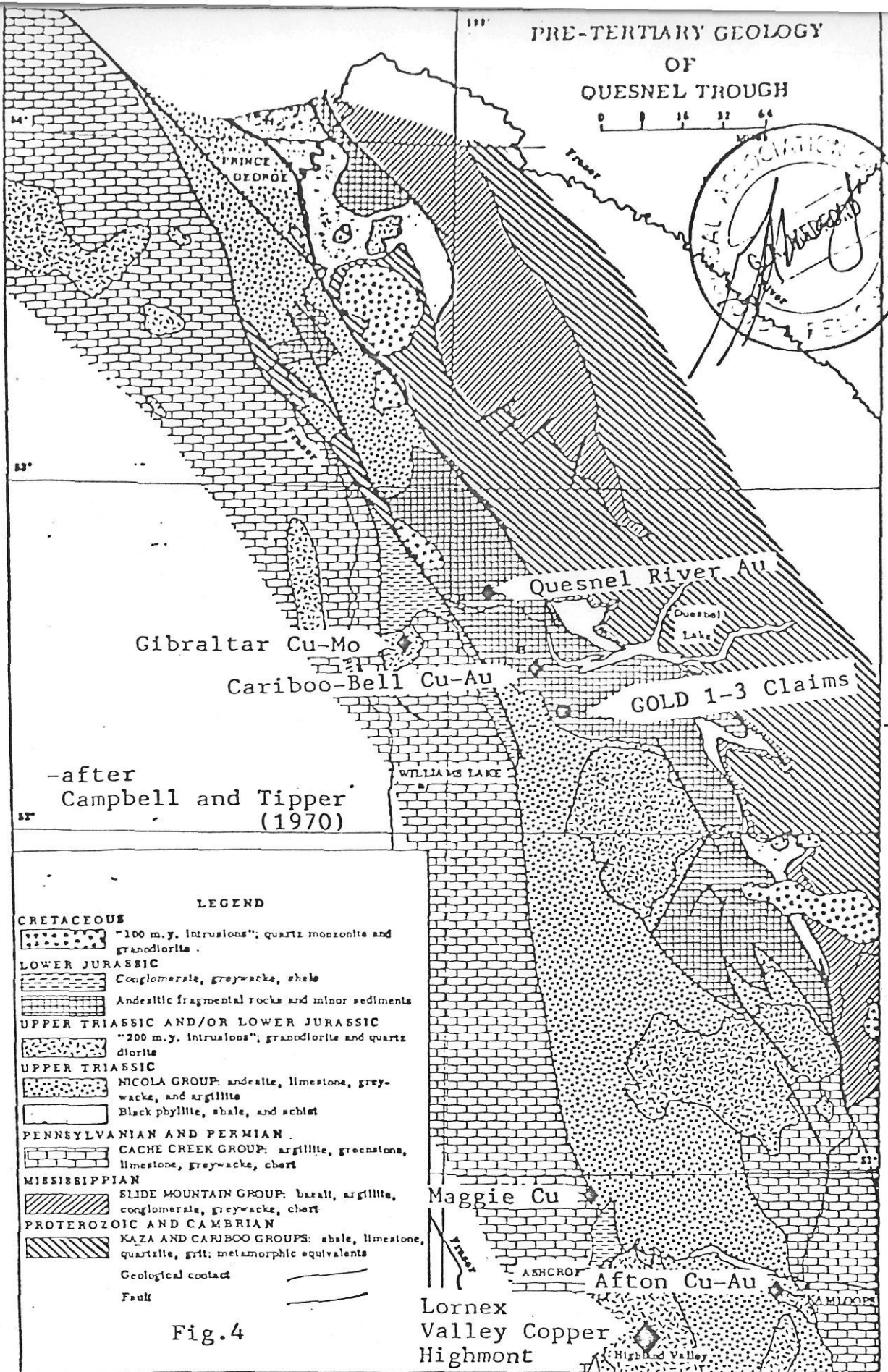
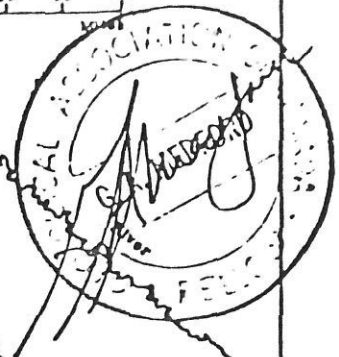
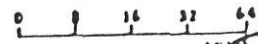
Mètres 1000 500 0 1000 2000 3000 Mètres
Kilometres 5 0 1 2 3 Kilometres

MAP 93 A/4 E

121°30
52°15



PRE-TERTIARY GEOLOGY
OF
QUESNEL TROUGH



-after
Campbell and Tipper
(1970)

LEGEND

- CRETACEOUS**
- "100 m.y. intrusions": quartz monzonite and granodiorite.
- LOWER JURASSIC**
- Conglomerate, greywacke, shale
- Andesitic fragmental rocks and minor sediments
- UPPER TRIASSIC AND/OR LOWER JURASSIC**
- "200 m.y. intrusions": granodiorite and quartz diorite
- UPPER TRIASSIC**
- NICOLA GROUP: andesite, limestone, greywacke, and argillite
- Black phyllite, shale, and schist
- PENNSYLVANIAN AND PERMIAN**
- CACHE CREEK GROUP: argillite, greenstone, limestone, greywacke, chert
- MISSISSIPPIAN**
- SLIDE MOUNTAIN GROUP: basalt, argillite, conglomerate, greywacke, chert
- PROTEROZOIC AND CAMBRIAN**
- KAZA AND CARIBOO GROUPS: shale, limestone, quartzite, grit; metamorphic equivalents
- Geological contact
- Fault

Fig. 4

— Schematic map of the pre-Tertiary geology of the Quesnel Trough and surroundings. The Trough is defined by the occurrence of Upper Triassic and Lower Jurassic volcanic and sedimentary rocks and is bounded by Paleozoic or older rocks on either side.

LOCAL GEOLOGY AND MINERALIZATION

The Gold Claims occupy the northern fringe of a large volume of Tertiary basalt that overlies upper Triassic conglomerates and sandstones (unit 10a, Figure 5).

In the Horsefly area, considerable interest has been directed over the years toward gravels of ancestral Horsefly River. Placer gold mining in the area dates back to 1860 with considerable activity at the turn of the century (Pelke 1981). Some attention has been directed to gravels beneath Tertiary flows which may be in part the source of the gold reconcentrated in younger river channel sediments. Some of this recent exploration activity in the Horsefly area is outlined below.

Ant 1 - 4 Claims

Shell Canada Resources (Pelke, 1981) carried out an extensive evaluation of Eocene and recent gravels of the ancestral Horsefly River on the Ant 1 - 4 (and adjoining properties) several kilometers north of the Gold 1 - 3 claims, Figure 5. Their objective of proving one hundred million cubic meters of pay was not realized and the project was subsequently abandoned. Their placer consultant (J.G. Sherwin, in Pelke, 1981) noted however, that there was potential for defining smaller pay zones in the area.

Sam Claim

The Sam claims located several kilometers east of the Gold 1 - 3 claims (Figure 5) was staked to cover previous drilling in which the presence of copper, silver, and gold had been reported within poorly consolidated quartz rich conglomerate (Garber, 1978). Quartz pebbles are reported as well rounded, uniform in size and imbedded in a buff white sandy-silty matrix. These have been referred to as "white channel gravels" (see also Kruchowski, 1978).

In addition to gold and silver in gravels, a number of copper prospects are found within the Horsefly area. These are invariably associated with fractured intrusives mineralized with chalcopyrite, malachite, bornite and pyrite. Some of these

occurrences that have attracted considerable exploration activity are plotted on Figure 5 and include the HS, Pine and Wiggins Creek claims (see Bibliography).

North of Horsefly, and about 12 kilometers northeast of the Gold 1 - 3 claims, the AI claim, a copper-gold occurrence, has been explored. Here chalcopyrite, pyrite and bornite are disseminated in altered volcanic rocks and syenite. An important producing mine, the Cariboo-Bell, is located approximately 30 km north of the Gold 1-3 claims.

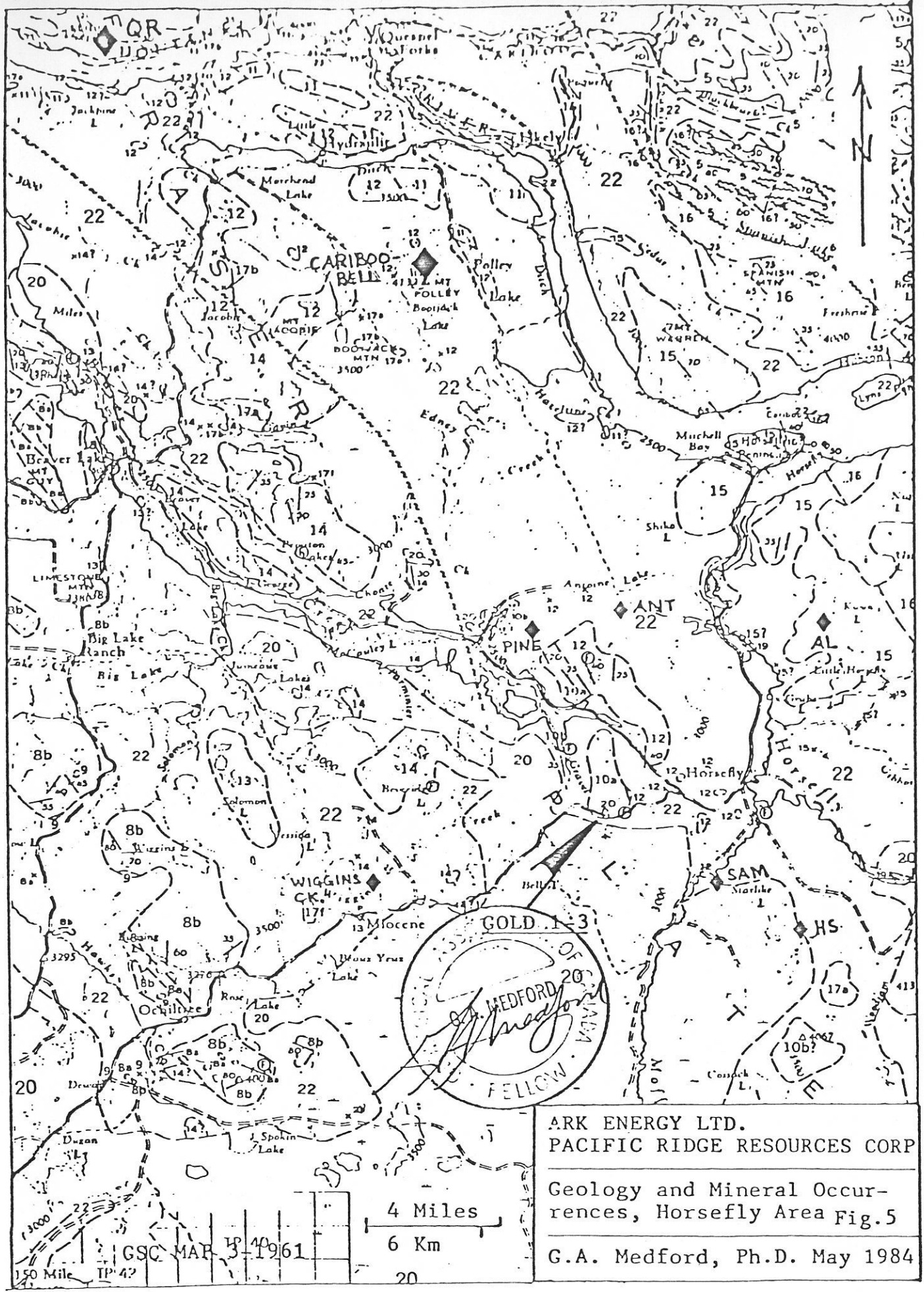
Cariboo-Bell Deposit

Mineralization is found within intrusive breccia zones within an early Jurassic laccolith. Current drill indicated mineable reserves are 117 million tons grading 0.38% copper and 0.018 oz/ton gold (Saleken and Simpson, 1984).

The most significant recent discovery is found at the QR deposit (Figure 5) some 45 kilometers north-northwest of the Gold 1 - 3 claims.

QR Deposit

Dome Mines has drilled reserves of 950,000 tons grading 0.21 oz per ton. The mineralization occurs in a pyrite-epidote alteration zone adjacent to a syeno-dioritic stock (Gambardella and Richardson, 1978). Additional targets have been located north and west of the discovery zone.



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Geology and Mineral Occurrences, Horsefly Area Fig.5

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LEGEND

- QUATERNARY**
PLEISTOCENE AND RECENT
 27 Glacial deposits and recent alluvium; till, gravel, sand, silt, and clay; few if any bedrock exposures
- TERTIARY AND QUATERNARY**
PLEISTOCENE AND EARLIER
 21 Basaltic breccia and tuff; minor flows
- TERTIARY**
MIOCENE AND/OR LATER
 20 Basaltic flows; minor tuff, conglomerate, and sandstone
- PALEOCENE (7) TO MIOCENE (7)**
 19 Sandstone, shale, and tuff
- PALEOCENE AND/OR EOCENE**
 18 Brown and buff rusty weathering dacite and rhyolite
- JURASSIC AND/OR CRETACEOUS AND (7) EARLIER**
 17 17a, hornblende-biotite and biotite-quartz monzonite and granodiorite, minor hornblende-biotite syenite and monzonite; 17b, hornblende-biotite syenite and monzonite; 17c, hornblende diorite; 17d, muscovite granite and quartz monzonite including pegmatite; 17e, gneissose biotite granodiorite, altered and gneissose diorite, and augen granite (part of unit 17e may be Palaeozoic); 17f, trachyte porphyry (may be volcanic); 17g, green andesite and fine-grained diorite (may be volcanic)
- JURASSIC (7) AND CRETACEOUS (7)**
MIDDLE JURASSIC (7) TO CRETACEOUS (7)
 16 Green andesitic tuff, agglomerate, and flows; minor argillite, chert, and conglomerate
- JURASSIC**
MIDDLE (7) AND/OR UPPER (7) JURASSIC
 15 Dark green pyroxene-bearing andesitic agglomerate, breccia, and flows; minor tuff; may be equivalent to unit 14
- 14 Green pyroxene-bearing andesitic agglomerate, breccia, and flows; minor tuff, argillite, and limestone; may be equivalent to unit 15
- LOWER JURASSIC (7)**
 13 Purplish brown, brown, and grey pebble and cobble conglomerate and sandstone; soft, friable, black and brown, carbonaceous shale, green shale, minor black limestone
- LOWER JURASSIC**
 12 'Purple' volcanic rocks; purplish brown, dark grey, and rarely green pyroxene-bearing andesitic agglomerate, breccia, and flow; may contain analcite near contacts with units 10 and 11; minor limestone, argillite, and conglomerate
- TRIASSIC AND/OR JURASSIC**
UPPER TRIASSIC AND/OR LOWER JURASSIC
 (may include MIDDLE JURASSIC)
 11 Green pyroxene bearing andesitic flows, agglomerate, and breccia; conglomerate, argillite, and limestone
- TRIASSIC**
UPPER TRIASSIC
 10 10a, green and purplish brown pebble and cobble conglomerate and sandstone; 10b, green andesitic volcanic rocks, andesitic feldspar porphyry, argillite, limestone, and pebble conglomerate
- PERMIAN OR LATER**
 9 Serpentinite and ultramafic rocks

GENOZOIC

MESOZOIC

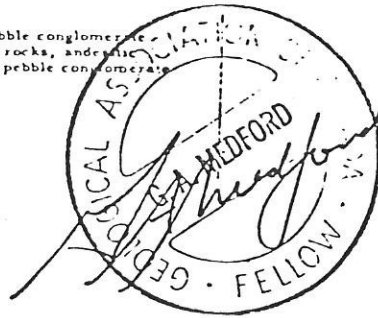


Fig. 5A

CONCLUSIONS

In light of the number of copper and gold occurrences in the Horsefly area it is reasonable to expect that similar mineralization might exist beneath the Tertiary lavas on the Gold 1 - 3 claims. Two potential exploration targets exist - Tertiary sediments (Tertiary sedimentary accumulation) and mineralization within pebble and cobble conglomerates of Upper Triassic age (perhaps by post-Triassic igneous activity). Evaluation of this mineralization and its environment will necessitate a drill test for geological information.

RECOMMENDATIONS

Stage 1

It is recommended that a test hole be drilled to substantiate Mr. Onucki's observations and to establish the geologic environment and grades of any mineralization (Tertiary placer vs. bedrock) that might be present. Drill core should be logged and selectively sampled for gold, silver, and copper. Drilling should be continued to bedrock in any case to test for possible porphyry Cu-Au mineralization.

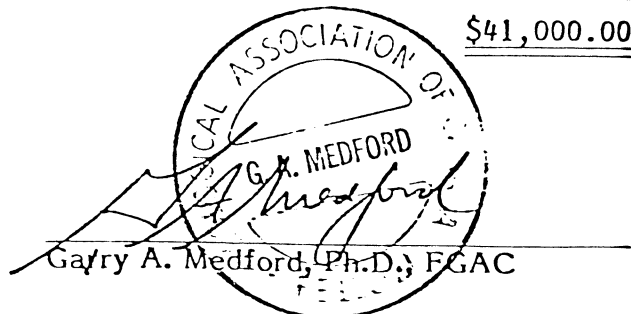
Proposed Budget Stage 1

Diamond drilling	400' at \$17/foot	\$ 6,800.00
Assays	30 samples at \$20	600.00
Geological supervision/core logging/reporting		<u>3,000.00</u>
		\$10,400.00
Contingency		<u>1,100.00</u>
Total, Stage 1		<u>\$11,500.00</u>

Contingent upon successful completion of Stage 1, a program of additional drilling is recommended.

Proposed Budget Stage 2

Drilling	(1500')	\$26,000.00
Geologist	20 days at \$325	6,500.00
Transportation		1,800.00
Lodging		800.00
Reporting		<u>2,000.00</u>
		\$37,100.00
Contingency		<u>3,900.00</u>
Total, Stage 2		<u>\$41,000.00</u>


Garry A. Medford, Ph.D., EGAC

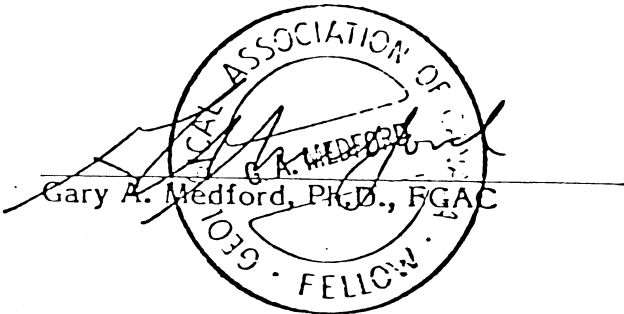
May 1, 1984

Ark Energy Ltd.
Pacific Ridge Resource Corp.
810 - 675 West Hastings Street
Vancouver, B.C.

Dear Sirs:

I, Gary A. Medford, Ph.D., FGAC, hereby consent to the use of my report dated May 1, 1984 on the Gold 1 - 3 Claims, Cariboo Mining District, British Columbia, in any Filing Statement, Statement of Material Facts or Prospectus to be issued by Ark Energy Ltd. and(or) Pacific Ridge Resources Corp.

DATED at Vancouver, British Columbia, this 1st day of May, 1984.


GARY A. MEDFORD, PH.D., FGAC

REFERENCES

1. Campbell, R.B., and Tipper, H.W. 1970. Geology and Mineral Exploration Potential of the Quesnel Trough, British Columbia.
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6. Pelki, P. 1981. Ant 1 - 4, Horse 1 - 3 (and other adjoining claims). B.C. assessment report #9898 with appendix by J.G. Sherwin.
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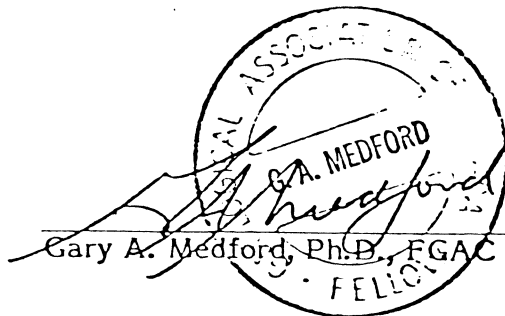
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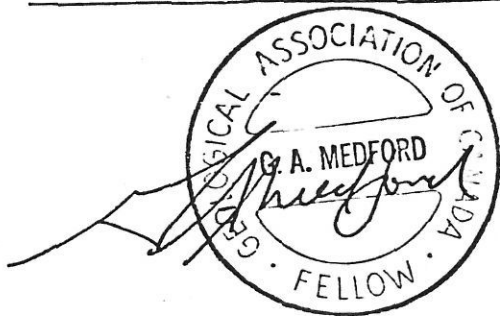
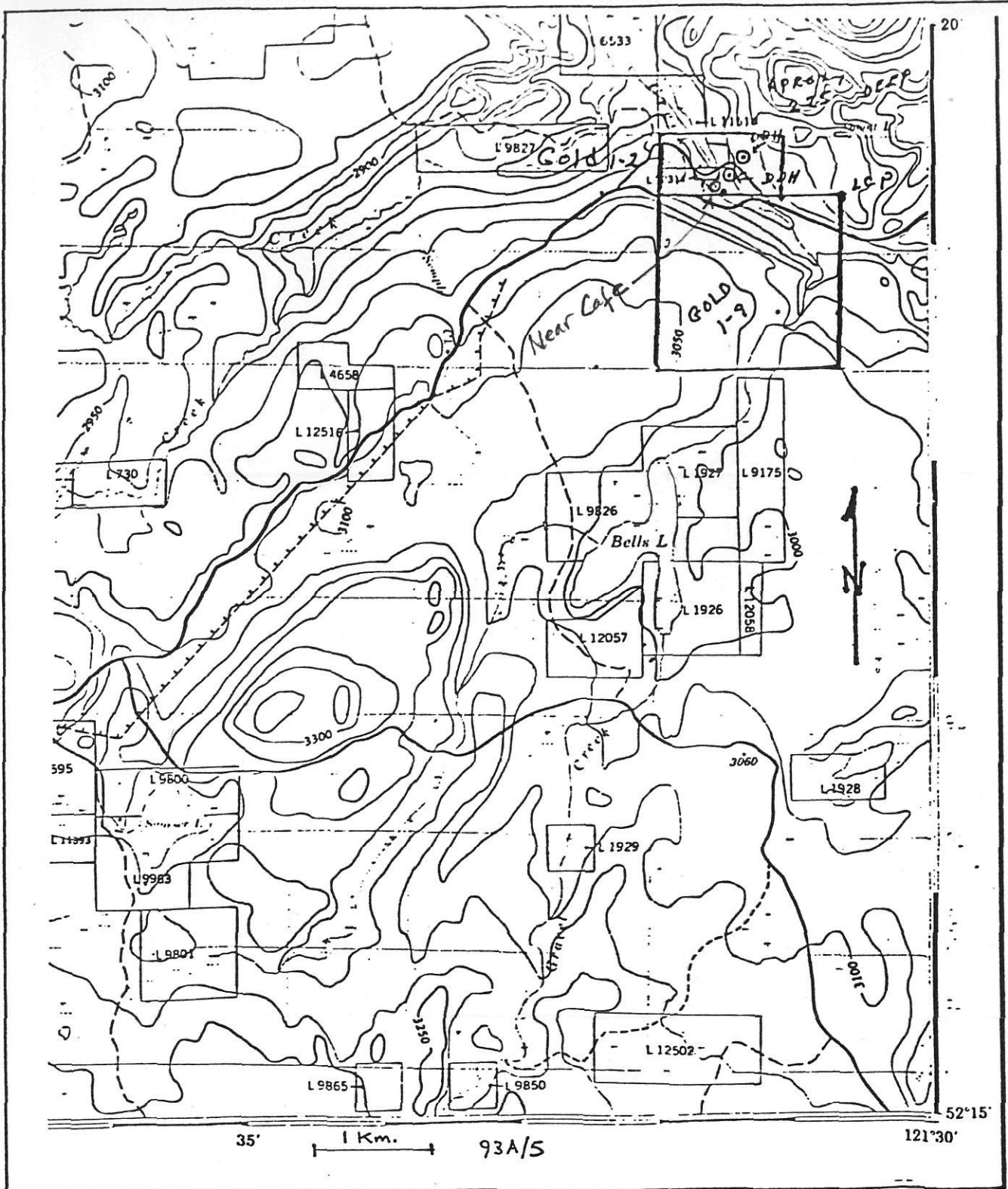
AL	Claims	AR	5086, 5151
PINE/FLY	Claims	AR	883, 2729, 4679
WIGGINS CREEK	Claims	AR	2014, 2475
HS	Claims	AR	4766, 5237, 5548, 5731

CERTIFICATE

I, Gary A. Medford, with business address at 3582 West 14th Avenue, Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geologist and have been engaged in my profession for over 15 years.
- 2) I am a graduate of McGill University with B.Sc. Honours (1968) and M.Sc. (1970) degrees in geology, and have graduated from The University of British Columbia (1976) with a Ph.D. in geology.
- 3) I am a Fellow of the Geological Association of Canada.
- 4) I have no direct or indirect interest in Ark Energy Ltd. and Pacific Ridge Resources Corp. nor do I expect to receive any interest directly or indirectly in the securities of these companies.
- 5) I consent to the use of this report by Ark Energy Ltd. and Pacific Ridge Resources Ltd. for any purposes deemed necessary.


Gary A. Medford, Ph.D., FGAC
FELLOW



ARK ENERGY LTD.
PACIFIC RIDGE RESOURCES CORP.

Topography and diamond drill hole locations. Portion of map submitted by F. Onucki, prospector. Fig.2

G.A. Medford, Ph.D. May 1984