

Report On
Soil Geochemical Analysis for Gold & Mercury
B 2-12, 17-30, 33-39 and See 1-24 Mineral Claims
Latitude: 62°40' Longitude: 137°13'
Claim Sheet 115I/11
Whitehorse Mining Division, Yukon
for
Consolidated Standard Mines Ltd. (NPL)
1 October, 1974
Alan R. Archer
Consulting Geological Engineer



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

\$ 4209.80

~~Resident Geologist or
Resident Mining Engineer~~

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

Commissioner of Yukon Territory

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Figure 6 - Gold Geochemistry - Scale 1"= 1000 feet

Figure 7 - Mercury Geochemistry - Scale 1"= 1000 feet

INTRODUCTION

This report describes the results of geochemical analyses for mercury and gold of soil sample splits saved from a program of soil sampling on the B and See claims conducted under the writers supervision during the period July 2-8, 1972.

PROPERTY, LOCATION AND ACCESS

The property consists of 56 contiguous mineral claims recorded at Whitehorse, Yukon Territory, as follows:

<u>Claim Name</u>	<u>Grant Numbers</u>	<u>New Expiry Date</u>
B 2-12	Y62827-Y62837	6 October, 1975
B 17-23	Y62838-Y62844	6 October, 1974
B 24	Y62845	6 October, 1975
B 25	Y62846	6 October, 1974
B 26	Y62847	6 October, 1975
B 27	Y62848	6 October, 1974
B 28	Y62849	6 October, 1975
B 29-30	Y62850-Y62851	6 October, 1974
B 33-39	Y62854-Y62860	6 October, 1974
See 1-24	Y62803-Y62826	6 October, 1974

The location of the claims relative to adjoining properties and the Klondike Highway is illustrated in the upper right hand corner of Figures 6 and 7 in the pocket of this report. Minto, the nearest road point on the Klondike Highway is about 150 road miles from Whitehorse. The winter road illustrated on the figures is part of a winter access road that extends along the west side of the Yukon River from Yukon Crossing to the Keno Hill Exploration camp on the adjoining Def claims. This road might be upgraded to all weather use during 1975.

PREVIOUS WORK

The B and See claims were explored by grid soil sampling and geological mapping in July, 1972. Soil samples were analysed for copper, molybdenum and silver at Chemex Labs Ltd., North Vancouver, B.C. A split of the -80 mesh fraction was saved from each sample. An area of copper geochemical response on the west side of the property was explored by bulldozer trenching during September, 1973, but

difficult surface conditions prevented completion of the program.

GEOLOGICAL SETTING

The mineral deposits currently being developed some two miles southwest on the Def and Minto claims occur in foliated or gneissic zones within a hornblende biotite granodiorite intrusion. The main characteristics of the gneissic zones are an increase in biotite relative to hornblende and minor quartz flooding. A distinct foliation attitude is given to the intrusion by alignment of the mafic minerals and foliation is most intensely developed in the gneissic zones. Mineralization consists of bornite and chalcopyrite in a gangue of magnetite with pyrite. Minor, but economically significant, gold and silver values are associated with the copper mineralization.

The B and See claims exhibit less than 10 per cent outcrop which is predominantly hornblende biotite granodiorite. There are no outcropping gneissic zones although unmineralized gneissic material was found as float in two locations while soil sampling in 1972. Topography is subdued and, except for several steep cuts where most of the outcrop is found, is almost featureless. Vegetation is mainly scrub spruce with poplar on south and west facing slopes.

GEOCHEMICAL ANALYSES

General

The mercury and gold geochemical analyses have been obtained in order to more definitely outline targets to be explored by bulldozer trenching. The analyses was performed by Chemex Labs Ltd., North Vancouver, B.C. on -80 mesh sample splits taken from soil samples analysed during the 1972 program. The 1972 samples were obtained from a B or B+C soil horizon by digging below overlying moss and peat with a grub hoe. Mercury assays were determined by a vapour technique in conjunction with atomic absorption procedures from a H_2SO_4 , HNO_3 , $KMnO_4$ digestion in a hot water bath. Gold assays were determined by atomic absorption spectrometry of a double aqua regia digestion followed by MIBK extraction of an

HCl solution. Gold background in the district is less than 30 parts-per-billion (ppb) while mercury ranges from 10 to 50 ppb. Soil samples overlying known mineralization in the Minto area return values up to 300 ppb gold and 500 ppm mercury.

Interpretation

Geochemical values for gold are plotted on Figure 6 in the pocket and mercury values are plotted on Figure 7. With the exception of two east trending linear anomalies at the southwest corner of the property, all gold values are below the detection limit of 30 ppb. The two parallel anomalous areas return gold values ranging from 80 ppb, or slightly above threshold, to a highly anomalous 470 ppb. These same two areas exhibit co-incident mercury values slightly above a threshold of 65 ppb. The gold and mercury anomalies trend N60°E or almost 90° to the attitude of regional foliation. A strong east trending structure on the Def claims, which terminates United Keno's main zone of mineralization to the north, could project onto the B and See claims in the vicinity of the anomalous area.

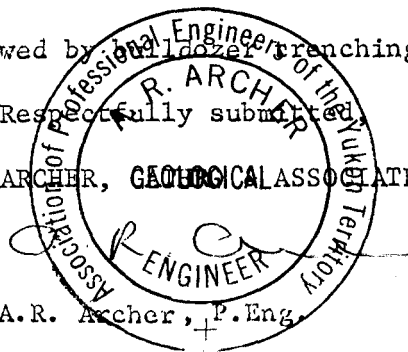
CONCLUSIONS AND RECOMMENDATIONS

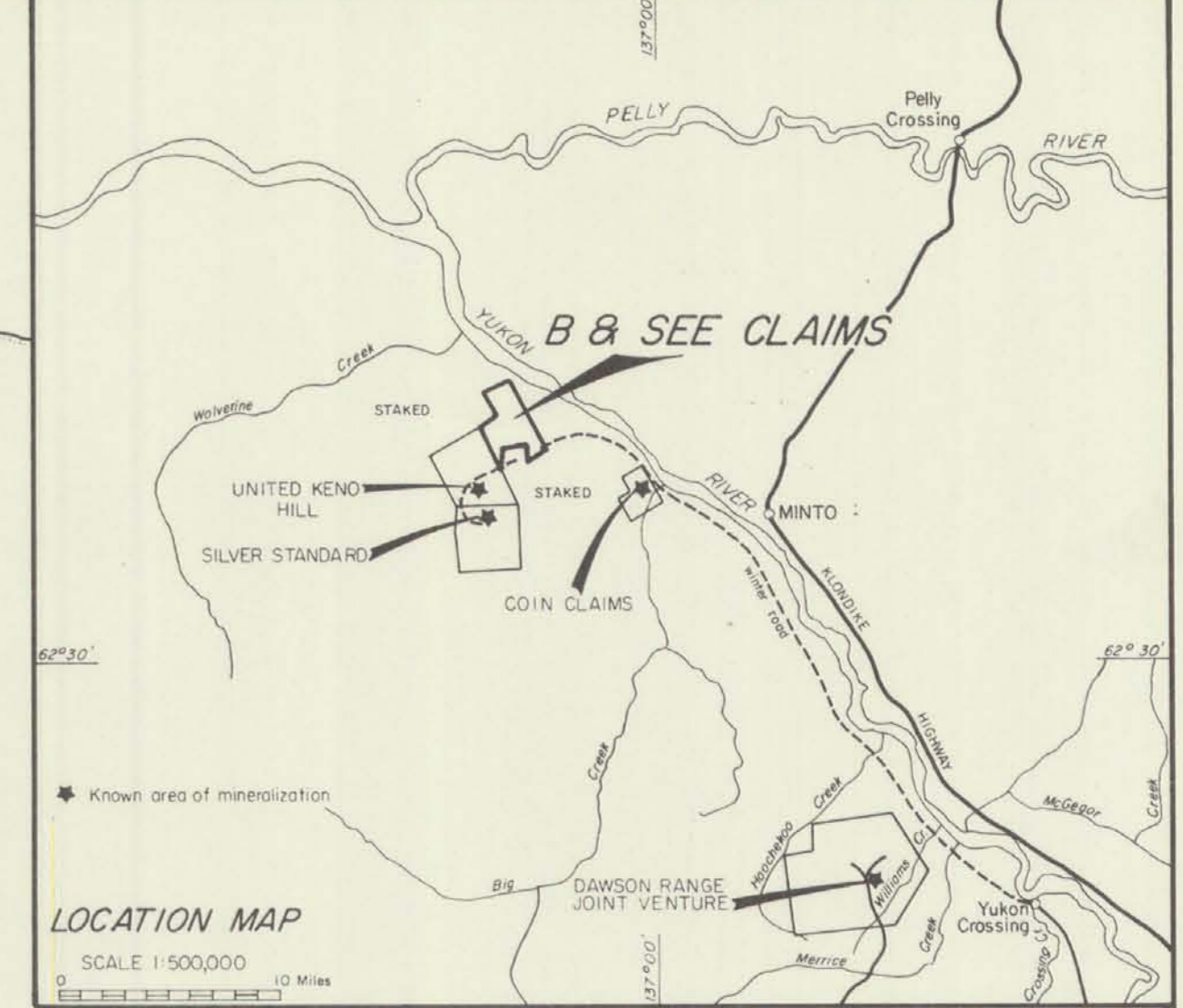
It seems probable that the co-incident anomalous gold and mercury soil values are outlining an east trending area of interest possibly related to the continuation of a major fault structure known to occur on the Def claims. The northernmost area anomalous in gold averages 255 ppb over a length of 3500 feet and a width of at least 400 feet. This average anomalous value is equivalent to \$1.11 in gold at the current price of \$150. per ounce.

Further work is justified and should consist of close spaced sampling to better outline the gold anomaly followed by trenching.

Respectfully submitted,
ARCHER, GEOLOGICAL ASSOCIATES LTD.

A.R. Archer, P.Eng.



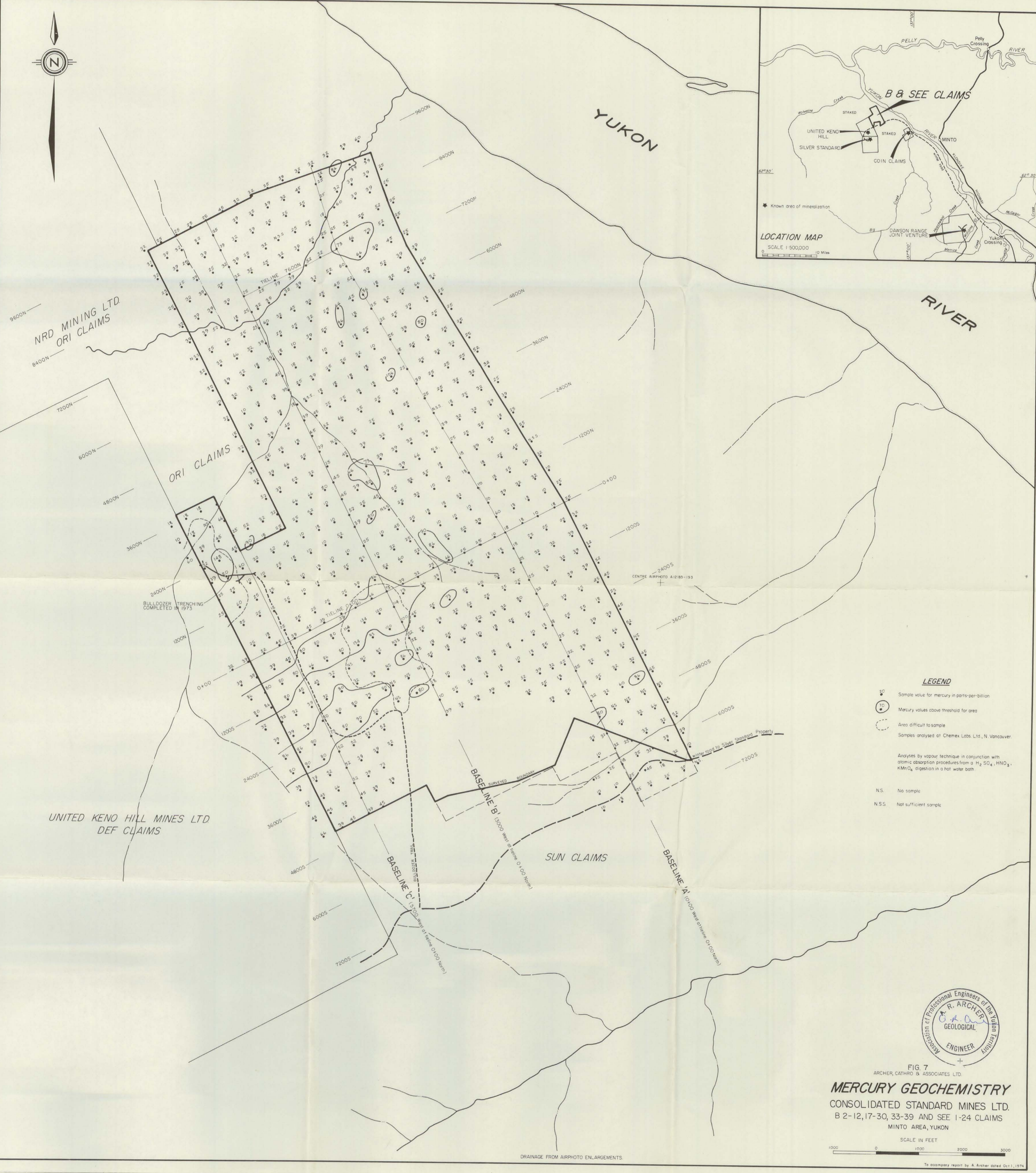
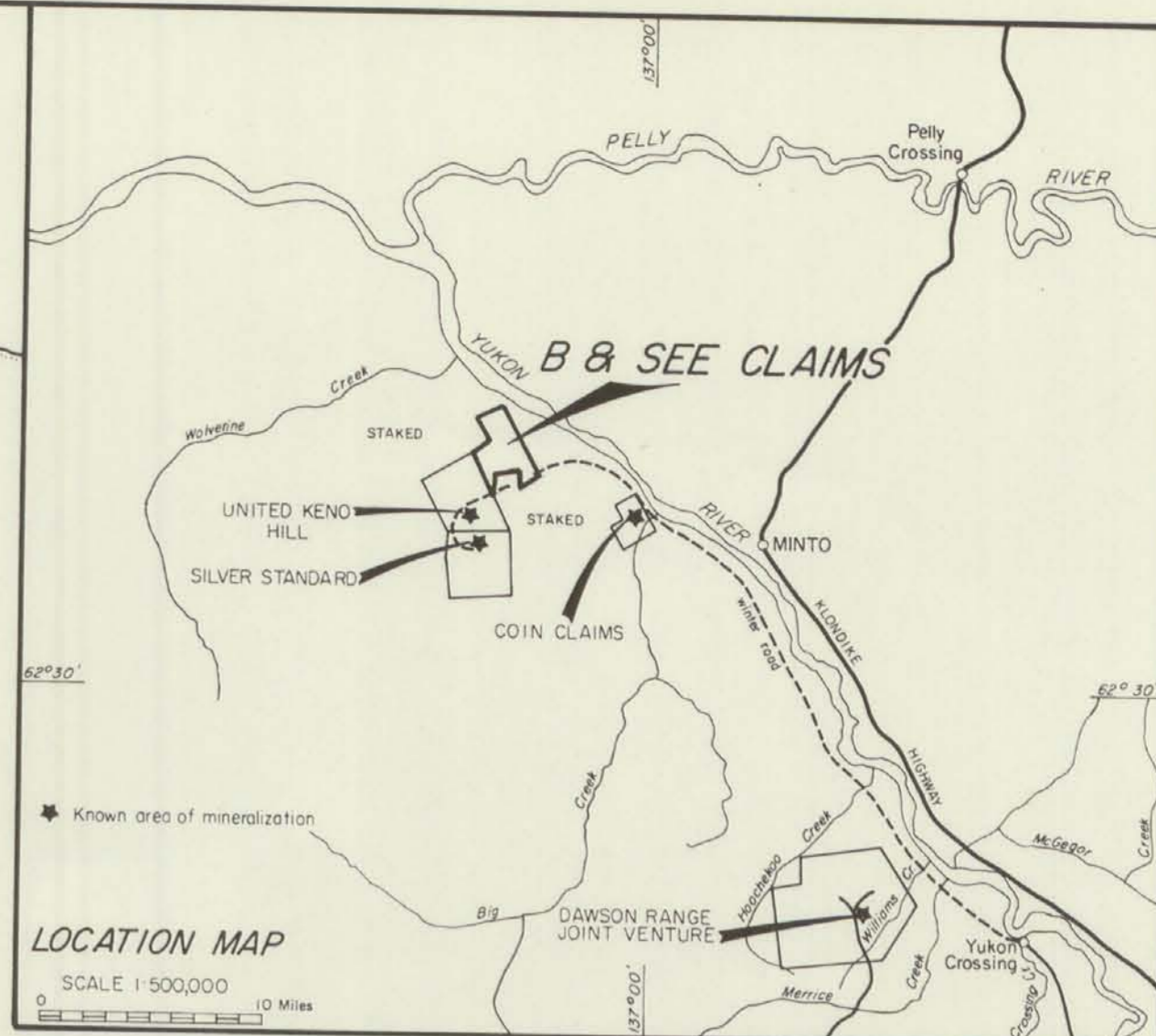


LEGEND

- 35 Sample value for gold in parts-per-billion
- 70 Gold values above threshold for area
- Area difficult to sample
- Samples analysed at Chemex Labs Ltd., N. Vancouver.
- Analyses by atomic absorption spectrometry of a double Aqua Regia digestion followed by MIBK extraction of an HCL solution.
- NS. No sample
- NSS. Not sufficient sample



FIG 6
 ARCHER, CATHRO & ASSOCIATES LTD.
GOLD GEOCHEMISTRY
 CONSOLIDATED STANDARD MINES LTD.
 B 2-12, 17-30, 33-39 AND SEE 1-24 CLAIMS
 MINTO AREA, YUKON
 SCALE IN FEET
 1000 0 1000 2000 3000



LEGEND

- Sample value for mercury in parts-per-billion
- Mercury values above threshold for area
- ⊖ Area difficult to sample
- Samples analysed at Chemex Labs Ltd., N. Vancouver.
- Analyses by vapour technique in conjunction with atomic absorption procedures from a H_2SO_4 , HNO_3 , $KMnO_4$ digestion in a hot water bath.
- N.S. No sample
- N.S.S. Not sufficient sample

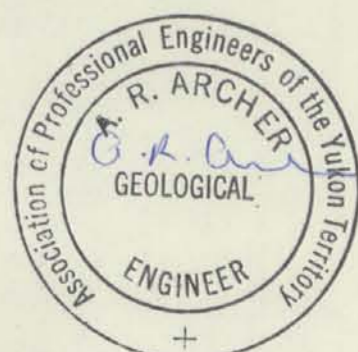
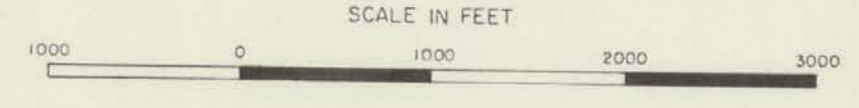


FIG 7
ARCHER, CATHRO & ASSOCIATES LTD.
MERCURY GEOCHEMISTRY
CONSOLIDATED STANDARD MINES LTD.
B 2-12, 17-30, 33-39 AND SEE 1-24 CLAIMS
MINTO AREA, YUKON



DRAINAGE FROM AIRPHOTO ENLARGEMENTS.

To accompany report by A. Archer dated Oct 1, 1974