

UMEX

UNION MINIERE EXPLORATIONS
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GEOCHEMICAL SOIL SURVEY FOR GOLD

ANT AND STIB CLAIMS

Record Numbers 384 and 385

Skeena Mining Division

N.T.S. 103F/8W

Latitude $53^{\circ}23'N$
Longitude $132^{\circ}24'W$

Owner and Operator: Union Miniere Explorations and
Mining Corporation Limited

by

A.A. Burgoyne, P.Eng.

Date: May 18, 1978

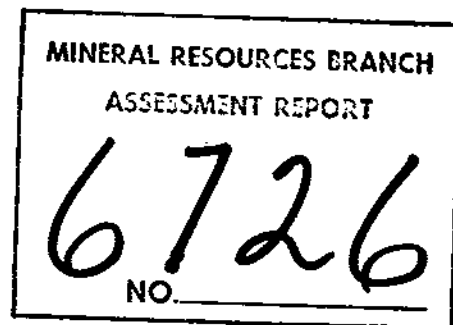


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GEOCHEMICAL SOIL SURVEY FOR GOLD
ANT AND STIB CLAIMS

INTRODUCTION

The Ant and Stib claims are located on Graham Island of the Queen Charlotte Islands 25 km west-northwest of Queen Charlotte City and straddle the upper 3.5 km of Riley Creek. The claims are within the Skeena Mining Division in N.T.S. 103F/8W with approximate latitude and longitude coordinates for the property being $53^{\circ}23'N$ and $132^{\circ}24'W$, respectively. The elevation of the claims varies from 200 m to 600 m. The claims are accessible by good gravel roads from Queen Charlotte City. Queen Charlotte Timber Company is currently constructing a road (Branch 8) up Riley Creek; this branch road completely transverses the Ant claim and terminates at about the western edge of the Stib claim.

During the period of June 1-4, 1977 and April 29-May 1, 1978 geochemical soil surveys for gold were completed on the Ant and Stib claims. The gold geochemical soil surveys consisted of taking 360 B soil horizon samples over 17.45 line kilometers. Exploration in 1977 was under the immediate supervision of Mr. A. Pauwels whereas in 1978 it was under Mr. R. Tolbert. All surveys were under the general supervision of Mr. A.A. Burgoyne, P.Eng.

The Ant and Stib claims were staked on May 30 and 31, 1977, respectively, and were recorded on June 21, 1977. The Courte Antimony property (Sol 1 and 2 claims), located between the Ant and Stib claims is reported to contain low grade antimony and gold mineralization. Exploration on the area covered by the Ant and Stib claims previous to that of the UMEX surveys has not been documented; however, it is reported that Quintana Minerals were active in the area in 1974. The purpose of the UMEX exploration was to evaluate the potential of gold mineralization in the areas underlying the Ant and Stib claims.

GEOLOGY

The area has been mapped by A. Sutherland Brown¹ and in a very rough reconnaissance fashion during the geochemical survey. The area is underlain by sediments and volcanics belonging to the Yakoun Formation of Jurassic Age which

¹Sutherland Brown, A., 1968, Geology of the Queen Charlotte Islands, B.C.D.M. Bulletin 54

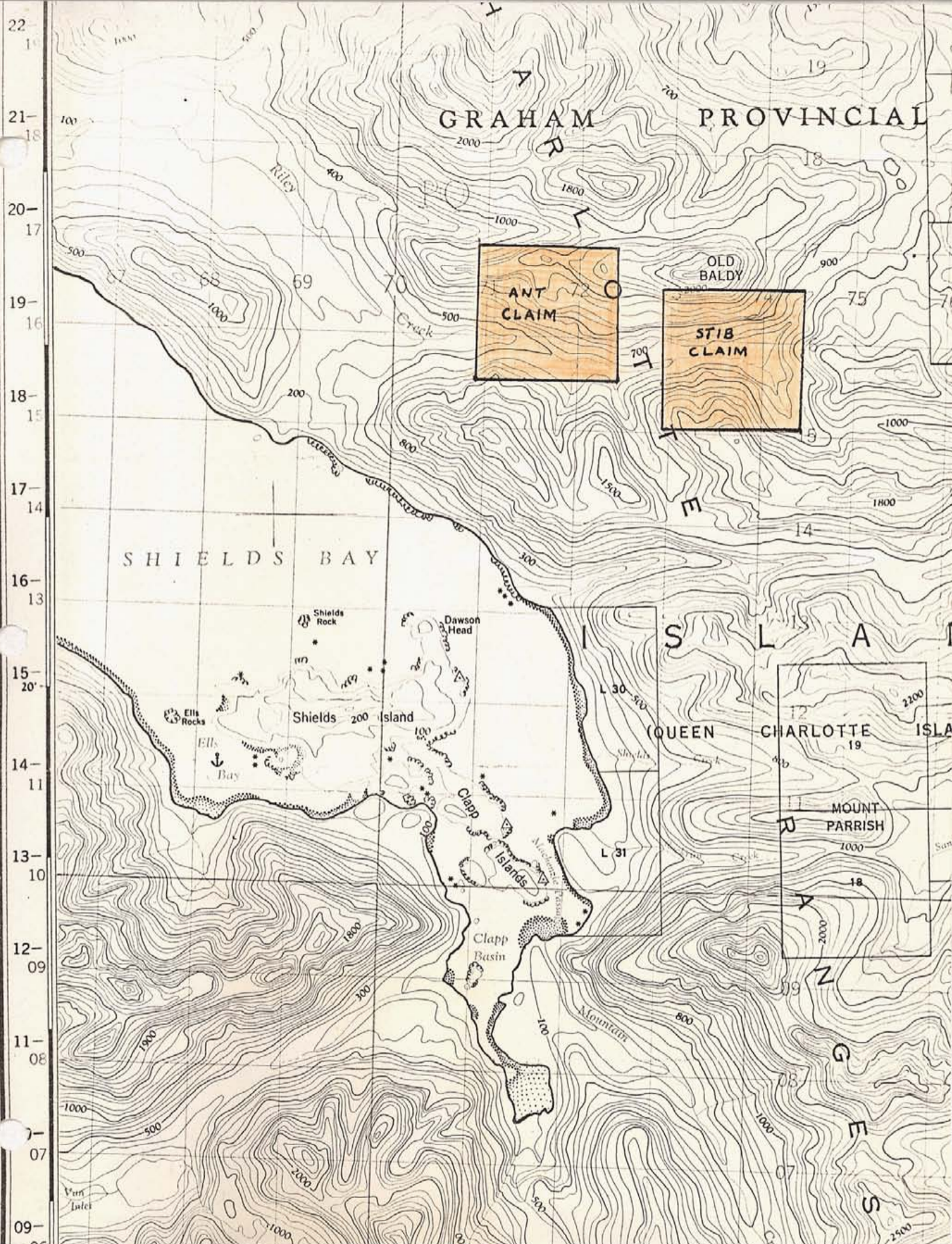
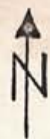
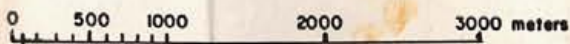


FIGURE 1

Index Map Showing Location of
Ant and Stib Claims

N.T.S. 103F/8W

Scale: 1:50,000



5907000m. N.
5904000m. N.
08-
05
06-
03
53'15"

132°30'267000m. E. 68 69 70 71 72 25' 73 73 74 74 75 75 76 76

Alfred A. [Signature]

are intruded and partly metamorphosed by rhyolite dykes thought to be related to the Masset Formation of Early Tertiary Age.

Yakoun sediments consisting of limestone, sandstone and conglomerate occur on most of the Ant claim and on the southwestern part of the Stib. Yakoun andesite agglomerates were noted on the northeastern parts of the Ant and Stib claims. The Yakoun Formation trends in a northwestern direction. Several dykes of medium-to-fine grained rhyolite intrude both sediments and volcanics. The rhyolite dykes trend $N70^{\circ}W$ and dip nearly vertical.

GEOCHEMICAL SOIL SURVEY

Line Placement

The northern and eastern perimeter claim lines for the Ant claim were used as east-west and north-south base lines, respectively. Note Figure 3. On the east-west base line, cross-lines were placed every 250 m in a north-south direction by compass and topofoil chain. Sample site stations were marked by coloured flagging at 50 m intervals along cross-lines and baselines. On the Stib claim a baseline was established in an east-west direction at 1300S.

Soil Sampling and Analytical Methods

At each sample site a hole was excavated with a shovel and 0.5 to 1 kg. of medium brown coloured B soil horizon was collected and placed in a kraft sample bag. The B soil horizon is well-developed and the soil samples were taken from the top of the B horizon at a depth which varied from 15 to 30 cm. Soil profiles and the respective soil horizons (Ah, Ae, Bh, Bt, C) are generally well-developed over most of the claims. In the Riley Creek valley bottom soil horizons are developed from glacial or fluvial deposits whereas on the rest of the property most of the soil is residual and developed from the respective bedrock.

The gold in the soil samples were analysed by Chemex Labs Ltd., 212 Brooksbank Avenue, North Vancouver, B.C. by combination fire assay-atomic absorption techniques. Soil samples were dried at $50^{\circ}C$ and sieved to -80 mesh of which 10 g of soil were mixed in a pot containing litharge (PbO), silica, borax and potassium nitrate and fused for 30 minutes at $1200^{\circ}C$. The remaining lead button containing the gold was cupiled and the remaining gold was dissolved in aqua regia and taken to dryness. The gold was then taken into solution with

dilute hydrochloric acid and analysed by atomic absorption. The sensitivity of the analytical technique is 5 parts per billion (ppb).

Results

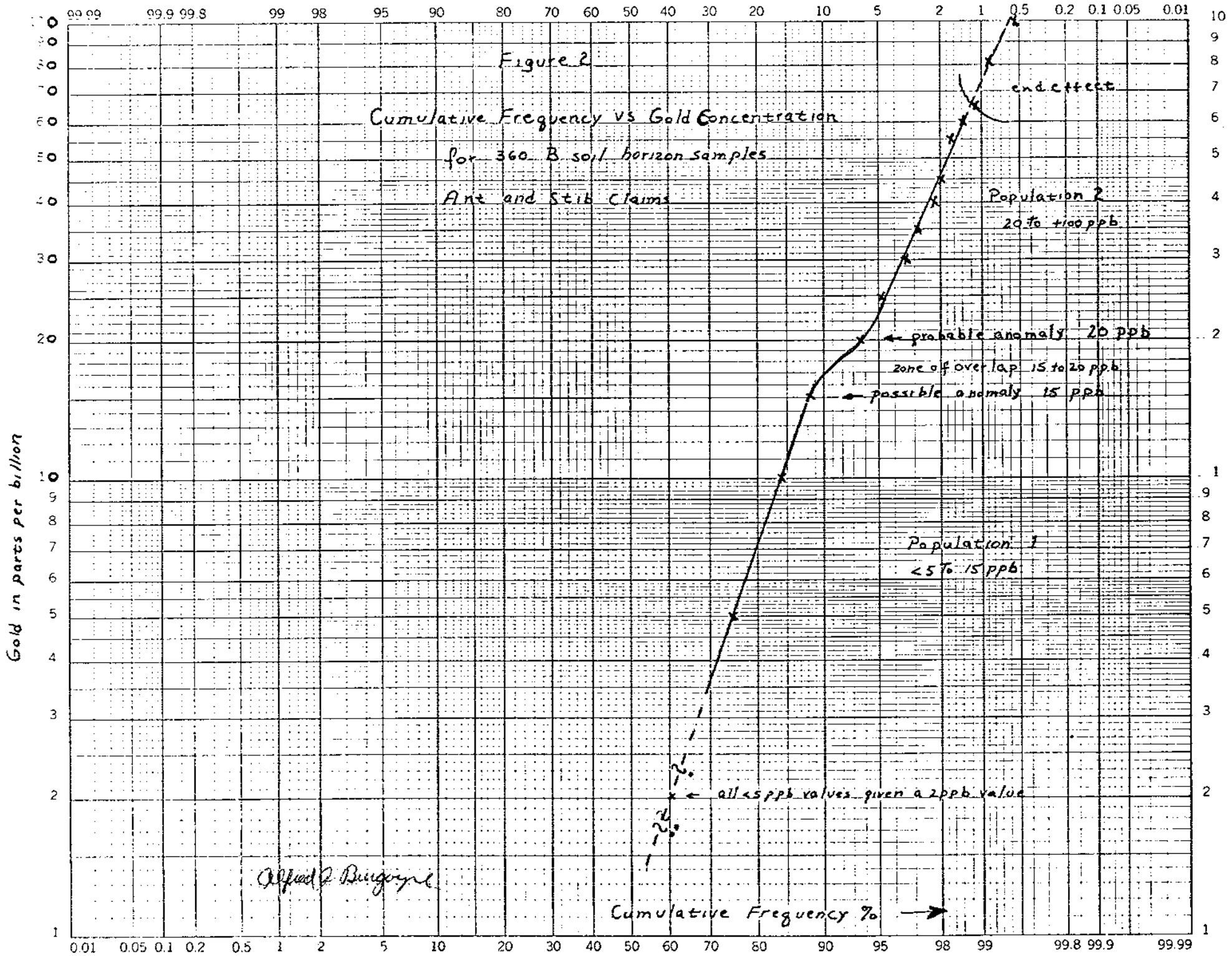
A cumulative frequency versus gold concentration plot for the B soil horizon samples collected from the Ant and Stib claims is illustrated in Figure 2. Two distinct populations are present. Population 1 varies from <5 ppb to 15 ppb and is considered a background population, probably not related to gold mineralization. Population 2 varies from 20 ppb to +100 ppb and is considered to represent gold mineralization and is therefore considered anomalous. A zone of overlap between the two populations is at 15 to 20 ppb. Values of ≥ 15 ppb are considered possibly anomalous whereas values of ≥ 20 ppb are considered probably anomalous.

Figure 3 illustrates the plot of all values for the B soil horizon samples obtained from the survey on the claims. The gold results are contoured at the 15 ppb contour in a northwesterly trend parallel to the regional lithologic strike. The gold anomalies are characterized generally by low order anomalous values (20-50 ppb) that are narrow in plan (in many cases only one sample wide), but relatively long and continuous. Anomaly trends do not cross Riley Creek due to thick overburden cover in the valley. Several anomalies are single value highs and they are not considered significant.

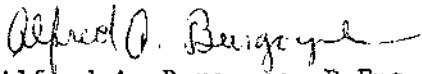
The gold values are thought to represent a very low grade but geochemically anomalous gold-bearing lithology, possibly rhyolitic dykes. It would appear that the potential for significant gold mineralization is low because of the low order magnitude of the gold anomalies, relatively thin overburden (with exception of Riley Creek), and the narrow linear plan of the anomalies.

CONCLUSIONS AND RECOMMENDATIONS

A geochemical B soil horizon survey for gold completed on the Ant and Stib claims has revealed long linear low order magnitude gold anomalies that are considered related to very low grade gold mineralization possibly caused by rhyolitic or acid volcanic lithologies. The gold soil anomalies for the most part because of their low magnitude combined with the thin overburden cover and their narrow linear plan are not considered of economic significance.



Some trenching and detailed prospecting should be completed on the gold soil anomalies located on Line 250E, 1200S and on Line 1000W, 100S to further evaluate and define the causative source of the gold values.


Alfred A. Burgoyne, P.Eng.

APPENDIX I

ITEMIZED COST STATEMENT

ANT CLAIM

Field Labour:	A. Pauwels, June 4, 1977 @ \$112.44/day	\$ 112.44
	R. Turna, June 4, 1977 @ \$ 50.72/day	50.72
	R. Tolbert, April 29 & 30, 1978 @ \$89.40/day	178.80
	H. Holm, April 29 & 30, 1978 @ \$88.80/day	177.60
	F. Thrane, April 29 & 30, 1978 @ \$46.00/day	92.00
Office Labour:	A. Burgoyne, May 16, 1978 @ \$175.36/day	\$ 175.36
	R. Tolbert, May 15, 1978 @ \$ 82.40/day	82.40
Truck Rental and Fuel - 3 days @ \$40.00/day		\$ 120.00
Motel and Food - 8 man-days @ \$22.50/day		\$ 180.00
Analytical Costs: 202 soil samples @ \$3.30/sample (includes topofoil thread, sample bags)		\$ 666.60
Transportation: Equivalent of three employees, Vancouver to Sandspit and return @ \$144.00 each or \$432.00; 50% applied to Ant and 50% applied to Stib		\$ 216.00
Miscellaneous Costs (typing, reproductions)		\$ 40.40
		<hr/>
		\$2092.32

APPENDIX I (cont'd)

ITEMIZED COST STATEMENT

STIB CLAIM

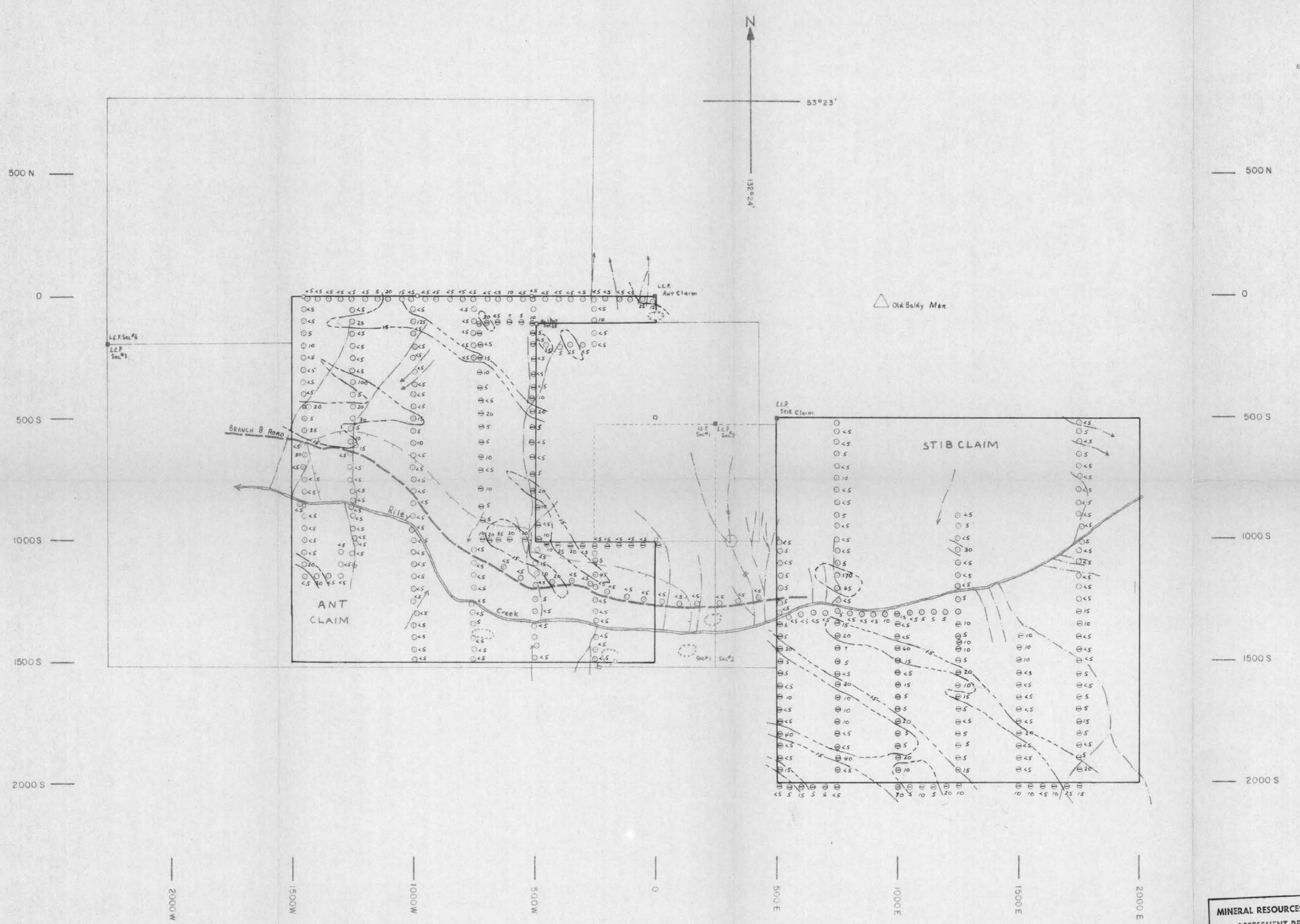
Field Labour:	A. Pauwels, June 1, 2, 3, 1977 @ \$112.44/day	\$ 337.32
	R. Turna, June 1, 2, 3, 1977 @ \$ 50.72/day	152.16
	R. Tolbert, May 1, 1978 @ \$89.40/day	89.40
	H. Holm, May 1, 1978 @ \$88.80/day	88.80
	F. Thrane, May 1, 1978 @ \$46.00/day	46.00
Office Labour:	A. Burgoyne, May 17, 1978 @ \$175.36/day	\$ 175.36
	R. Turna, Sept. 10, 1978 @ \$50.72/day	50.72
Truck Rental and Fuel - 4 days @ \$40.00/day		\$ 160.00
Motel and Food - 9 man-days @ \$22.50/day		\$ 202.50
Analytical Costs: 158 soil samples @ \$3.30/sample (includes topofoil thread, sample bags)		\$ 521.40
Transportation: Equivalent of three employees, Vancouver to Sandspit and return @ \$144.00 each or \$432.00; 50% applied to Stib and 50% applied to Ant		\$ 216.00
Miscellaneous Costs (typing, reproductions)		\$ 50.00
		<hr/>
		\$2089.66
		<hr/>
TOTAL EXPENDITURES (ANT AND STIB CLAIMS)		<u>\$4181.98</u>

APPENDIX II

AUTHOR'S QUALIFICATIONS

I, A.A. Burgoyne of 7924 Burnlake Drive, Burnaby, B.C. hereby certify:

- (1) I am a graduate of the University of British Columbia, B.Sc., Geology in 1962, and of the University of New Mexico, M.Sc., Geology in 1967.
- (2) I am registered as a Professional Engineer of the Province of British Columbia and Yukon Territory.
- (3) I am a founding member of the Association of Exploration Geochemists.
- (4) I have practised my profession since 1962 with the Geological Survey of Canada, Falconbridge Nickel Mines Ltd., Anaconda American Brass Ltd., Crest Laboratories Ltd., and Union Miniere Explorations and Mining Corporation Limited (UMEX). Since 1970 I have been Exploration Manager, Western Canada, for UMEX.



- ### LEGEND
- B soil horizon sample location, 1978
 - ⊖ B soil horizon sample location, 1977
 - ⊖₁₅ Gold content in B soil in parts per billion (ppb)
 - Legal Corner Post
 - Corner and perimeter posts
 - Gravel Road
 - Swamp and/or cleared area
 - Limit of Logging
 - Creek
 - Court Anemomy Showing
 - 15 15 ppb gold contour

Figure No 3

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
6726
NO.

GEOCHEMICAL SOIL SURVEY
FOR GOLD
B Soil Horizon
ANT AND STIB CLAIMS

Scale: 1:10,000
0 100 200 300 400 500
meters meters

UMEX CORPORATION LTD.

DRAWN BY: R.F.P.B.
DATE: May 1978
SURVEYED BY:

DWG. No.

To accompany assessment report, Geochemical Soil Survey for Gold on the Ant and Stib Mineral Claims, dated May 18, 1978, by A.A. Burgoyne, P.Eng.

A.A. Burgoyne
P.Eng.