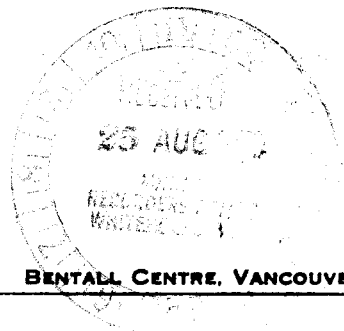


**ARCHER, CATHRO  
AND ASSOCIATES LTD.  
CONSULTING GEOLOGICAL ENGINEERS**



Box 1708, WHITEHORSE, Y.T. 667-4113

BENTALL CENTRE, VANCOUVER, B.C. 688-3022

770 ONE BENTALL CENTRE  
505 BARRARD ST.  
VANCOUVER 1, B. C.

**SOIL SAMPLING PROJECT  
NEW 7-22, 39-54, 71-88 CLAIMS**

**CASINO AREA, YUKON**

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 \$ 7,570 October 7, 1969

*A.B. Craig*  
\_\_\_\_\_  
Regional Geologist or  
Resident Mining Engineer

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

*Mrs. Arch*  
\_\_\_\_\_  
Commissioner of Yukon Territory

A.R. Archer

Consultant

Vancouver, B.C.

## INTRODUCTION

A contiguous block of 50 mineral claims (the New 7-22, 39-54 and 71-88) were soil sampled and geologically mapped during September 1969. The New posts were tagged and located in relation to adjoining claims owned by Casino Silver Mines Ltd. The above work was contracted by Archer, Cathro & Associates Ltd. from Trans Columbia Explorations Ltd. A representative of Trans Columbia Steve Radvak, visited the property to examine the work in progress during September 10 to 13.

## CLAIM LOCATION

Figure 1 shows the actual location of the Casino and New claim blocks compared to their position as shown on government claim sheet 115-J-15. Figure 2 shows the ground position of the individual posts.

The claim lines were found to be well cut and flagged and the posts were standing and easily located. The individual claims were consistently staked 200 to 300 feet short and the chained distance between claim lines "A" and "C" is 1000 feet short of the allowable maximum of 6000 feet. The claim lines have a bearing of 250° but occasionally wander 10° either to the right or left. There is a major overlapping of the New claims onto the Casino Silver Mouse claims. The short staking

and the overlap combine to reduce the actual holding to approximately 55% of the area of 50 full size claims

### GEOLOGICAL SETTING

The property lies on the north flank of the Dawson Range on the Yukon Plateau in a region that was unglaciated during the Pleistocene. Topography is rounded, steep, and is characterized by talus covered domes sloping into small fast flowing streams with V-shaped valleys. Canadian Creek drops 2500 feet in elevation within the property boundaries. North facing slopes are permanently frozen. Vegetation consists of spruce, scrub alder and buckbrush. A thick ground cover of moss makes walking extremely difficult. There is no true outcrop on the property and geological mapping must be done by identifying rock types in the surface talus - an accepted procedure in an unglaciated environment.

Most of the claims are underlain by the Klotassin Batholith, a large body of medium grained granodiorite that probably represents the eastern margin of the Coast Range intrusives. There is no evidence of alteration, pyritization or any other features of economic interest within the intrusive. Mineralization at Casino and elsewhere in the district is related to a very distinctive

type of Tertiary intrusive. No evidence of this rock type was found. The eastern edge of the property is underlain by "Yukon Group" rocks. These are metasediments of early Paleozoic age which predate the Klotassin Batholith and are of no economic interest.

### GEOCHEMISTRY

#### General

Baselines were established along the three claim lines by tape and compass and four foot long pickets with the tips painted red were set at 400 foot intervals. These pickets were numbered according to the coordinates shown on Figures 3 and 4. Soil samples were taken at 400 foot intervals on lines established by pace and compass between picket points on the baselines. Each sample point was marked by a two foot red tipped picket with the coordinate point noted on it. For example, a picket numbered C12W + 20N indicates the sample point is located 2000 feet north of station 12W (1200 feet west of tieline) on Baseline "C". Soil samples from vegetated areas were taken from the "B" horizon by digging through overlying moss and peat with a mattock grub-hoe. Samples

from talus areas were usually taken from a "C" horizon due to poor soil development. Experience in the district has shown that sampling of the "B" or "C" horizons gives more or less identical results.

### Results

Soil samples were dried, screened and analysed for copper and molybdenum by Chemex Labs Ltd., North Vancouver, using a standard hot acid extraction technique. Individual assays for copper and molybdenum in parts-per-million (ppm) are shown on Figures 3 and 4 respectively. There are no areas within the grid that are significantly anomalous in either metal. Porphyry deposits in the Casino district under similar topographic conditions have geochemical values exceeding 100 ppm copper and 15 ppm molybdenum over areas up to several square miles, and values exceeding 500 ppm copper and 100 ppm molybdenum are usually required to define a definite zone of interest.

### CONCLUSIONS

Soil sampling has proven to be an extremely effective method of primary exploration in the unglaciated

portion of the Dawson Range area. Lack of geochemical response on the New 7-22, 39-55 and 71-88 claims has, in the writer's opinion, eliminated all possibility of outcropping porphyry type deposits.




Respectfully submitted,

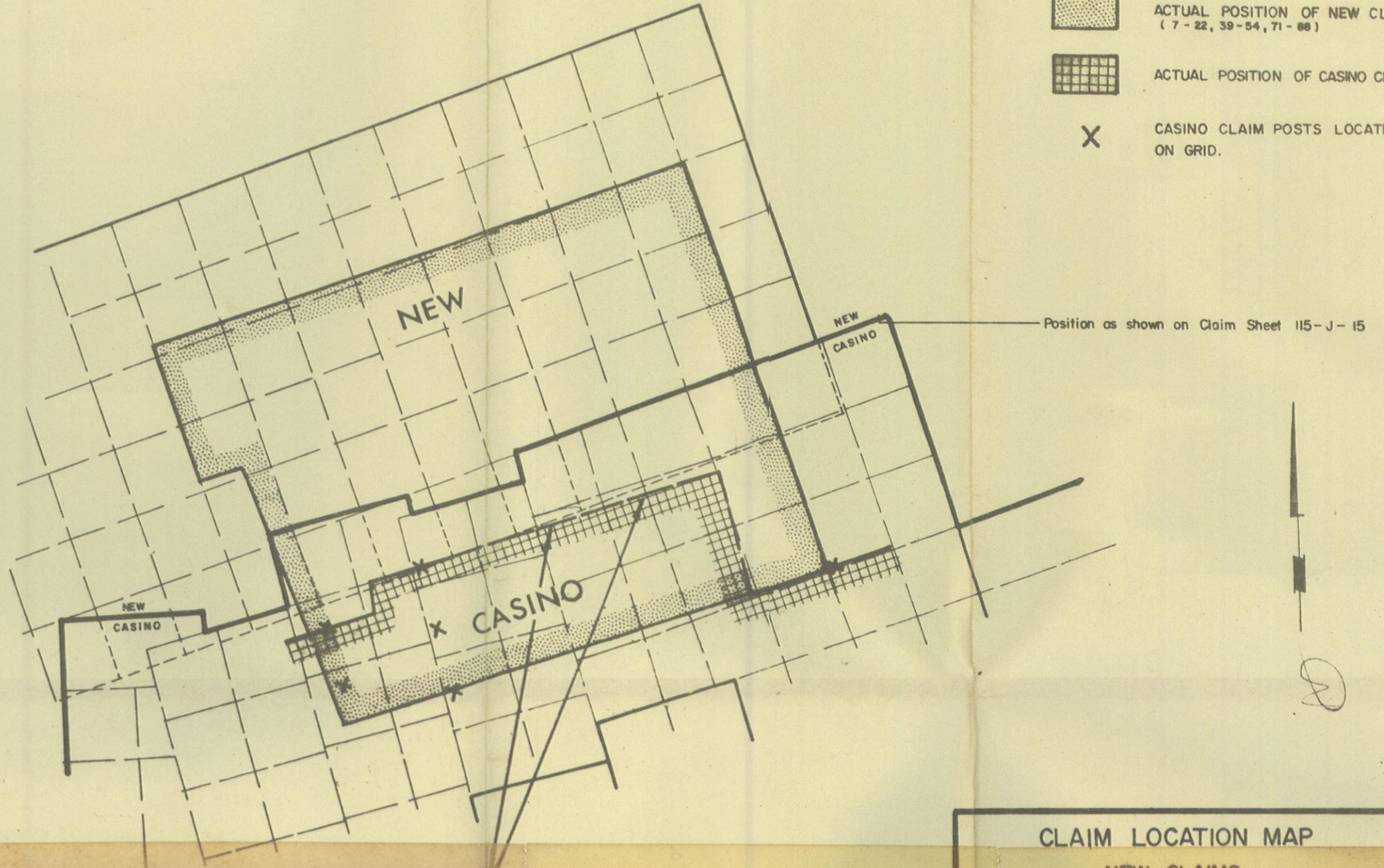
ARCHER, CATHRO & ASSOCIATES LTD.

A handwritten signature in cursive script, appearing to read "A.R. Archer".

A.R. Archer

ARA:sh

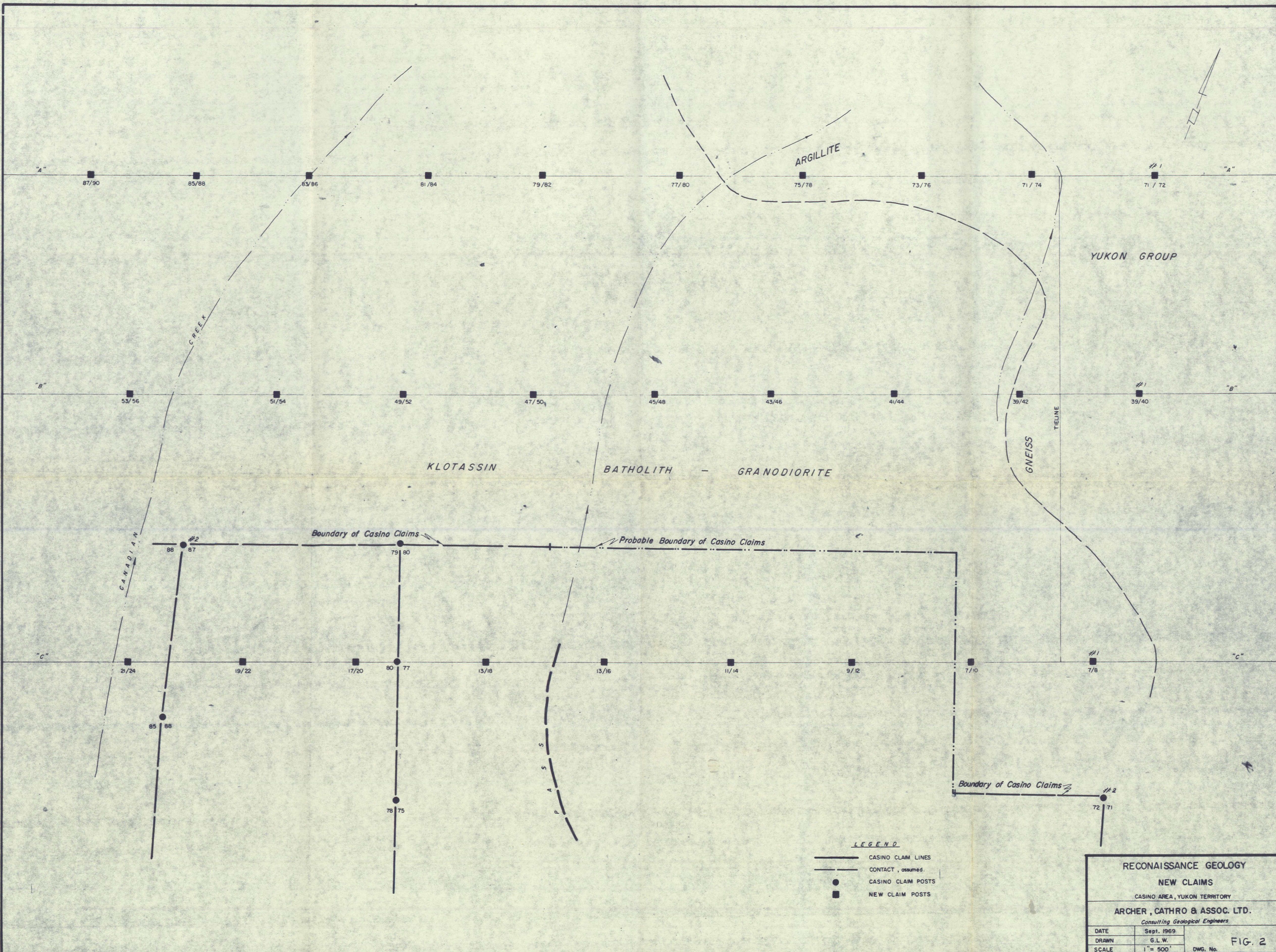
-  ACTUAL POSITION OF NEW CLAIMS  
( 7 - 22, 39 - 54, 71 - 88 )
-  ACTUAL POSITION OF CASINO CLAIMS
-  CASINO CLAIM POSTS LOCATED ON GRID.



Position as shown on Claim Sheet 115-J-15

POSTS SEEN BY R.J. CATHRO AND REPORTED TO BE HERE BUT NOT LOCATED ON GRID.

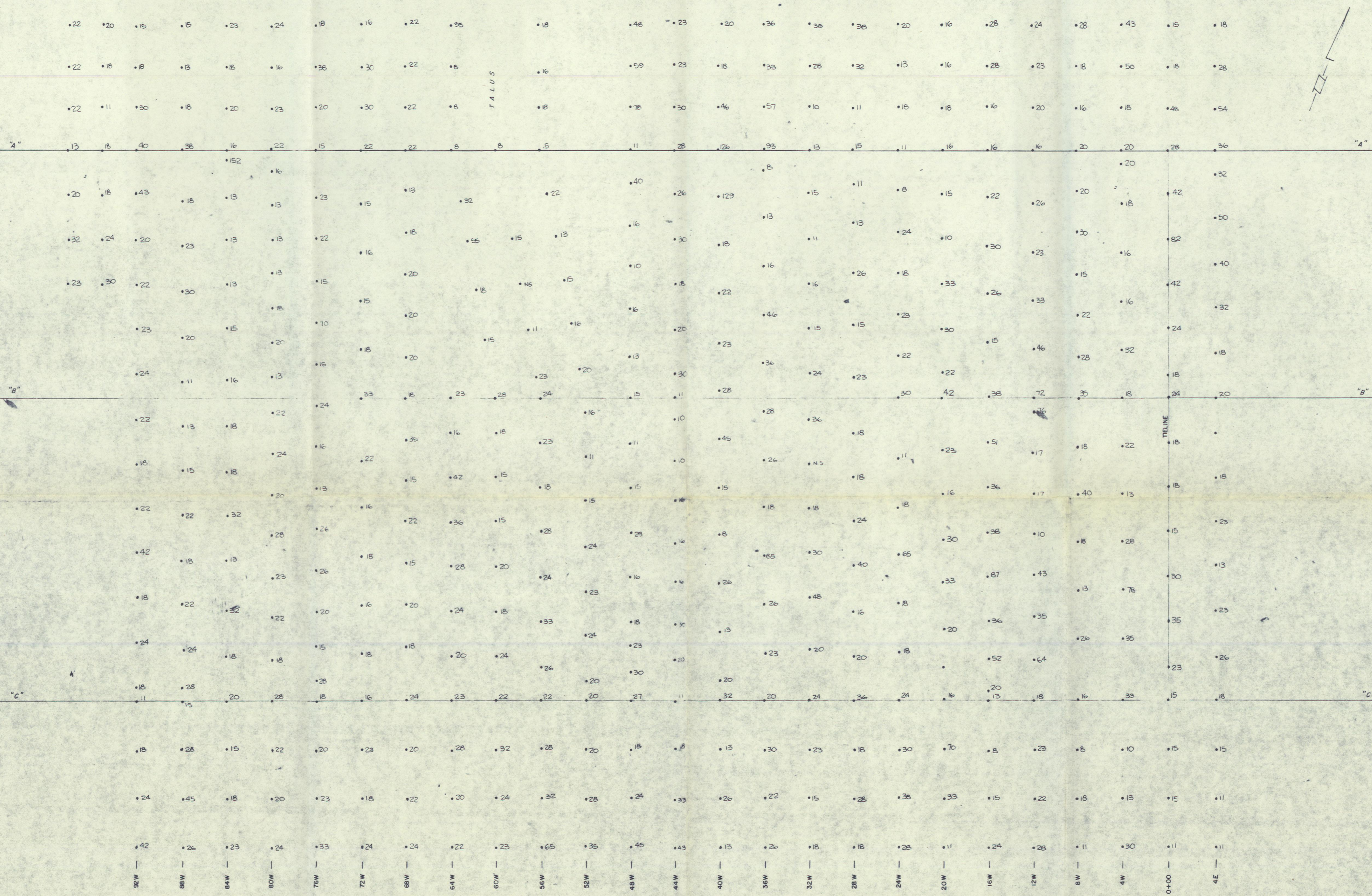
<b>CLAIM LOCATION MAP</b>		
<b>NEW CLAIMS</b>		
CASINO AREA, Y.T.		
<b>ARCHER, CATHRO &amp; ASSOC. LTD</b>		
<i>Consulting Geological Engineers</i>		
DATE	Sept. 1969	DWG. No. <b>FIG 1</b>
DRAWN	G.L.W.	
SCALE	1" = 1/2 mi.	



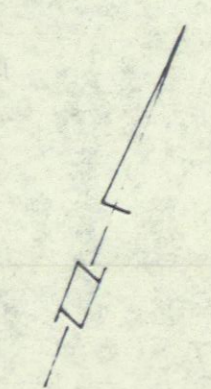
**LEGEND**

- CASINO CLAIM LINES
- - - CONTACT, assumed.
- CASINO CLAIM POSTS
- NEW CLAIM POSTS

<b>RECONNAISSANCE GEOLOGY</b>	
<b>NEW CLAIMS</b>	
CASINO AREA, YUKON TERRITORY	
<b>ARCHER, CATHRO &amp; ASSOC. LTD.</b>	
<i>Consulting Geological Engineers</i>	
DATE	Sept. 1969
DRAWN	G.L.W.
SCALE	1" = 500'
DWG. No. <b>FIG. 2</b>	



TALUS

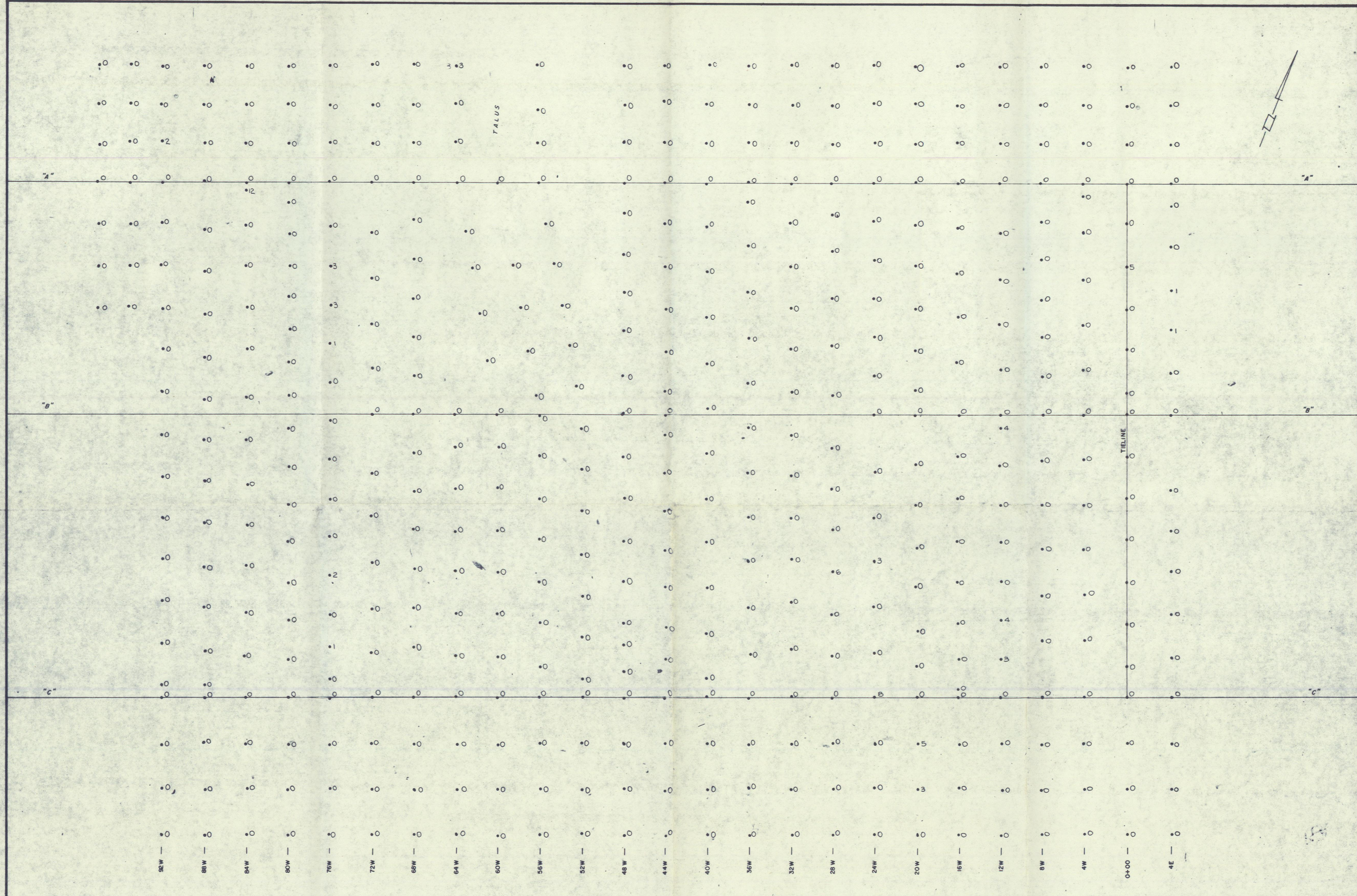
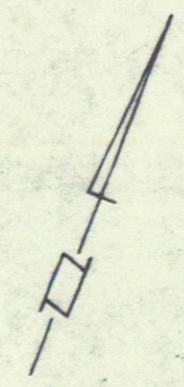


COPPER

• 258 - Copper in p.p.m.

Soil Sampling Analyses by Chemex Labs, N. Vancouver.

<b>SOIL SAMPLING SURVEY NEW CLAIMS</b> CASINO AREA, YUKON TERRITORY <b>ARCHER, CATHRO &amp; ASSOC. LTD.</b> <i>Consulting Geological Engineers</i>		
DATE	Sept. 1969	FIG. 5
DRAWN	G.L.W.	
SCALE	1" = 500'	
		DWG. No.



MOLYBDENUM

•34 - Molybdenum in p.p.m.

Soil Sampling Analyses by Chemex Labs, N. Vancouver.

SOIL SAMPLING SURVEY NEW CLAIMS	
CASINO AREA, YUKON TERRITORY	
ARCHER, CATHRO & ASSOC. LTD.	
<i>Consulting Geological Engineers</i>	
DATE	Sept. 1969
DRAWN	GL.W.
SCALE	1" = 500'
DWG. No.	FIG. 4