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Report On 1975 Field Work  
DENIM AREA (1973 occurrence 5)

for

FINLAYSON JOINT VENTURE

September 1, 1975

A.R. Archer  
Consulting Geologist

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REPORT ON

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TABLE OF CONTENTS

<u>In Text</u>	<u>Page</u>
Introduction .....	1
Location and Access .....	1
Geology .....	2
Geochemistry .....	3
Mineralization .....	3

MAPS

	<u>Following Page</u>
Figure 1 - Geology - Denim Area , Scale 1"= 1 mile .....	1
Figure 2 - Copper & Molybdenem Geochemistry - Denim Area, Scale 1"= 1 mile .....	3
Figure 3 - Lead & Zinc Geochemistry - Denim Area, Scale 1"= 1 mile	3
Figure 4 - Geology and Geochemistry - Pneumonia Claims, Scale 1" = 875 feet approx. ....	3

## INTRODUCTION

A small field program was conducted on behalf of the Finlayson Joint Venture between July 28 and August 6, 1975 by prospectors Ron Dennett and Jim West. A low grade but extensive copper-gold showing discovered during the program was examined by the writer on the final day.

The program followed the recommendations outlined in the KJV Final Report by R.J. Cathro dated November 30, 1973 in which two targets, the Catsup and Denim were selected for follow-up because -

- (a) The Catsup porphyry copper occurrence, although only weakly mineralized in extent, was not found until the end of the 1973 program. Since it is the first occurrence of this type found in the district, little attention had been given to the intrusive rocks up to that time.
- (b) The Denim area contains numerous pyritic gossans and a high geochemical response in copper, molybdenum, lead and zinc and was interpreted as a thin capping of metasediments over a buried intrusion.

A field crew from Cyprus Anvil Mining Corp. Ltd. was active in the district during the FJV program, staking the Money 1-32 claims immediately north on July 11 and the BL group within the Denim area on August 4, both on weak geochemical anomalies. Because of the competition, the FJV crew staked a copper-gold showing on August 4 as the Pneumonia 1-16 claims. However, when assays were lower than hoped, the claims were not recorded.

## LOCATION AND ACCESS

The FJV crew prospected and collected soil samples in overburden areas from two flycamps. Access was achieved with a Bell 206B (Jet Ranger) helicopter chartered from Frontier Helicopters of Watson Lake. The Pneumonia showing occurs at 61°14'N, 130°13'W, 90 miles northwest of Watson Lake, as shown on the location map on Figure 1 (following page). The nearest lakes suitable for fixed wing aircraft are Fyre Lake, twelve miles west of the Pneumonia showing, and an unnamed lake eight miles to the west.

GEOLOGY

Regional

A complex stock about six miles long and four miles wide, the long axis of which strikes easterly, is the dominant feature of the project area (see Figure 1 following page 1). The stock ranges in composition from biotite granite to quartz monzonite to hornblende diorite, has been assigned a Jurassic or Cretaceous age by the G.S.C., and intrudes metasediments of unknown (probably early Paleozoic) age. The intrusion is bounded by fault contact in many places and has obviously been emplaced forcefully into its present position.

A slightly smaller granodiorite intrusion occurs about five miles northeast of the main stock, while a small area of unmapped intrusive float was found by prospecting in 1973 about 3.5 miles east of the main stock. This led to the discovery of more unmapped intrusive rock during 1975 in the low-lying area in between.

In addition to the acid plutons, several alpine-type ultrabasic bodies occur in the map-area and one local area of simple pegmatite dikeing has been mapped. The ultrabasic bodies are typically small and composed of dark green fine-grained peroxenite and its serpentized equivalent. One such body is suspected at depth on the Pneumonia claims from the presence of a garnierite-bearing altered carbonate zone, although no ultrabasic rock was found on surface.

The oldest rocks in the project area are chlorite schist, phyllite, quartzite and gneiss of unknown age. Foliations vary widely and the details of the structure have not been worked out.

GEOCHEMISTRY

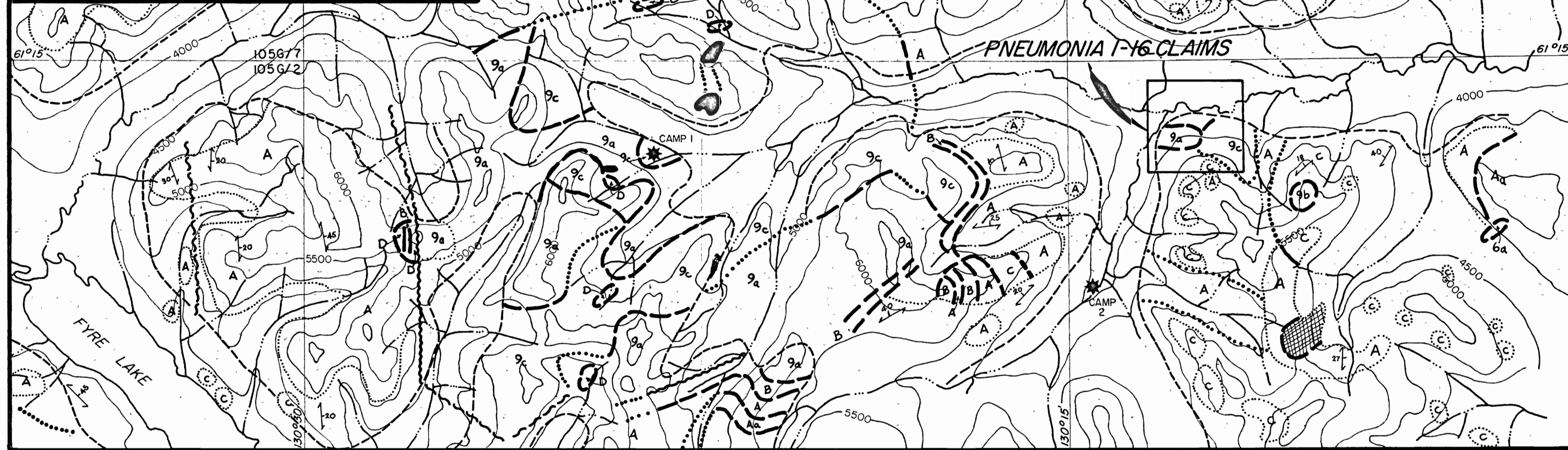
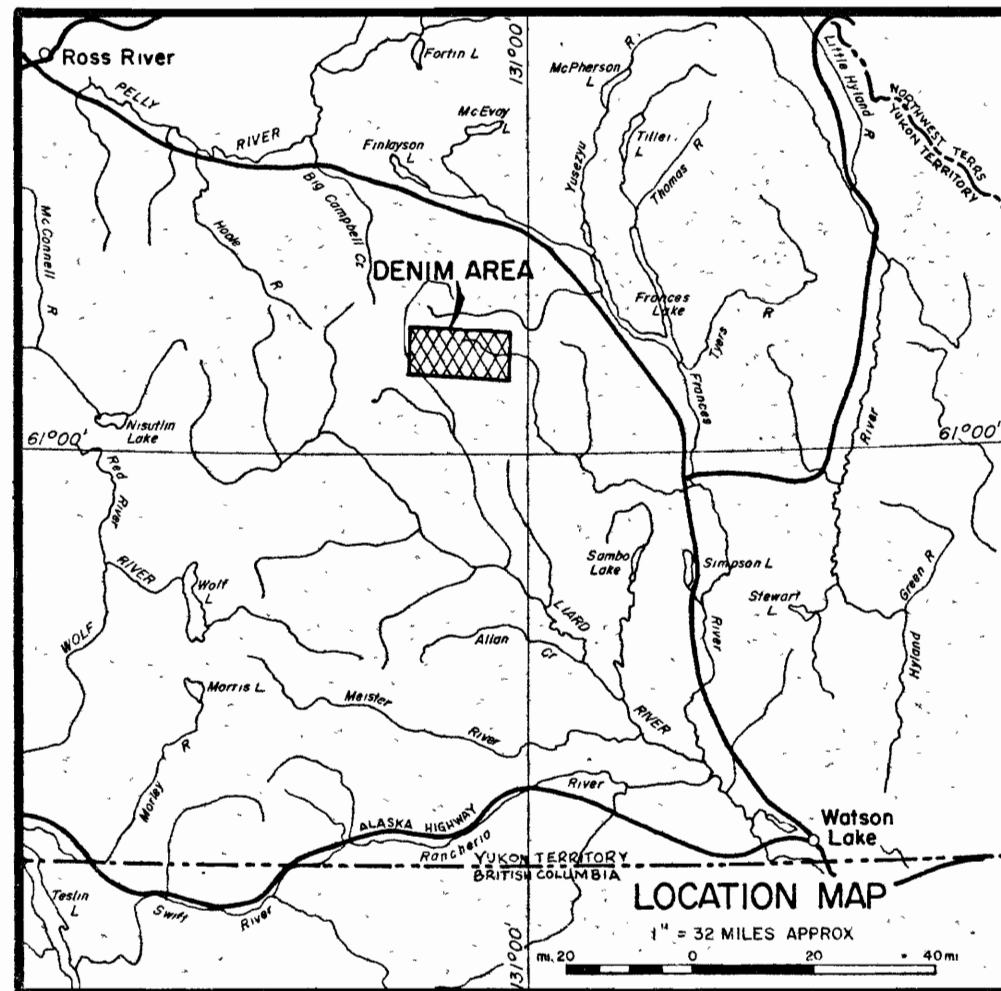
Unusually high assays were obtained from the Denim area east of the Pneumonia claims in 1973. Soil samples taken in and around pyritic gossans in quartzite assayed up to 574 ppm Cu, 65 ppm Mo, 362 ppm Pb and 1120 ppm Zn. Response from the Capsup showing ranged up to 400 ppm Cu and 7 ppm Mo in silts and 480 ppm Cu and 4 ppm Mo in soils. In the 1975 sampling (see Figures 2 and 3 on following page) copper response ranges up to 320 ppm but no significant anomalies were obtained. In general, higher values were obtained in areas with fairly good exposure and near known mineralization. An area of higher response in all metals that occurs west of the Denim anomaly and south of the Pneumonia showing is apparently caused by pyritic zones in unit A.

After gold assays of 0.10 and 0.16 oz/ton were received from weakly mineralized rock from the Pneumonia showing, 262 of the nearby soil samples collected in 1973 and 1975 were reanalyzed for gold. Only four samples (all 1973) assayed above the detection limit of 15 ppb - two collected near pyritic gossans east of the Pneumonia showing each assayed 50 ppb, while one soil immediately east of the Catsup showing assayed 205 ppb. These values are too erratic to warrant follow-up.

MINERALIZATION

Trace amounts of chalcopyrite were found at several locations in 1975 and these are plotted on Figure 1. Most of these occur in intrusive rocks or in veins near intrusive contacts.

The Pneumonia showing consists of malachite, garnierite and pyrite in altered and strongly contorted buff carbonate rocks (see Figure 4 on following page). The main exposure is 100 feet by 400 feet, while a smaller outcrop 15 feet square was found 800 feet east. Outcrop in the area is very poor because of its location low in the main valley, about 1000 feet south of the



**GEOLOGY**

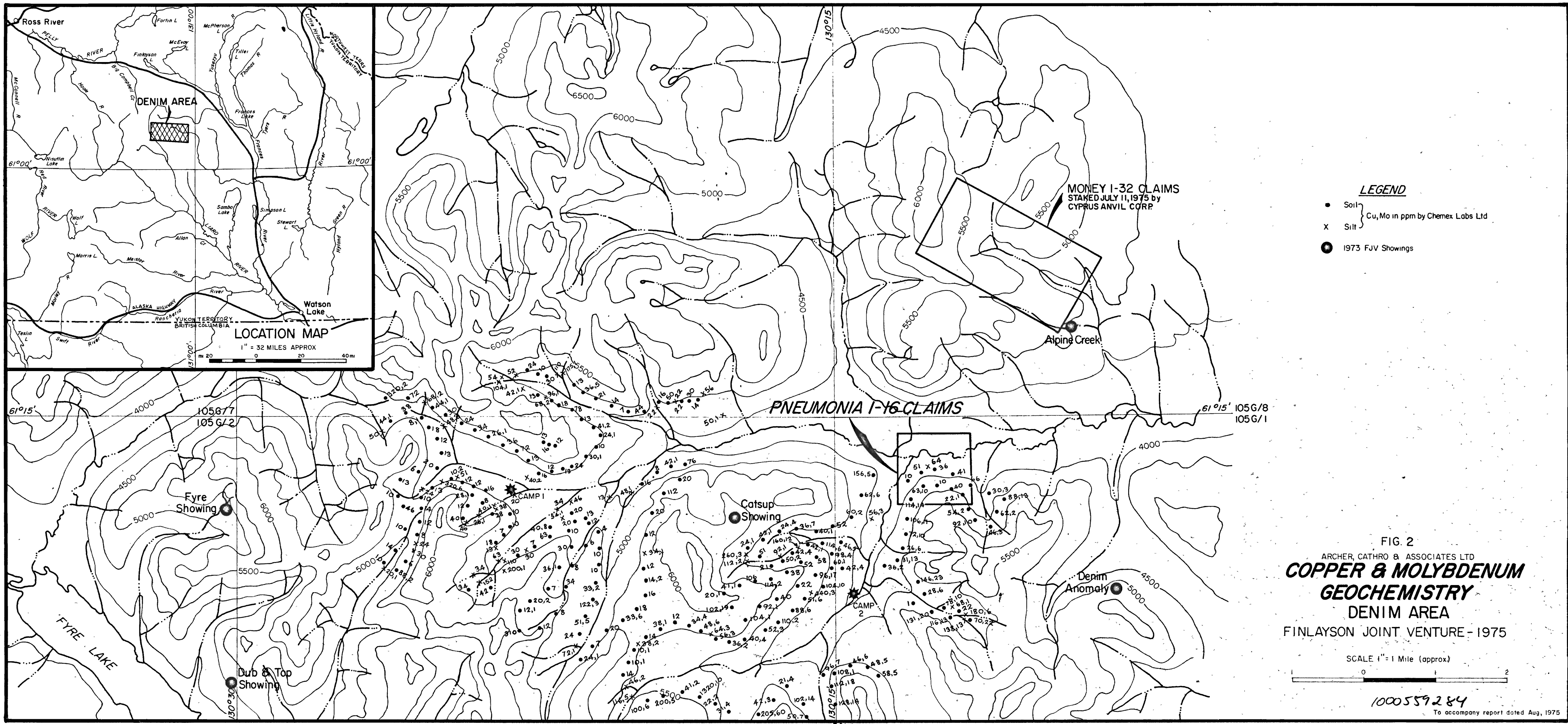
9a	Coarse grained biotite granite
9b	Medium to coarse grained, biotite granodiorite and quartz monzonite.
9c	Medium to coarse grained hornblende diorite
9d	Light grey to green quartz feldspar porphyry
JURASSIC and/or CRETACEOUS	
6a	Dark green massive and foliated volcanics
6d	Massive grey limestone
MISSISSIPPIAN (?) OR EARLIER	
A	Chlorite schist, black phyllite with minor veins and lenses of white quartz and calcite
Aa	Grey to black phyllite quartzite associated with unit A
AGE UNKNOWN	
B	Thin bedded to massive grey crystalline marble and limestone associated with unit A and C.
Ba	Scapolite plagioclase calcite skarn, minor garnet, diopside skarn
C	Biotite, muscovite quartz feldspar gneiss, chloritic in part, garnets rare, feldspar augen gneiss, contain white quartz veins and lenses
D	Black to dark green fine grained ultramafic pyroxenite, serpentized equivalents.

**LEGEND**

○	Limit of outcrop	↗	Inclined foliation
○	Mapped outcrop	~	Assumed } Fault
.....	Assumed	~	Defined } Fault
- - - - -	Approximate Geological Boundaries	★	FJV Camp 1975
— — — — —	Defined Geological Boundaries	▣	Gossan
↕	Vertical foliation	◊	Pegmatite

FIG. 1  
 ARCHER, CATHRO & ASSOCIATES LTD  
**GEOLOGY**  
 DENIM AREA  
 FINLAYSON JOINT VENTURE - 1975  
 SCALE 1" = 1 Mile (approx.)  
 1000559284  
 To accompany report dated Aug, 1975



**LEGEND**

- Soil } Cu, Mo in ppm by Chemex Labs Ltd
- × Silt }
- 1973 FJV Showings

**LOCATION MAP**

1" = 32 MILES APPROX  
 0 20 40 mi

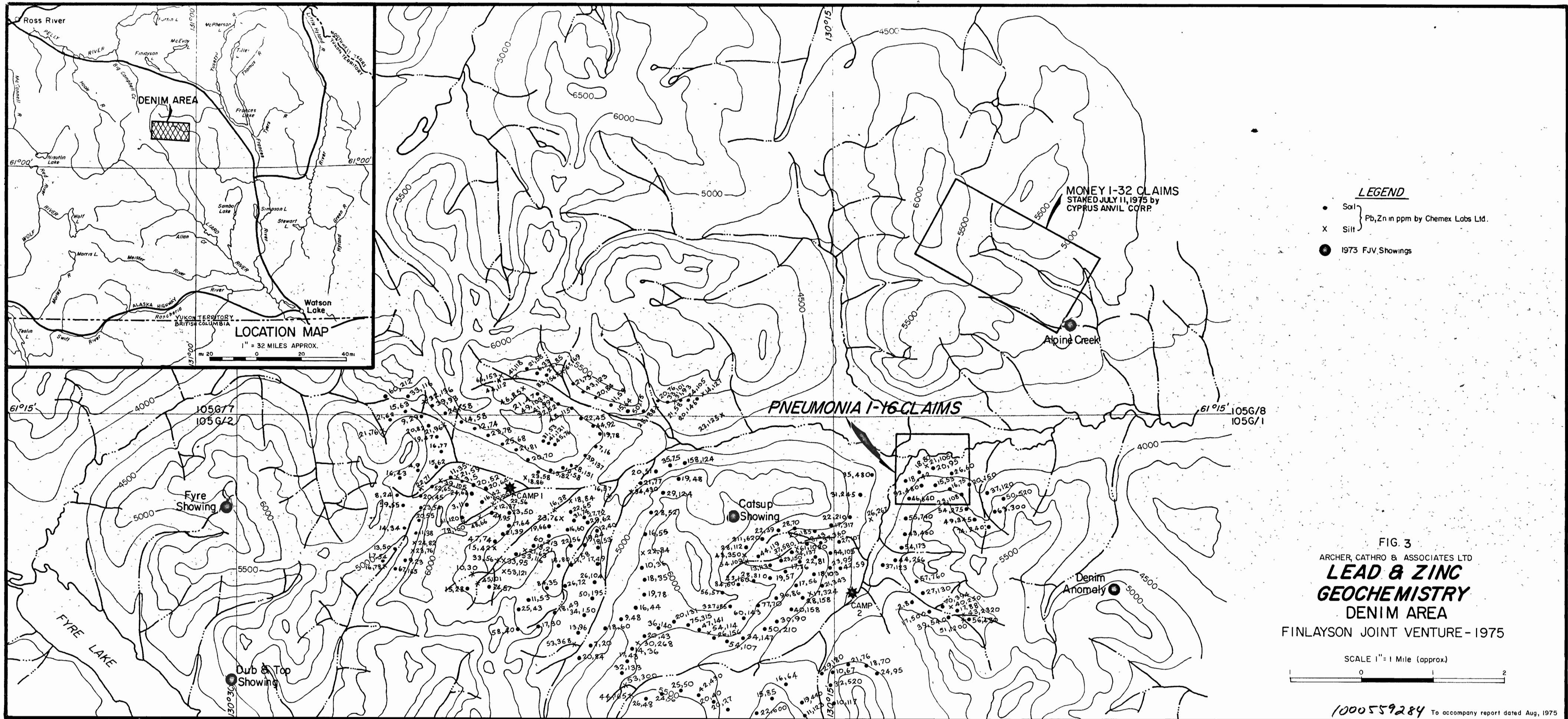
FIG. 2  
 ARCHER, CATHRO & ASSOCIATES LTD  
**COPPER & MOLYBDENUM  
 GEOCHEMISTRY**  
 DENIM AREA  
 FINLAYSON JOINT VENTURE - 1975

SCALE 1" = 1 Mile (approx)



1000559284

To accompany report dated Aug, 1975



**LEGEND**

- Soil } Pb, Zn in ppm by Chemex Labs Ltd.
- x Silt }
- 1973 FJV Showings

**LOCATION MAP**

1" = 32 MILES APPROX.

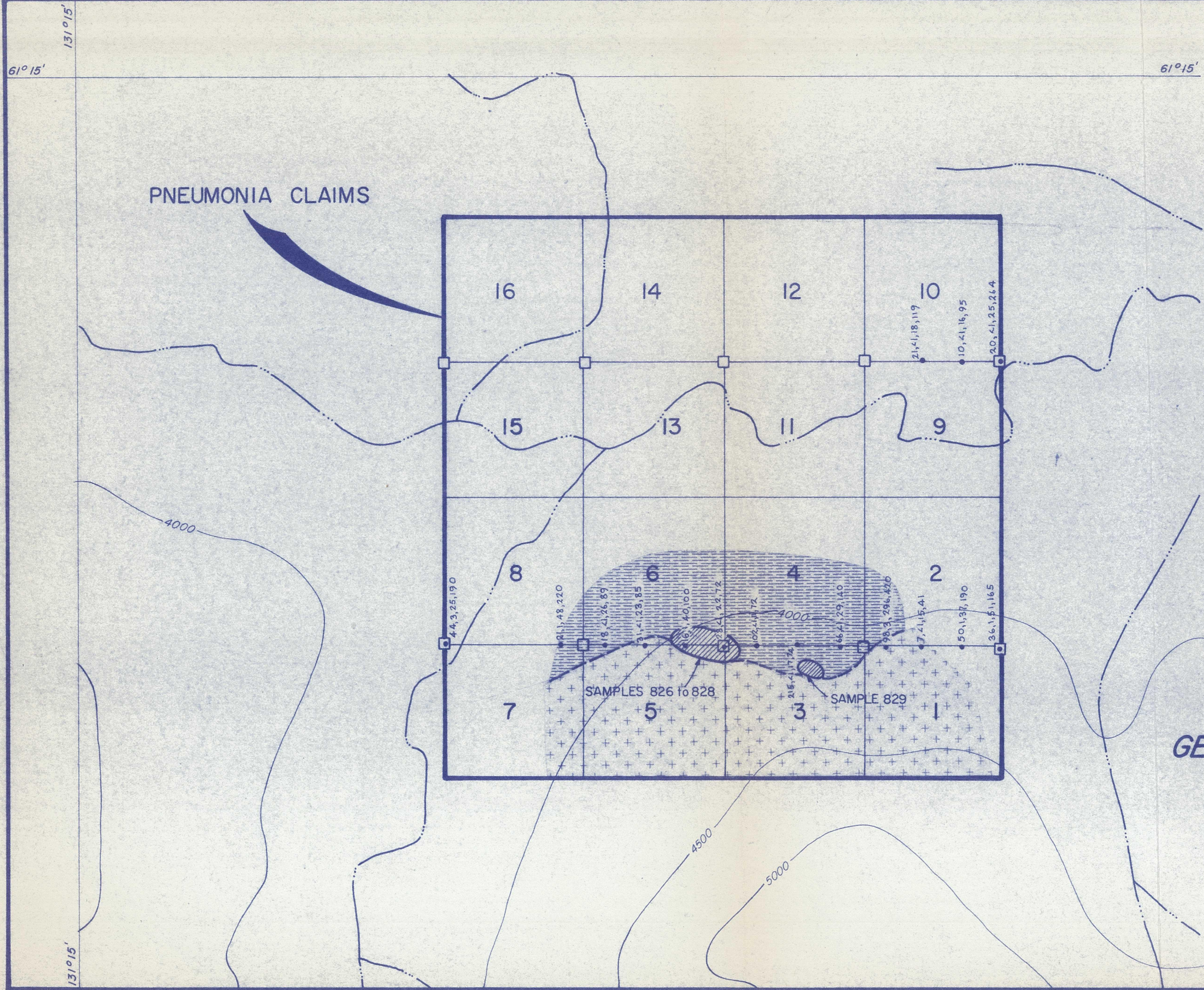


FIG. 3  
 ARCHER, CATHRO & ASSOCIATES LTD  
**LEAD & ZINC  
 GEOCHEMISTRY**  
 DENIM AREA  
 FINLAYSON JOINT VENTURE - 1975

SCALE 1" = 1 Mile (approx.)



1000559284 To accompany report dated Aug, 1975





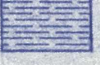

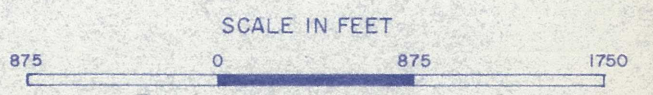
-  Foliated hornblende diorite, grades to biotite granite in places.
-  Garnierite skarn
-  Chlorite schist
-  Soil-Cu, Mo, Pb, Zn in ppm by Chemex Labs Ltd.

FIG. 4  
 ARCHER, CATHRO & ASSOCIATES LTD.  
**GEOLOGY & Cu, Mo, Pb, Zn**  
**GEOCHEMISTRY**  
 PNEUMONIA CLAIMS  
 DENIM AREA  
 FINLAYSON JOINT VENTURE - 1975



main east-flowing creek. This altered zone appears to be bounded to the south by an unmapped intrusion up to a mile long composed of biotite granite and hornblende diorite, and by a light grey green to dark green chlorite schist on the north..

Four samples of the mineralization were assayed as follows:

<u>Sample No.</u>	<u>Gold (oz/ton)</u>	<u>Silver(oz/ton)</u>	<u>Copper (%)</u>	<u>Description</u>
826	.005	.04	.02	150' long chip sample - main show
827	.01	.36	.02	weak alteration - main showing
828	.10	TR	.01	selected specimen - main showing
829	.16	.02	.01	selected specimen-smaller east showing

All four samples were also analyzed spectrographically and a copy of the certificate is shown on the following page. The presence of nickel and cobalt confirms that garnierite is present with the malachite. Although no nickel bearing ultrabasic rocks were found, this type of alteration is commonly associated with them and the ultrabasic probably occurs at a shallow depth.

A check assay on a second split from sample 829 assayed only .005 oz/ton Au, and assays of seven additional rock specimens from the vicinity of the showing returned less than 0.005 oz/ton Au and 0.36 oz/ton Ag. The high gold assays originally received on sample 828 and 829 are considered spurious.

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES LTD.



A.R. Archer

ARA:st



WM. GERRIE, M.A.  
D. KERR-LAWSON, B.A., PH.D.

# CORRELATION LABORATORIES LTD.

M. E. WELLER, B.A.  
H. E. WELLER

R.R. 6 COBDEN, ONTARIO      PHONE 646-7448 (AREA 613)

## CERTIFICATE OF ANALYSIS No. 11144      Aug. 21, 1975.

We have analysed spectrographically      4      samples of      pulp  
Received Aug. 14      and submitted by Whitehorse Assay Office Ltd.  
with the following results:

- |       |                       |               |             |              |
|-------|-----------------------|---------------|-------------|--------------|
| CODE: | 1. Tr. Less than .01% | 4. .02 to .1% | 7. .2 to 1% | 10. 2 to 10% |
|       | 2. .005 to .03%       | 5. .05 to .3% | 8. .5 to 3% | 11. 5 to 30% |
|       | 3. .01 to .05%        | 6. .1 to .5%  | 9. 1 to 5%  | 12. Over 10% |

All listed elements were sought, blank spaces designate "not detected."

9170-4	00826	00827	00828	00829	<i>Archer + Cathro</i>
	75-10	75-11	75-12	75-13	

Antimony				
Arsenic				
Barium	4	7		
Beryllium				
Bismuth				
Boron				
Cadmium				
Chromium	5	2	5	5
Cobalt	2	1	1	2
Copper	2	2	1	1
Gallium		1		
Germanium				
Indium				
Lead	1	1	1	2
Iron	10	11	10	10
Lithium				
Manganese	5	6	5	5
Mercury				
Molybdenum				
Nickel	6	3	5	6
Niobium				
Rare Earths				
Yttrium				
Lanthanum				
Silver				
Thorium				
Tin				
Titanium	6	7	2	2
Tungsten				
Uranium				
Vanadium	2	3		
Zinc				
Zirconium	1	1		

*H. W. Weller*