

015998

Evaluation of the FAT Claims

Sheet 105 K-6 and 105 K-7

Whitehorse Mining District, Y. T.

for

Cyprus Anvil Mining Corporation

by

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27 March 1975

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## INTRODUCTION

In the spring of 1974 a group of 130 FAT claims was staked to cover a combination of a Government airborne magnetic anomaly and soil geochemical anomalies indicated by reconnaissance soil sampling carried out by Anvil in late 1973. The claims cover schists and phyllites, similar to those in which the Faro orebodies occur on the south side of the Anvil Batholith, and part of the batholith itself.

During the summer of 74 an 800'x100' grid was cut over the main areas of interest and further soil geochemical surveys, Turam E.M. and ground magnetometer surveys carried out. Gravity profiles were run over selected E.M. conductors where E.M./magnetic associations were best developed. The FAT grid overlaps previous work by Jay Explorations Ltd. in which a detailed gravity survey was made. Neither the Cyprus Anvil nor Jay gravity surveys revealed excess mass indicative of large sulphide bodies.

As relocated by the new grid, anomalies on the 1973 soil reconnaissance survey, which were originally considered to be partly coincident with the airborne magnetic highs over phyllitic rocks, in fact overly granitic country rocks south and west of the magnetic highs. The geochemical anomalies are considered to be a reflection of higher background for lead and zinc in the batholith, with local highs attributable to late stage lead-zinc in quartz veins of no economic significance. A new geochemical anomaly established late in the program, in the southwestern section of the claim block, and apparently overlying metasediments, was not adequately covered by the geophysical surveys carried out.

No high priority drill targets were established on the FAT claims by the 1974 work.

## LOCATION AND ACCESS

The FAT claims are located 15 miles northeast of the town of Faro and 12 miles due east of the Anvil Mine, on claim sheets 105 K-6 and 105 K-7, Whitehorse Mining District, (lat. 62°22'N, long. 133°00'W).

Access is by helicopter from either the mine or Faro.

## CLAIMS

The claim group consists of 130 full sized mineral claims listed below immediately adjacent and east of the Cyprus Mines Corporation Mount Mye property.

<u>Claim Name</u>	<u>Tag Nos.</u>	<u>Expiry</u>
FAT 1-130	Y78290-Y78419	5 April 1975

Sufficient work is in hand to file up to two years work on each claim prior to the grace period of 14 days from 5 April 1975. It is recommended that two years be filed over a central block of interest as outlined on the accompanying map, all other claims being allowed to lapse.

## HISTORY

The claims were staked over favourable phyllites and schists on the north flank of the Anvil Batholith in spring 1974, to cover a strong bilobate airborne magnetic anomaly and apparently coincident soil geochemical anomalies obtained by Anvil in late 1973.

## GEOCHEMICAL SURVEYS

The original Anvil reconnaissance soil geochemical survey was directed to cover a previously unworked gap in overall stakings north of the batholith, and an airborne magnetic anomaly indicated on Federal Survey maps.

A large area of anomalous lead-zinc values was indicated as being partly coincident with the magnetics and the claims were staked on this premise. Subsequent grid surveys and rechecking of soil values on an 800'x100' grid showed that the 1973 reconnaissance grid was located south and east of its plotted position and the anomalies obtained were underlain by granitic rocks of the batholith. Rock chips of granitic material in the vicinity of this anomaly indicate a high background, up to 500 ppm of both lead and zinc, probably originating from late quartz vein mineralization common to the north margin of the batholith.

At a late stage in the field program it was realized that the southwestern section of the claims had neither been covered by the original 1973 reconnaissance survey nor the 1974 geochemical check grid, which was soil sampled only to cover and recheck the original anomalous area. This work revealed a significant lead-zinc anomaly apparently overlying schists, which has not been adequately explored.

While the values overlying granite on the FAT claims are anomalous by comparison to samples overlying schist and phyllite, it should be noted that the intrusive material forming the batholith margin has a much higher background and that minor lead-zinc bearing quartz veins are a common occurrence. Isotopically the galena from this source is markedly different and younger than the galenas from the Faro deposits.

The valley anomaly overlying schists and phyllites may be a transported anomaly showing up in the swampy valley floor, related to vein galena and sphalerite in the surrounding rocks. This certainly appeared to be the case with a similar anomaly to the west on the Mount Mye ground. However, because of its location and potential significance further work is required before this anomaly can be written off.

### GEOPHYSICAL SURVEYS

Turam electromagnetic and ground magnetic surveys were run over the 800' spaced grid covering the airborne mag and areas of metasediments adjacent to the 1973 geochemical high, over granitic intrusives. Two strong conductors reflecting partially outcropping graphitic horizons are associated with variable magnetic responses and are traceable northeast and southwest into the Lisa and Mount Mye (Cyprus Mines Corporation) properties.

Gravity profiles were run over three selected lines covering magnetic and E. M. responses, but no indication of mass excess was noted. A previous grid and gravity survey carried out by Jay Explorations, partly overlaps the Cyprus Anvil grid. A replot of this data does not show areas indicative of massive sulphides.

### INTERPRETATION OF RESULTS

The geochemical high values as relocated over granitic material, are not particularly anomalous for the batholith terrain and local highs are probably associated with late lead-zinc quartz vein structures in the

granite. However, the geochemical lead-zinc anomaly overlying schist and phyllite in the southwest corner of the claim block requires further evaluation. The E.M. conductors are clearly associated with previously mapped graphitic horizons. The magnetic responses are anomalous and are as yet unexplained, except that disseminated pyrrhotite in phyllites along strike gives rise to similar magnetic highs. Drilling of such targets immediately to the west of the Mye ground did not reveal any associated base metals with the pyrrhotite.

No geochemical anomalies are indicated in the vicinity of the geophysical anomalies.

### CONCLUSIONS AND RECOMMENDATIONS

Work to date on the FAT claims covered by geophysical surveys indicates no near surface massive sulphide deposits. Overburden is erratic, but not unduly thick, and any significant base metal deposit should give rise to a recognisable geochemical response and in this respect the grid extension anomaly is worthy of further investigation. The magnetic and E.M. anomaly profiles indicate a shallow source, which if associated with economic mineralization should equally give rise to a geochemical response.

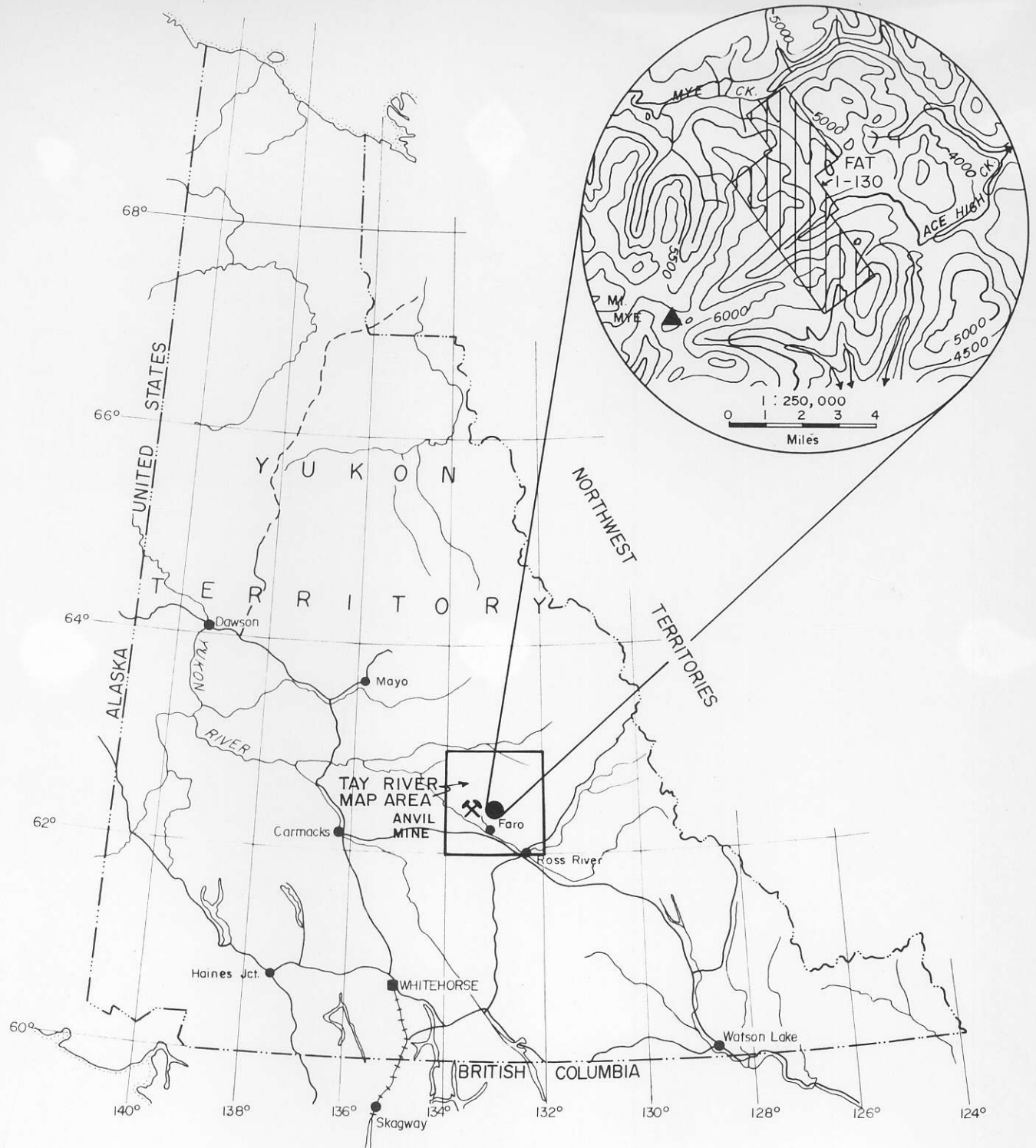
As with the previously investigated Mount Mye and Lisa ground the schist phyllite sequence north of the batholith does not appear to host significant near surface deposits and deep drill testing for geological targets would not seem to be appropriate at the present time. If the Faro orebodies are representative of distal volcanogenic deposits it may be that the present location of the FAT, MYE, LISA claims is closer to the volcanic source, and zinc-copper deposits in volcanic breccia and volcanic exhalite facies as at the KD deposit on the MYE claims and the DANA claims are more appropriate targets.

Retention of a central block of claims covering the E.M. /mag responses and extension geochemical anomaly is recommended pending geophysical profiling over this anomaly.

Respectfully submitted,

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J. G. Simpson,  
Exploration Manager



**CYPRUS ANVIL MINING CORPORATION**

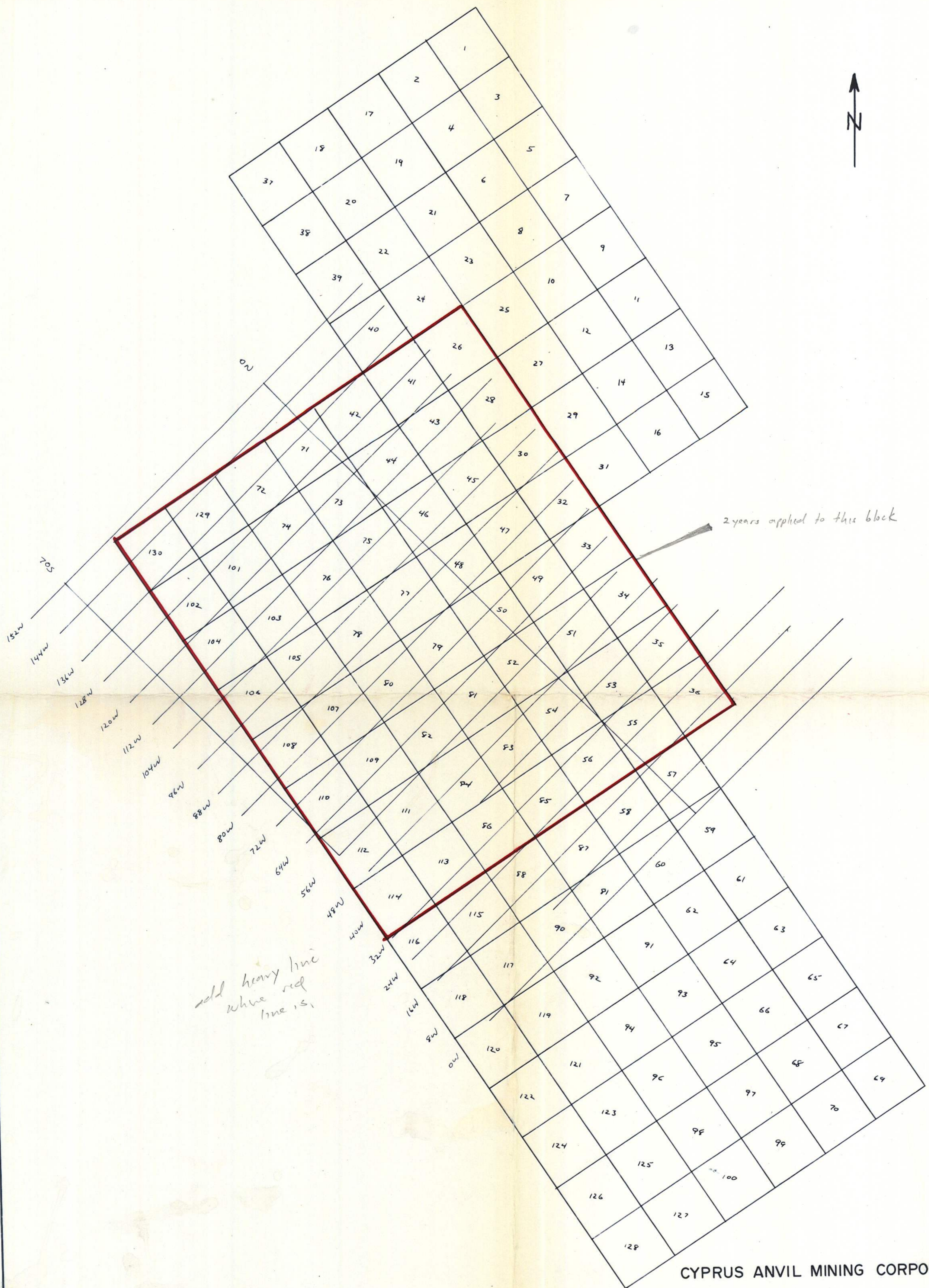
**FAT CLAIMS**

**PROPERTY LOCATION MAP**

YUKON

SCALE: 1" = 100 MILES

Figure 1



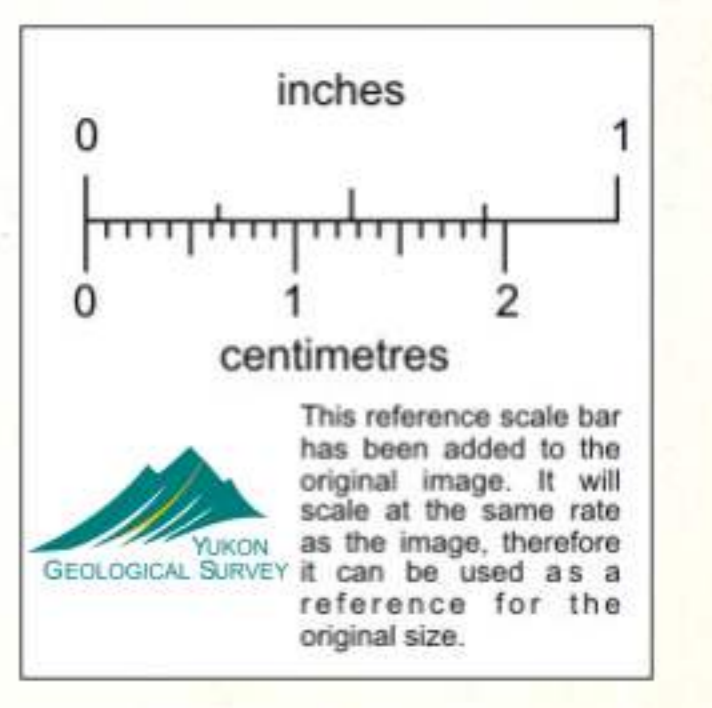
2 years applied to this block

old heavy line  
white ref  
line is

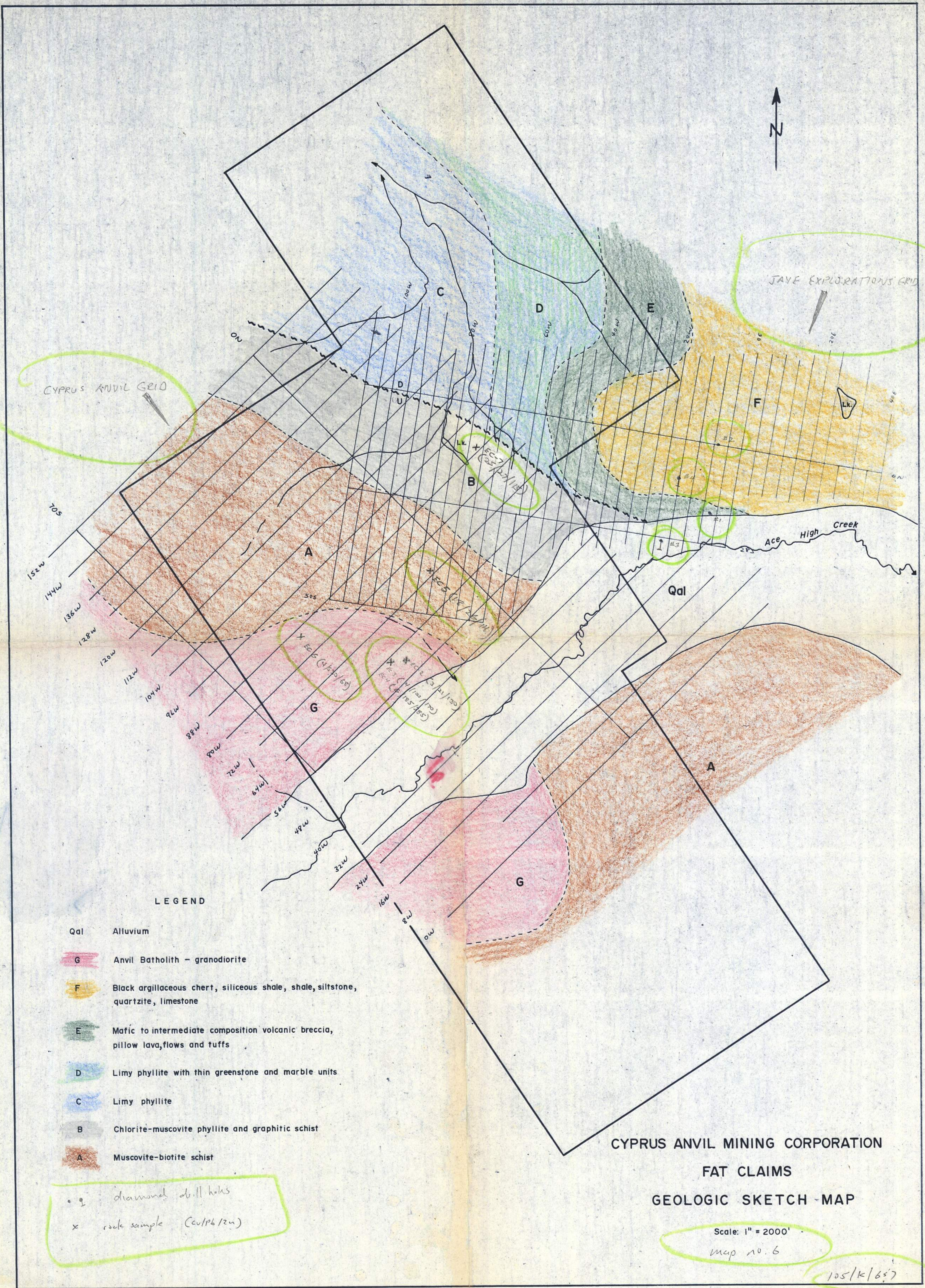
CYPRUS ANVIL MINING CORPORATION

FAT CLAIMS  
CLAIM MAP

Scale: 1" = 2000'  
map no. 1



105/10/6:7



LEGEND

- Qal Alluvium
- G Anvil Batholith - granodiorite
- F Black argillaceous chert, siliceous shale, shale, siltstone, quartzite, limestone
- E Mafic to intermediate composition volcanic breccia, pillow lava, flows and tuffs
- D Limy phyllite with thin greenstone and marble units
- C Limy phyllite
- B Chlorite-muscovite phyllite and graphitic schist
- A Muscovite-biotite schist

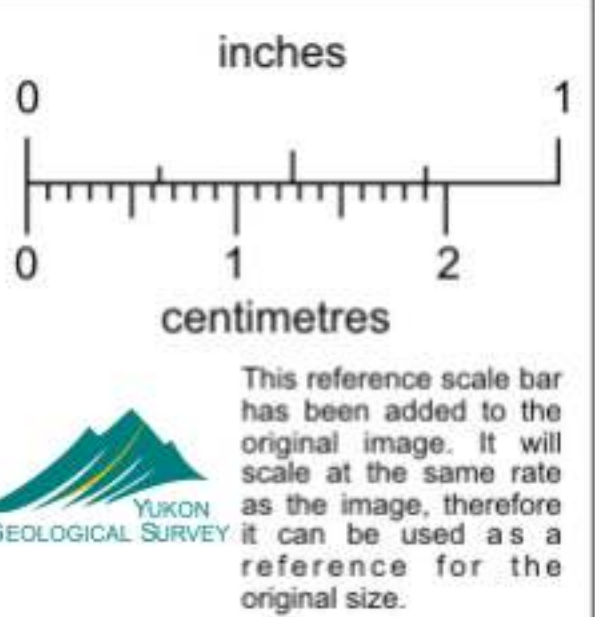
- g diamond drill holes
- x rock sample (Cu/Pb/Zn)

CYPRUS ANVIL MINING CORPORATION  
FAT CLAIMS  
GEOLOGIC SKETCH - MAP

Scale: 1" = 2000'

map no. 6

105/K/657



*add the contacts etc I rubbed out  
add drill holes - add rock samples*



CYPRUS ANVIL GRID

JAYE EXPLORATIONS GRID

70S

152W

144W

136W

128W

120W

112W

104W

96W

88W

80W

72W

64W

56W

48W

40W

32W

24W

16W

8W

0W

EM Conductor axes

--- 1974 Tuam

..... 1966 Vertical loop

Magnetic Anomalies

> 2000  $\gamma$

1800 - 2000  $\gamma$

< 1400  $\gamma$

Geochemical anomalies

Pb (i generally > 50ppm)  
(z > 200ppm)

Zn (i generally > 100ppm)  
(z > 300ppm)

Diamond drill hole

• #1 ( ) vertical  
• #2 ( ) inclined

SCHISTITE  
-  
GRANITE

add rock names on either side of contact

add contact fine line long dashes (i.e. ---)

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FAT CLAIMS

COMPILATION MAP

Scale: 1" = 2000'

map no 7

105/K/657

