

A REPORT ON A GEOCHEMICAL SURVEY

ON THE GREGGIE CLAIMS

Watson Lake Mining Division
Yukon Territory



Located 100 km ENE of Ross River

Latitude: 62°14'N

Longitude: 130°25'W

Claim Sheets 105-J 1 and 8



BY

Gregg A. Jilson

CYPRUS ANVIL MINING CORPORATION

October 1980

090680

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 \$ 6,000.00.

[Handwritten Signature]

Resident Geologist or
Resident Mining Engineer

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

[Handwritten Signature]

B. R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory



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A REPORT ON A GEOCHEMICAL SURVEY
ON THE GREGGIE CLAIMS

INTRODUCTION

From August 21 to September 4, 1980 linecutting and a soil geochemical survey was carried out on the Greggie claims, Watson Lake Mining Division, Yukon. The property is a lead-zinc prospect situated near the contact between Hadrynian to lower Cambrian "Grit Unit" and lower Paleozoic formations. A Paleozoic or younger mafic intrusive body is located just southwest of the claim block. On the 40 claim block 10.9 km of linecutting and 32 line km of soil sampling were carried out. The soil geochemical survey outlined several small, very discontinuous and generally weak, noncoincident Cu + Zn and Pb anomalies. The area of the geochemical anomalies should be carefully prospected; however, beyond that no further work on the property can be justified at this time.

LOCATION AND ACCESS

The Greggie claims are located 110 km ENE of Ross River on the north side of the Pelly River 10 km downstream from Wolf Canyon. The claims straddle the boundary of claim sheets 105-J-1 and 105-J-8 at latitude $62^{\circ}15'N$ and longitude $130^{\circ}25'W$.

Access to the claim block is best gained by helicopter from Ross River. The nearest large lakes suitable for float planes are the Pelly Lakes 20 km to the south or an unnamed lake 10 km to the east.

CYPRUS ANVIL

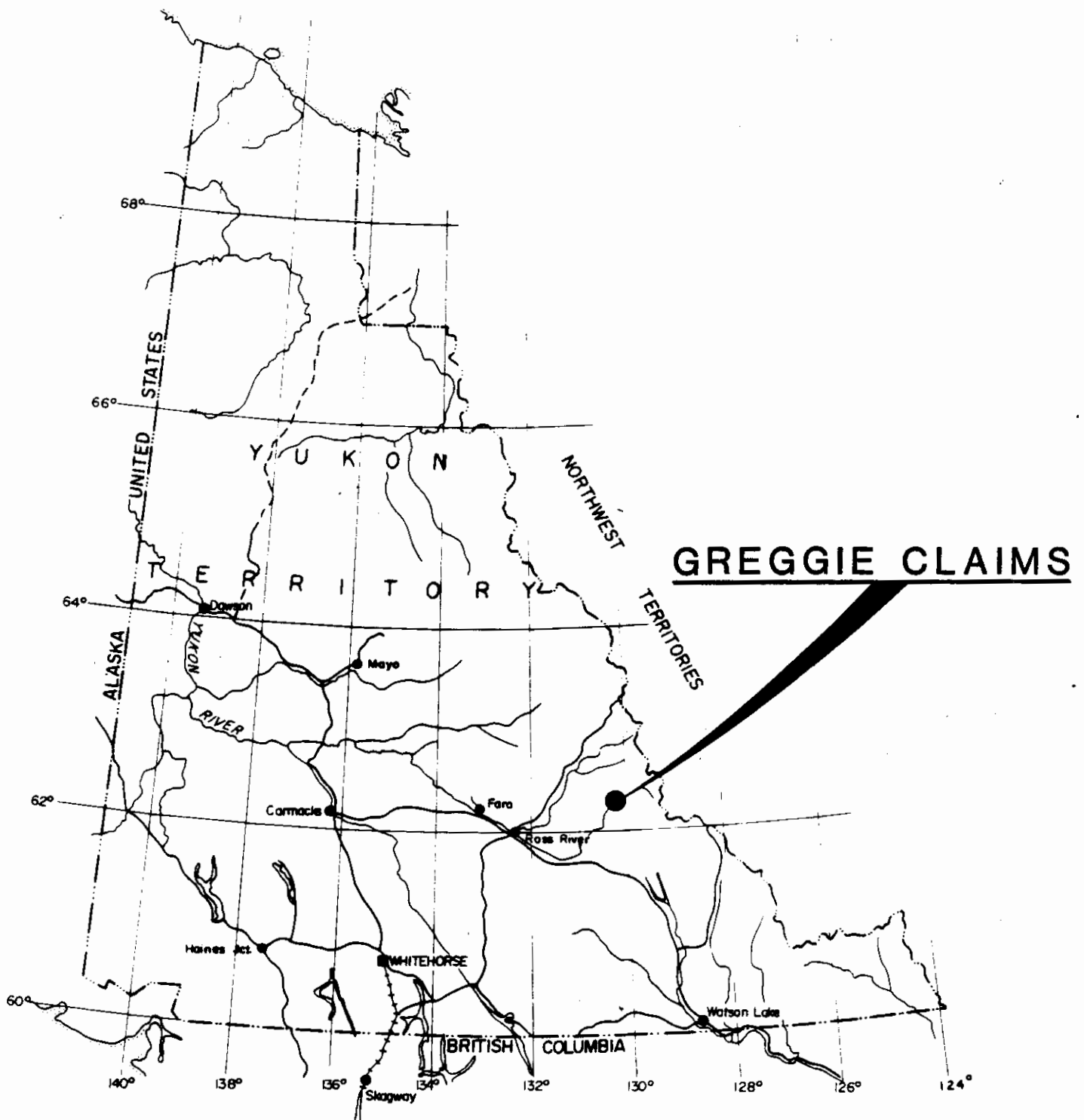


FIGURE 1
**CYPRUS ANVIL MINING CORPORATION
 LOCATION MAP**

YUKON
 SCALE: 1" = 100 MILES

HISTORY

*
The Greggie 1-40 claims were staked in September 1979 following a program of regional geological mapping and geochemical silt sampling. The program was designed to define and then explore the stratigraphic horizon at which the massive sulfide deposits of the Anvil Range, 150 km to the west, occur. This preliminary work showed a moderate lead-zinc geochemical anomaly in a stream draining this horizon adjacent to a moderate airborne magnetic anomaly. To the writer's knowledge the area had not been staked previously.

CLAIMS

The Greggie claims consist of 40 full sized claims registered with the Mining Recorder in Watson Lake, Yukon. The claims are jointly owned by Cyprus Anvil Mining Corporation (51%) and Hudson's Bay Oil and Gas (49%).

<u>Claim Name</u>	<u>Grant Number</u>	<u>Record Date</u>	<u>Expiry Date</u>
Greggie 1-40 inclusive	YA46097-136 inclusive	Sept. 24/79	Sept. 24/80

This report is in support of applications for certificates of work filed in September for 1½ years on each claim.

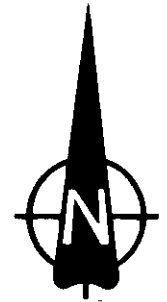
GEOLOGY

The property has not been mapped since it was acquired, thus this description is based on the regional reconnaissance mapping which lead to the staking. It must be emphasized that this work is of a very preliminary nature. Figure 3 is an excerpt from 1:50,000 scale outcrop maps that cover the claim area.

The northeastern portion of the claim block is underlain by variably calcareous, medium-grained, poorly sorted quartz + feldspar sandstones

* The author wishes to make clear at the outset that he was not involved in the staking or naming of this claim group.

130°24'



PELLY RIVER

62° 15'

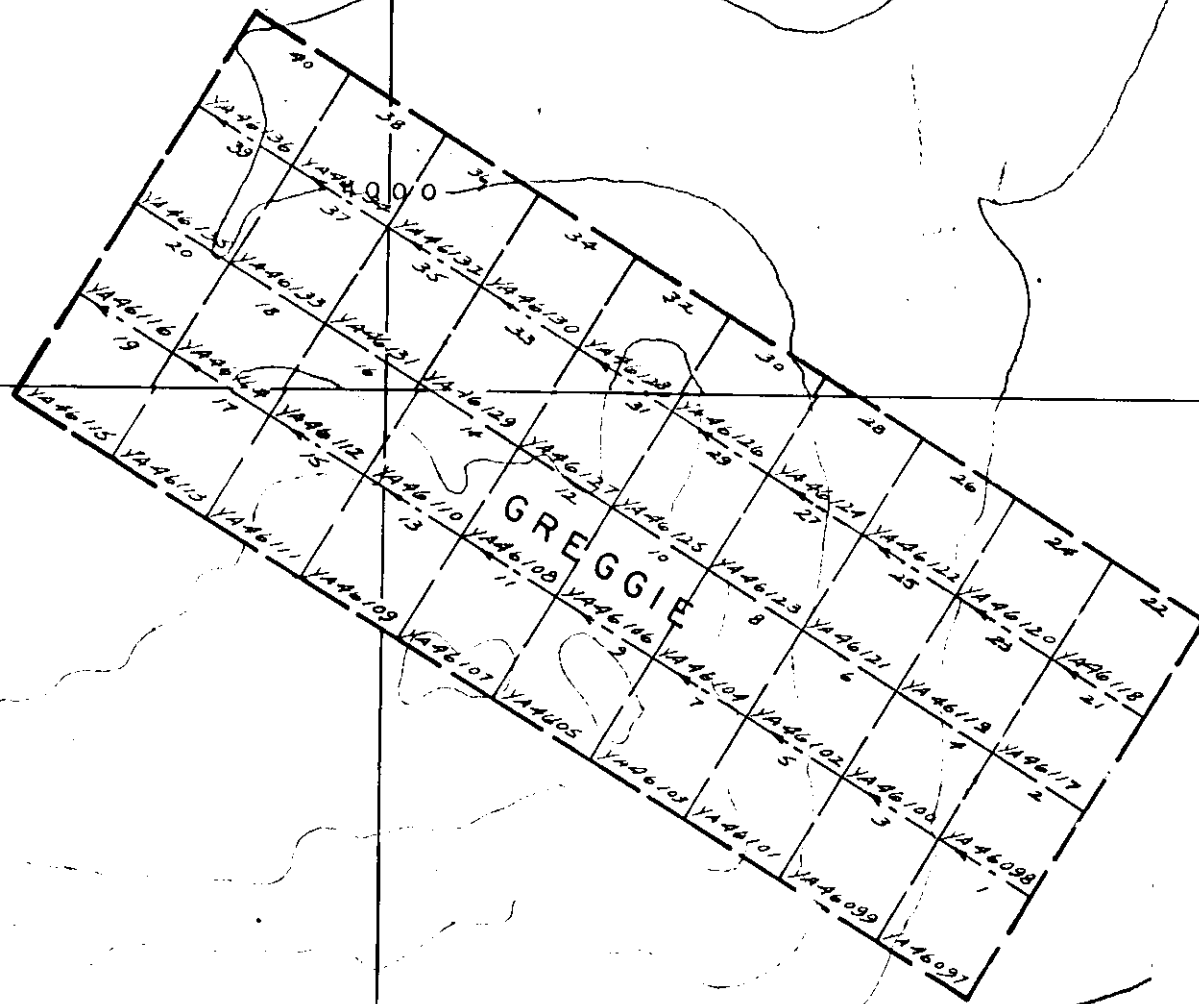


FIGURE 2

CYPRUS ANVIL MINING CORPORATION	
GREGGIE CLAIMS	
WATSON LAKE M.D. Y.T.	
CLAIM MAP	
NTS: 105-J-188	DATE: SEPT. 23, 1980
SURVEY BY:	
DRAWN BY: r.w.f.	Scale 1"=2640' approx.

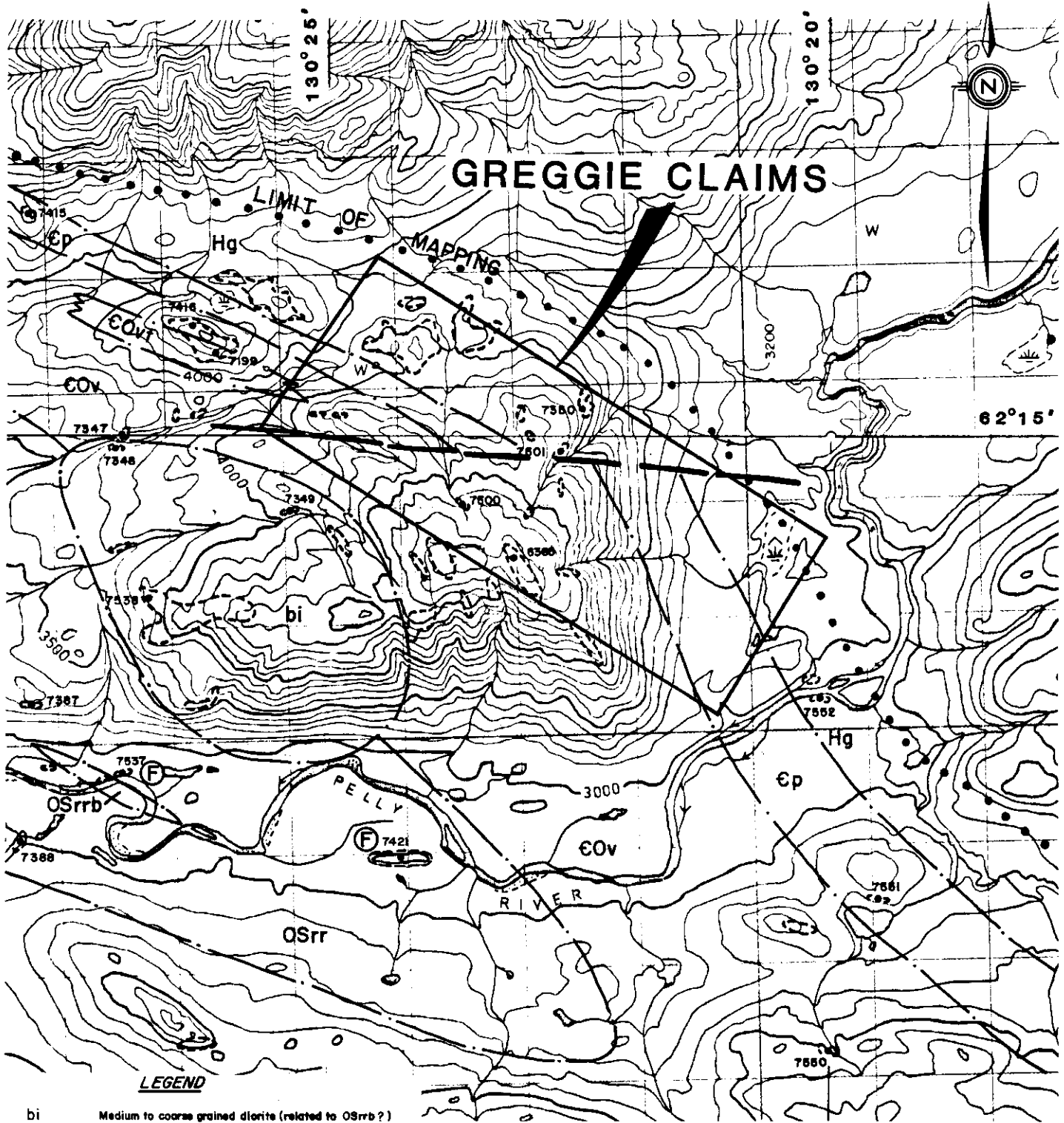
and red, maroon and green slates typical of the "Grit Unit".

Not cropping out on the property but generally overlying these "Grit Unit" lithologies in the vicinity are medium grey, greenish grey and black thinly bedded phyllites and phyllitic siltstones. These phyllites are non-calcareous and generally lack significant interbedded coarser clastics. This unit is presumed to be lower Cambrian and equivalent to the Mt. Mye formation of the Anvil Range. The unit seems quite thin in the Pelly Lakes region perhaps due either to truncation by the Sub-Rabbitkettle formation or original non-deposition over the Sheldon Arch only a few miles to the northeast of the claims.

Overlying these pelitic rocks is a sequence of medium grey silty phyllitic limestone and calcareous phyllite similar to the Rabbitkettle formation further northeast and also similar to the Vangorda Formation of the Anvil Range. The unit contains minor thin bedded green, probably tuffaceous, rocks similar to those in the Anvil Range. In the region thin metabasite lenses are also found in the Vangorda Formation.

This calcareous pelitic unit is the youngest formation exposed on the claim block but is overlain a few miles to the southwest by black graptolitic shale and chert of the Road River formation. The Road River formation has interlayered thin metabasite lenses suggesting some distal equivalents of the more proximal volcanic material seen in the Menzie Creek formation in the Anvil Range.

A large area of dark colored medium to coarse grained diorite or gabbro occurs just southwest of the claim block. This rock is similar to the metabasite and may be related, however it is possibly a younger unrelated



LEGEND

bi Medium to coarse grained diorite (related to OSrrb?)

ROAD RIVER FM

OSrr Black shale and chert

OSrrb Mafic igneous rocks-flows or sills

VANGORDA FM

COv Calcareous phyllite and phyllitic limestone

COvt Thin bedded tuffs (?)

MT. MYE FM

Ep Thin bedded grey to greenish grey to black phyllite

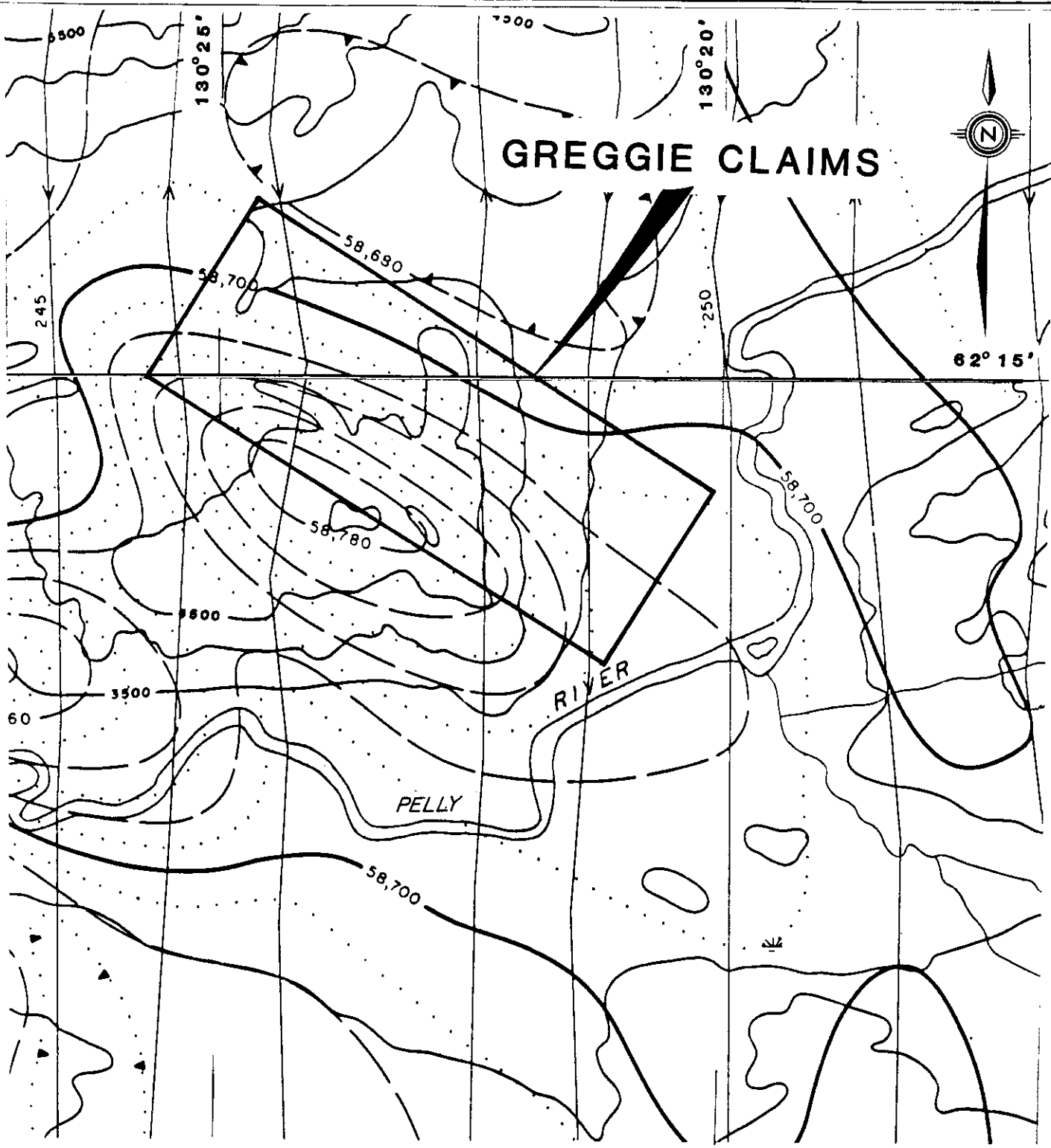
GRIT UNIT

Hg Qtz. feldspar sandstone, red and green shale

(F) Graptolite locality

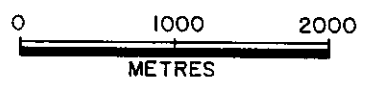


CYPRUS ANVIL MINING CORPORATION	
GREGGIE CLAIMS	
WATSON LAKE M.D.-Y.T.	
GEOLOGY MAP	
NTS: 105-J-188	DATE: OCT. 1980
SURVEY BY: G.J.	FIGURE 3
DRAWN BY: V.F.	



From GSC geophysics papers
4400 and 4401

CYPRUS ANVIL MINING CORPORATION
GREGGIE CLAIMS
 WATSON LAKE M.D.-Y.T.
AEROMAGNETIC MAP



NTS 105-J-188
 SURVEY BY
 DRAWN BY: V.F.

DATE OCT, 1980
 FIGURE 4

discordant stock as the outcrop pattern suggests. Lithologically this rock is quite distinct from the usual Mesozoic granitoid stocks nearby.

Where bedding is visible, rock units dip steeply, face southwest and have a west-northwest strike. An almost east-west fault is inferred through the central portion of the claim block, however there is little supporting evidence.

Part of the reason the Greggie claims were staked was the airborne magnetic anomaly associated with the geochemical anomaly. The anomaly flanks but is not coincident with the basic intrusive. It may be similar in origin to the magnetic anomalies commonly developed adjacent to more felsic stocks further west, presumably pyrrhotite mineralization in the altered country rocks.

GEOCHEMICAL SURVEY

Methods and Procedure

Samples were collected at 60 meter intervals along lines spaced 250 meters apart. The lines were compassed and paced from the cut line at 0 N to the other at 17 N and stations marked with flagging tied to bushes. Samples were collected from the B horizon where possible but in many places this proved impractical and an organic rich A horizon sample was taken. As can be seen on the maps there were many places where a mineral rich soil sample was impossible to obtain due to swamps or thick moss underlain directly by ice or talus. Samples of 100-200 grams were dug with a mattock and placed in a wet strength kraft paper bag. The samples were partially air dried in camp at the prevailing outside temperature, then shipped to the Vancouver laboratory of Acme Analytical Laboratories Ltd.

At Acme Analytical laboratory the samples were dried at 75°C and sieved to -80 mesh. For analysis of Cu, Pb and Zn, a 0.50 gram portion of the

sample was digested in dilute aqua regia in a boiling water bath and diluted to 10 ml. All the above elements were determined from this solution by atomic absorption spectrometry.

Results

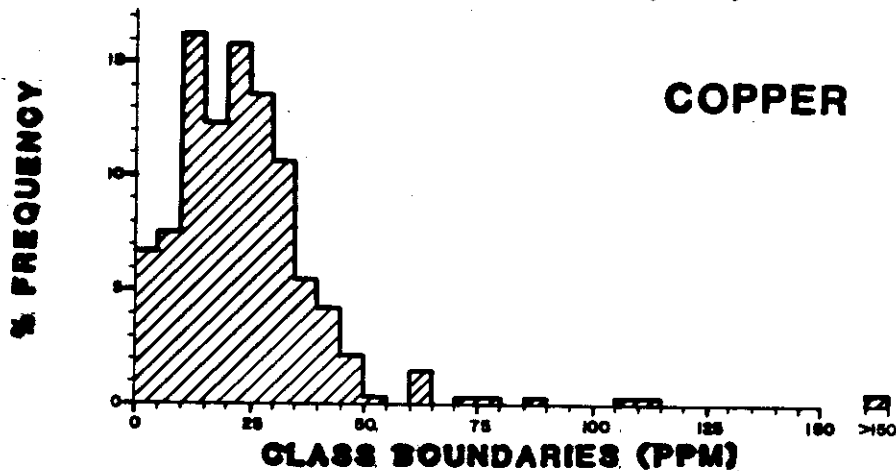
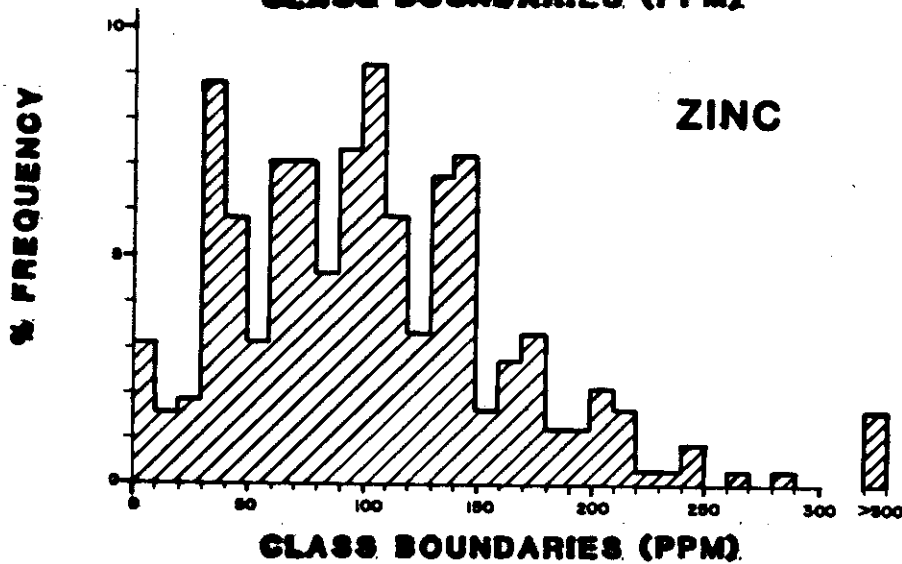
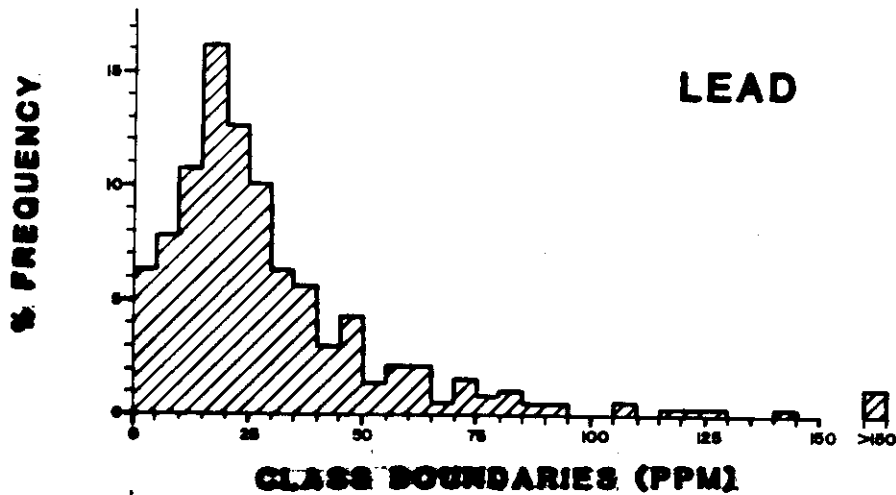
The results of the survey are plotted on Maps 1 to 3 at the end of the report. The values are summarized in histogram form in Figure 5 and some parameters of the populations are given in Table I.

Table I

	<u>Mean Value (M)</u>	<u>Standard Deviation (σ)</u>	<u>Threshold (mean+2σ)</u>	<u>High Value</u>	<u>No. of Samples</u>	<u>No. of Samples >M + 2 σ</u>
Copper	24	16.0	56	270	327	13
Lead	29	20.3	70	900	327	22
Zinc	105	54.7	214	950	327	17

Lead is the most strongly anomalous element, however the anomalies are patchy and generally weak, only reaching high values at isolated localities. Zinc and more so copper are barely anomalous and those anomalies present tend to be one station on one line rather than the minimum size anomaly, at least two adjacent stations on at least two adjacent lines, the grid was designed to detect.

The most striking feature in the results is the separation of lead anomalies from zinc and copper anomalies which is so complete that there are only a few samples that are even weakly anomalous in both lead and zinc. Comparison of maps 1-3 with figure 3 shows that the area anomalous in lead is on top of a hill while the zinc and copper response occurs further downhill.



CYPRUS ANVIL MINING CORPORATION

GREGGIE CLAIMS

WATSON LAKE M.D.-Y.T.

HISTOGRAMS Cu, Pb, Zn

NTS: 108-J-188
 SURVEY BY: MM, DC
 DRAWN BY: v.f.

DATE: OCT 1980

FIGURE 5

Interpretation

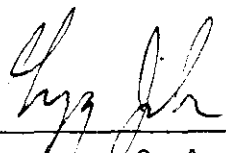
The patchy low results do not provide much encouragement for the possibility of significant near-surface mineralization. The results are typical of those over a large volume of rock with erratically disseminated very low grade mineralization plus isolated small veins of greater tenor. The results do not rule out the possibility that this rock mass is peripheral to a significant deposit at depth.

The separation of zinc and copper from lead anomalies may be due to greater downhill dispersion of zinc and copper, however, the pattern is not convincing. In particular, the weak elongate zinc anomaly at the west end of the grid follows approximately the expected trend of unit ϵ_p and may be due to a higher zinc content in the black shales seen in that unit nearby, rather than zinc dispersed from a lead + zinc and bearing source uphill.

CONCLUSION AND RECOMMENDATIONS

The area of anomalous metal content in the soils should be prospected carefully to discover the source and more detailed geological examination should be made in concert with this prospecting. Should this work show some encouragement of a buried deposit of interest, then geophysical surveying and/or drilling might be warranted. Consideration should be given to use of lead isotopes to "fingerprint" mineralization as stratiform if any sulfides that are not obviously vein type are discovered, in particular the ribbon banded graphitic quartzite known to be peripheral to sulfide deposits in the Anvil Range.

Respectfully submitted,



G. A. Jilson

October 1980

LIST OF PERSONNEL

G. A. Jilson	Geologist	409-1111 Pacific Street Vancouver, B.C.
Michael Mardus	Soil Sampler	7262 Curtis Street Burnaby, B.C.
Dick Charge	Soil Sampler	915 North Road Coquitlam, B.C.

Contractors

Liftair International Ltd.

Hangar No. 25, McCall Field
Calgary, Alberta

Acme Analytical Laboratories Ltd.

852 East Hasings Street
Vancouver, B.C.

G. R. Craft

P.O. Box 4183
Whitehorse, Yukon

STATEMENT OF COSTSSalaries and Wages

Samplers	2 x 8 days @ \$50.00 per day	\$800.00
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Camp Costs

16 man days @ \$20.00 per day	\$320.00
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Geochemical Analyses

327 samples @ \$2.38 each, plus shipping	\$781.76
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Rotary Wing

Lift Air #04341	21 Aug./80	3.3 hrs.
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Lift Air #04346	26 Aug./80	3.3 hrs.
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Lift Air #04350	30 Aug./80	1.9 hrs.
-----------------	------------	----------

Lift Air #04356	4 Sept./80	<u>3.0 hrs.</u>
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11.5 hrs.

11.5 hrs. @ \$315.00 + \$20.00 (fuel) per hour =	\$3852.50
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Linecutting

10.9 km @ \$305.00 per km	<u>\$3245.00</u>
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TOTAL SURVEY COST	<u>\$8999.26</u>
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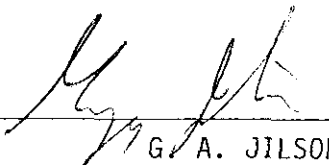
Cyprus Anvil Mining Corporation

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Vancouver, British Columbia
V6C 2G8
Telephone (604) 687-2586

Appendix III

AFFIDAVIT SUPPORTING SUMMARY OF COSTS

I, G. A. Jilson, Geologist, Cyprus Anvil Mining Corporation, of Vancouver, British Columbia, do hereby state that, to the best of my knowledge and belief, the statement of costs presented in this report (A Report On A Geochemical Survey On The Greggie Claims) is both correct and true. I am a member in good standing of the Geological Association of Canada.



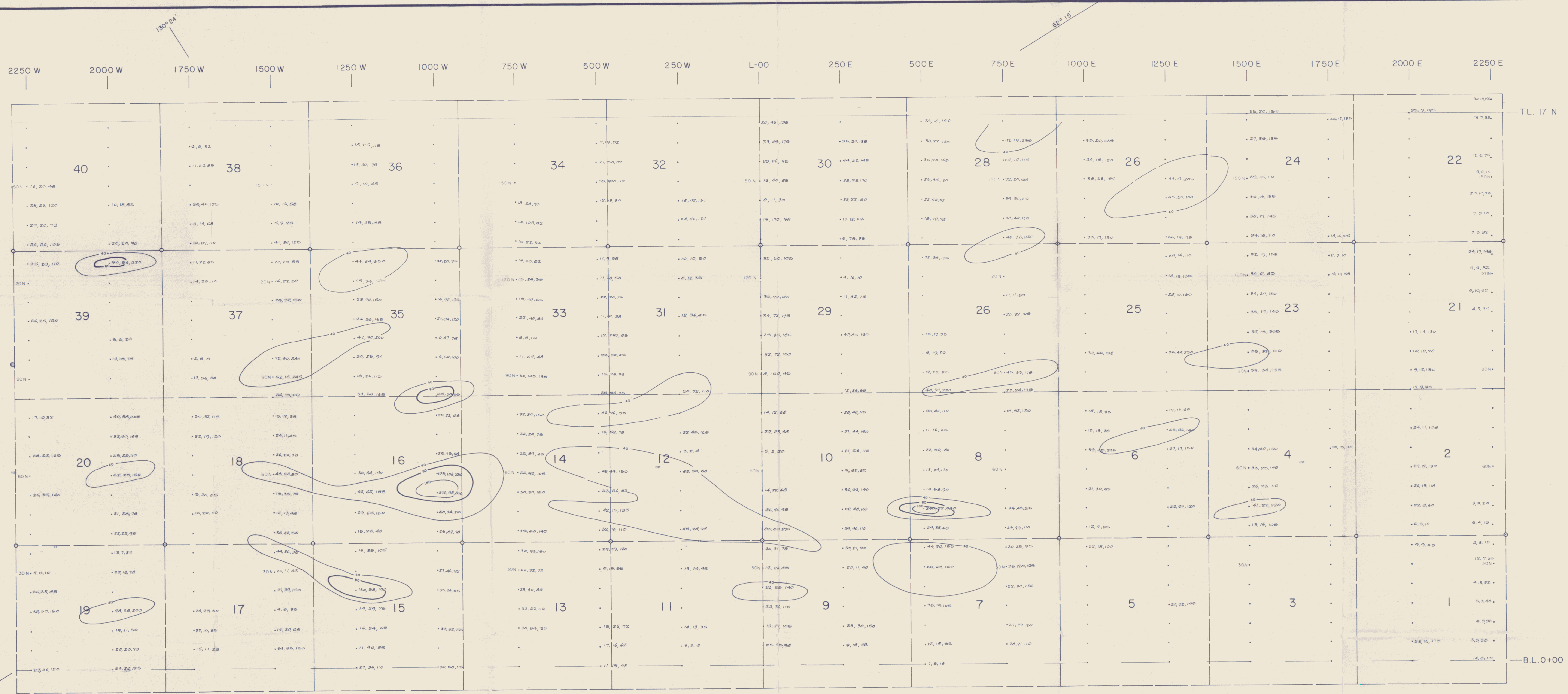
G. A. JILSON

25 Oct 1980
(Date)



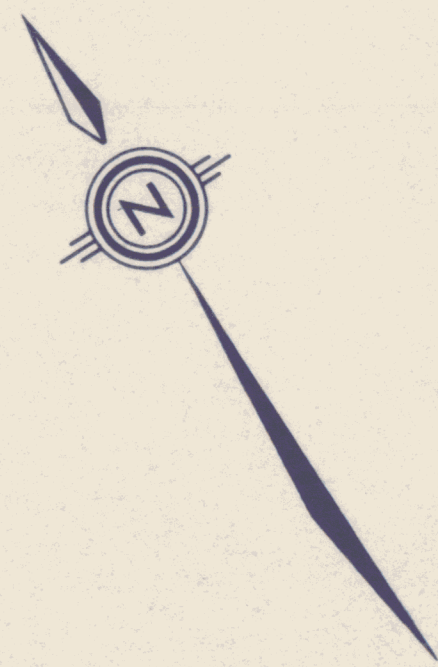
Notary Public in and for the
Province of British Columbia

CYPRUS ANVIL



LEGEND:

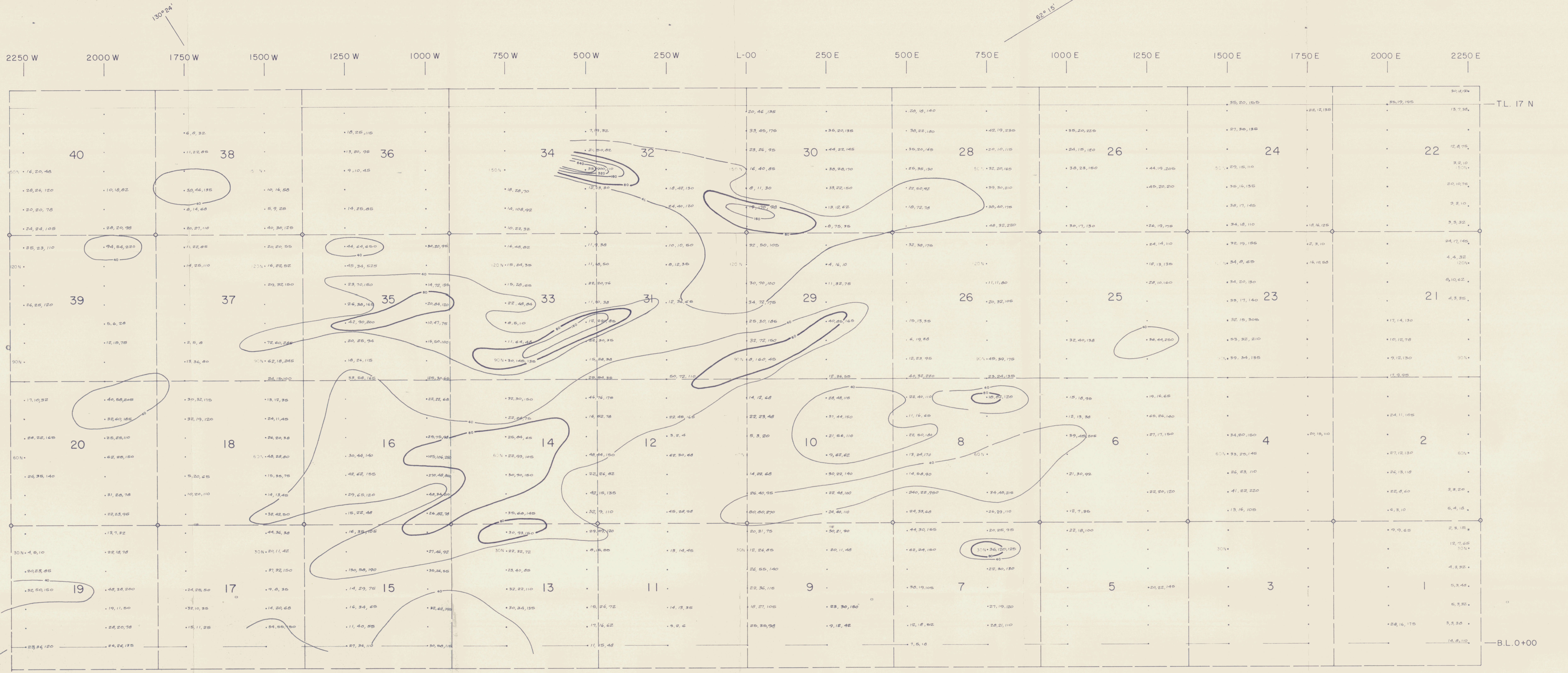
- Flagged grid lines
- 160 ppm
- 80 ppm
- 40 ppm



CYPRUS ANVIL MINING CORPORATION
 GREGGIE CLAIMS
 WATSON LAKE M.D. Y.T.
Cu GEOCHEMISTRY

0 100 200 300 400 500
 Scale (1:5,000) Metres

N.T.S. 105-J-1,8 DATE SEPT. 1980
 SURVEY BY G.J. DRAWN BY r.w.f. Map 1



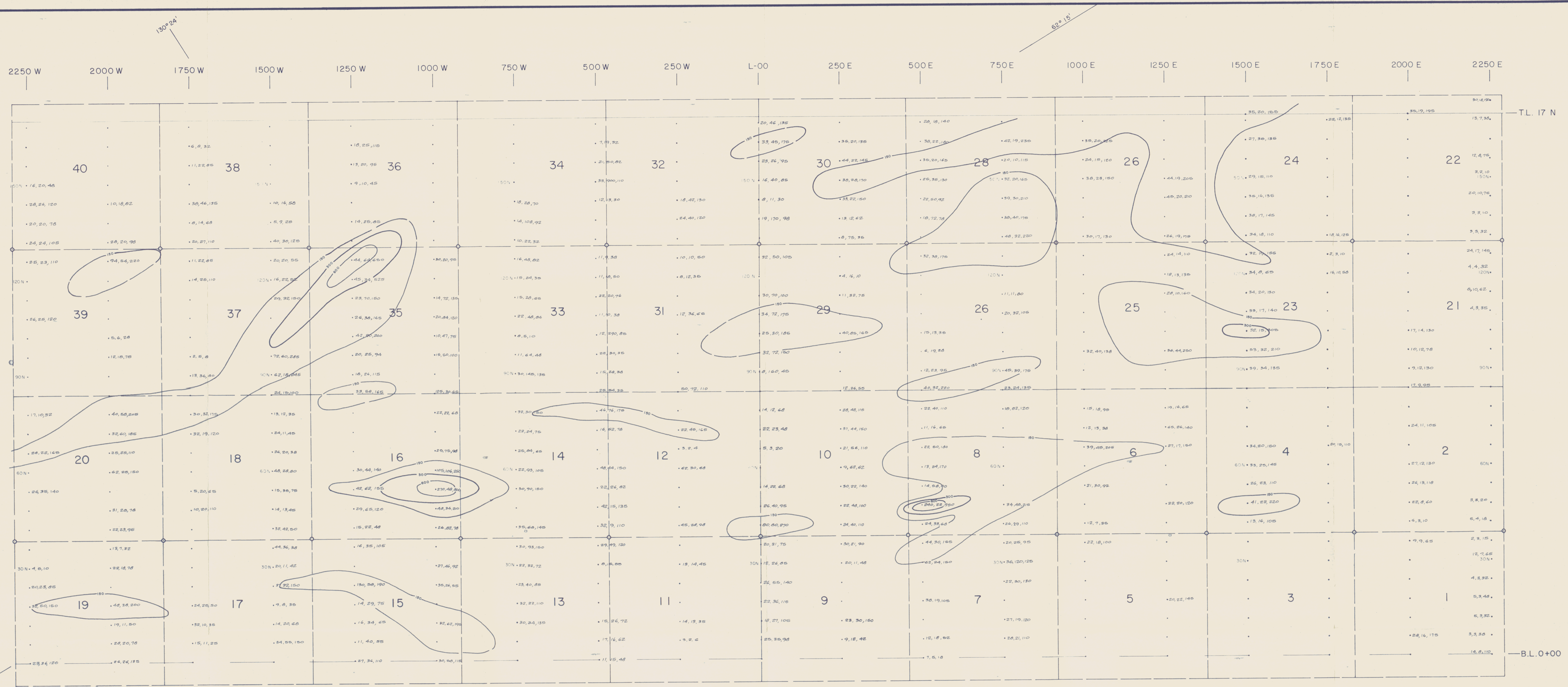
- LEGEND:**
- Flagged grid lines
 - 640 ppm
 - 320 ppm
 - 160 ppm
 - 80 ppm
 - 40 ppm

CYPRUS ANVIL MINING CORPORATION
GREGGIE CLAIMS
WATSON LAKE M.D. Y.T.

Pb GEOCHEMISTRY

Scale (1:5,000) Metres

N.T.S. 105-J-1,8 DATE SEPT. 1980
 SURVEY BY G.J. DRAWN BY r.w.r. Map 2



LEGEND:

- • • Flagged grid lines
- 600 ppm
- 300 ppm
- 150 ppm

CYPRUS ANVIL MINING CORPORATION	
GREGGIE CLAIMS	
WATSON LAKE M.D. Y.T.	
Zn GEOCHEMISTRY	
N.T.S. 105-J-1,8 SURVEY BY G.J. DRAWN BY r.w.r.	DATE SEPT. 1980 Map 3