



TYPE OF REPORT/SURVEY(S) <i>Geochemical / Geological</i>	TOTAL COST <i>2400.57</i>
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AUTHOR(S) *Robert Holland* SIGNATURE(S) *[Signature]*

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED *May 8, 1984* YEAR OF WORK *1984*

PROPERTY NAME(S) *GIP 3*

COMMODITIES PRESENT

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION *Omineca* NTS *934/186*

LATITUDE *57° 31' N* LONGITUDE *126° 46' W*

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

*Gip 3 6177 20unit*

OWNER(S)  
(1) *Calypso Resources Inc.* (2)  
*(New Albion Resources Ltd.)*

MAILING ADDRESS  
*303-2077 Nelson St.*  
*Vancouver V6G 2K2*

OPERATOR(S) (that is, Company paying for the work)  
(1) *Same* (2)

MAILING ADDRESS

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):  
*Hazleton Group tuffs and tuffaceous sediments intruded by*  
*a thachyoidal felspar porphyry dyke*

REFERENCES TO PREVIOUS WORK *no previous work on claim area*

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	COST APPORTIONED
GEOLOGICAL (scale, area)			
Ground	1:25000 0.75 sq. km	G10.3	600.22
Photo			
GEOPHYSICAL (line-kilometres)			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
GEOCHEMICAL (number of samples analysed for ....)			
Soil	89 Cu, Pb, Zn, Ag, As	G10.3	1800.65
Silt			
Rock			
Other			
DRILLING (total metres; number of holes, size)			
Core			
Non-core			
RELATED TECHNICAL			
Sampling/assaying			
Petrographic			
Mineralogic			
Metallurgic			
PROSPECTING (scale, area)			
PREPARATORY/PHYSICAL			
Legal surveys (scale, area)			
Topographic (scale, area)			
Photogrammetric (scale, area)			
Line/grid (kilometres)			
Road, local access (kilometres)			
Trench (metres)			
Underground (metres)			

TOTAL COST .. 2400.87 ..

FOR MINISTRY USE ONLY	NAME OF PAC ACCOUNT	DEBIT	CREDIT	REMARKS:
Value work done (from report)				
Value of work approved				
Value claimed (from statement)				
Value credited to PAC account				
Value debited to PAC account				
Accepted Date	Rept. No.			Information Class

84-1176-13087

GEOLOGICAL AND GEOCHEMICAL  
REPORT ON THE  
GIO 3 MINERAL CLAIM

for  
Calypso Resources Inc.  
Owner and Operator

NTS 93L/10W  
Omineca Mining Division

Latitude  $54^{\circ}36'N$

Longitude  $126^{\circ}46'W$

August 20, 1984

Robert Holland, BSc.  
Holland Geoservices Ltd.

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**13,087**

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**LOCATION MAP**

fig. 1

SCALE 1:6,336,000 or 1 inch equals 100 miles

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The Gio 3 mineral claim was acquired by Calypso Resources Inc. by staking in May 1984 and a program of reconnaissance geological mapping and soil geochemistry was undertaken in July 1984. No mineralization has been reported in this area, however the claims lie on the northwest extension of a 2 kilometer wide belt of mineral showings which hosts the Copperhill copper-zinc-silver deposit (1,080,000 tonnes reserves) and the Chance 1 high grade silver-copper prospect. In addition, a large trachytoid feldspar porphyry dyke, similar to that found at the Copperhill deposit, outcrops on the Gio 3 claim. Soil geochemistry shows scattered anomalies for silver, copper and arsenic but results appear to be hampered by heavy overburden which covers most of the claim area.

Results to date are inconclusive and further work is required to fully assess the mineral potential of this ground. As it appears that geological and geochemical methods are ineffective, it is recommended that future emphasis be on VLF electromagnetics followed up by I.P. (induced polarization) and backhoe trenching and/or drilling by a small portable Winkie drill.

### LOCATION AND ACCESS

The Gio 3 claim is located on the northwest flank of Grouse Mountain, 5500 meters from the peak, at 2400 to 3600 feet elevation (730 to 1100 meters). The towns of Smithers and Houston, B.C. lie 31 kilometers to the northwest and 22 kilometers to the south southeast respectively. The terrain is generally moderate to gently sloping westerly and heavily timbered.

Access to the area is via a secondary farm access road (Wakefield Road) which crosses private land through a locked gate (key and permission required) and ends about 500 meters from the northwest corner of the claim. A second road further south terminates 1300 meters west of the claim and access by foot can be made via open fields and bush. Access to the eastern part of the claims is via a four wheel drive road to the top of Grouse Mountain (Chance claim) and then on foot via about 3 kilometers of trail. The above three roads all access to Highway 16, a major arterial route connecting Smithers and Houston with major points east, west and south. Daily air service is available to Smithers from Prince George and Vancouver, and helicopter and rail facilities can be found in both Smithers and Houston.

### INTRODUCTION

Interest in the Grouse Mountain area began in 1914 with the discovery of copper-zinc-silver mineralization at Coppermine Lake near the summit of

Grouse Mountain. Since that time, the area has been worked intermittently with the main focus being on and around the Ruby zone about 500 meters southwest of Coppermine Lake. This property, referred to as the Copperhill prospect, has seen extensive development work with over 1100 meters of drifting and crosscutting and over 8400 meters of diamond drilling. Published mineral reserves from the Ruby zone are 360,000 tonnes of 0.38% copper, 4.23% zinc and 0.88 oz/ton silver, with an additional 720,000 tonnes of lower grade material in extensions to this zone. Current work is being carried out by Teck Corp. under option agreement with Ramm Ventures Ltd. and recent reports suggest a good potential to substantially increase these reserves.

Work is also being conducted by Adriatic Resources Corp. on its Chance 1 high grade silver-copper prospect which adjoins the Gio 3 to the southeast. In addition, Noranda Exploration has carried out extensive investigations on its Mineral Hill property to the south where significant silver-copper-lead-zinc-gold mineralization has been reported.

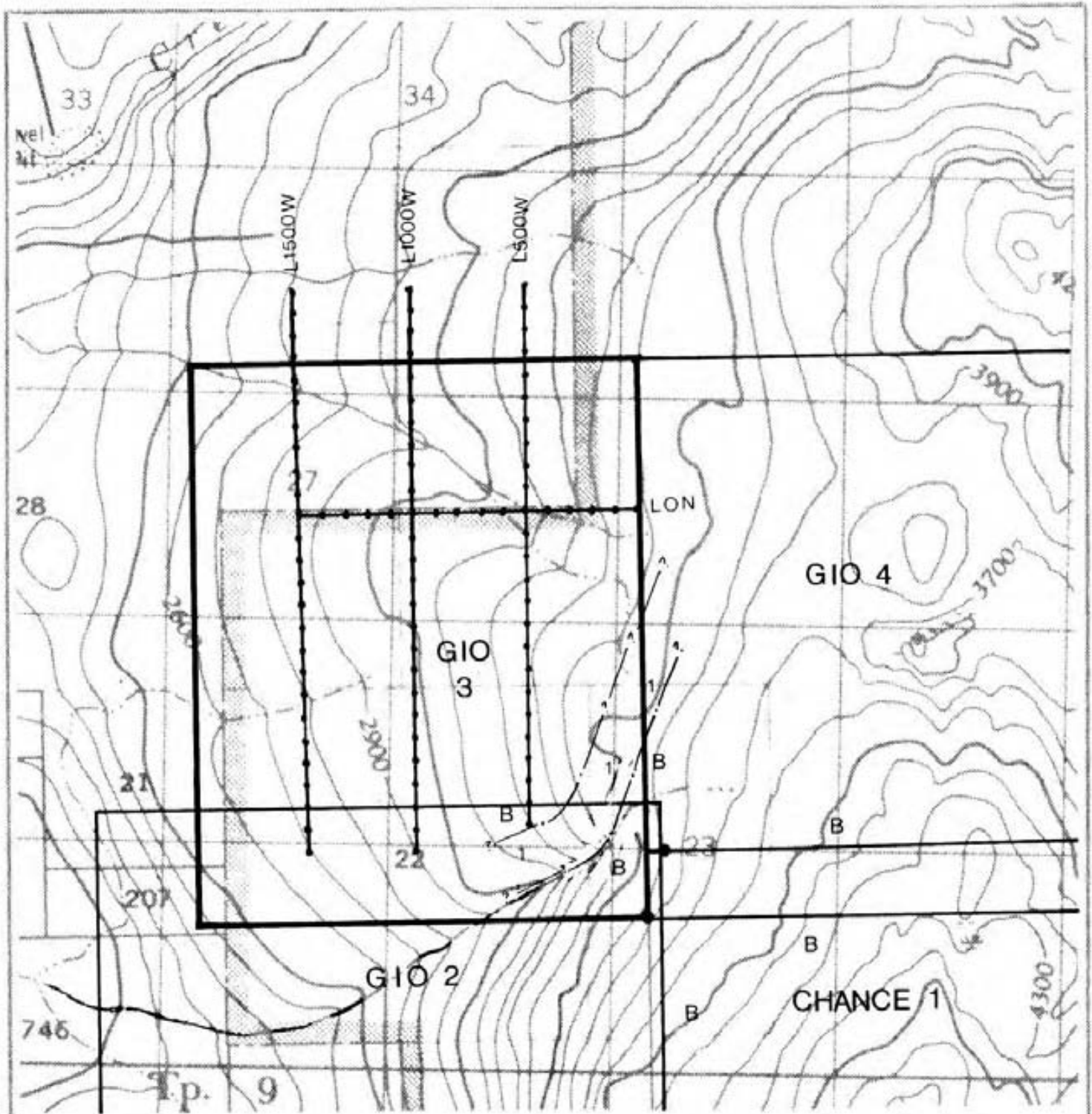
The Gio 3 claim was acquired by staking on behalf of Calypso Resources Inc. in May 1984 (Record No. 6177). A program of reconnaissance geological mapping and soil geochemistry was completed in July 1984 by Holland Geoservices Ltd. under contract to Calypso Resources Inc. A total of 89 soil samples were collected and the claim was mapped on a scale of 1:25,000.



## GEOLOGY

The Grouse Mountain area is underlain mainly by tuffaceous sediments, argillites, pyroclastics and flows of the lower Jurassic-aged Hazelton Group. These rocks are cut by numerous, generally north to northwest trending dykes ranging from a few meters to in excess of 200 meters wide. The dykes belong to four lithological types: a) trachytoid feldspar porphyry, b) crowded feldspar porphyry, c) biotite-feldspar porphyry, and d) lamprophyre. These dykes appear to be related genetically and may stem from the same magma source. In addition to these dykes, two very small stocks, compositionally similar to but coarser grained than the biotite-feldspar porphyry, have also been observed. Hornfelsing is common but extremely variable within the Hazelton Group adjacent to the dykes and stocks.

Most of the Gio 3 claim is covered by overburden with no rock exposure except along the steep creek gorge in the southeastern corner of the property. Here a large trachytoid feldspar porphyry dyke, which appears to be in excess of 200 meters wide, cuts mainly dark grey to greenish or purplish grey tuffaceous argillites and lesser greywackes. Hornfelsing does not appear to be important or widespread. The dyke consists of large bladed **andesine** phenocrysts up to 4cm long by .5cm thick, in a near aphanitic matrix of mainly plagioclase, alkali feldspar, clinopyroxene, and chlorite. The dyke, as shown in figure 2, appears to trend northeasterly, nearly perpendicular to the normal dyke orientation for Grouse Mountain.



• sample location

- 1 Trachytoid / idspat porphyry
- B Argillite, tuffaceous sediments



CALYPSO RESOURCES LTD.	
GIO 3 CLAIM	
GEOLOGY	
Date: August 1984	R Holland

Fig. 2

### MINERALIZATION

Mineralization is widespread throughout the summit area of Grouse Mountain, forming a 2 kilometer wide belt which trends northwesterly, paralleling the general trend of the dykes. This mineralization would appear to be a result of a large hydrothermal system probably related to a large buried intrusive from which the dykes have originated. The geographical and genetic relationship between the dykes and the mineral zones is readily apparent and strong.

No mineral showings have been found as yet on the Gio 3 claim, however a major trachytoid dyke identical to that on the Gio 3 is known to cut the mineralization at the Ruby zone 4500 meters to the south. This dyke also occurs within a few hundred meters of the Chance 1 mineralization. The mineralized trend apparent to the south also trends directly towards the Gio 3 claim.

### GEOCHEMISTRY

A program of reconnaissance soil geochemistry was completed covering most of the Gio 3 claim. This included establishing a 1500 meter long baseline (east-west) and three 2500 meter long cross lines at 500 meter spacings. A total of 89 samples were taken at 100 meter intervals on all lines. Samples were collected, using a prospector's 'grub hoe', as nearly as possible from the 'B' soil horizon with an effort to avoid organic rich or leached material. Each sample was stored in a labelled

kraft soil bag and shipped to Acme Analytical Labs in Vancouver, B.C. for analysis for copper, silver, lead, zinc and arsenic. Standard aqua regia digestion and ICP analysis methods were used on a -80 mesh size fraction. All results are reported in parts per million (ppm) and are tabulated by element in figures 3 to 7.

### Silver

Previous work in the region has indicated a background limit of 0.8 ppm with values in excess of 2.0 ppm considered highly anomalous. Only two widely separated samples returned anomalous results (2.1 and 2.3 ppm).

### Copper

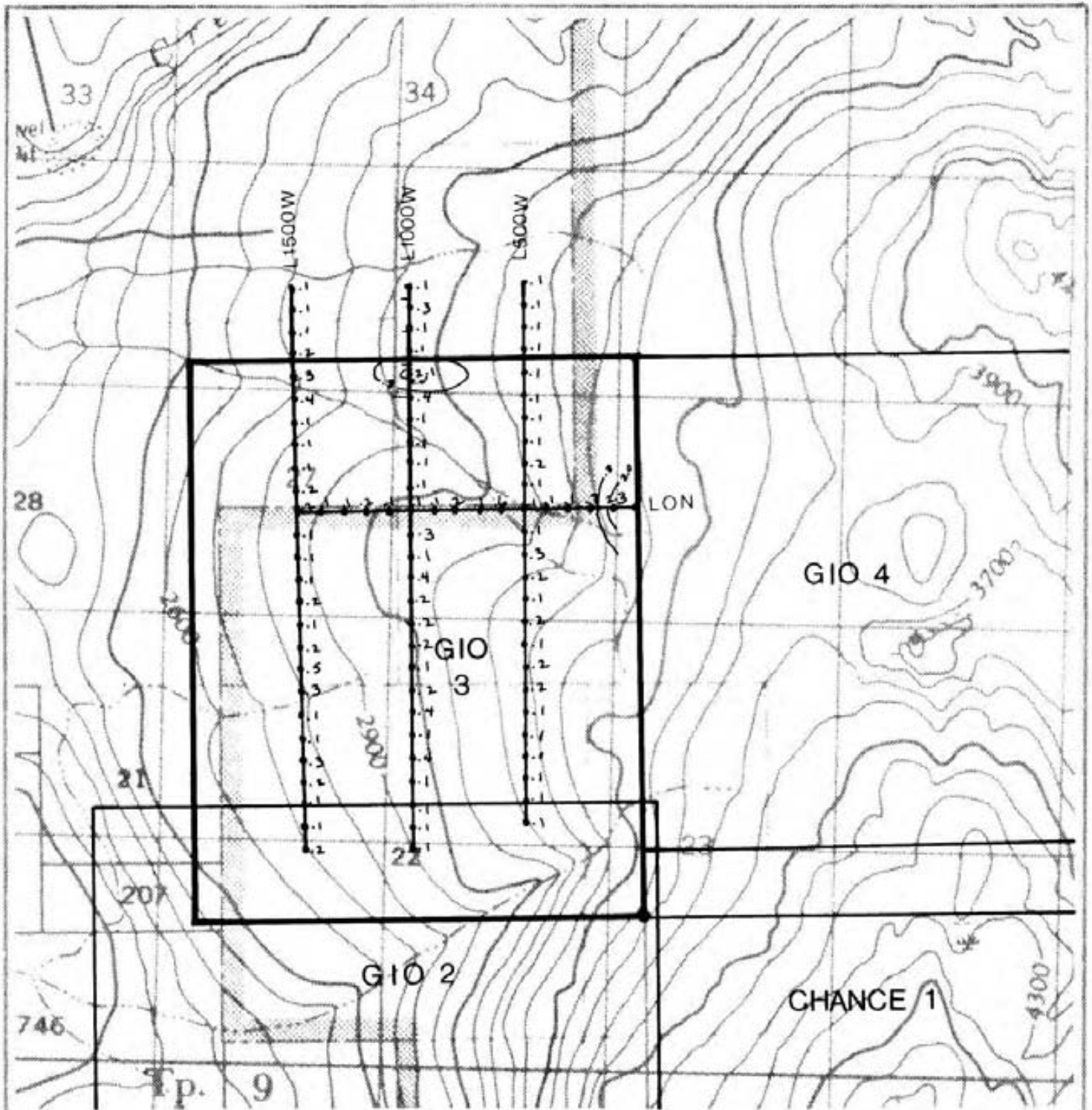
The threshold value for copper for the area is 60 ppm with values greater than 100 ppm considered highly anomalous. Several weak anomalies were outlined with two highly anomalous values. There appears to be no correlation between copper and silver as is apparent on nearby claims.

### Arsenic

Values greater than 50 ppm are considered anomalous for arsenic, however on the Gio 3 claim, normal background appears to be less than 15 ppm. One sample returned 24 ppm.

### Zinc

Using a 200 ppm threshold level as determined

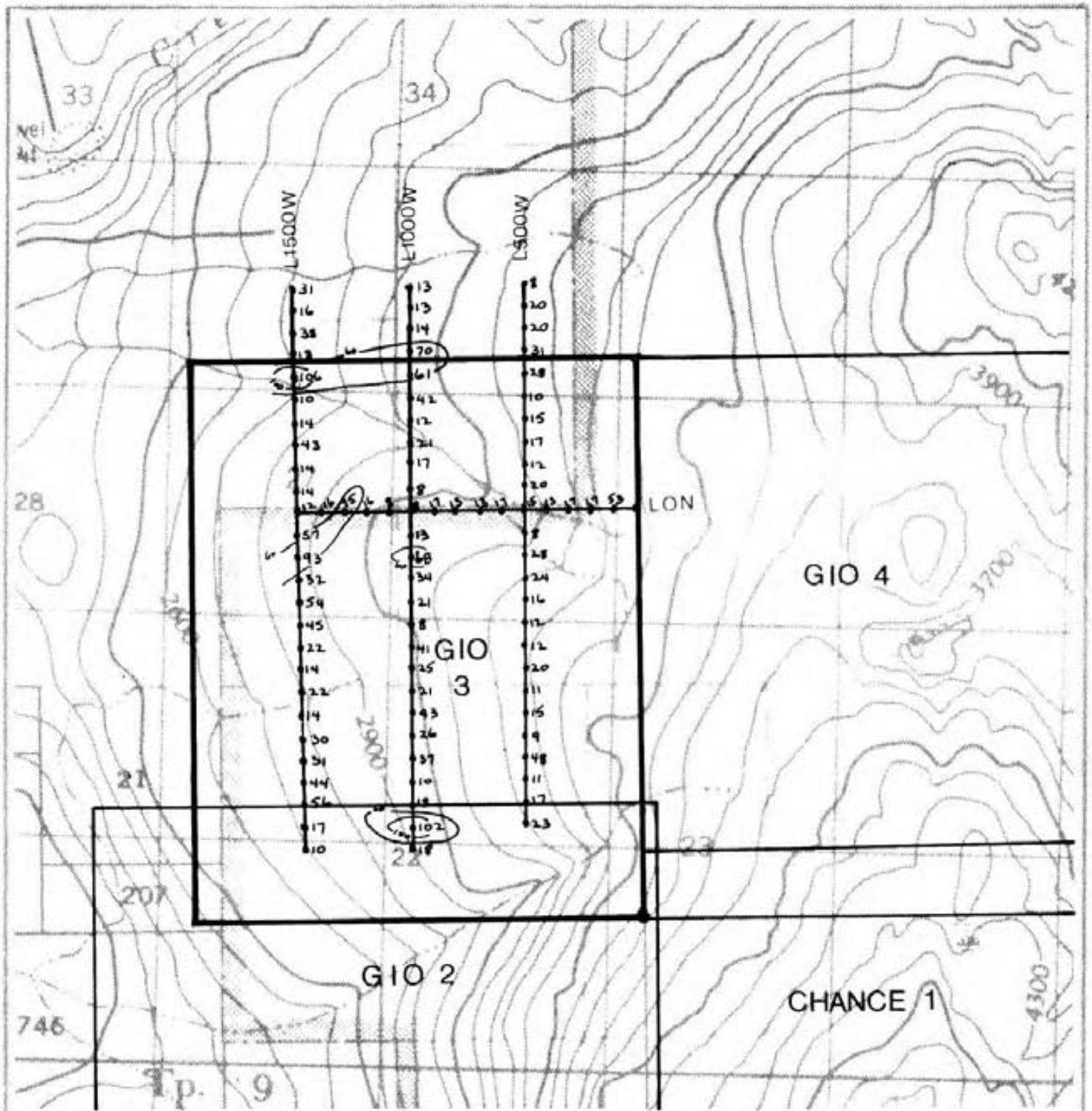


• sample location



CALYPSO RESOURCES LTD.	
GIO 3 CLAIM	
SOIL GEOCHEMISTRY	
SILVER	
Date August 1984	R Holland

Fig 3



• sample location

CALYPSO RESOURCES LTD.

GIO 3 CLAIM

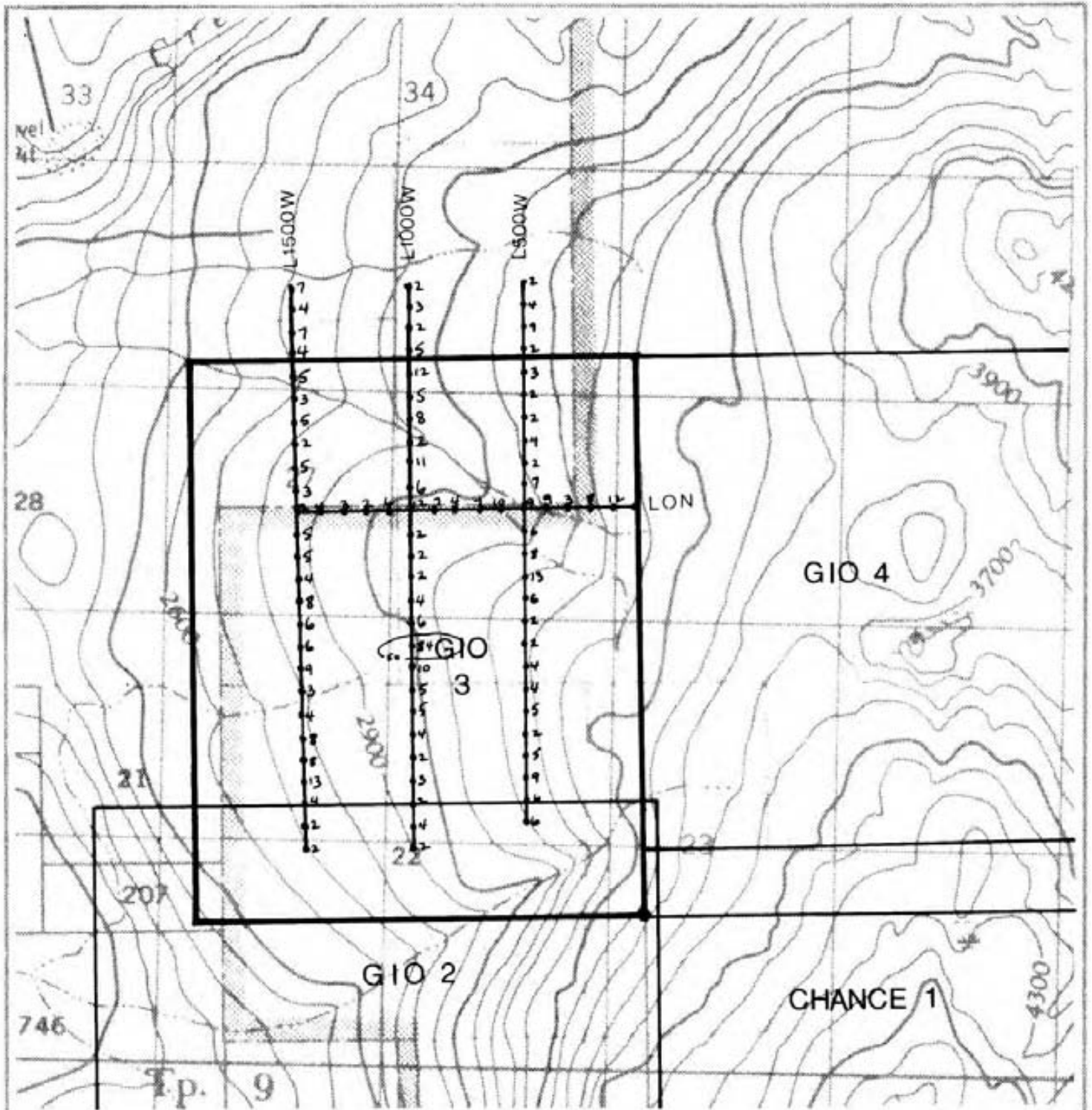
SOIL GEOCHEMISTRY

COPPER

Fig. 4

Date August 1984

R. Holland



• sample location



CALYPSO RESOURCES LTD.	
GIO 3 CLAIM	
SOIL GEOCHEMISTRY	
ARSENIC	
Date: August 1984	R Holland

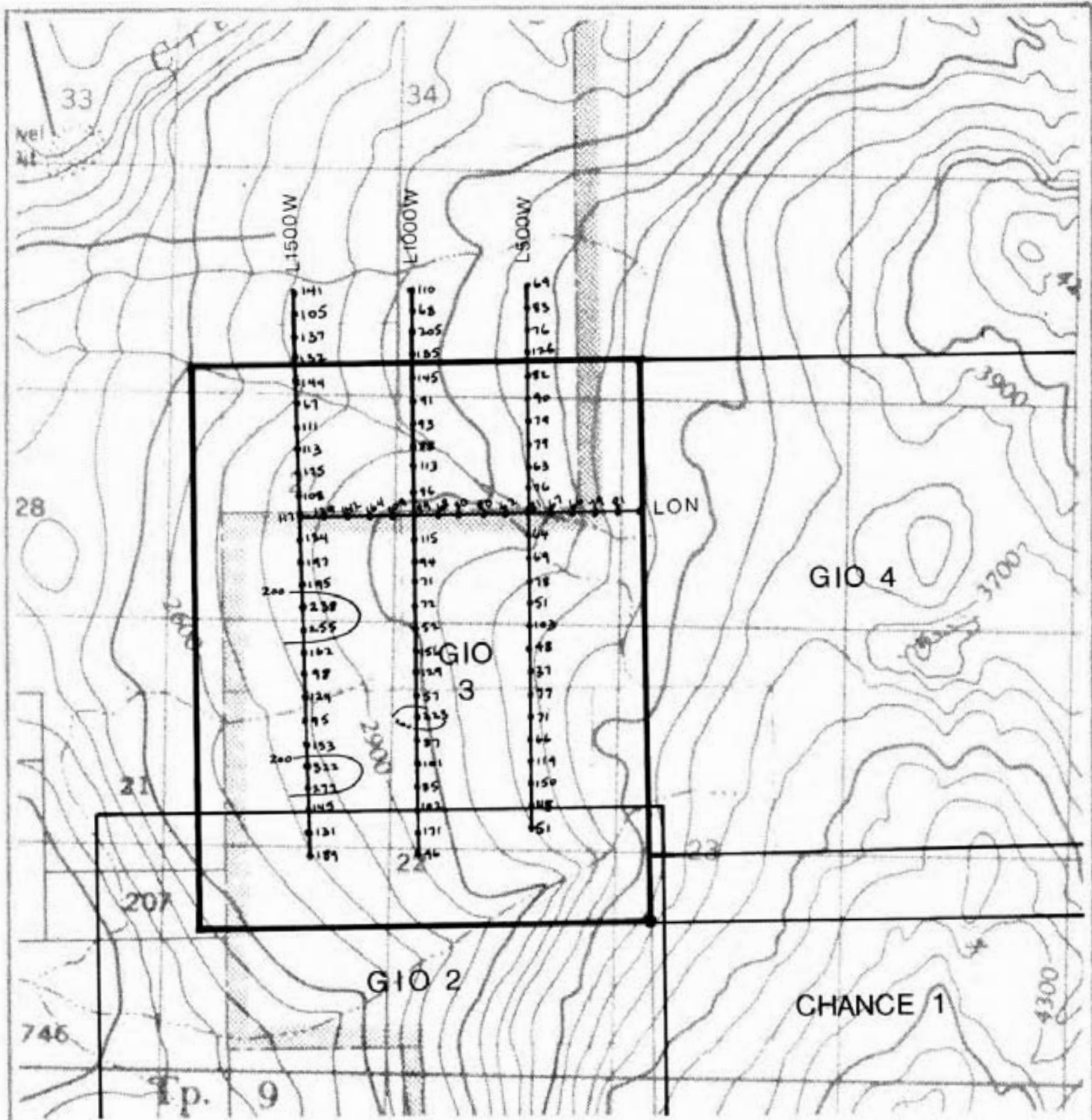
Fig 5

for the area, several anomalous zones were outlined. These, however, are small, weak and non-coincidental with other elements.

Lead

Normal background for lead is 30 ppm. No anomalous results were obtained.





• sample location

CALYPSO RESOURCES LTD.

GIO 3 CLAIM

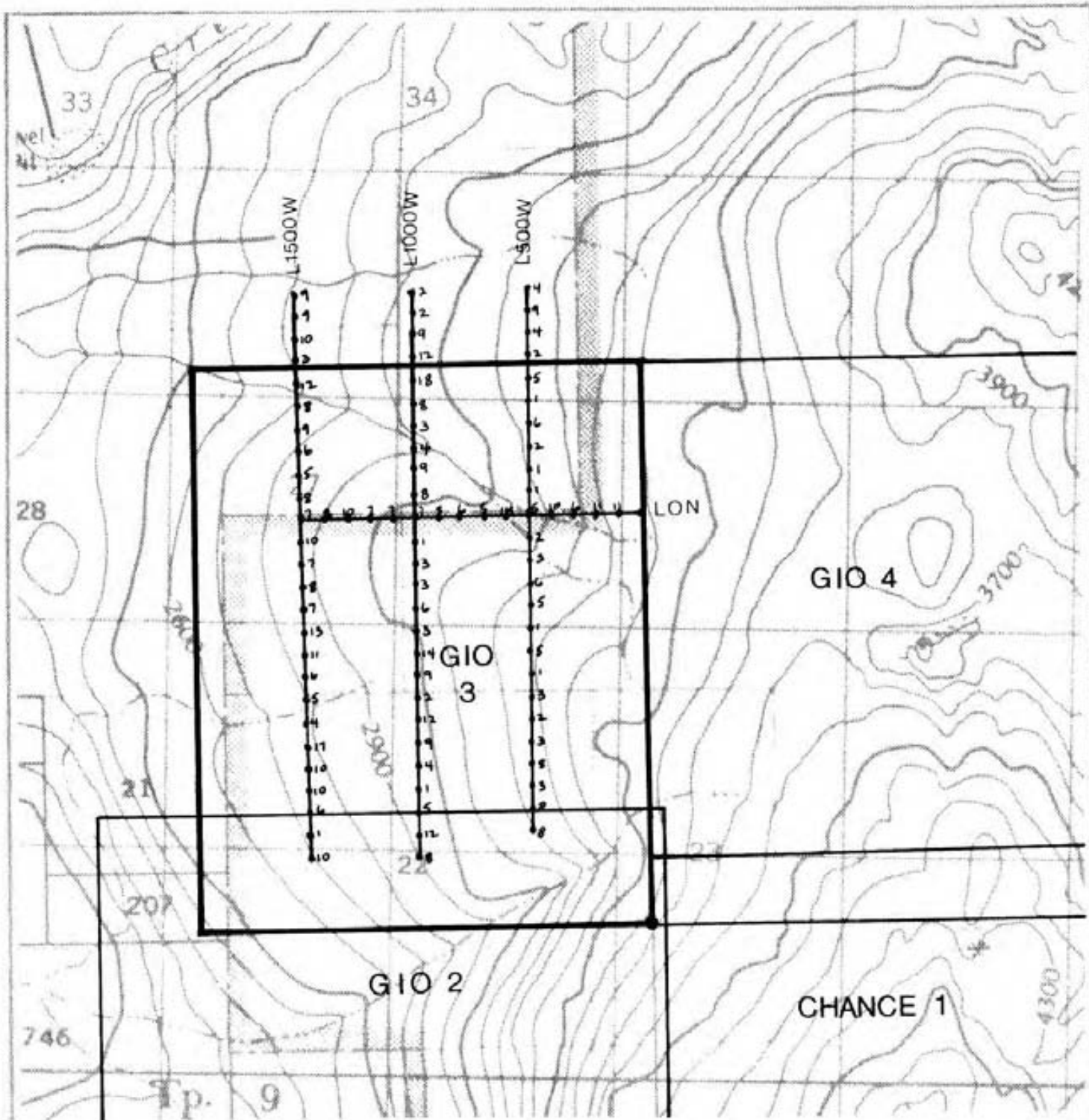
SOIL GEOCHEMISTRY

ZINC

Fig 6

Date August 1984

R Holland



• sample location



CALYPSO RESOURCES LTD.

GIO 3 CLAIM

SOIL GEOCHEMISTRY

LEAD

Fig. 7

Date: August 1984

R. Holland

REFERENCES

- Borovic, I., Feb. 24, 1981, A Report on the Results of the 1980 Reconnaissance Geology and Geophysical Survey on the Grouse Mountain Copperhill Property, E.C. Ass. Report 9087.
- Chisholm, E.C., July 2, 1983, Geological Report on the Last Chance 1 and 2 Claims, unpublished report for Adriatic Res. Corp.
- Church, B.N., 1972, B.C. Dept. of Mines "Geology, Exploration and Mining in British Columbia", p. 397-417.
- Geol. Surv. Canada, Open File 351, 1976, Smithers, B.C. 93L.
- Holland, R.T., Dec. 6, 1982, Summary Report on the Last Chance 1 and 2 Mineral Claims, unpublished report.

STATEMENT OF COSTS

The following costs were incurred by Holland Geoservices Ltd. on behalf of Calypso Resources Inc. for work conducted on their Gio 3 mineral claim on Grouse Mountain near Smithers, B.C.

Camp Costs (food)	
5 man-days @ \$15.00/day	75.00
Equipment and Supplies	130.34
Geochemistry	
89 samples @ \$4.60/sample	409.40
Office Costs	
Typing - 5 hours @ \$10.00/hr	50.00
Salary and Wages	
R. Holland, geologist	
3.5 days @ \$250.00/day	875.00
July 29, Aug. 12, 16, 17	
R. Wahl, field assistant	
4 days @ \$150.00/day	600.00
July 25, 26, 28, 29	
Transportation (gas and freight)	61.13
Truck Rental	
4 days @ \$50.00/day	200.00
Total	<u>\$2400.87</u>

*PA*

CERTIFICATE

I, Robert Holland, do state that the following information is true and correct.

1) I am a geologist with offices at 13451 - 112A Avenue, Surrey, B.C. V3R 2G7.

2) I am a graduate of the University of British Columbia with a Bachelor of Science degree, 1976.

3) I have practised my profession as an exploration geologist in British Columbia and the Yukon Territory for the past eight years.

4) I have no interest directly or indirectly in the Gio 3 mineral claim, Calypso Resources Inc., its shares or related companies, nor do I expect to.

5) This report entitled Geological and Geochemical Report on the Gio 3 Mineral Claim is based on field work conducted in the area by Holland Geoservices Ltd. under my supervision during the period June 15 to August 2, 1984. Reference has also been made to private company reports and records and government reports published on the area.

  
Robert Holland, BSc.  
geologist