

## GEOLOGICAL, GEOCHEMICAL &amp; GEOPHYSICAL REPORT

ON THE

## CORONA AND BOB CLAIMS PROPERTY

Owner(s): G. D'Angelo, J.K. D'Angelo, S.F. Kelly  
Operator: Laroth Engineering Ltd.

Swakum Mountain, Merritt, British Columbia

Nicola Mining Division

N.T.S. 92-I/7E

Latitude 50°16' North

Longitude 120°42' West

42.7'

FILMED

FOR

## ATLAR RESOURCES LTD.

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Vancouver, B.C.

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## CONSULTANTS:

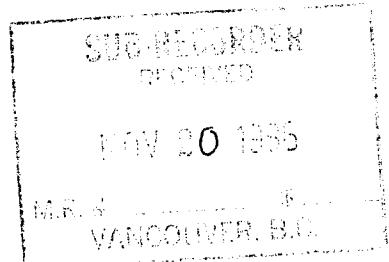
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Date:

October 14, 1986



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## ABSTRACT

A Phase 2 percussion drilling program is recommended on the Corona-Bob property, which is located approximately 20 kilometers northeast of Merritt, British Columbia. The objective of this program is to test and establish the continuity of the mineralized zone along the strike and depth.

Atlar Resources Ltd. has an option to acquire the property from the present owners by expenditure of exploration funds.

The property has never been drilled before, only minor cat trenching and old workings exist on the Crown Grant Claims.

Between July 10 to August 15, 1986, Atlar Resources Ltd. embarked on detailed geological mapping, sampling, and geophysical surveys which resulted in **outlining an oxidized zone 600 meters long, and 25 to 70 meters wide, with very encouraging silver assay results.** A few samples taken from this zone assayed between 1.62 to 71.31 oz/ton silver.

The estimated cost of the percussion drilling program is \$55,000.00.

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## 1.0 SUMMARY AND CONCLUSIONS

Gewargis Geological Consulting and Laroth Engineering Ltd. were engaged by Atlar Resources Ltd. to carry out a preliminary surface exploration program on the Corona - Bob Claims located on Swakum Mountain, 20 km northeast of Merritt, British Columbia (Figure 1). The program was carried out between July 10 -August 15, 1986. The purpose of the program was to assess the mineralization and the economical potential of the property through examination of several pits, trenches and a caved shaft on the property; and to establish a grid for both geochemical and geophysical surveys.

Geological mapping, rock and soil sampling, ground geophysical surveys (VLF and Magnetic) were conducted on parts of Grids #1, 2, 3, and 4 (Figure 3A). The field work showed that vein type mineralization within altered oxidized volcanic rock occurs on the Corona Crown Grants. No evidence of skarn type mineralization could be found on the property.

There are numerous old workings on mineralized showings scattered throughout Swakum Mountain; Lucky Mike (Last Chance), Thelma, Bernice and Almeda. Past production records indicate 118 tons of ore yielding 4 ounces of gold and 7608 ounces of silver were shipped from the area. These workings have collapsed and are virtually inaccessible.

In 1969, an IP (Induced Polarization) Survey was conducted on the property and the results are presented in a report by J.G. Baird, P.Eng. dated March 1969. Between 1980 to 1985, the owners (S.F. Kelly, K. D'Angelo, G. D'Angelo) carried out a geochemical survey on the property.

A few selected samples of the veins in the oxidized zone at the old Corona workings (Grid #2), yielded assay results ranging between 1.62 to 71.31 oz/ton silver. Based on these values, the presence of known mineralization in the area, and also the results of previous work, **it is recommended that the Corona - Bob claims property**

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be tested by percussion drilling, mainly in the Crown Grant area, to evaluate the geological structures and source of mineralization at depth.

The estimated cost of the Phase 2 program is \$55,000. Contingent upon encouraging results of Phase 2, a Phase 3 program of core diamond drilling is recommended, and a separate budget would be submitted.

## 2.0 RECOMMENDATIONS

In order to evaluate the economic potential of the Corona - Bob Claims especially the oxidized zone on Grid #2, the following program is recommended:

- 1) **Percussion drilling.** A series of percussion holes should be drilled along the baseline on Grid #2 area between Lines 6+00N and 12+00N to test the oxidized zone at depth. The total footage required is 457 m (1,500 ft).
- 2) **Detailed geochemical soil survey** across the oxidized zone within the altered volcanic in Grid #2, south of Line 4+00N.
- 3) **Detailed geological mapping and sampling** of Grids #1, 3 and 4 to determine if possible additional mineralization exists.
- 4) **Prospecting** of the entire claim block.

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**2.1 Phase 2 Budget and Costs (Corona and Bob Claims):**

The estimated cost of the recommended Phase 2 program is as follows:

**Percussion Drilling:**

Percussion drilling 457 m (1500 ft) at \$40/meter	\$21,280
including Room and Board for crew of 2	

**Mob and Demob:**

Mob and Demobilization of drill equipment and crew to site and return	4,000
--	-------

**Labour:**

1 Geologist 20 days at \$275/day including travel time	5,500
1 Assistant 20 days at \$125/day	2,500

**Truck Rental:**

1 Truck rental at \$60 x 20 days	1,200
Gas	400

**Room and Board:**

For field crew	2,000
----------------	-------

**Supplies:**

Sampling bags, drill logs, drafting supplies	700
Sample shipments	900

**Assaying:**

Cutting 250 samples at \$15/sample	3,750
Soil samples 200 at \$10/sample	2,000

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Phase #2 Budget and Costs (Corona & Bob Claims) Continued ....

**Report Writing:**

including drafting, printing, word processing  
and xeroxing. 4,500

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**Sub Total:** \$45,730

**Contingencies:** \$ 6,270

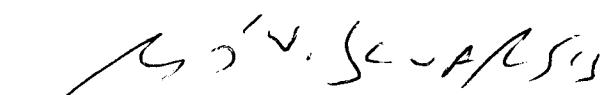
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**TOTAL:** \$55,000

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Submitted by:

GEWARGIS GEOLOGICAL CONSULTING INC.



Wilson A. Gewargis, B.Sc., F.G.A.C.  
Consulting Geologist

### **3.0 INTRODUCTION**

The purpose of this report is to present the results of the geological, geochemical and ground geophysical surveys performed on the property, as well as incorporating data obtained from the owners (S.F. Kelly, K. D'Angelo, G. D'Angelo), various reports from the B.C. Department of Mines, and Atlar Resources Ltd.

Between July 10 and August 15, 1986 a mineral exploration program was conducted over the Bob Claim Property by Gewargis Geological Consulting and Laroth Engineering Ltd. In addition, detailed geological mapping and rock sampling of the oxidized zone on Grid #2 were performed. Reconnaissance geological mapping of the entire property, ground geophysical surveys (VLF and Magnometer), and a soil geochemical survey were conducted.

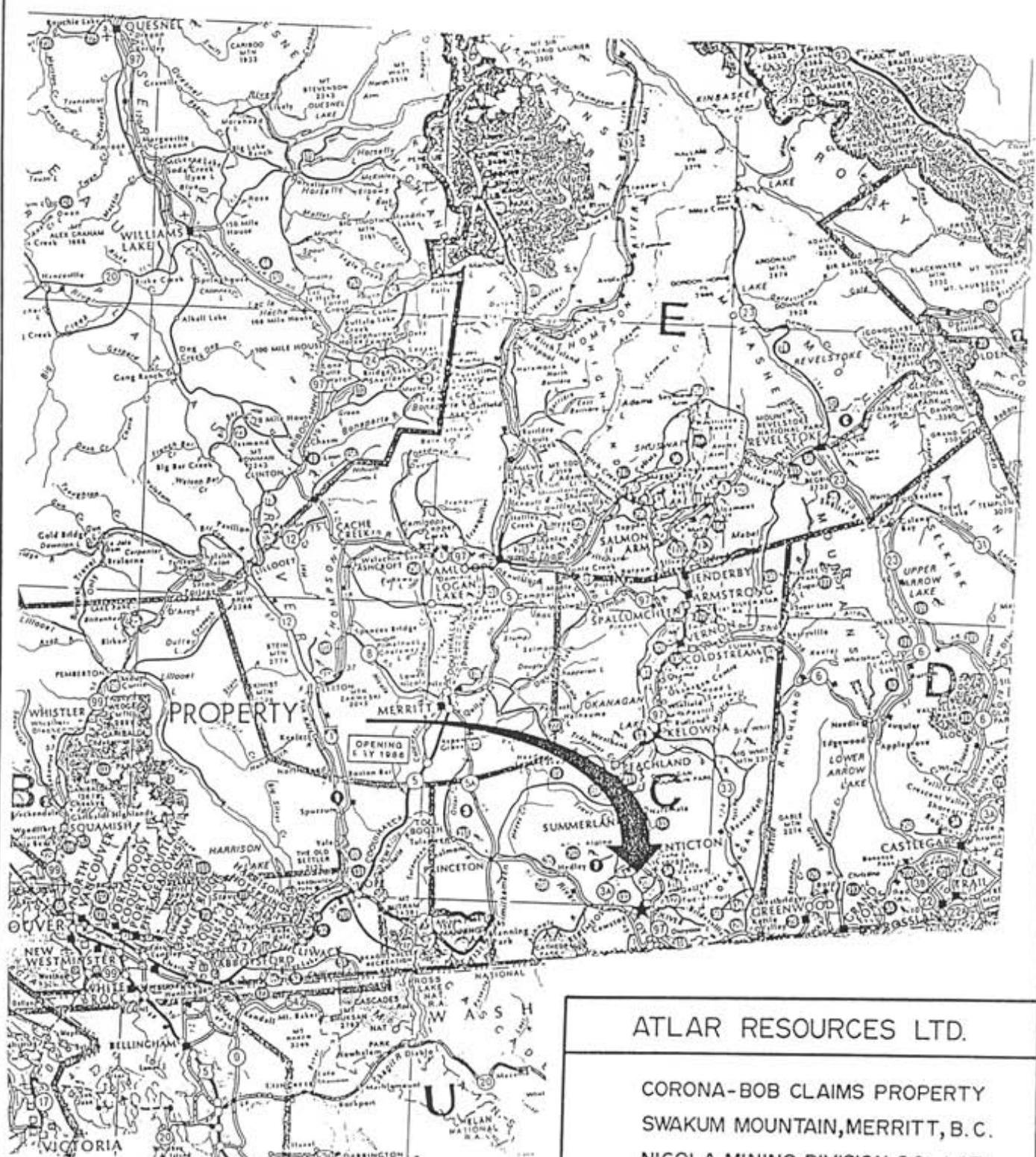
The mapping and sampling were conducted by W.A. Gewargis, Geologist and R.W. Plummer, Geologist. The geophysical surveys, grid layout, and soil sampling were carried out by Laroth Engineering's field crew. The exploration program was under the supervision of W.A. Gewargis, B.Sc., F.G.A.C. and R.W. Plummer, B.Sc., F.G.A.C.

#### **3.1 Location and Access (Figure 1)**

The Bob and Corona Claims are located in the southwest side of Swakum Mountain, 20 km north of Merritt, British Columbia. The centre of the property is approximately 120°42' West Longitude and 50°16' North Latitude.

The property can be reached by a 30 km long gravel logging road which turns off the Merritt-Kamloops Highway 4.0 km northeast of the traffic light at the intersection of Highway #5 and #8 in Merritt. The southern portion of the property lies immediately west of this road, 30 km from turn off.

Numerous old logging and mining roads connect the property, and either two or four wheel drive vehicles can be used.



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CORONA-BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICOLA MINING DIVISION 92-1/7

LOCATION MAP

SCALE: 1: 2,500,000

FIG: 1

DRAWN BY: D.G.

DATE: OCT. 1986

### 3.2 Topography (Figure 2)

The property is located in an area of moderate relief between 1,524 m to 1,677 m. The property is 70% covered by forest (scrub timber and slide pine) and is quite dense in the area of Bob #1 Claim. Ongoing logging, mainly in the north portion of the property, has cleared some of the forest.

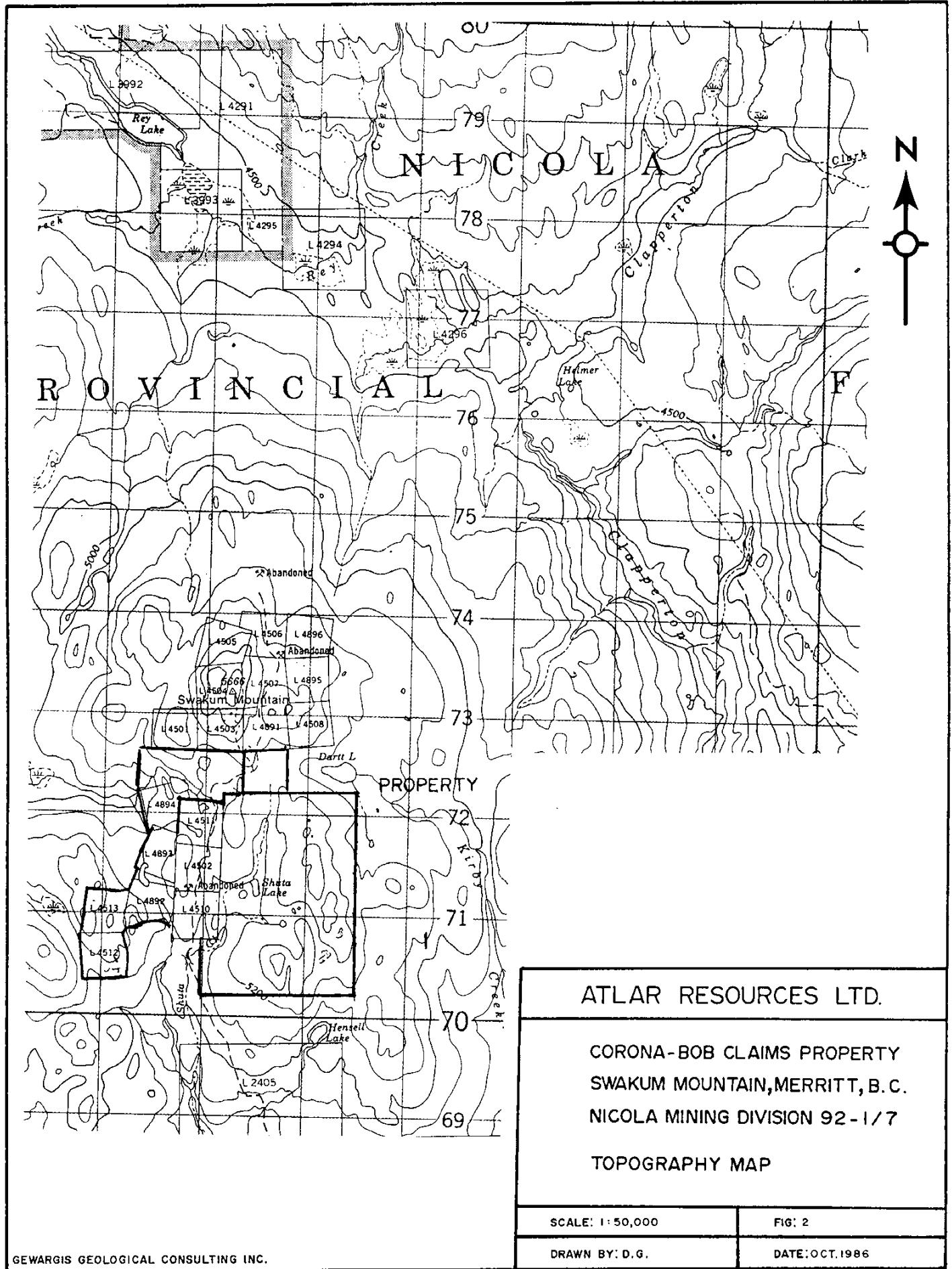
The property is characterized by rolling upland topography cut by a few small streams and scattered marshlands and swamps. The main feature is Shute Lake, located in the middle of Bob #1 Claim. Outcrops are restricted to ridges present on the property.

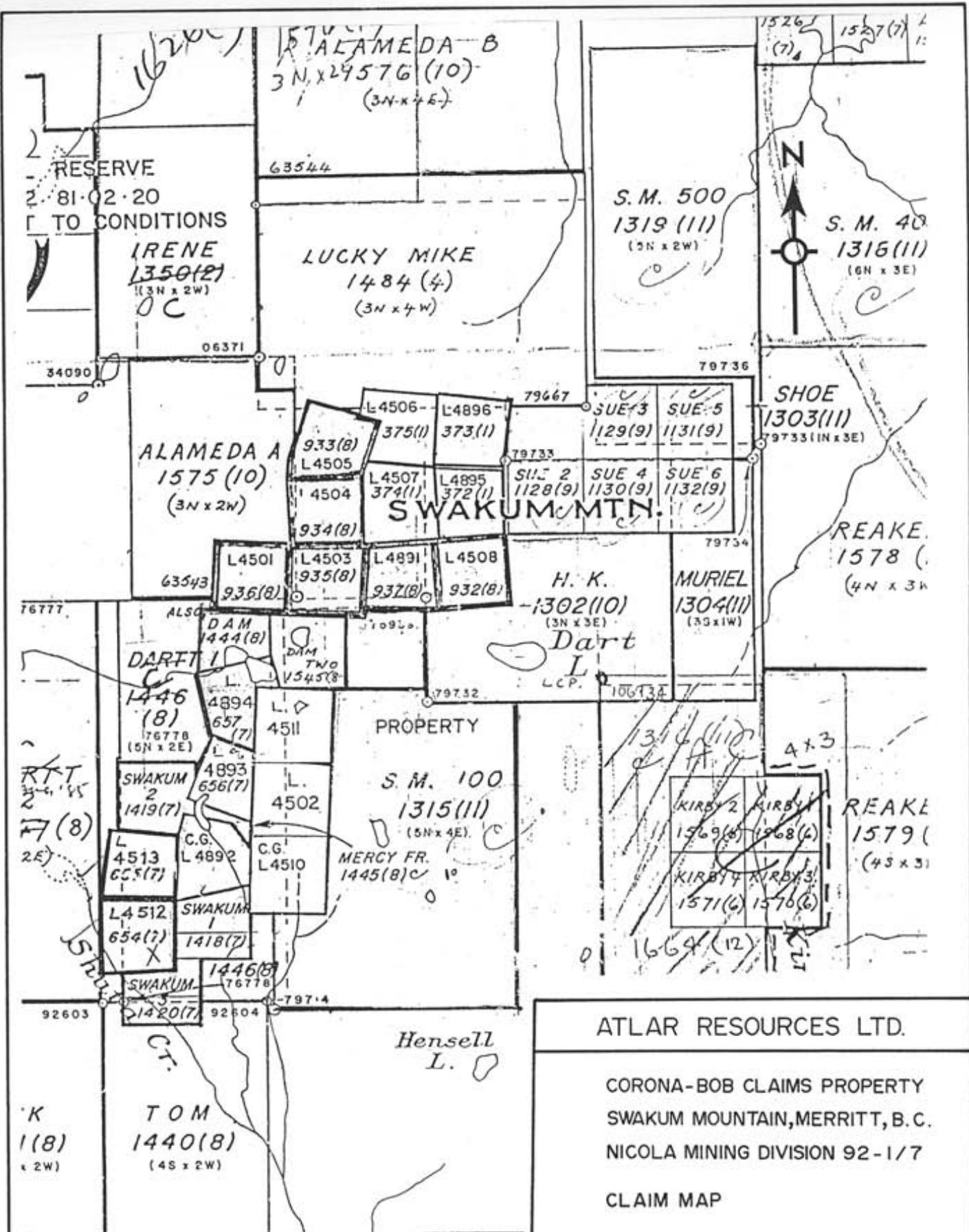
### 3.3 Property Description (Figure 3)

The Corona and Bob Claim Group consists of four (4) old reverted Crown Grants, five 2-post claims, and thirteen (13) newly staked claims, which are located in the Nicola Mining Division, NTS Map 92-I/7, (50°16' North Latitude and 120°42' West Longitude). The property consists of the following claims:

Claim Name	Claim Units	Record No.	Claim Type
Old Corona 1-2	2	654-5 (7)	Reverted Crown Grants
Old Complex 2-3	2	656-7 (7)	Reverted Crown Grants
Swakum 1-3	3	(1418-20 (7)	2 Post Claims
Dam	1	(1444) (8)	2 Post Claims
Dam #2	1	(1545) (8)	2 Post Claims
Bob #1	12	(1716) (8)	New Claim
Bob #2	1	(1717) (8)	New Claim
<b>Total:</b>	<b>22</b>		

All the above claims are registered in the names of Sherwin F. Kelly, Keith D'Angelo and Gerald D'Angelo of Kamloops, B.C., and have been optioned by Atlar Resources Ltd.





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CORONA-BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICOLA MINING DIVISION 92-1/7

CLAIM MAP

SCALE: 1:50,000

FIG: 3

DRAWN BY: D.G.

DATE: OCT. 1986

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### 3.4 Mining History

Swakum Mountain has been prospected since 1919 when the Lucky Mike (Last Chance) claim was staked. During the 1920's, 1930's and 1940's various mineral showings - Almeda, Corona, Thelma and Bernice were examined by trenching, shaft sinking, diamond drilling, prospecting and mapping. Most of the underground work was performed during this period. From 1950 to the present, geophysical, geochemical and geological surveys have been performed by interested parties on various mineral claims and crown grants on the mountain.

Small shipments of ore were shipped from the various mines on the mountain, mainly from:

**Lucky Mike (Last Chance):** 26 tons of ore yielding 2 oz Au, 137 oz Ag, (0.08 oz/ton Au, 5.3 oz/ton Ag). 1,932 lbs of copper and 1,753 lbs of lead.

**Thelma and Bernice:** 89 tons of ore yielding 1 oz. Au, 7,419 oz. Ag, (0.01 oz/ton Au, 83.4 oz/ton Ag) 9,683 lbs lead and 10,237 lbs. zinc.

**Almeda:** 3 tons of ore yielding 1 oz. Au, 52 oz. Ag, (0.33 oz/ton Au, 17.33 oz/ton Ag), and 576 lbs. of lead.

**Corona:** No record of shipped ore.

The shafts and adits are collapsed and flooded, the pits and trenches are sloughed in and often tree filled. Remnants of headframes, tracks, and compressor rooms abound on the property, and log cabins are concentrated around the old workings.

**More recently, in 1969,** an IP (Induced Polarization) Survey was conducted on part of the property on behalf of Zulco Exploration Ltd. The results of this survey are presented in the report by J.G. Baird, P.Eng. dated March 1969.

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Since 1980 to the present time, the owners (S.F. Kelly, K. D'Angelo and G. D'Angelo) of the Corona Claim Group, which forms part of the Bob Claims, carried out a geochemical survey and filed under assessment work. Between June-July 1985, eight grid lines were established and 328 soil samples were taken. This program was carried out by Pacific Northwest GeoTech Ltd., of Kamloops, British Columbia.

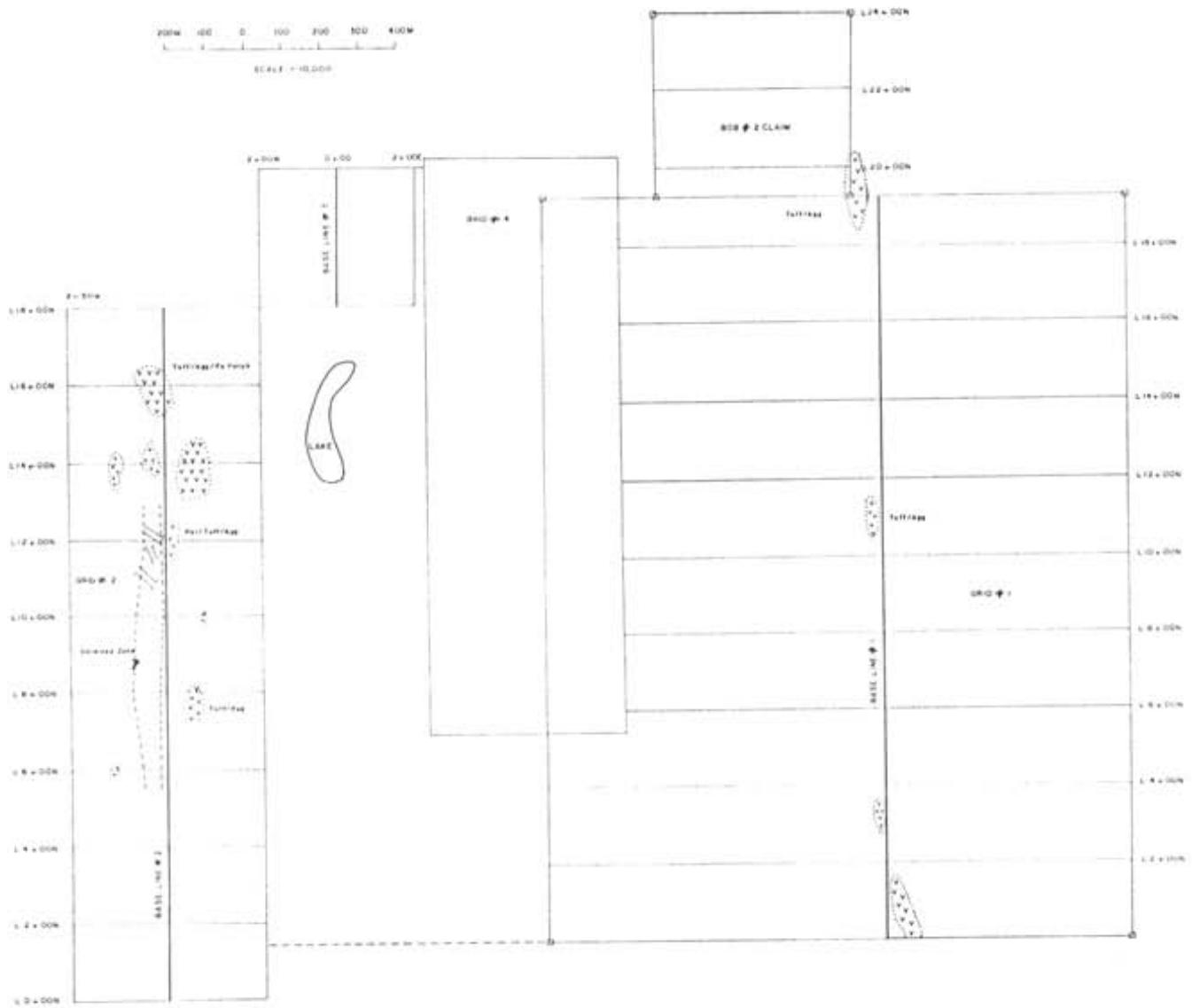
In June 1986, Atlar Resources Ltd., optioned the Bob #1, #2 Claims and Crown Grant claims from Gerald and Keith D'Angelo of Pacific Northwest GeoTech Ltd. and Sherwin F. Kelly. In July 1986, Atlar Resources Ltd. conducted a preliminary exploration program which included grid layout, geological mapping and sampling, geophysical and geochemical surveys on the entire grid area.

#### 4.0 CURRENT WORK (1986) Figure 4

The 1986 work program was designed to review previous work carried out on the Crown Grant claims, and Bob #1 and 2 Claims, as well as to determine the economic potential of the property.

The field work was conducted between July 15 to August 15, 1986. During this period the following work was completed:

- 1) **Grid layout:** 29.1 km of grid lines were established on the property over 4 grid areas: Grid #1 for a total of 16.8 km, Grid #2, 6.8 km; Grid #3, 1.7 km; and finally Grid #4, 3.8 km (**Figure 3A**).
- 2) **Geological Mapping:** Detailed geological mapping on a scale 1:1000 was carried out on Grid #2, (**Figure 5**) and also reconnaissance geological mapping along the baseline of Grid #1.
- 3) **A Geophysical Survey** using Scintrex MP-2 Proton Magnetometer and VLF-EM Surveys was conducted over Grids #1, 2, 3, and 4. Results of this survey are plotted at a scale of 1:1000 and 1:4000 (**Figures 6, 6A, 6C; 7, 7A, 7B**).

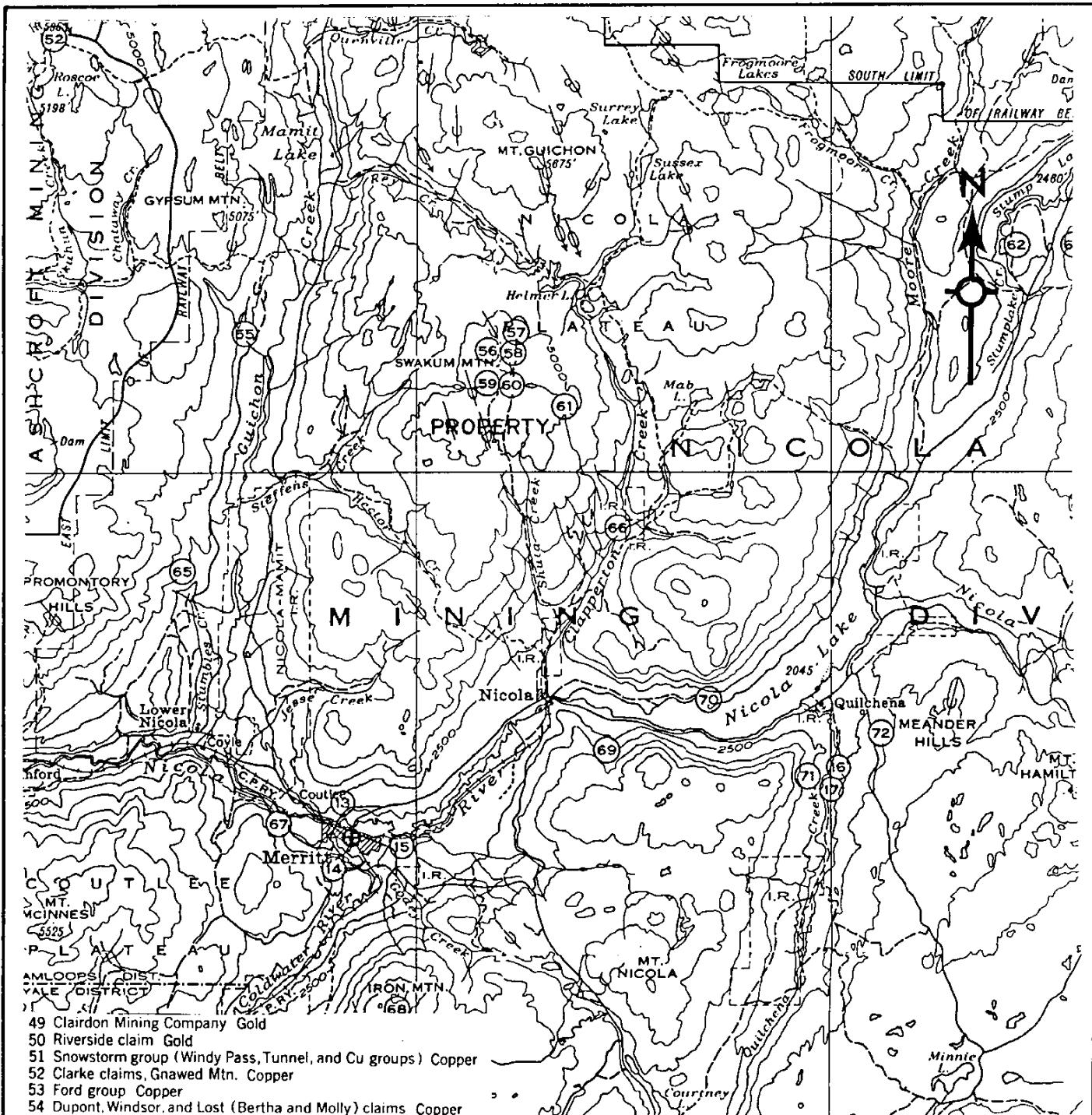


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CORONA-BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICOLA MINING DIVISION 92-1/7

PROPERTY GRID MAP

SCALE: 1:10,000	FIG: 3A
DRAWN BY: D.G.	DATE: OCT. 1986



- 49 Clairdon Mining Company Gold
- 50 Riverside claim Gold
- 51 Snowstorm group (Windy Pass, Tunnel, and Cu groups) Copper
- 52 Clarke claims, Gnawed Mtn. Copper
- 53 Ford group Copper
- 54 Dupont, Windsor, and Lost (Bertha and Molly) claims Copper
- 55 Aberdeen mine Copper
- 56 Gold Gossan group Gold, Silver
- 57 Last Chance group, Swakum Mtn. Copper, Tungsten
- 58 Alameda group Formerly Sheffield Gold
- 59 Corona group Gold, Silver and Silver Mines Ltd.
- 60 Thelma group
- 61 "A" group Gold, Silver
- 62 Consolidated Nicola Goldfields, Ltd. Gold, Silver
- 63 Don group (Scottie) Gold, Silver
- 64 Jean group (Mary Reynolds) Gold, Silver
- 65 Eric claim Copper
- 66 Peacock (Hunter) group Copper, Gold
- 67 Copper Belle and Anaconda groups Copper
- 68 Comstock of B.C. Ltd. Silver, Lead
- 69 Iron King and Iron Queen Iron
- 70 Nicola Lake group Copper, Gold
- 71 Sunny Boy group Copper
- 72 Lakeshore Deep group Copper

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CORONA-BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICOLA MINING DIVISION 92-1/7

MINERAL OCCURRENCES MAP  
G.Sc. MAP 887A

SCALE:

FIG: 4

DRAWN BY: D.G.

DATE: OCT. 1986

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- 4) **A VLF Survey** using the Sabre instrument was conducted over Grids #2, 3, 4.
- 5) **Soil sampling** was carried out only on Grid #2.

## 5.0 GEOLOGY

### 5.1 Regional Geology (Figure 5)

The regional geology of the area is best described by W.E. Cockfield (1948) in G.S.C. Memoir 249.

The area consists of Triassic age interbedded volcanics and sediments of the Nicola formation that are folded into an assymetrical south plunging anticline with a north trending axis. Numerous Jurassic age felsic intrusions cut the region.

### 5.2 Property Geology:

Emphasis was placed on mapping the geology of Grid #2 (Figure 6) on the Crown Grants 4512, 4513, as well as briefly on Grid #1 on the 20 units of the Bob #1 Mineral Claim.

The property lies on the southwest side of Swakum Mountain, wholly within folded mafic volcanics (flows, tuffs and agglomerates). No sediments (limestone, conglomerates) were found on the property. They occur to the east on the Thelma Crown Grants, near the base camp.

#### GRID #2:

Two distinct volcanics were mapped: (1) unaltered mafic interbedded flows, tuffs, and agglomerates. They are dark green to black in color, fine to medium grained, occasionally prophyrytic. (2) altered volcanics which are limonitic, orange colored

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and fine to medium grained.

The altered volcanics occur in a distinct depression between prominent ridges of unaltered volcanics. They form a zone approximately 25 to 70 meters wide, trending roughly north-south, and lying 10-50 meters west of the baseline on Grid #2. The zone can be traced from L4+00N to 12+00N.

#### **GRID #1: (Bob #1 Mineral Claim)**

Prominent north-south trending ridges composed of mafic volcanics similar to the volcanics observed on Grid #2, were examined on the traverse of the baseline.

#### **5.3 Mineralization:**

In Swakum Mountain, two types of mineralization are present:

- 1) **Skarn type:** lenses and pods of skarn along the contact between limestone and volcanics (greenstone). Ore mineralogy includes chalcopyrite, pyrite, sphalerite, galena and tetrahedrite in a garnet-epidote rich skarn assemblage, e.g. Lucky Mike, Alameda and Thelma showings.
- 2) **Vein-type:** sulphides in quartz-carbonate veins within skarn and greenstones. Ore mineralogy includes pyrite, galena, sphalerite and tetrahedrite, e.g. Corona and Alameda showings.

#### **Grid #2: (on Crown Grants #4512, 4513)**

Vein type mineralization was found on Grid #2; 5-10 cm. wide quartz-carbonate veins **within the limonitic altered oxidized volcanic rocks** are exposed in a trench and collapsed shaft (Corona Shaft). The veins strike north-northeast, south-southwest and dip very steeply ( $85^{\circ}$ ) to the west. One vein is exposed in a cat-trench at L+12+00N, 15 meters west of the baseline;

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the other vein is exposed at the Corona shaft at L8+70N / 0+75W (Figure 4A). The latter was traced along the strike to a small pit approximately 35 meters north-northeast of the shaft.

Five (5) rock samples were taken of the veins at the Corona shaft and the trench at Line 12+00N. Geochemical assay results from these samples show very encouraging results in silver and gold values, which vary between 1.62 to 71.31 oz/ton Ag, 0.001 to 0.003 oz/ton Au.

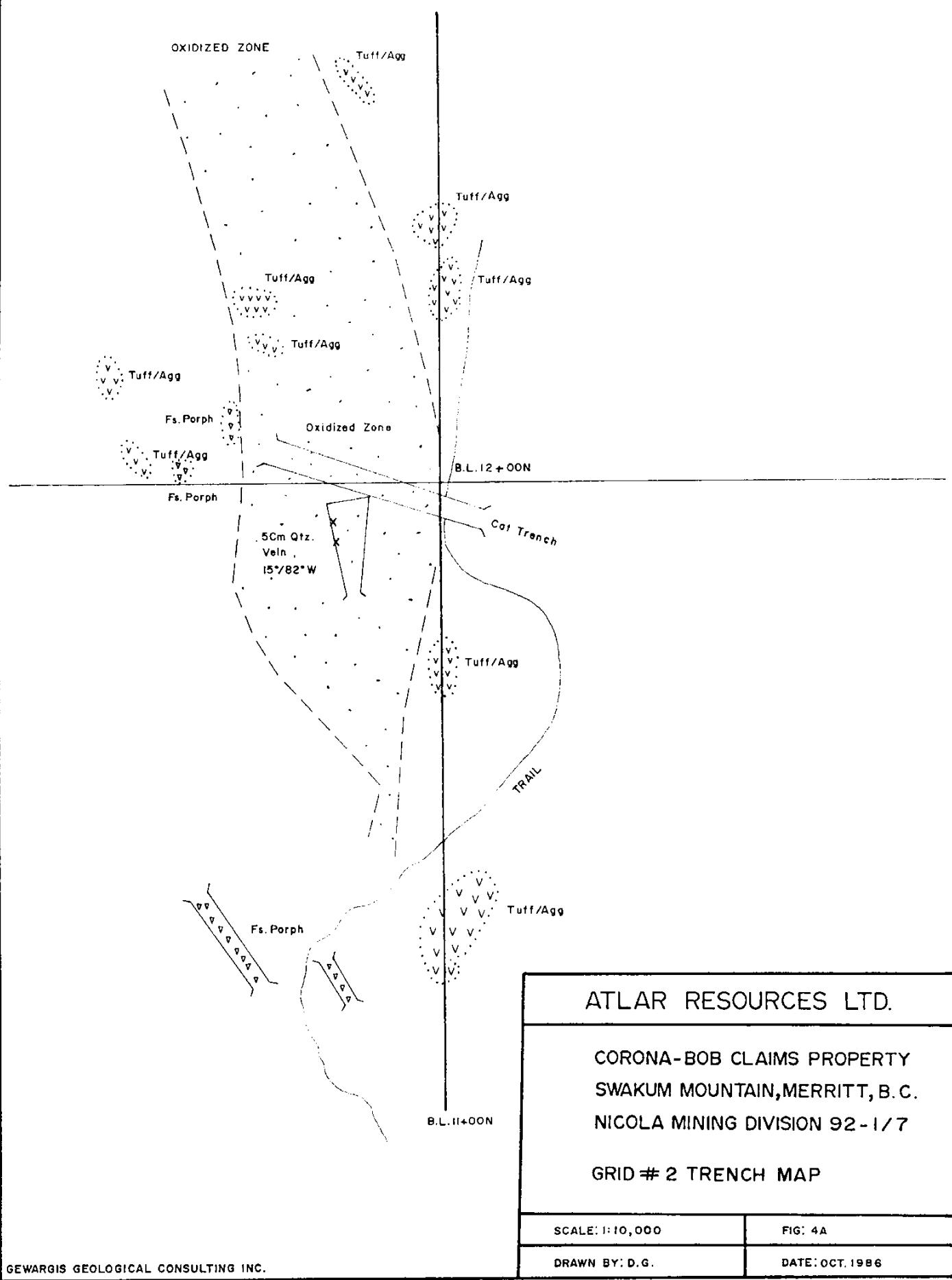
## 6.0 GEOCHEMISTRY

### 6.1 Introduction

Between July and August 1986, a two-phase soil sampling program was performed on Grid #2, in order to outline new zones of mineralization and to better define the oxidized altered volcanic zone. In **Phase 1**, soil samples were taken at 25 meter intervals on lines spaced 200 meters apart. In **Phase 2**, soil samples were taken at 15 meter intervals on lines spaced 50 meters apart, between L4+00N and 14+00N.

The results and locations of sampling are presented in Figures 8, 8A, and Appendix "A". Approximately 100 grams of soil were collected in kraft paper bags from the "B" Horizon; 424 soil samples were collected. A description of each sample location and physical attributes were recorded.

All the samples were sent to Acme Analytical Laboratories in Vancouver, British Columbia, and analyzed for gold-silver and 29 additional elements by Geochemical ICP Method.



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Five rock samples from several quartz veins within altered oxidized volcanics were taken at several locations on Grid #2. The samples were analyzed geochemically and then fire assayed by Acme Analytical Laboratories. The results are shown in Appendix "A".

## 6.2 Results and Interpretation

### Gold (Figure 8)

The gold values range between 1 ppb to 165 ppb. The highest gold value occurs along Line 7+50N 0+50W. Anomalous gold values also occur directly south of the main zone, mainly between Line 4+00N 1+50W - 2+50W to Line 2+00N 1+75W to 2+50W. This linear gold trend is parallel to the oxidized zone and represents a lithological horizon.

### Silver (Figure 8A)

The silver anomalies are more closely confined to the oxidized zone and trends parallel to it. The silver values range between 0.1 ppm to 6.4 ppm. The highest value 6.4 ppm is located at Line 12+00N 0+37W. Values below 0.4 ppm were considered background.

The silver values form three anomalous areas: **The first** is located between Line 11+50N 0+60W to Line 12+50N 0+50W and range between 0.7 ppm to 6.4 ppm. This trend represents an oxidized zone where several trenches have been excavated.

**The second anomaly,** is located between Line 8+00N 0+37W to Line 8+50N 0+25W. This anomaly is located with the oxidized volcanic unit.

**The third anomaly,** between Line 6+50N 0+90W and Line 7+50N 1+00W, and represents oxidized volcanic rocks.

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The above anomalies represent the lithological horizon with known mineral occurrences.

### Arsenic (Figure 8B)

Arsenic shows no anomalous values. The soil assay results for arsenic ranges between 2 ppm to 41 ppm. The highest value 41 ppm is located at Line 2+00N 0+37W, where large trenches have been excavated.

## 7.0 GEOPHYSICAL SURVEY

A geophysical survey, using the following instruments

- (a) A Portable Proton Magnetometer (Scintrex Model MP-2)
- (b) A VLF-EM Receiver, (Sabre Model 27) tuned to VLF Station, Seattle

was carried out on 29.1 km of flagged lines on Grids 1,2,3 and 4. The above survey was conducted by R.W. Plummer, Geologist and the Laroth Engineering field crew.

Readings were taken at 25 meter intervals where a wide range between high and low readings were observed. All the geophysical data is represented in Figures 6, 6A, 6C, 7, 7A, 7B.

### VLF SURVEY:

#### 7.1 Introduction

Two readings, dip angle degree and field strength percentage were recorded at each station.

The dip angle was filtered according to the Fraser Filter Method. Plotting and contouring of filtered data were undertaken. The results of this survey were plotted as profiles to aid interpretation.

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## 7.2 Results and Interpretation

Profiled data obtained from the VLF-EM Survey are presented in Figures 7,7A and 7B) for Grids #2,3, and 4. This survey has produced only minor crossover; very weak conductors with no apparent correlation to the major geological or mineralized features exist on the above grids.

The VLF-EM technique proved to be ineffective as a reconnaissance tool for this deposit.

## MAGNETIC SURVEY:

### 7.3 Introduction

A Scintrex Portable Proton Magnetometer, Model MP-2, was used for this survey. The MP-2 Model is a hand-held instrument with 1 gamma sensitivity and accuracy over field strength varying between 20,000 to 100,000 gammas from a single push button control. Each measurement is displayed on an unambiguous 5 digit readout, directly in gammas, with separate indicators for strength and battery voltage.

In the grid area, along the baseline and crosslines, readings were taken at 25 meter intervals; where a wide range between the high and low readings was discovered, readings were taken every 12.5 meters.

Loops were run to the baselines and crosslines, and corrections were made for diurnal variations accordingly. The readings were filtered for any geological magnetic noise by taking an average of the readings.

Several readings were taken at each station and 'average' readings were plotted on profile map (Figure 8).

A 57,000 gamma regional gradient was removed from all the readings.

#### 7.4 Results and Interpretation

Profile and contours of the vertical magnetic field, displayed in Figures 6, 6A and 6B for Grids areas #1, 2, and 4, were obtained from the results of the Scintrex Proton Magnetometer Survey. There is magnetic relief over the oxidized zone in Grids #2 and #4.

##### **Grid #2, (Figure 6A)**

The maximum variation is over 1000 gammas. This variation represents a metallic content within the various units. Two major anomalous areas have been outlined; both of these anomalies are located parallel to the main oxidized zone, which trends north-south. The axis of the conductor is quite well marked by mild to high variations.

**The first anomaly** is located along the baseline between Line 8+00N to Line 14+00 N, and **the second anomaly** is parallel to the first is also located between Line 8+00N 1+50W to Line 14+00N 1+50W. There are no signs of magnetic low on this grid, therefore all the high magnetic anomalies should be carefully evaluated.

##### **Grid #4 (Figure 6B)**

Grid #4 shows very interesting anomalies trending north-south, parallel to the baseline between Line 1+50N 1+20W to Line 0+50S 1+10W.

The magnetic variation ranges between 57218 to 58765 gammas. Other high magnetic values (58064) exist on this grid, mainly at Line 1+00N 0+70W. Scattered magnetic lows on the grid area may be reflected of thicker overburden, but this is by no means definite. The magnetic survey was effective in outlining several anomalous areas of the above grids which required further evaluation.

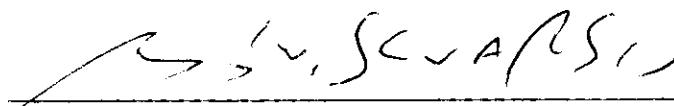
-20-

## 8.0 CERTIFICATE OF QUALIFICATIONS

I, Wilson A. Gewargis, B.Sc., F.G.A.C., of 4811 Dunfell Road, Richmond, British Columbia, hereby certify as follows:

1. I am a Consulting Geologist with an office at Suite 811, 850 West Hastings Street, Vancouver, British Columbia.
2. I am a graduate of the University of Mosul, Iraq (1970), and hold a Bachelor of Science degree in Geology. In addition, I spent two years of post graduate studies in geology and geophysics at the University of Stuttgart, West Germany.
3. I have engaged in mineral exploration work and studies for 15 years in Canada, United States of America, and Europe.
4. I am a Fellow of the Geological Association of Canada and a member of the Society of Mining Engineers of AIME.
5. I did personally supervise the work on the Corona and Bob Claims, Merritt, British Columbia.
6. I have no interest, either directly or indirectly in the "Corona and Bob Claims Property" or securities of Atlar Resources Ltd.

Dated at Vancouver, British Columbia, this 14th day of October 1986.

  
Wilson A. Gewargis, B.Sc., F.G.A.C.  
Consulting Geologist.

-21-

## 9.0 BIBLIOGRAPHY

### **British Columbia Minister of Mines Annual Report:**

1917, 1918, 1928, 1929, 1934, 1965, 1967, 1968, 1959, 1958, 1967, 1925 on the Almeda Claim, Lucky Mike, Thelma, Swakum Mountain, Corona.

### **W.E. Cockfield (1948):**

Geology and Mineral Deposit of Nicola Map Area, British Columbia, Memoir 249, Geological Survey.

### **Geology Map "Nicola" G.S.C. Map 886A:**

### **Aeromagnetic Series, Map 5212G:**

Mamit Lake Sheet.

### **J.G. Baird, P.Eng. (April 1969):**

Report on IP Survey (Induced Polarization Survey) on Alameda Property, Merritt area, British Columbia.

### **Sherwin F. Kelly, P.Eng (October 1964):**

Summary Report on the Corona Group of Mineral Claims on Swakum Mountain.

### **Sherwin F. Kelly, P.Eng. (November 1985):**

Report of Assessment work by Geochemical Soil Surveys on old Alameda Claims in the Corona Group.

STATEMENT OF COST  
CORONA-BOB CLAIMS PROPERTY.  
TOTAL OF \$13100.00  
APPLIED FOR ASSESSMENT WORK.

# LAROTH ENGINEERING LTD.

MINING CONSULTANTS AND CONTRACTORS

## HEAD OFFICE

Suite 811, 850 West Hastings Street,  
Vancouver, B.C. V6C 1E1  
Tel: (604) 687-6245

## FIELD OFFICE

325 Peck Road,  
Kelowna, B.C. V1X 4R1  
Tel: (604) 860-6094

August 15, 1986

Invoice No. 4

Atlar Resources Ltd.  
Suite 811  
850 West Hastings Street  
Vancouver, B.C.  
V6C 1E1

Re: Merritt, B.C. Property

Perform Geochemical survey;  
30 km of magnetometer;  
10 km of VLF survey;  
Supply camp food at cost.

Geochemical survey - 200 samples, sampler and assistant - 6 man days @ \$190.00/day	\$1,140.00
30 km magnetometer survey Operator 10 man days @ \$150.00/day	1,500.00
10 km VLF survey - 4 man days @ \$150.00/day	600.00
Engineering & Supervision - 3 days @ \$300.00/day	900.00
Supply food & lodging - 23 man days @ \$30.00/day	690.00
4 x 4 vehicle - 1/2 month	600.00
4 x 4 Toyota - 1/2 month	600.00
Gas for vehicles	<u>600.00</u>
Total	<u>\$6,990.00</u>

# LAROTH ENGINEERING LTD.

## MINING CONSULTANTS AND CONTRACTORS

## HEAD OFFICE

Suite 811, 850 West Hastings Street,  
Vancouver, B.C. V6C 1E1  
Tel: (604) 687-6245

**FIELD OFFICE**

325 Peck Road,  
Kelowna, B.C. V1X 4R1  
Tel: (604) 860-6094

Invoice No. 5

August 29, 1986

Atlar Resources Ltd.  
475 - 605 Howe Street  
Vancouver, B.C.

### Detail soil sampling and flagging - #2 grid area

*9 man days @ \$190.00/day* \$1,710.00

Prospecting - 2 man days @ \$200.00/day 400.00

Supervision - Engineering  
Administration - Trip to Merritt, meet with S. Kelly, P.Eng. Apply assessment work - Trip to Vancouver, meet with R. McKenzie. Deliver soil samples and magnetometer

4.5 man days @ \$300.00/day 1,350.00

**Vehicle - 1355 km @ 30¢/km**      **406.50**

*Expenses - Meals & Lodging* 75.00

*Demobilize camp, vehicles & labour* 350.00

Total \$4,561.50

# LAROTH ENGINEERING LTD.

MINING CONSULTANTS AND CONTRACTORS

## HEAD OFFICE

Suite 811, 850 West Hastings Street,  
Vancouver, B.C. V6C 1E1  
Tel: (604) 687-6245

## FIELD OFFICE

325 Peck Road,  
Kelowna, B.C. V1X 4R1  
Tel: (604) 860-6094

September 1, 1986

Invoice No. 6

Atlar Resources Ltd.  
475 - 605 Howe Street  
Vancouver, B.C.

4 x 4 vehicle  
Used soil sampling - general use  
August 15 to 31, 1986

\$600.00

# LAROTH ENGINEERING LTD.

MINING CONSULTANTS AND CONTRACTORS

## HEAD OFFICE

Suite 811, 850 West Hastings Street,  
Vancouver, B.C. V6C 1E1  
Tel: (604) 687-6245

## FIELD OFFICE

325 Peck Road,  
Kelowna, B.C. V1X 4R1  
Tel: (604) 860-6094

August 15, 1986

Invoice No. 3

Atlar Resources Ltd.  
Suite 811  
850 West Hastings Street  
Vancouver, B.C.  
V6C 1E1

Merritt, B.C. Property stake, 16 units. Cut 2.4 km base line, flag 28 km line. Provide camp and food (included in rate).

<u>Staking 16 units @ \$60.00/unit</u>	<u>\$ 960.00</u>
Cut 2.4 km base line @ \$275.00/km	660.00
Flag & chain 28 km cross lines @ \$160.00/km	4,480.00
Engineering supervision logistics 6 days @ \$300.00/day	1,800.00
4 x 4 vehicle - 1/2 month	600.00
4 x 4 Toyota - 6 days @ \$60.00/day	360.00
Gas for vehicles	<u>700.00</u>
Total	<u><u>\$9,560.00</u></u>

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**APPENDIX "A"**

**VLF SURVEY PROCEDURE**

## VLF SURVEY PROCEDURE

The instrument was operated as follows:

- 1) With the instrument held horizontal in front of the operator, turn around until a null appears on the field strength meter. You should now be facing the station.
- 2) With the receiving still facing the station, lift it to the vertical position and rotate it slightly in the vertical plane to your right or left until the best null appears on the field strength meter. Record the angle on the inclinometer at which the null appears, this is the DIP ANGLE (Positive or Negative).
- 3) Return the instrument to the horizontal plane and turn around until the field strength meter is at its maximum reading. Set this maximum reading at 100 on the meter and record the reading on the gain control dial. This is the Field Strength Reading.
- 4) Repeat Steps 1, 2 and 3 at each station.
- 5) To test the batteries turn the power switch on and push the test button. The Field Strength meter should read above the red mark. Battery life is approximately 200 hours, and if the instrument is turned off between readings, the batteries should last for an entire season.

**NOTE: An alternative way of measuring Field Strength is as follows:**

Proceed as in Step 3, setting the meter to 100. Now push the Field Strength button (marked FS) and the meter will read 50%. (If it doesn't, adjust the gain control slightly.) Leave the Gain Control setting where it is and take comparative Field Strength reading at each station by pressing the Field Strength button and reading the meter reading, which will vary from its Base Station Reading as you pass over conductive zones.

-24-

**APPENDIX "B"**

**ACME ANALYTICAL LAB CERTIFICATES  
FOR SOIL AND CHIP ROCK SAMPLES**

ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED OCT 7 1986  
852 E. HASTINGS, VANCOUVER B.C.  
FH: (604)253-3158 COMPUTER LINE:251-1011 DATE REPORTS MAILED *Oct 8/86*

### ASSAY CERTIFICATE

SAMPLE TYPE : PULP  
AG\*\* AND AU\*\* BY FIRE ASSAY

ASSAYER D. Toye DEAN TOYE . CERTIFIED B.C. ASSAYER

LAROTH ENGINEERING PROJECT BOB CLAIMS FILE# 86-1741 R PAGE# 1

SAMPLE	Ag** oz/t	Au** oz/t
4701	1.62	.001
4702	71.31	.003
4703	14.48	.001
4704	10.93	.001
4705	5.27	.001

1E ANALYTICAL LABORATORIES LTD.  
602 E.HASTINGS ST.VANCOUVER B.C. V6A 1R6  
PHONE 253-3158 DATA LINE 251-1011

DATE RECEIVED: JULY 30 1986

DATE REPORT MAILED: *Aug 5/86...*

## GEOCHEMICAL ICP ANALYSIS

.500 GRAM SAMPLE IS DIGESTED WITH 3ML 3-1-2 HCL-HNO3-H2O AT 95 DEG. C FOR ONE HOUR AND IS DILUTED TO 10 ML WITH WATER.  
THIS LEACH IS PARTIAL FOR MN.FE.CA.P.CR.MG.BA.TI.B.AL.NA.K.W.SI.ZR.CE.SN.Y.NB AND TA. AU DETECTION LIMIT BY ICP IS 3 PPM.  
- SAMPLE TYPE: ROCK CHIPS AU ANALYSIS BY AA FROM 10 GRAM SAMPLE.

ASSAYER: *D. Toye* DEAN TOYE. CERTIFIED B.C. ASSAYER.

LAROTH ENGINEERING PROJECT - BOB CLAIMS FILE # 86-1741 PAGE 1

SAMPLE#	Ag PPM	Au* PPB
4701	52.0	30
4702	295.5	95
4703	461.7	38
4704	369.3	28
4705	186.6	22
STD C/AU 0.5	6.8	495

*✓* redundant required for correct result —

















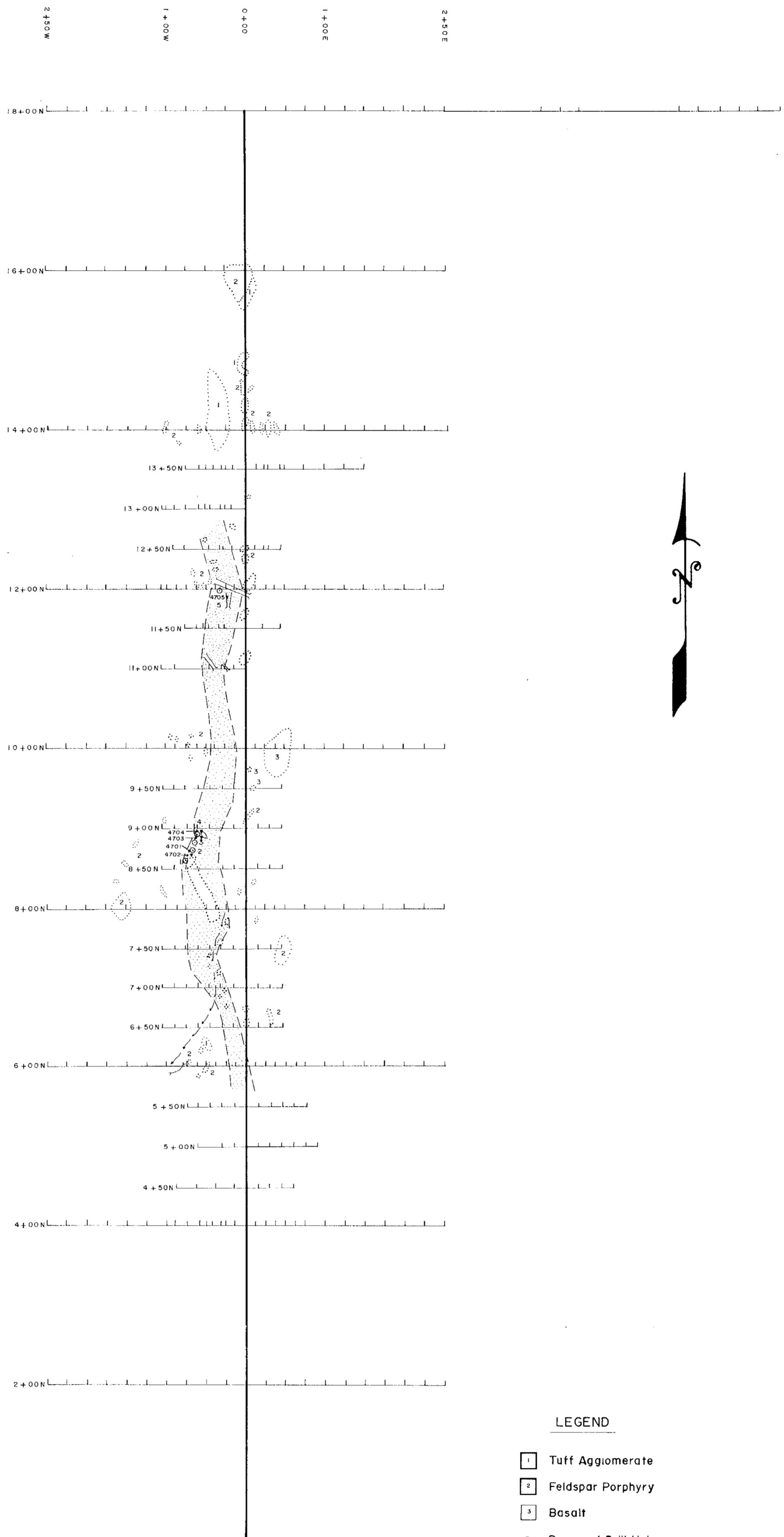












#### LEGEND

- [Box] Tuff Agglomerate
- [Box] Feldspar Porphyry
- [Box] Basalt
- [Circle] Proposed Drill Hole
- [Arrow] Oxidized Zone
- [Diamond] Sample Location
- [Circle with cross] Outcrop
- [Line] Stream
- [Wavy line] Trench

LURANCIA  
REPORT

15,312

ATLAR RESOURCES LTD.

CORONA-BOB CLAIMS PROPERTY

SWAKUM MOUNTAIN, MERRITT, B.C.

NICOLA MINING DIVISION, 92-1/7

PROPERTY GEOLOGY MAP

GRID # 2

TO ACCOMPANY A REPORT BY:  
WILSON GEWARGIS, B.Sc., F.G.A.C.  
GEWARGIS GEOLOGICAL CONSULTING INC.

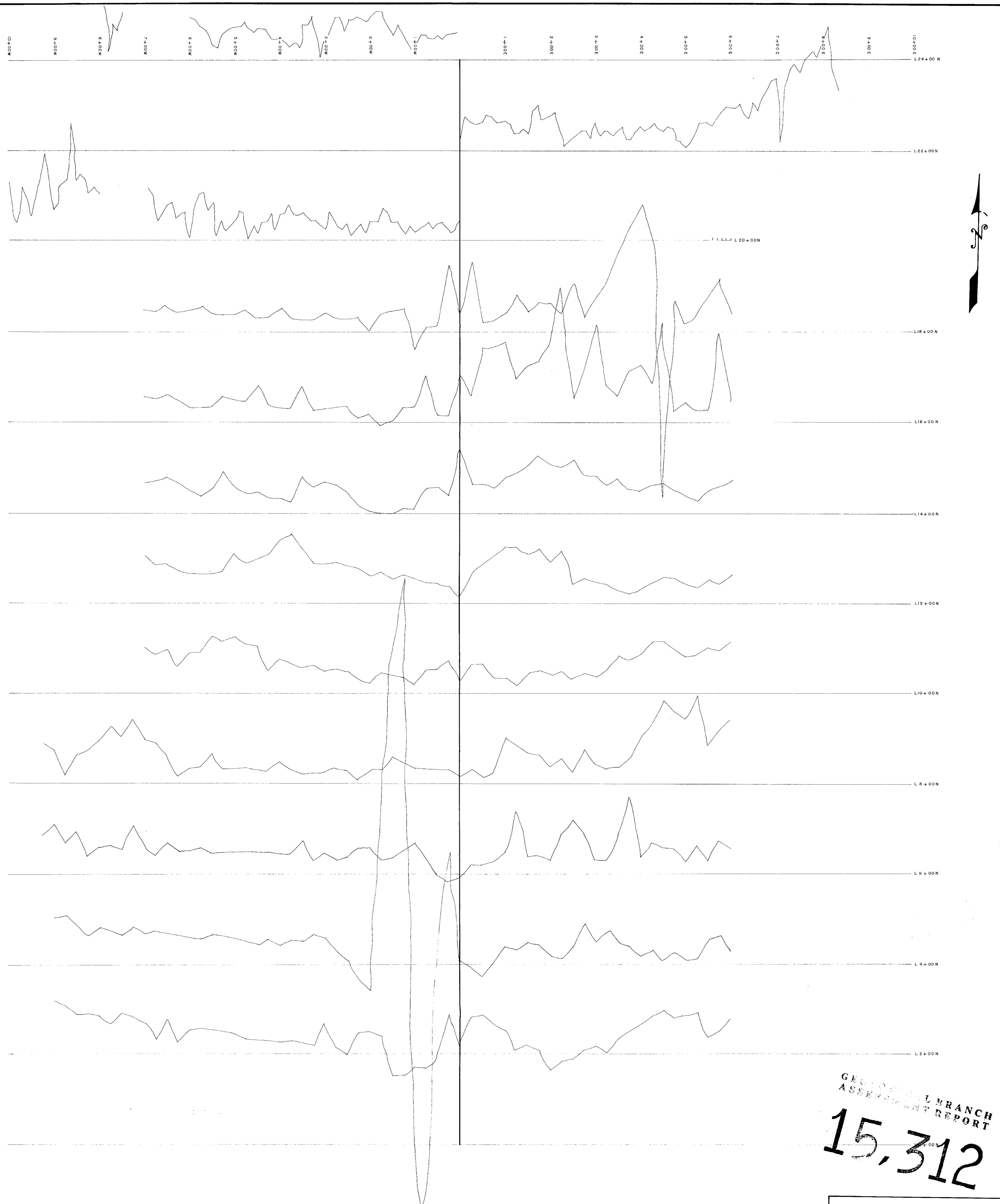
SCALE: 1:4000

FIG: 5

DRAWN BY: D.G.

DATE: OCTOBER, 1986

Sample No	Width M	Oz / t Au	Oz / t Ag
4701	0.3	.001	1.62
4702	GRAB	.003	71.31
4703	0.6	.001	14.48
4704	0.3	.001	10.93
4705	GRAB	.001	5.27



**LEGEND**

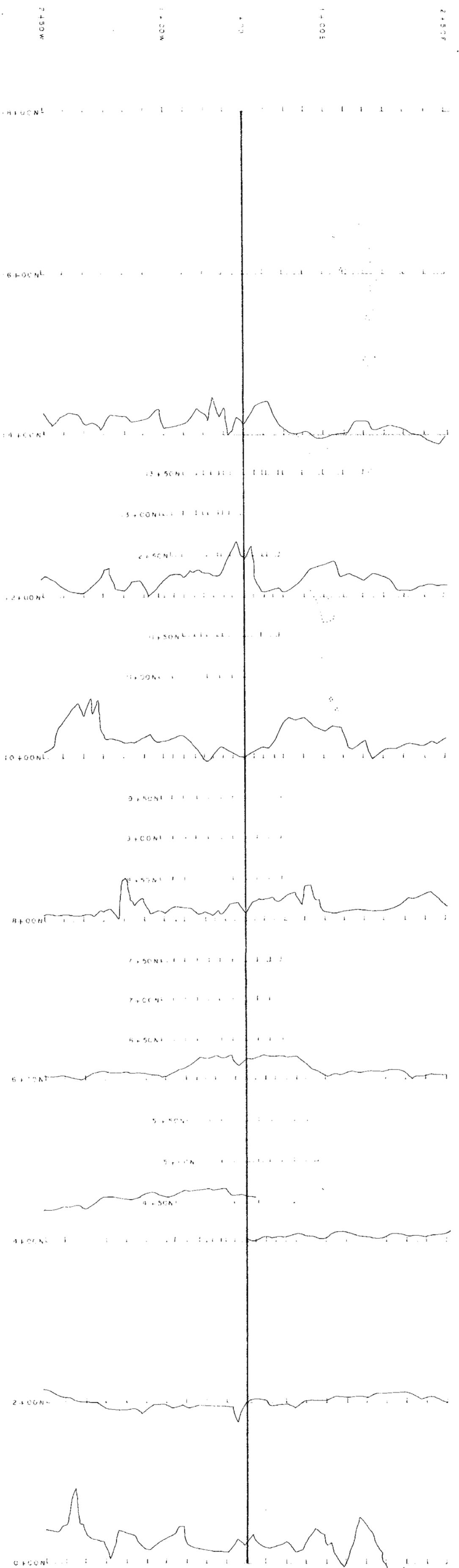
Instrument: Scintrex Portable Proton  
Magnetometer, Model MP-2

57,400 N  
57,200 S  
57,000 S

TO ACCOMPANY A REPORT BY:  
WILSON GEWARGIS, B.Sc., F.G.G.C.  
GEWARGIS GEOLOGICAL CONSULTING INC.

ATLAR RESOURCES LTD.	
CORONA-BOB CLAIMS PROPERTY SWAKUM MOUNTAIN, MERRITT, B.C. NICOLA MINING DIVISION, 92-1/7 MAGNETOMETER PROFILE MAP GRID # 1	
SCALE: 1:4000	FIG. 6
DRAWN BY D.G.	DATE: OCTOBER, 1986

GEOL. ASSESS. & SURVEY BRANCH  
REPORT  
15,312



LEGEND

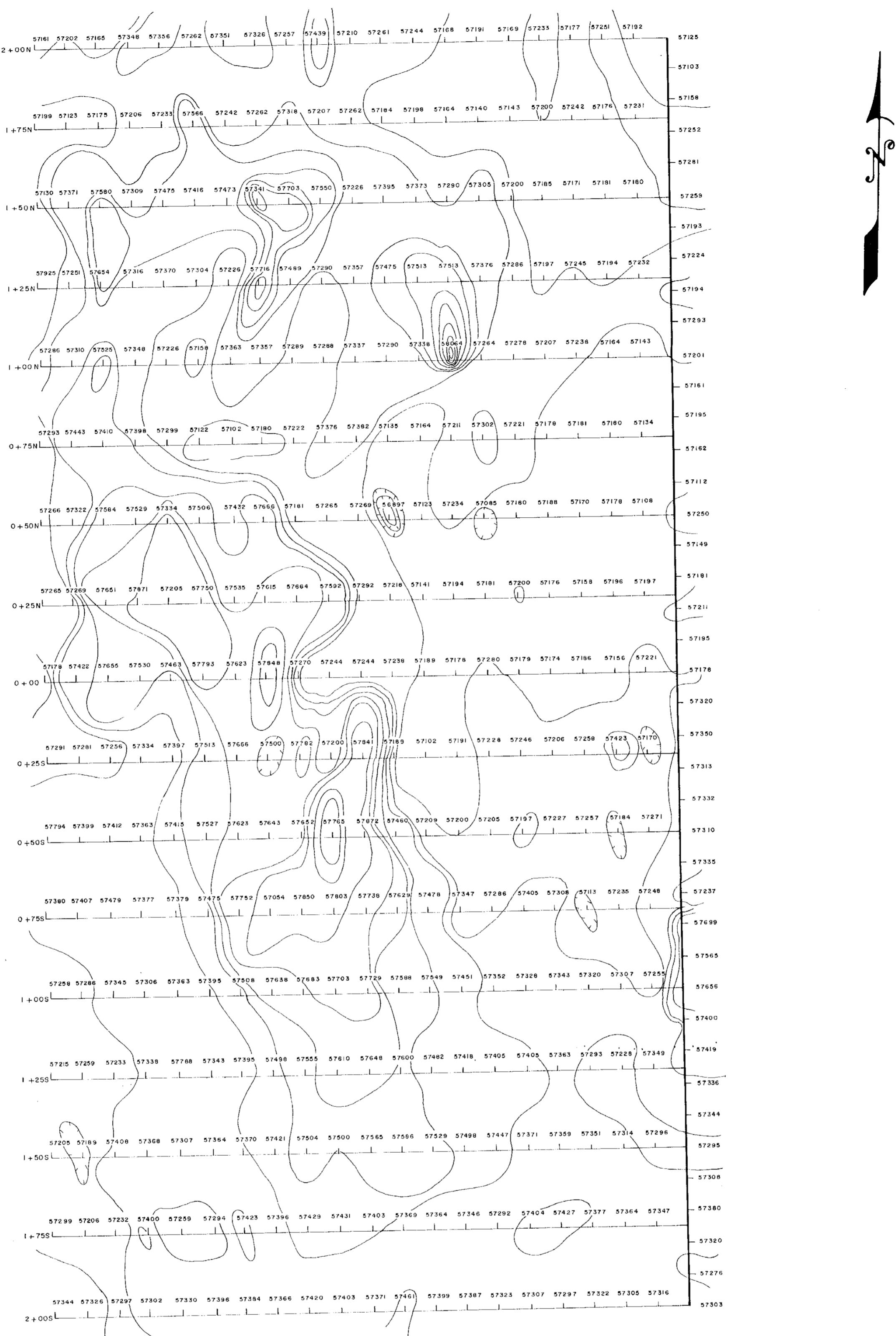
Instrument: Scintrex Portable Proton Magnetometer  
Model MP-2

MAP SCALE  
57,500S  
57,000S  
56,500S

GEOPHYSICAL BRANCH REPORT  
ASSISTANT REPORTER

15,312

ATLAR RESOURCES LTD.	
CORONA - BOB CLAIMS PROPERTY	
SWAKUM MOUNTAIN, MERRITT, B.C.	
NICOLA MINING DIVISION, 92-1/7	
MAGNETOMETER PROFILE MAP	
GRID # 2	
SCALE 1:4000	FIG. 6A
DRAWN BY D.G.	DATE OCTOBER, 1986



LEGEND

Instrument: Scintrex Portable Proton  
Magnetometer, MP-2  
Contour Interval 100  $\delta$

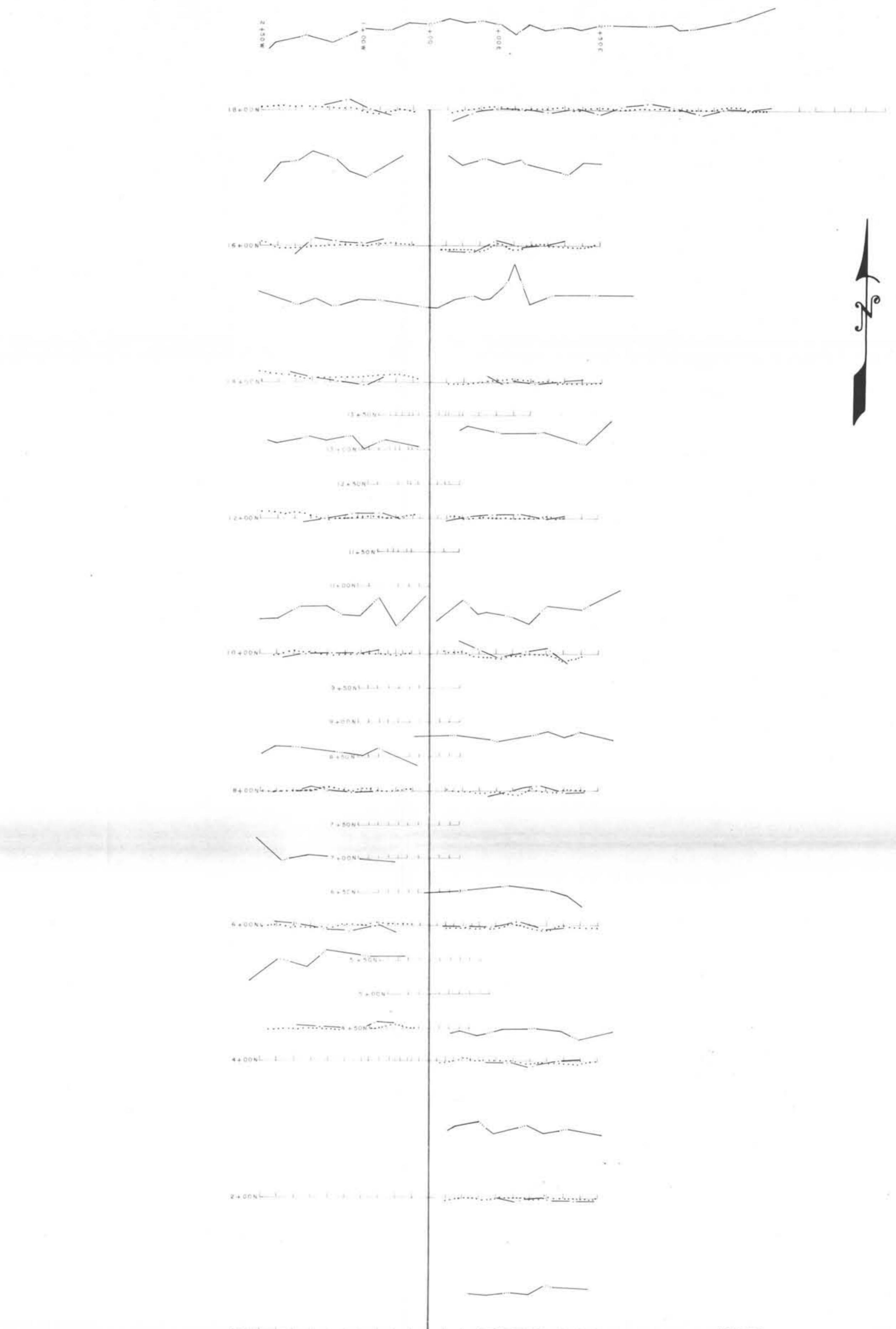
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SWAKUM MOUNTAIN, MERRITT, B.C.  
NICOLA MINING DIVISION, 92-1/7  
MAGNETOMETER CONTOUR MAP  
GRID # 4

SCALE: 1:1000 FIG: 6C  
DRAWN BY: D.G. DATE: OCTOBER, 1986

15,312



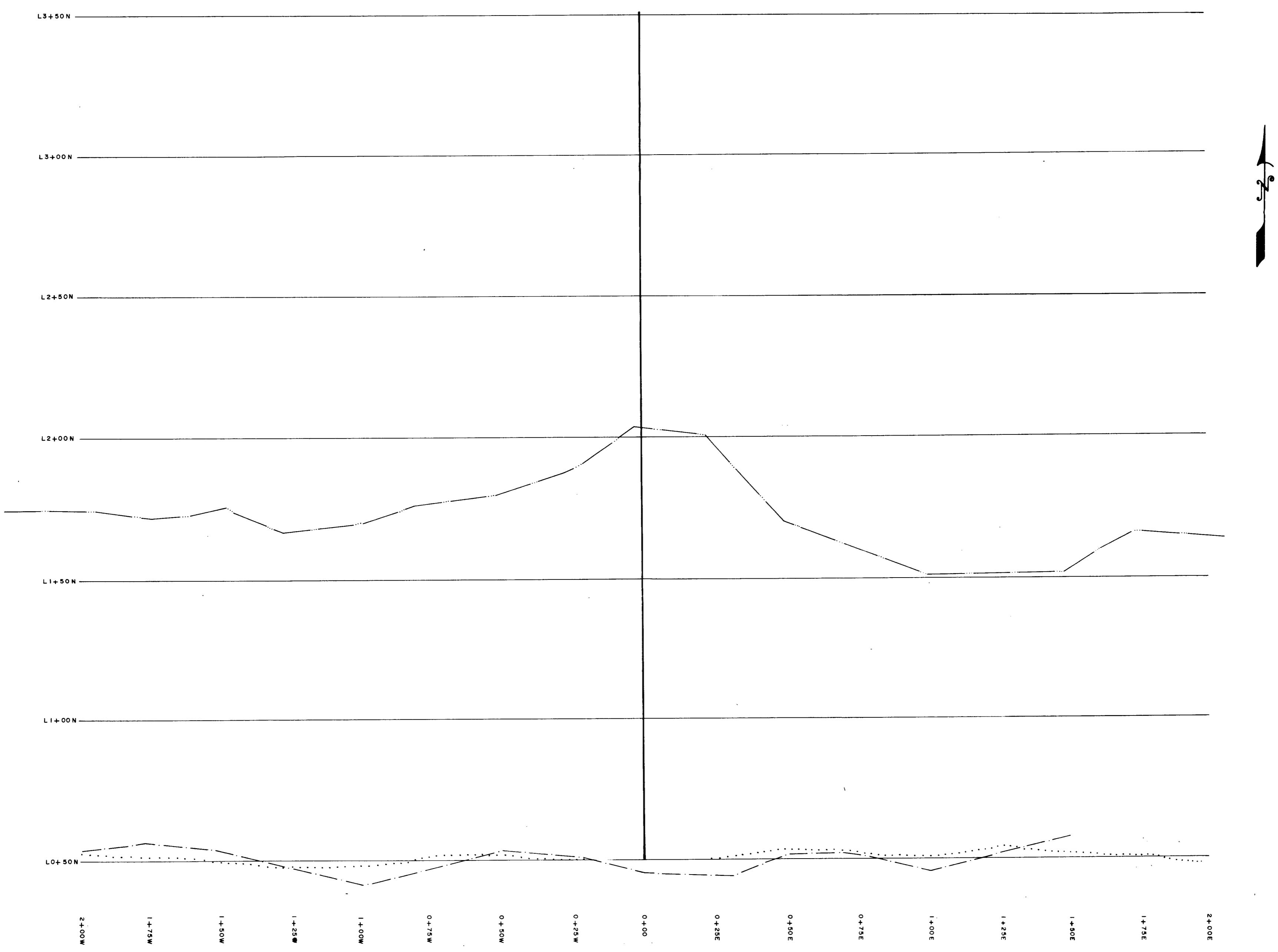
#### LEGEND

Instrument: Sabre Model 27, VLF-EM  
 ..... Unfiltered Dipangle Degree  
 - - - Filtered Dipangle Degree  
 - - - Field Strength %  
 Station Seattle

MAP SCALE  
 +10°  
 0  
 -10°

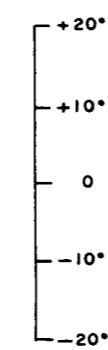
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CORONA-BOB CLAIMS PROPERTY  
 SWAKUM MOUNTAIN, MERRITT, B.C.  
 NICOLA MINING DIVISION, 92-1/7  
 VLF FRASER FILTER PROFILE  
 GRID # 2



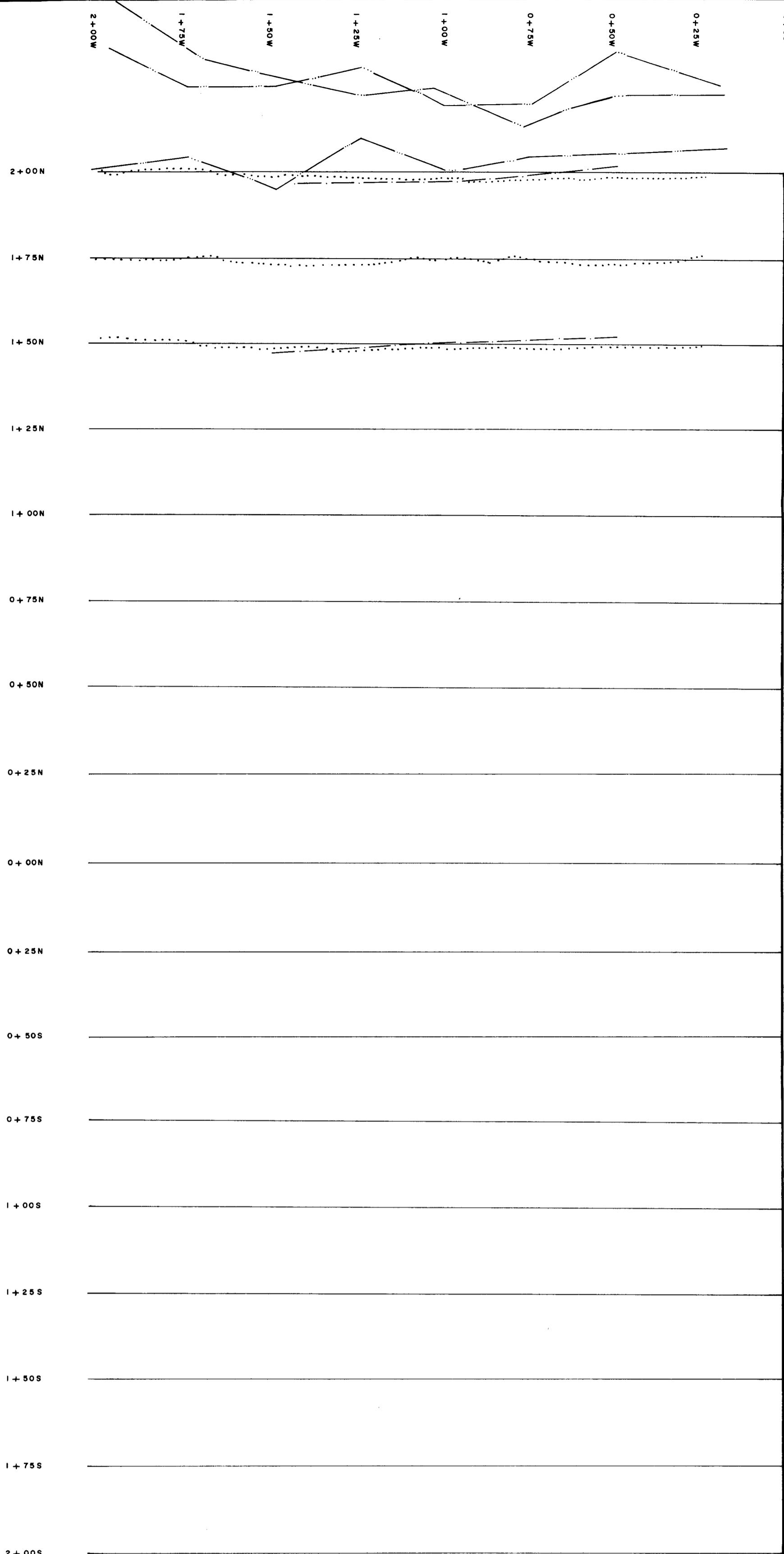
LEGEND

- Instrument: Sabre Model 27, VLF-EM  
 ..... Unfiltered Dipangle Degree  
 - - - Filtered Dipangle Degree  
 - - - Field Strength %  
 Station Seattle



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

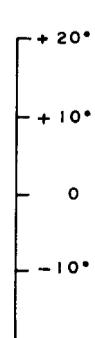
15,312  
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CORONA-BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICOLA MINING DIVISION, 92-1/7  
VLF FRASER FILTER PROFILE  
GRID # 3



### GEOLOGICAL BRANCH ASSESSMENT REPORT

#### LEGEND

Instrument: Sabre Model 27, VLF-EM  
 ..... Unfiltered Dipangle Degree  
 ——— Filtered Dipangle Degree  
 ——— Field Strength %  
 Station Seattle



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CORONA-BOB CLAIMS PROPERTY  
 SWAKUM MOUNTAIN, MERRITT, B.C.  
 NICOLA MINING DIVISION, 92-1/7  
 VLF FRASER FILTER PROFILE  
 GRID # 4

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SCALE:

FIG: 7B

DRAWN BY: D.G.

DATE: OCTOBER, 1986



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**15,312**

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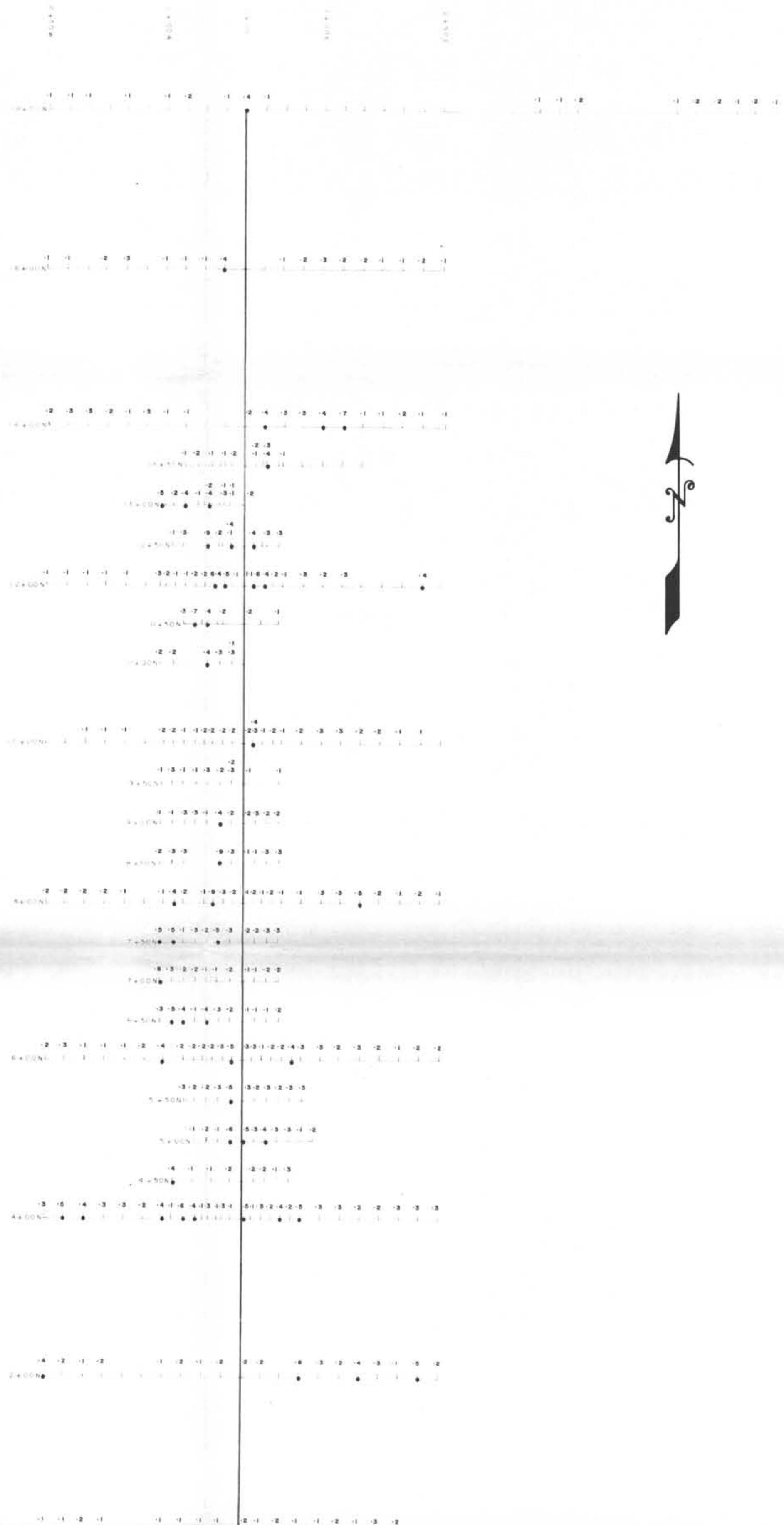
CORONA-BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICA MINING DIVISION, 92-1/7  
GEOCHEMICAL SURVEY, GOLD - Au  
GRID # 2

ATLAR MINING REPORT BY  
ATLAR RESOURCES LTD.  
GEORGES RECHAGLAY CONSULTING INC

SCALE 1:4000 FIG. 8  
DRAWN BY D.G. DATE OCTOBER, 1986

LEGEND

> IOPPb Anomalous Value



**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**15,312**

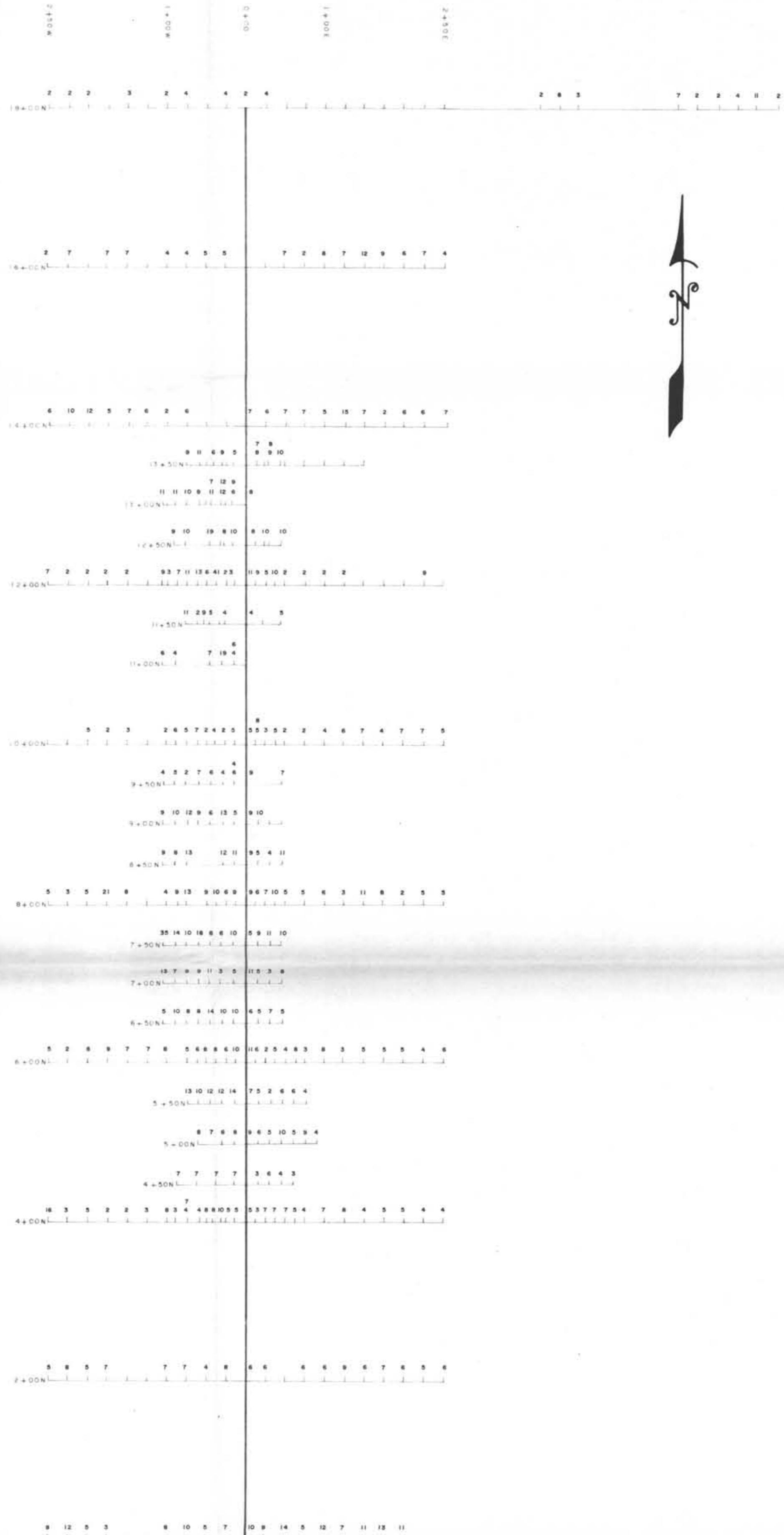
**ATLAR RESOURCES LTD.**

CORONA-BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICOLA MINING DIVISION, 92-1/7  
GEOCHEMICAL SURVEY, SILVER - Ag  
GRID # 2

SCALE 1:40,000	FIG. 8A
DRAWN BY G.W.	DATED OCTOBER, 1986

LEGEND

>0.4PPm Anomalous Value



GEOLOGICAL BRANCH  
ASSESSMENT REPORT

**15,312**  
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CORONA - BOB CLAIMS PROPERTY  
SWAKUM MOUNTAIN, MERRITT, B.C.  
NICA MINING DIVISION, 92-1/7  
GEOCHEMICAL SURVEY ARSENIC - As  
GRID # 2

TO ACCOMPANY A REPORT BY  
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GEORGES GEOLOGICAL CONSULTING INC.

SCALE: 1:4000

FIG. BB

DRAWN BY: D.G.

DATE: OCTOBER, 1986