

ASSESSMENT REPORTS

MAP No. 105-1-7 TYPE OF WORK: Geochemical

REPORT FILED UNDER	Atlas Exploration Ltd.	
DATE PERFORMED	June - July, 1968	DATE FILED:
LOCATION - LAT.	62°20'N	Gordon Lake, N.W.T.
LONG.	128°35'W	
CLAIM Nos.	NIP 1-10 84658 - 84667	
WORK DONE BY	Atlas Explorations Ltd. - Brock	
WORK DONE FOR	Atlas Explorations Ltd.	
REMARKS	See report "Geology of The NIP Mineral Claims" by K. Kirkland, July/6	
	A soil sampling survey was conducted and analysed for copper, lead and zinc.	
	Tungsten was the <i>main</i> mineral concern. Selective diamond drilling is recommended.	
		\$1865.00

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(N.P.L.)

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This report has been examined by the  
Geological Evaluation Unit. Approved  
as to technical worth by *AW*  
Resident Geologist

Declared acceptable as representation  
work under Section 32 (1b) and valued  
in the amount of \$ 1865.00

*J.P. Oliver*  
Chief

GEOCHEMICAL SURVEY OF THE  
NIP MINERAL CLAIM GROUP

GORDON LAKE  
NORTHWEST TERRITORIES

Longitude 128° 35'W  
Latitude 62° 20'N

NTS 105-I-7

by:

John S. Brock

ATLAS EXPLORATIONS LIMITED

June 26th to July 10th  
1968

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## GEOCHEMICAL SURVEY OF THE NIP MINERAL CLAIMS GROUP

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## GEOCHEMICAL SURVEY OF THE NIP MINERAL CLAIM GROUP

### INTRODUCTION

From July 1st to July 10, 1968 a soil sampling survey was carried out over the Nip Mineral Claims (105-I-7) Gordon Lake Area, Northwest Territories. The survey was done in conjunction with a magnetometer survey and a geologic mapping and sampling program under Party-Chief, Ken Kirkland for Atlas Explorations Limited.

The property was previously held by Canex Aerial Explorations of Vancouver, B.C. During 1960 and 1961 the property was developed by hand trenching and small diameter core drilling by Canex, it was subsequently dropped due to the low price of tungsten and re-staked by prospector Hugo Brodell for Atlas Explorations in 1967.

The program carried out by Atlas Explorations during late June and July of 1968 was designed to re-evaluate the tungsten showings in view of a more promising tungsten market.

### LOCATION AND ACCESS

The 'Nip' Group is located at longitude  $128^{\circ} 35'$  west and latitude  $62^{\circ} 20'$  north, 22 miles east of the Northwest Territories - Yukon border. Access was gained to the claims by float equipped Beaver aircraft from Ross River, Yukon to Gordon Lake, located 3 miles northwest of the property. A helicopter was used to ferry the camp and personnel to the

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claims from Gordon Lake. The claims are 128 miles east-northeast of Ross River, Yukon and 32 miles northwest of Canada Tungsten Mine.

## SURVEY METHOD

**Survey Grid:** A survey grid was laid out over the claims by pace and compass methods, seven east-west lines of maximum length 6000 feet were run with 800 foot spacing and 100 foot station intervals. Samples were collected at every 100 foot station on the grid.

**Sampling Technique:** Soil samples were collected from the 'B' soil horizon, about one foot beneath the organic surface, soils were taken with the aid of a prospector's grub hoe. About three tablespoons of material sampled were placed in Kraft paper bags designed for soils collection, each bag was numbered with the station at which the soil was taken. All soils were forwarded to Ross River for analysis at the Atlas Explorations geochemical laboratory.

**Analysis Technique:** All samples were pulverized to approximately minus 100 mesh and digested in a solution of 2ml. water, 5 ml. Perchloric acid and 5 ml. Nitric acid. Samples in solution were heated for 30 minutes then diluted to 100 ml. and analyses were carried out by atomic absorption. Results were given in parts per million for copper, lead and zinc.

**Presentation:** All results were plotted on a grid plan and contour maps of each element prepared.

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## GEOLOGY

See report, "Geology of the Nip Mineral Claims", by K. Kirkland, July 1968.

## GEOCHEMICAL RESULTS

351 samples were analysed for copper, lead and zinc content, at the time of presentation of this report, lead results were not yet available from the laboratory.

Copper geochemistry is thought to be an important indicator of scheelite on the property because of an apparent close association between scheelite and chalcopyrite mineralization found in both floats and the main showing. Threshold values for copper have been determined as 60 ppm., maximum values were obtained in excess of 300 ppm. copper in soils. Four distinct copper anomalies over 60 ppm., were obtained over the grid area. The major anomaly, east of the baseline, striking northeast, has been traced for 4500 feet, averages 400 feet in width and is 'open' at its northern limit, a small single line anomaly (probably related to main zone) occurs on line 5, 2000 feet east of the baseline. A localized anomaly occurs at the intersection of line 5 and the base line, the fourth copper anomaly is on line 3, 500 feet west of the baseline.

Zinc geochemistry is not emphasised as being of economic importance, however it probably is representative of the more carbonaceous sedimentary units.

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Coincident zinc anomalies (over 400 ppm) occur with copper, on lines 3, 4, and 5. Over the major copper zone, zinc is coincident above 100 ppm, zinc 'highs' are not necessarily coincident with copper 'highs'.

Lead results were not available from the laboratory at the time this report was prepared.

## GEOCHEMICAL INTERPRETATION

Because copper mineralization occurs with the tungsten found in the main showing on the Nip Claims, copper is being used as a geochemical tool to further trace possible extensions of the known mineral occurrences. Topographic slope is generally southeast to northwest, migration of copper in soils is probably limited as seen by results over known mineralization, if zinc is coincident with copper, migration is only in the order of a few hundred feet to the west and northwest. The major copper zone is not coincident with geologic strike but appears to conform with the probable underlying contact of the intrusive and therefore could be representing the altered skarn zone marginal to the intrusive contact, it is within this zone that scheelite has been found.

## CONCLUSIONS AND RECOMMENDATIONS

The major copper geochemical anomaly probably represents the skarn zone (host unit) marginal to the intrusive contact, no distinct relationship is known between the chalcopyrite and scheelite mineralization found to date, but it appears reasonable to assume the copper

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geochemistry could be an indicator of scheelite mineralization.

As the remoteness of the area makes bulldozer clearing impractical, selective diamond drilling of the copper geochemical anomaly is recommended.

Respectfully submitted,



John S. Brock,  
Operations Manager,  
Atlas Explorations Limited

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## APPENDIX 1.

### Summary of Expenditures

June 26 - July 11, 1968

A. Geologic Mapping	Wages	\$ 336.00		
	Camp cost	160.00		
	Helicopter	260.00		
	Fixed Wing	152.00	.....	\$ 908.00
B. Geochemical Survey	Wages	240.00		
	Camp cost	160.00		
	Helicopter	260.00		
	Fixed Wing	152.00		
	Analysis	1053.00	.....	1865.00
C. Geophysical Survey	Wages	272.00		
	Camp cost	160.00		
	Helicopter	260.00		
	Fixed Wing	152.00		
	Magnetometer Rent	160.00	.....	1004.00

### Details of Expenditures

Wages	Kirkland - Geologist	\$ 336.00		
	Newsom - Assistant	272.00		
	Harper - Assistant	240.00	.....	\$ 848.00
Camp costs	16 days, 48 man days at \$10/day			480.00
Helicopter	6 hrs, mob. and demonb. Gordon Lk. to Nip Claims, ferry charges included at \$130/hr.			780.00
Fixed Wing	Ross River-Gordon Lk. ret. mob. and demob. 536 miles at 85¢/mile			456.00
Magnetometer rental	16 days at \$10/day			160.00
Geochemical analysis	351 samples, 3 determinations at \$1 each			<u>1053.00</u>
			TOTAL	\$ 3777.00

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APPENDIX 2.


Affidavit Supporting Statement of Expenditures

I, John S. Brock, Operations Manager for Atlas Explorations Limited, hereby state that to the best of my knowledge and belief, the summary of expenditures as presented in Appendix 1 of this report is both correct and true.



John S. Brock.

Sworn before me at Whitehorse, Yukon Territory  
this 2nd day of August 1968.



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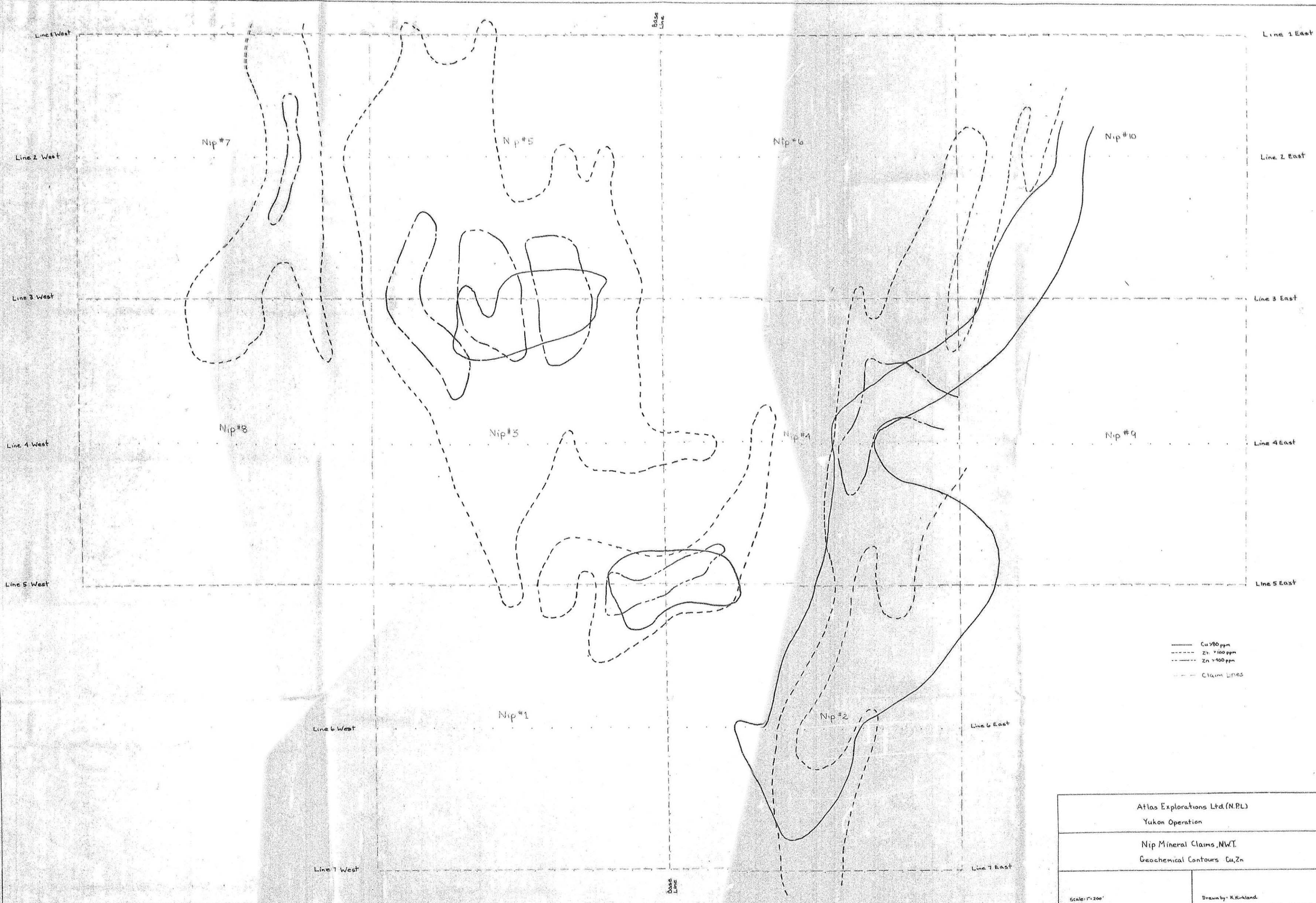
Commissioner of Oaths in and for  
the Yukon Territory.



100 — copper (ppm)  
 50 — lead (ppm)  
 50 — zinc (ppm)

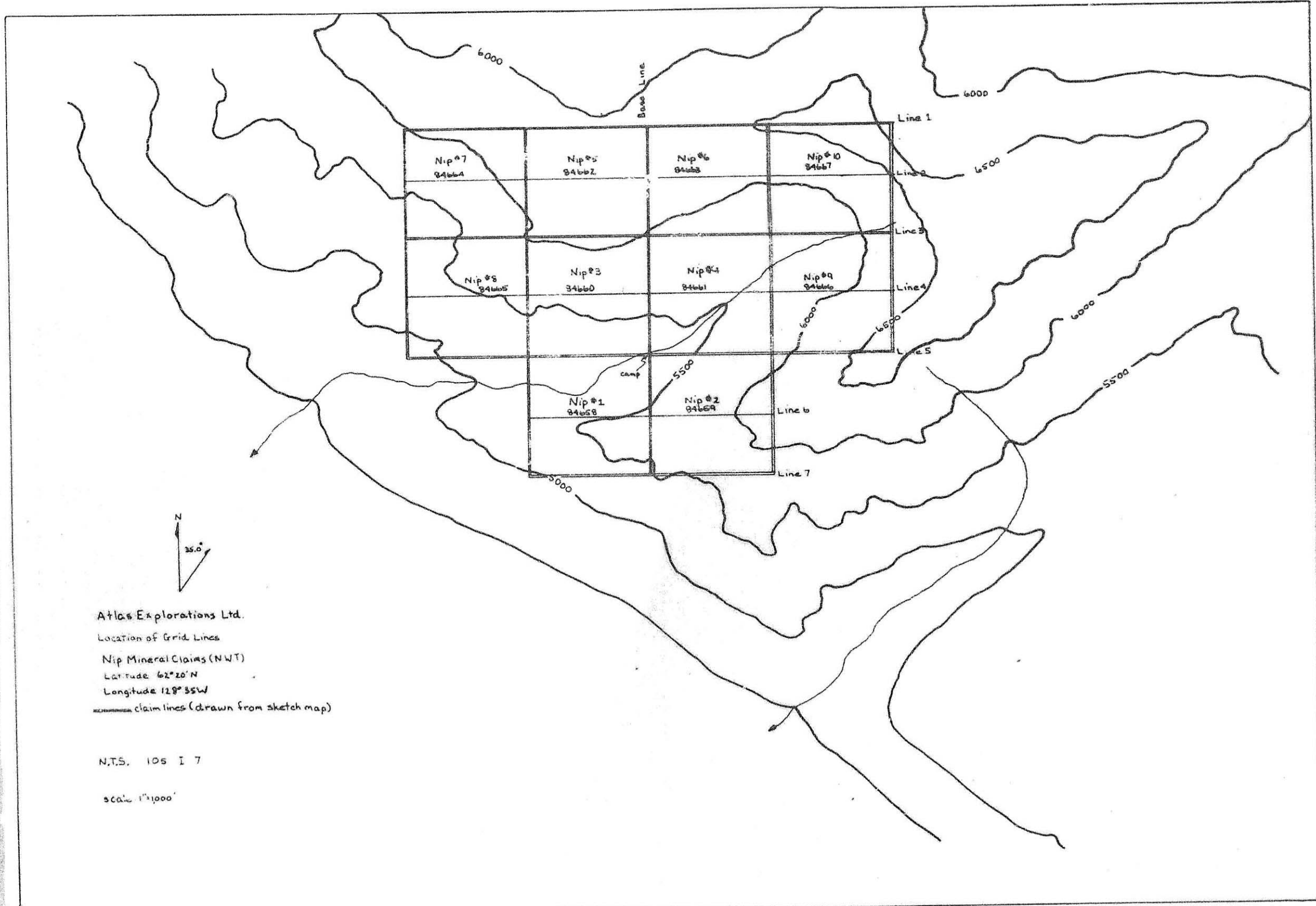
Due to large cliff at North end of Base Line, Line 1 is 100' south of its proposed location on the grid.

Atlas Explorations Ltd. (N.P.L.)	
Yukon Operation	
Nip Mineral Claims (N.W.T.)	
Geochemistry	
Sampled by: J. Harper, N. Housen	N.T.S. 105 I 7
Date: July 1, July 6, 1968	Fig. No.
Scale: 1" = 200'	Drawn by: K. Kirkland



——— Cu > 90 ppm  
 - - - - Zn > 100 ppm  
 - · - · Zn > 400 ppm  
 - - - - Claim Lines

Atlas Explorations Ltd (N.P.L.) Yukon Operation	
Nip Mineral Claims, N.W.T. Geochemical Contours Cu, Zn	
Scale: 1" = 200'	Drawn by: K. Kirkland



Atlas Explorations Ltd.  
 Location of Grid Lines  
 Nip Mineral Claims (NWT)  
 Latitude 62°20'N  
 Longitude 129°35'W  
 claim lines (drawn from sketch map)

N.T.S. 105 I 7

scale 1:1000