

MAP NO.: 115 N 2  
ASSESSMENT REPORT X  
PROSPECTUS  
CONFIDENTIAL X  
OPEN FILE

DOCUMENT NO: 092880  
MINING DISTRICT: WHITEHORSE  
TYPE OF WORK: Geological

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REPORT FILED UNDER: Hartley & Associates

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DATE PERFORMED: August, 1990                      DATE FILED: Oct 9, 1990

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LOCATION:   LAT.: 63°10'N                              AREA: Ladue River  
          LONG.: ~~104°50'W~~                              VALUE \$: 2 500

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CLAIM NAME & NO.:        NOW 1-10

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WORK DONE BY:    G.S Hartley; G.A. Almborg

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WORK DONE FOR: Hartley & Associates

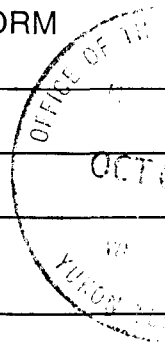
DATE TO GOOD STANDING:	

REMARKS: 32 soil samples were taken on the claims in an attempt to locate the source of a high grade quartz boulder. The survey was not successful. All samples returned less than 8ppb. The samples were not analysed for anything else.



M.R. file no.
R.M.M.R. file no.
Date forwarded 9 OCT 1990

### TRANSMITTAL FORM



From Mining Recorder at: Whitehorse

To Regional Manager, Mineral Rights at Whitehorse, Y.T.

For action are:

<input type="checkbox"/> NEW APPLICATION FOR PLACER LEASE TO PROSPECT	Name	
<input type="checkbox"/> RENEWAL APPLICATION PLACER LEASE TO PROSPECT	Name	Lease no.
<input type="checkbox"/> AFFIDAVIT OF EXPENDITURE ON PLACER LEASE	Name	Lease no.
<input type="checkbox"/> SECURITY DEPOSIT		
<input type="checkbox"/> FINANCIAL ABILITY		
<input type="checkbox"/> ASSIGNMENT OF PLACER LEASE NO.	From	To
<input type="checkbox"/> GROUPING APPLICATION UNDER SEC. 52(2) PLACER MINING ACT.	Owner	
<input type="checkbox"/> DIAMOND DRILL LOGS	Claims	Claim sheet no.
<input checked="" type="checkbox"/> QUARTZ ASSESSMENT REPORT	Claims <u>New 1-10</u>	Claim sheet no. <u>115-10-2</u>
	Type of report <u>Geological</u>	Submitted by <u>Glenn Hartley</u>
	Clis. work performed on <u>1000 1-10</u>	\$ req. for ren. application <u>2500.00</u>

A. Sautter  
Signature

REPLY ACTION

Date returned

**092880**

Nov 21/90

Signature



GEOLOGICAL INVESTIGATION  
OF THE  
NOW 1-10 CLAIMS  
NTS 115N2

<sup>02</sup>  
63° 10' NORTH  
104° 50' WEST

By

G.S. Hartley P. Geol.

and

G.A. Almborg P. Geol.

August 1990

092880

A large, stylized handwritten signature, likely belonging to G.S. Hartley.

A smaller handwritten signature, likely belonging to G.A. Almborg.

This report has been examined by  
the Geological Evaluation Unit  
under Section 53 (4) Yukon Quartz  
Mining Act and is allowed as  
representation work in the amount  
of \$ 2500.

*D. J. Ouellette*  
Regional Manager, Exploration and  
Geological Services for Commissioner  
of Yukon Territory.

## TABLE OF CONTENTS

- I. Summary
- II. Location and Access
- III. Physiography
- IV. Regional Geology
- V. Local Geology
- VI. Geochemistry
- VII. Recommendations
- VIII. Statements of Expenditure
- IX. Claims Covered by this Report
- X. References
- XI. Certificates
- XII. Appendix
- XIII. List of Maps

## I. SUMMARY

Placer gold was first discovered in the area by M. Kenyon in 1975. Initial production occurred in 1976 and the area has produced continuously since that time.

Creeks that were recognized to contain gold included Kenyon, Swamp, Soya, and Great Bear. Test pitting and placer drilling on other creeks of the area has yielded positive results.

The geology of the region is not mapped in detail. Limits or controls to lode mineralization have never been established, thus the extent of placer deposits of the region is unknown.

## II. LOCATION AND ACCESS

Swamp Creek is located in the Ladue River area NTS 115N2. Situated immediately east of the Alaska Yukon border the area is bounded by latitudes  $63^{\circ}00'N$  to  $63^{\circ}15'N$  and longitudes  $140^{\circ}40'$  west to  $141^{\circ}00'$  west.

Access to the area is provided by fixed wing aircraft from Dawson City, a distance of 145 km. Winter access is by 65km tote trail from the Alaska Highway, west of Beaver Creek.

An excellent system of local roads connect past and current mining sites to the airstrip.

### III. PHYSIOGRAPHY

The region has not suffered continental glaciation. Outcrops are restricted to heights of land where boulders and felsenmeer predominate. Erosion and weathering have resulted in the development of residual soil on the intermediate slopes.

Placer deposits are covered by a variable thickness of "black muck" or fine grained organic deposits.

The area is designated as a continuous permafrost zone.

### IV. REGIONAL GEOLOGY

The Geology of the area, although poorly exposed, is known to consist of metasedimentary rocks intruded by granodioritic phases of the Klotassin Batholith (Templeman-Kluit 1974).

#### A. METASEDIMENTARY ROCKS

The metasedimentary rocks of the area outcrop to the west along the top of the Moosehorn range and consist of biotite quartz feldspar schists.

To the north along Great Bear and Claymore Creeks, coarsely grained amphibolites occur.

#### B. INTRUSIVE ROLES

The Klotassin Batholith is a northwest tending mass of granitic rocks extending over 300 km as described by Templeman-Kluit (1974).

In the region this batholith consists of three phases.

- 1.. Early foliated hornblend granodiorite.
2. Massive equigranular to porphoritic bodies of biotite hornblend granodiorite to quartz monzonite.
3. Late granodiorite to quartz diorite porphyry dykes, and plugs.

#### V. LOCAL GEOLOGY

Excellent bedrock exposures afforded by 14 years of mining operations in the Swamp Creek area provide a variety of hitherto unrecognized rock type and geological relationships.

Observed lithologies remained basically those of the Koltissin batholith and related dykes and are here described.

##### 1. Foliated Granodiorite

This unit occurs along Kenyon Creek and the ridge between Kenyon and Swamp Creeks. Extensively foliated with amphibole and Biotite along folitation planes within coarsely grained plagioclase and quartz, this rock weathers grayish cream, with partings parallel to foliation.

##### 2. Massive Granodiorite

This unit occurs in the upper portion of Kenyon Creek and on top of the Moosehorn range west of Brandt Peak.



This unit is similar in composition to the foliated unit (in hand specimen). The most obvious difference being the lack of foliation, contacts are gradational over excellent exposure.

### 3. BROWN VOLCANICS

This fine grained felsic unit occurs as thin tabular dyke like structures approximately 2 to 3 meters in thickness and up to 100 meters in length, possibly emplaced along faults and possibly coeval with unit 4.

### 4. BRANDT INTRUSIVE COMPLEX (LOCAL NAME)

A group of related intrusives outcropping near the eastern end of the Moosehorn Range.

The complex consists of a central feldspar porphyry stock and a marginal amphibole porphyry unit. The complex is identified by euhedral plagioclase feldspar laths up to 1 cm in an aphanetic to fine grained matrix of quartz and biotite with variable euhedral amphibole content.

This unit, though not observed to outcrop on the claims is thought to occur as a major intrusive event and may be related to unit 3.

### 5. Quartz Veins

White quartz veins to 10 cm in width contain galena arsenenopyrite stibnite and free gold. No veins are known to outcrop within the "NOW" claims although quartz boulders occur in creek gravels in Swamp Creek.

## VI. GEOCHEMISTRY

Prospecting during 1988 along Swamp Creek yielded a white quartz boulder containing pinkish quartz breccia like fragments within a white quartz matrix.

Assays of this breccia like material yielded 2.76 OZ/TON AU.

A program of field geochemistry was conducted to try to determine the origin of this boulder.

Thirty-one samples of "B" horizon soils were collected and analyzed by Bondar Clegg Laboratories of Vancouver. No samples were collected from low lying swamp or permafrost areas.

Samples were collected along the blazed location line of the "NOW" claims at 30 meter intervals. All locations were appropriately flagged.

### A. RESULTS OF THE GEOCHEMICAL SURVEY

All but three samples returned values of 5 ppB AU or less. All values were less than 8 ppB AU.

### B. INTERPRETATION OF RESULTS

The values obtained do not compare favorably with gold in soils values on the GET 1 to 4 claims to the north of this property, where gold in soils values have been recorded up to 320 ppB.

If gold mineralization exists on the claims it may be confined to the recessive zones currently overlain by muskeg in Swamp Creek.

## VII. RECOMMENDATIONS

Placer mining of this portion of Swamp Creek is currently being undertaken by Canada Tungsten Mining Corporation.

Bed rock geology exposed during mining operations should be prospected and mapped during 1991.

## VIII. STATEMENT OF EXPENDITURE

Truck travel in yukon (1000 kn)	280.00
Air Charter        \$368.00/trip	736.00
Food and Supplies	500.00
Assay	281.10
Equipment Rental Honda 4 Track \$50/day/4days	200.00
P. Geol. Fees     \$500/day x 4 days x 2 men	4,000.00
	<u>\$5,917.10</u>

IX. CLAIMS COVERED BY THIS REPORT AND TO WHICH ASSESSMENT  
CREDIT IS TO BE APPLIED

Claims

Grant Numbers

NOW 1 to 10

YB26466 to YB26475

## REFERENCES

Morin, J.A. 1976 "Geology, Lode and Placer Gold Mineralization of the Moosehorn Range" D.I.A.N.D. Mineral Industry Report.

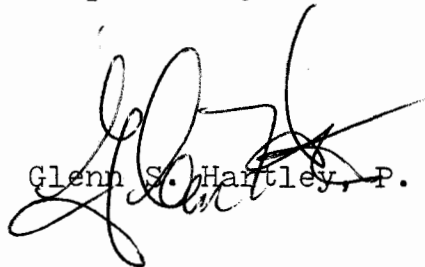
Templeman-Kluit D.J. 1974; "Reconnaissance Geology of Aishihik Lake, Snap and Part of Stewart River Map West-Central Yukon." GSC paper 73-41.

## CERTIFICATE

I. Glenn S. Hartley of 7302-118A Street hereby state that:

1. I am a graduate of the University of Alberta,  
Department of Geology (B.Sc. Specialization 1977).
2. I am a registered professional geologist in the  
province of Alberta.
3. I am a member of the CIMM and EGS.
4. Since 1970 I have been employed by various explora-  
tion firms and have conducted field programs in  
Alberta, British Columbia, Saskatchewan, Northwest  
Territories and the Yukon.
5. I have a direct interest in lode and placer claims in  
the region of this report.

Respectfully submitted,



Glenn S. Hartley, P. Geol.

## CERTIFICATE

- I. Glen A. Almborg of 3516-87 Street hereby state that:
1. I am a registered professional geologist in the province of Alberta.
  2. I am a member of CSPG and EGS.
  3. Since 1961 I have been active in geological exploration through teaching and employment with resource companies.
  4. I have a direct interest in lode claims in the region of this report.

Respectfully submitted,

A handwritten signature in cursive script that reads "Glen Almborg". The signature is written in dark ink and is positioned above the printed name.

Glen Almborg, P. Geol.

APPENDIX I



TABLE OF APPENDICES

- I. Geochemical Results

Bondar-Clegg & Company Ltd.  
 Pemberton Ave.  
 North Vancouver, B.C.  
 V7P 2R5  
 (604) 985-0681 Telex 04-352667



# Geochemical Lab Report

A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

DATE PRINTED: 17-JUL-90

REPORT: V90-36139.D

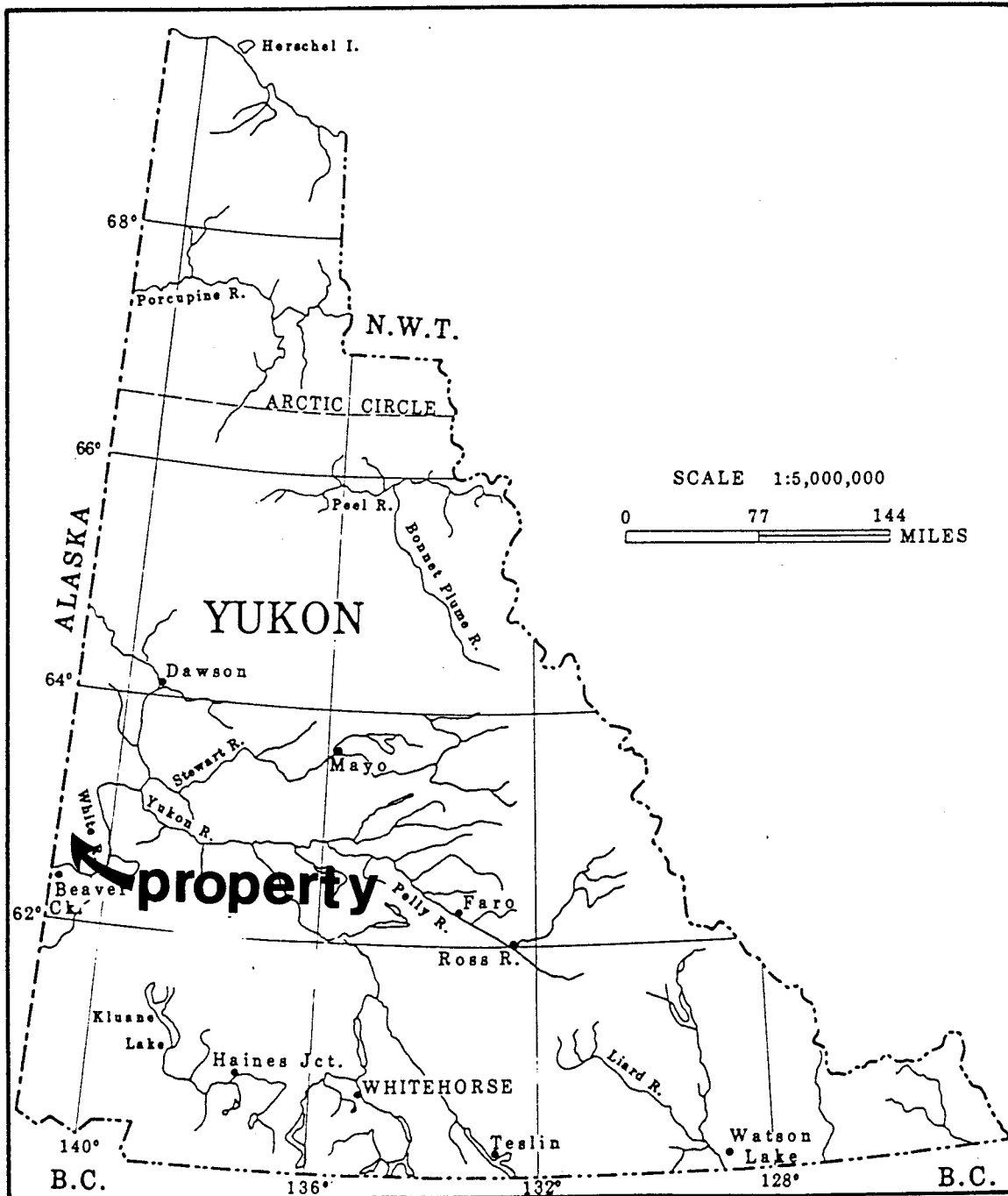
PROJECT: NONE GIVEN

PAGE 1

SAMPLE NUMBER	ELEMENT UNITS	Au 10g P/B	SAMPLE NUMBER	ELEMENT UNITS	Au 10g P/B
S1 NW 0+00		<5			
S1 NW 0+100		<5			
S1 NW 0+200		<5			
S1 NW 15+500		7			
S1 NW 15+600		<5			
S1 NW 15+700		<5			
S1 NW 15+800		<5			
S1 NW 15+900		<5			
S1 NW 15+1000		<5			
S1 NW 15+1100		<5			
S1 NW 15+1200		<5			
S1 NW 30+00		<5			
S1 NW 30+100		<5			
S1 NW 30+200		<5			
S1 NW 30+300		<5			
S1 NW 30+400		<5			
S1 NW 30+500		<5			
S1 NW 30+600		<5			
S1 NW 30+700		<5			
S1 NW 30+800		<5			
S1 NW 30+900		<5			
S1 NW 30+1000		6			
S1 NW 30+1100		<5			
S1 NW 30+1200		<5			
S1 NW 30+1300		6			
S1 NW 45+00		<5			
S1 NW 45+100		<5			
S1 NW 45+200		<5			
S1 NW 45+300		<5			
S1 NW 45+400		<5			
S1 NW 45+500		<5			

## LIST OF MAPS

Map #1	Property Location
Map #2	Geology
Map #3	Geochem; Soil Sample Locations
Map #4	Geochem: Au Analysis



# MAP 2

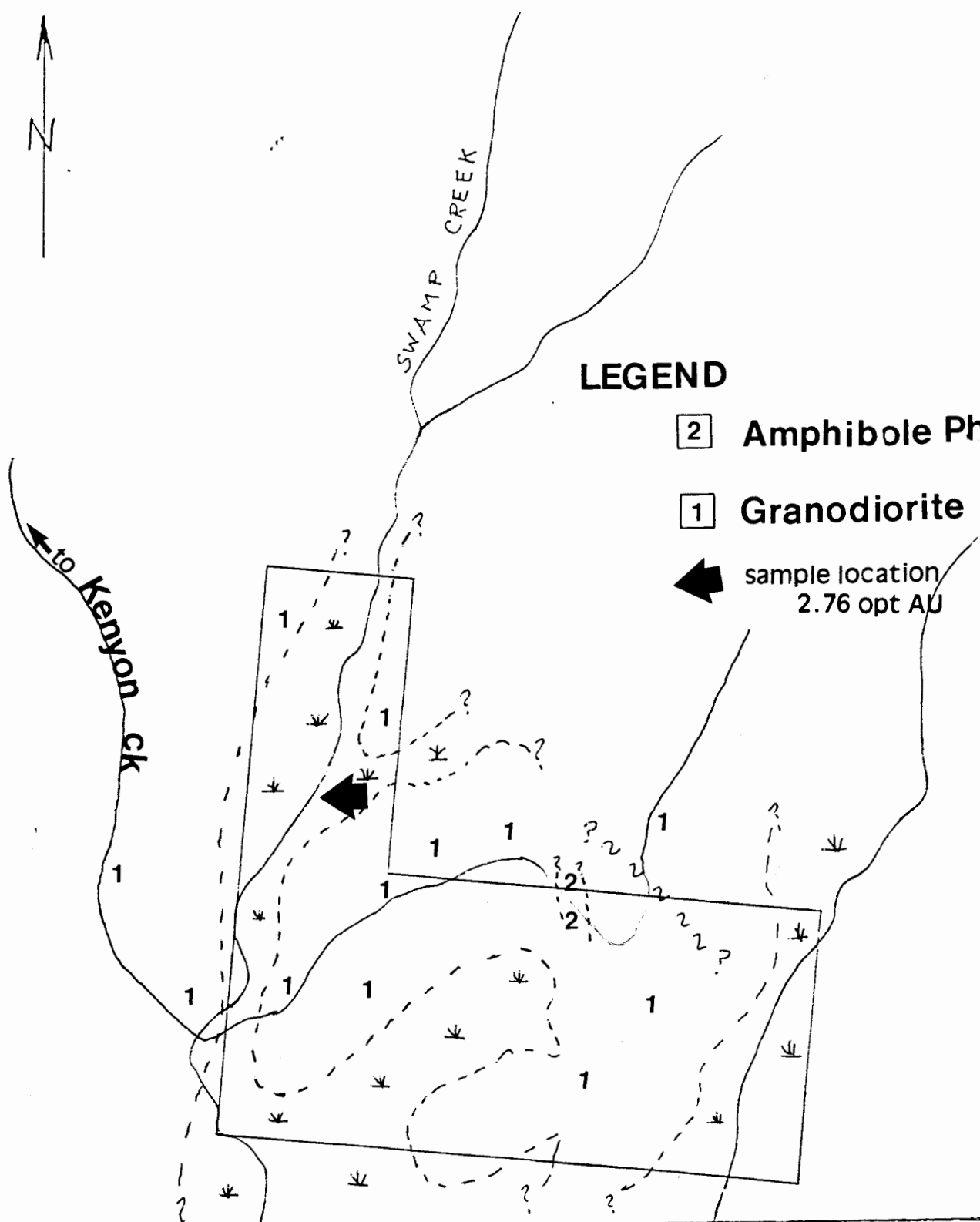


SWAMP CREEK

to Kenyon CK

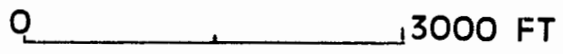
## LEGEND

- 2 Amphibole Ph
- 1 Granodiorite
- sample location  
2.76 opt AU



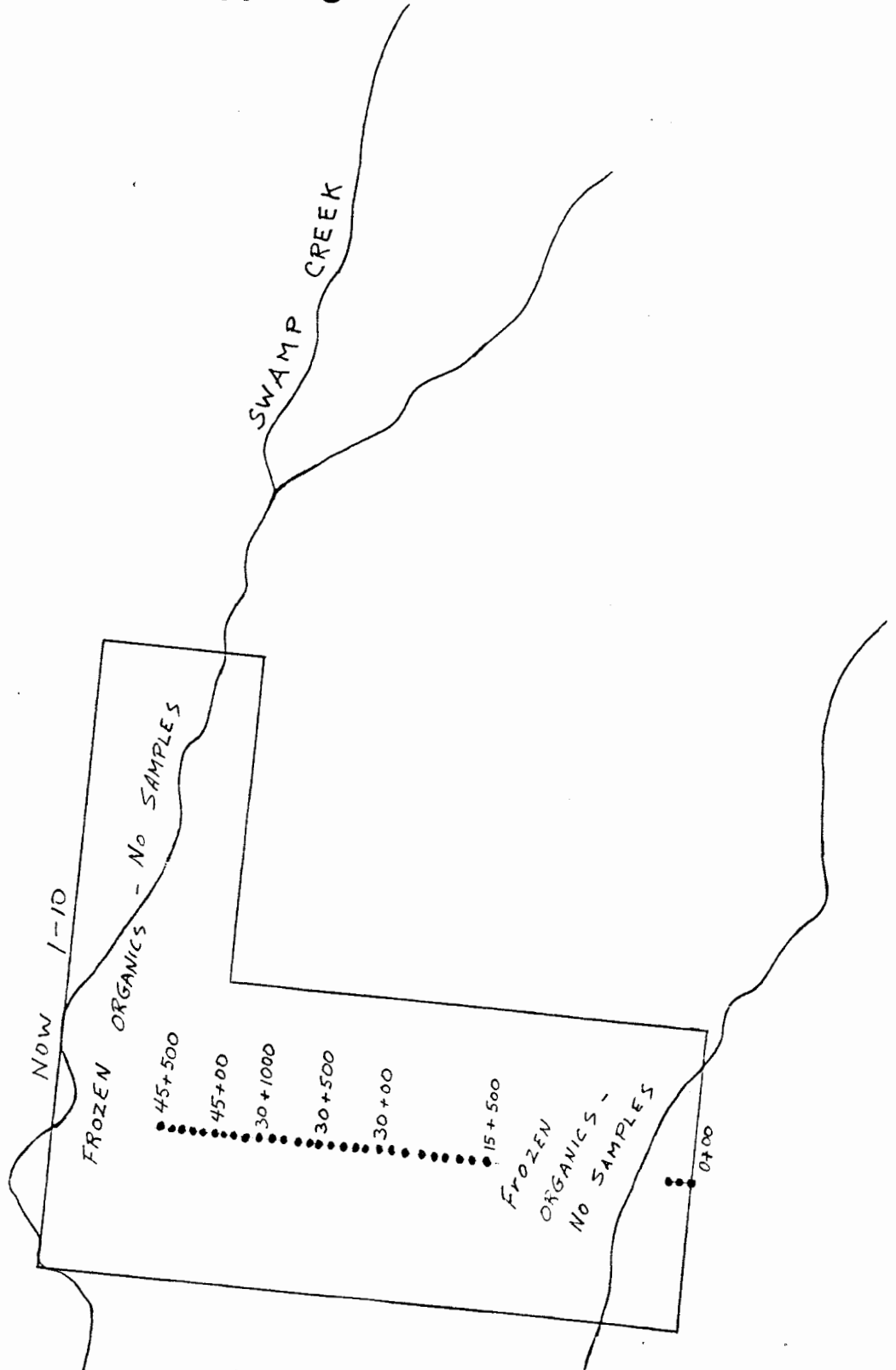
## GEOLOGY; NOW CLAIMS

scale:



63° 00'  
141° 00'

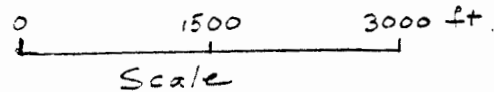
# MAP 3



63° 00'

141° 00'

SOIL SAMPLE LOCATIONS  
AU ANALYSIS  
NOW CLAIMS

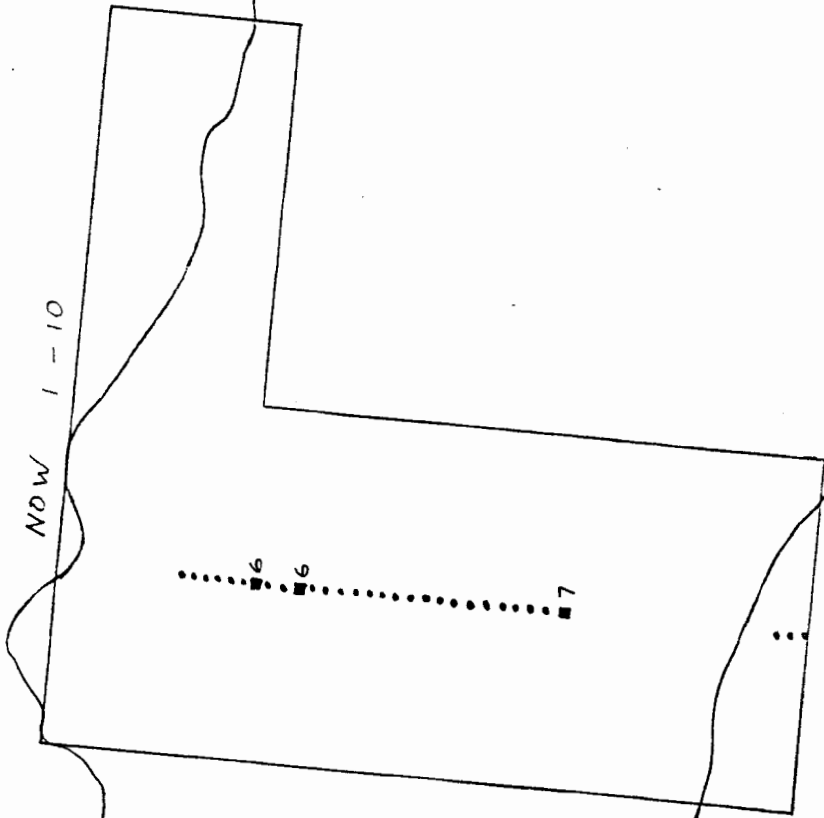


# MAP 4



SWAMP CREEK

NOW 1-10

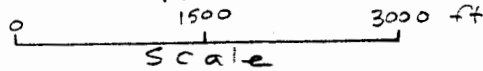


63° 00'  
141° 00'

## AU ANALYSIS NOW CLAIMS

• < 5 ppb

■ > 5 ppb



27-8-1990