

119

NORTHWESTERN EXPLORATIONS, LIMITED

BIOGEOCHEMICAL INVESTIGATION

on

WOODLAND M.C., SKEENA M.D., B.C.

by

Charles S. Ney

INDEX

| | <u>Page</u> |
|---------------|-------------|
| INTRODUCTION | 1 |
| GEOLOGY | 1 |
| FIELD METHODS | 1 |
| ANALYSES | 2 |
| RESULTS | 2 |
| CONSLUSIONS | 4 |

MAPS

#1 Map No. 3 - Twig Sample Locations -
Scale 1" = 100 feet.

NORTHWESTERN EXPLORATIONS, LIMITED

Biogeochemical Investigation

on

Woodland M.C., Skeena M.D., B.C.

INTRODUCTION

The Woodland Mineral Claim is situated on the east side of Kinskuch Lake about one mile from its south end. It is 16 miles north-northeast of Alice Arm, B.C., and is in the northeast quadrant of the geographic quadrangle defined by Longitude 129° west and Latitude 55° north. Elevation of the ground ranges from Lake level (3750' a.s.l.) to 4500 feet.

Copper mineralization is known in the area south-east of the claim. In view of this fact, and considering that outcrops are rather scarce on the Woodland claim, it was thought that a small program of tree sampling might provide a guide to other methods of prospecting. Such a program was carried out in October 1955, and the results of this work form the subject of the present report.

GEOLOGY

The rocks in the vicinity of the claim are of volcanic origin and are classed with the Hazelton Group of Jurassic age. The northeasterly portion of the claim is underlain by a thick flow of purplish-gray agglomerate. The main portion is occupied by dacitic flows and fragmentals which generally are intensely fractured. Regionally the formations trend northwesterly and dip to the northeast, although the exact attitude on the claim is not known. Fissures and broad fracture zones carrying copper mineralization are known to occur one-half to one mile to the southeast, and are believed to strike northwest toward the Woodland claim.

FIELD METHODS

The claim is uniformly wooded with a stunted growth of *Abies lasiocarpa* (Alpine Fir) and *Tsuga mertensiana* (Mountain Hemlock). *Abies lasiocarpa* was chosen as the sample species because of the availability of trees of appropriate size, i.e., 10 - 20 feet high, and 20-30 years old.

A sample consisted of about two ounces of twigs representing the previous year's growth. At each site, one tree usually provided this material. Two or three trees in close proximity were sometimes required. In taking the sample, the twig material grown the previous season is clipped free of the current seasons growth and the older growth. The central stalk of the tree is avoided. In the case of *Abies lasiocarpa*, color and texture of the leaves on the twigs provides an obvious distinction between growths of the current season, the previous year, and older.

Twenty-five samples were taken along three lines. Sample sites are 150 feet apart and the lines are 400 feet apart. The bearing of the lines is north 40-45 degrees east, about perpendicular to the direction of the contour of the hillside, and also crossing the anticipated strike of mineralization. The lines were run by pace and compass. The sample sites at the ends of each line were subsequently located by triangulation, and the lines adjusted to these surveyed termini.

ANALYSES:

Samples were submitted to Miss C. Cross at University of British Columbia. The twigs are stripped of leaves, dried, weighed, and then reduced to ash. Analyses for copper and molybdenum are then made on the ash, which is about 2.5 percent of the twigs.

RESULTS

The results of analyses, tabulated below, give copper and molybdenum values expressed as parts per million of twig material, percentage of ash in twig material, and percentage of copper in the ash.

NORTHWESTERN EXPLORATIONS, LIMITED

Stem Analysis

C. H. Cross

November, 1955

| <u>Sample No.</u> | <u>ppm Cu</u> | <u>% Cu in Ash</u> | <u>ppm Mo</u> | <u>% Ash</u> |
|-------------------|-------------------|------------------------|-------------------|------------------|
| K - 1 - 1 | 6 | .024 | 0.2 | 2.5 |
| 2 | 6 | .024 | 0.2 | 2.3 |
| 3 | 5 | .020 | 0.2 | 2.6 |
| 4 | 4 | .018 | 0.2 | 2.5 |
| 5 | 6 | .030✓ | 0.6 | 1.9 |
| 6 | 7 | .027✓ | 0.5 | 2.6 |
| 7 | 5 | .022 | 0.2 | 2.3 |
| 8 | 7 | .027✓ | 0.2 | 2.6 |
| K - 2 - 1 | 9 | .035✓ | 0.2 | 2.4 |
| 2 | 9 | .030✓ | 0.2 | 2.8 |
| 3 | 8 | .033✓ | 0.5 | 2.4 |
| 4 | 5 | .021 | 0.2 | 2.3 |
| 5 | 6 | .026- | 0.2 | 2.3 |
| 6 | 6 | .021 | 0.2 | 2.6 |
| 7 | 7 | .030✓ | 0.2 | 2.2 |
| 8 | 7 | .028- | 0.2 | 2.3 |
| 9 | 8 | .025 | 0.2 | 3.0 |
| K - 3 - 1 | 7 | .023 | 0.2 | 2.8 |
| 2 | 7 | .029✓ | 0.2 | 2.5 |
| 3 | 6 | .026 | 0.2 | 2.3 |
| 4 | 5 | .018 | 0.2 | 2.7 |
| 5 | 7 | .022 | 0.2 | 3.0 |
| 6 | 1 | .0037 | 0.2 | 2.8 |
| 7 | 7 | .027 | 0.2 | 2.6 |
| 8 | 6 | .021 | 0.2 | 2.8 |

The accompanying plan shows the location of the sample sites and the corresponding analytical results.

The results were appraised by Dr. H.V. Warren of the University of British Columbia. From experience with the same tree species in areas of comparable runoff, he considers that percentages of copper in ash in excess of 0.025 are anomalous. Several samples in the present instance are therefore slightly anomalous with respect to copper. Three are definitely anomalous for molybdenum.

CONCLUSIONS

The anomalous copper values are not sufficiently high to indicate any specific prospecting target, nor do they confirm any suspected trends. Further work of the same nature might be done with profit around the three anomalous samples at the northeast end of line 2, if no information can be gained from surface examination.

Charles S. Key

C. S. Key, P. Eng.

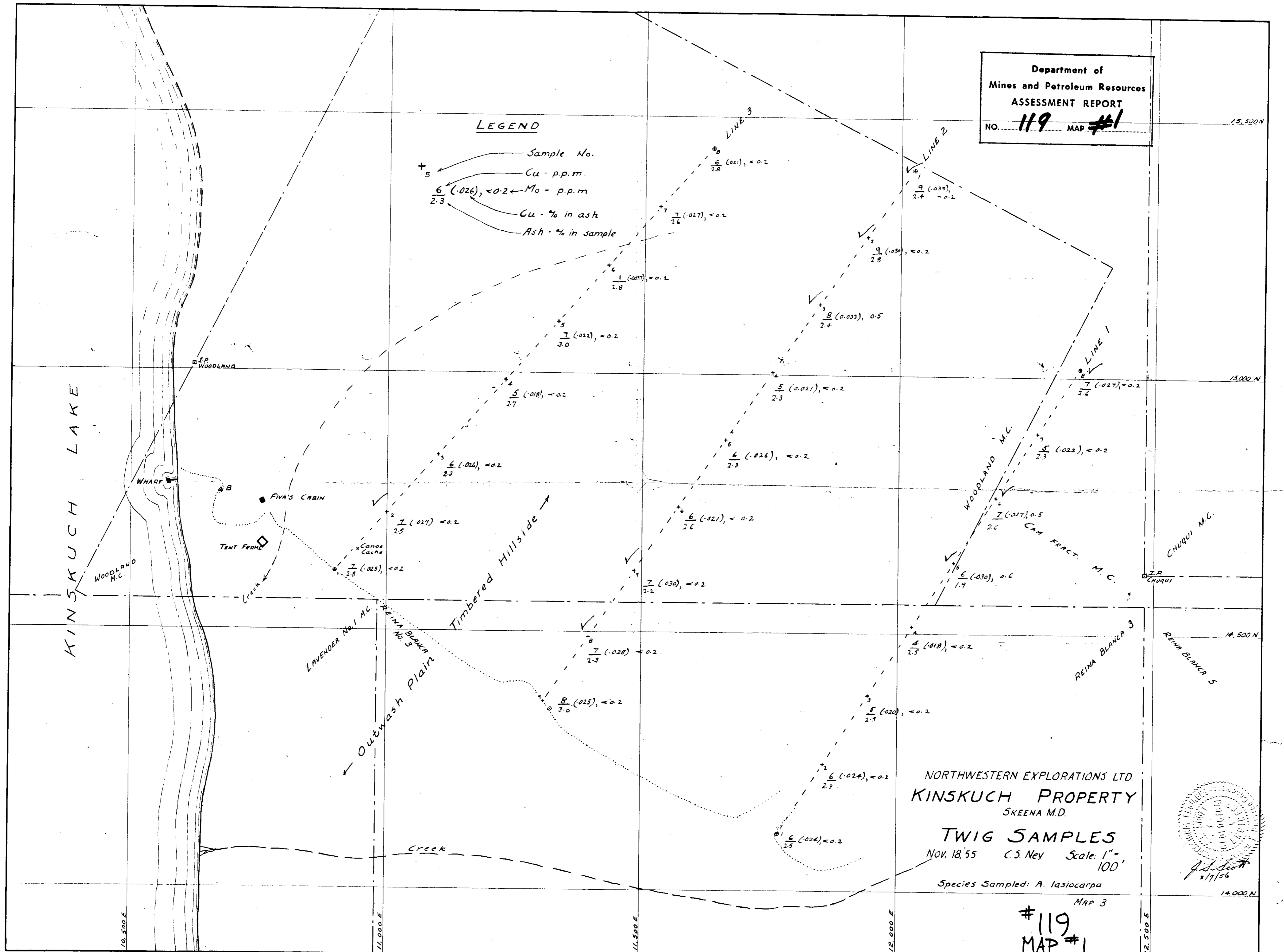
Alice Arm, B.C.

May 21, 1956

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **119** MAP **#1**

LEGEND

Sample No.
Cu - p.p.m.
Mo - p.p.m.
Cu - % in ash
Ash - % in sample



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KINSKUCH PROPERTY
SKEENA M.D.

TWIG SAMPLES
Nov. 18, '55 C.S. Nev Scale: 1" = 100'

Species Sampled: *A. lasiocarpa*

#119
MAP #1

