

GEOLOGICAL ASSESSMENT
REPORT ON SNIP 1-2 MINERAL CLAIMS
BRONSON CREEK, LIARD H.D.
N.T.S.-104-B-11

BY

CLIVE ASPINALL, P.ENG.
ONTRAK EXPLORATION LTD.
602 STRICKLAND STREET
WHITEHORSE, Y.T.
FOR COMINCO LTD.

Record Nos. Snip #1 - 1745

Record Nos. Snip #2 - 1746

Date of Field Work: 8 June - 4 July 1981

Date of this Report: 6 October 1981

81-#977-9964

179664

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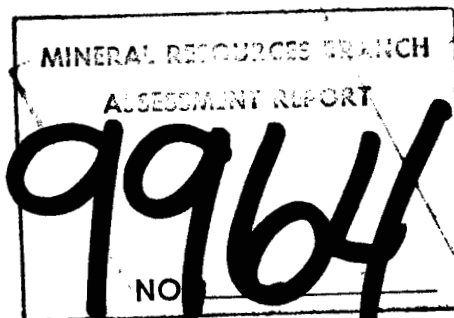
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BRITISH COLUMBIA
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LOCATION, VEGETATION AND TOPOGRAPHY

The Snip 1-2 mineral claim group are located on the North slope of Johnny Mountain and immediately south of where Bronson Creek flows into the Iskut River. The co-ordinates of the property are as follows:

Latitude 56° 41'N

Longitude 131° 05'N

National Topographical series 104-B-11

Elevations on the claims range between 100 metres to 950 metres (ASL). The vegetation is very jungle like in character, with an abundance hemlock, spruce, fir, and in particular devils club and thick alders. Large areas of the claim group are extremely rugged, with slopes to and in excess of forty degrees. This angle of slope is about the maximum on which work can be conducted safely.

ACCESS

Access can be gained from Stewart or from Bob Quinn Lake by helicopter. The journey is approximately 70 miles from both locations. In 1965 Herman Peterson of Atlin delivered camp freight to Cominco crews by landing on the Iskut River near Bronson Creek with a single Engine Otter.

OWNERSHIP

Snip 1 and 2 claims comprise twenty-one units. These claims were staked on November 17th 1980 and were recorded on November 28th 1980. These claims are 100% owned by Cominco.

OBJECTIVE

The Bronson Creek area is of interest for gold, copper, and silver.

In May 1981 Cominco contracted the field work to the writer to carry out geological mapping of the Snip 1-2 mineral claims.

GEOLOGY

According to Kerr³ the area claimed by Snip 1-2, as shown on map 311A, is mainly underlain by Pre-Permian sediments and related rocks, with the balance of the area being underlain by Triassic andesites and other volcanic rocks which have been intruded by orthoclase porphyry. Considering the scale of Kerr's work, he was remarkably accurate, with respect to the rock classification and geological mapping.

³Kerr, F.A. Lower Stikine and Western Iskut River Areas, British Columbia G.S.C. Memoir 246 1948.

In more detail, the reconnaissance mapping Snip 1-2 (1981) shows the area to be mainly underlain by indurated mudstone (1a) and argillite (1b). Possibly intercalated with these rocks is a significantly large unit of crystal tuff (2) of intermediate composition. Possibly both these units are Pre-Permian. Adjacent to the Red Bluff area these units have been highly silicified, feldspathized and pyritized. Traces of Chalcopyrite occur with the pyrite. Carbonate alteration, is also prevalent, and visible chlorite alteration and some degree of metamorphism characterizes these rocks throughout. Presumably overlying these rocks are a series of andesites (3a, 5a) andesite greywacke (3b), and greywackes (5b) of Triassic age. Pre-Permian limestone mentioned in Kerr's memoir, if present, was not mapped due to the ruggedness of the terrain. It is possible the higher chloritized-tourmaline rocks (10a,10b) east of Bronson Creek are also altered Pre-Permian argillites. Intruded into crystal tuffs on the west side of the property is an igneous rock type of dioritic composition (4). This unit is only barely exposed, and only a careful examination of Creek 'C' will identify it. In the Red Bluff area, talus fragments indicate two feldspar porphyry is present - but it's location was not outlined due to the ruggedness and extremely steep slopes around the Red Bluff area.

METAMORPHISM

Most of the volcanic rocks and the sedimentary rocks show biotite grade metamorphism, and hornfels texture has often developed. Some Biotite tourmaline metamorphism is present east of Bronson Creek.

ALTERATION

Carbonate alteration is prevalent. Calcite veining is also common. Epidote, biotite, muscovite alteration is also present. The most significant alteration is the quartz veining within argillite (8) rocks circumventing Red Bluff, which grades into a very high silica alteration of argillite (7). This alteration is believed to be caused and very close to two feldspar porphyry intrusion. These argillites (7) have also been significantly pyritized (with associated chalcopryrite). Immediately west of the upper Bronson Creek Fault, the argillites have been altered to felsites (9a) and have been very highly pyritized, but lack visible chalcopryrite. These pyritized felsites (9a) carry blocks of partly unaltered argillite (9b). It is possible the unit 9a may be an extrusion with xenoliths of argillite. However since it occurs adjacent to faulting and shearing and has a macroscopic alteration texture (to this writer) - it is believed to be an alteration product.

STRUCTURE

Five major lineaments depicted on aerial photographs have been interpreted as faults. Shear zones are also common, but generally have been recemented by alteration products.

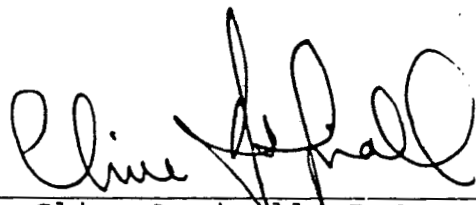
Within the Pre-Permian rocks the schistosity and the bedding may sometimes be concordant, and for the most part, when seen have an east-west orientation. The Pre-Permian rocks with the area mapped may well have this trend, and the crystal tuff unit (2), if interbedded with argillites, would support this possibility. The Triassic andestites and related arksoic greywackes and greywackes overly the Pre-Permian units and their trend was not established. **Three** significantly wide quartz veins were noted on the property and these have a north-west strike.

MINERALIZATION

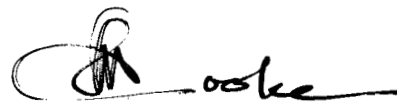
Visible mineralization is pyrite, galena, sphalerite, chalcopyrite and gold (no visible gold was observed by the writer). Malachite and azurite staining is common upstream from Red Bluff area. Pyrite with associated chalcopyrite mainly occurs in units 8 and 7 around and adjacent to the Red Bluff area. Galena, sphalerite, pyrite and chalcopyrite, was noted in quartz veins and quartz fragments in Creeks 'A', 'B' and 'C'. Creek 'K' exhibited pyrite and chalcopyrite

in quartz veins and quartz Creek fragments. Creek 'B' also exhibited arsenopyrite. No molybdenite was observed.

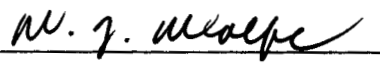
Submitted by


Clive Aspinall, P.Eng.

Endorsed by:


D.L. Cooke,
Senior Geologist

Approved for
Release by:


G. Harden, Manager
Exploration,
Western District

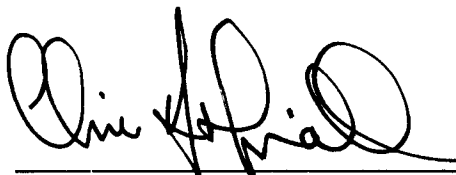
STATEMENT OF QUALIFICATIONS

This is to certify that I,

(1) Nicholas Clive Aspinall am a resident at 602
Strickland Street Whitehorse, Y.T.

(2) Hold a Bachelor of Science degree from McGill
University in Montreal (1964) and I am a member of the
Association of Professional Engineers of British Columbia.

(3) Have practiced my profession as an Exploration
Geologist for 17 years since graduation, both in Canada,
and on a world wide basis.

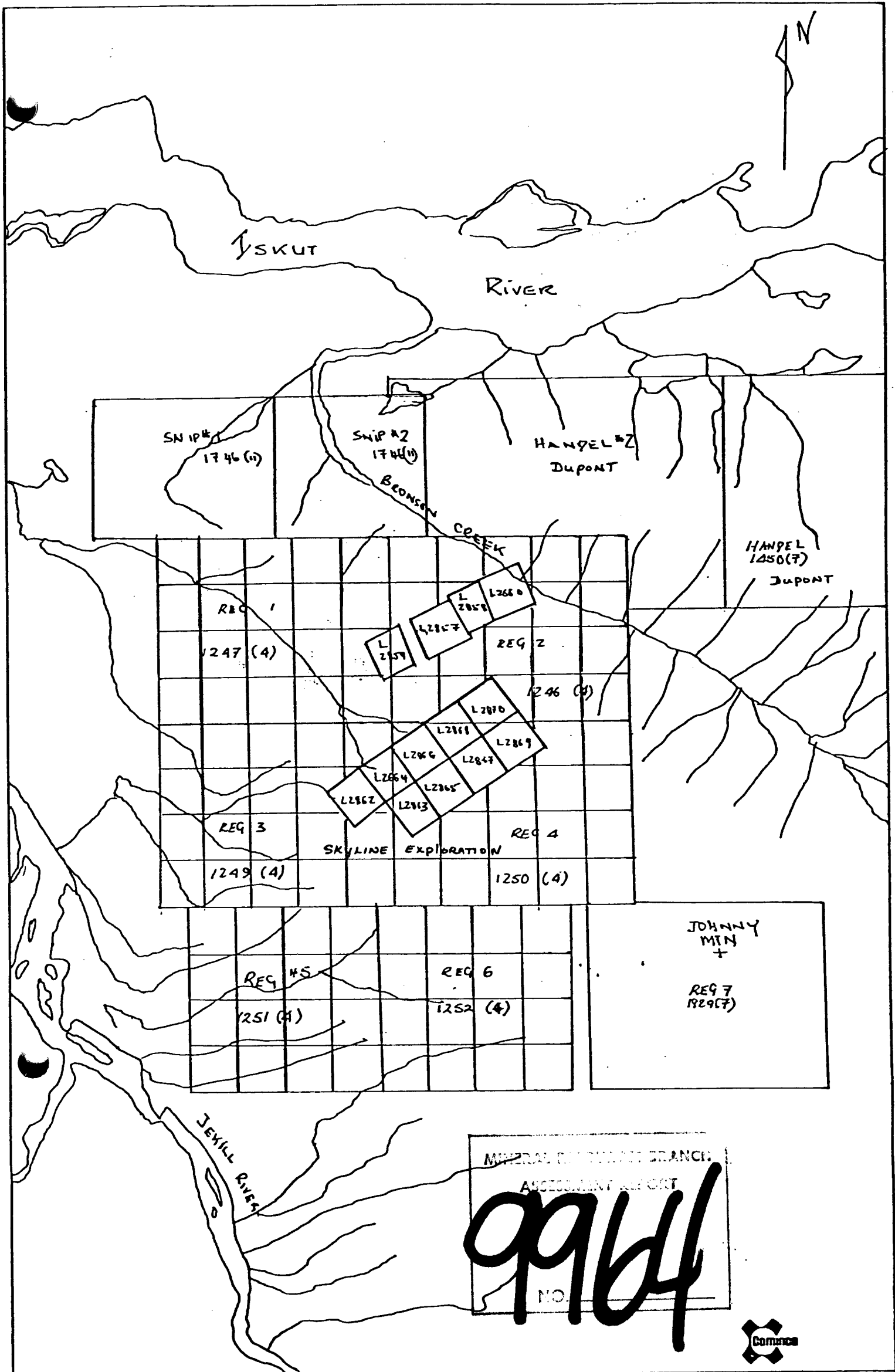
A handwritten signature in black ink, appearing to read 'Clive Aspinall', written in a cursive style. The signature is positioned above a horizontal line.

Clive Aspinall, P. Eng.

STATEMENT OF EXPENDITURES

SNIP 1 & 2

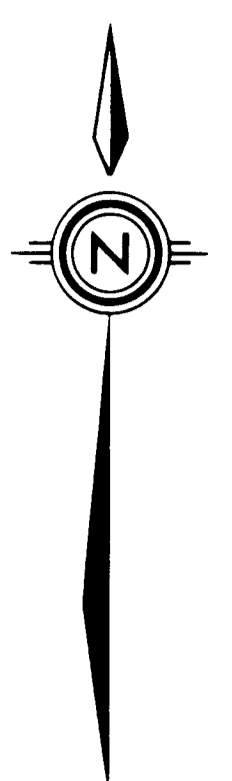
| | |
|---|------------------|
| Communications - Radio telephone rental & charges | 436. |
| Geology - Contract - Clive Aspinall, Ontrac Exploration Services Ltd., Whitehorse, Yukon | |
| June 8 to July 4 - 27 days @ 200/day | 5,400. |
| Assistant - Lance Gibbons, Atlin B.C. 27 days @ 100/day | 2,700. |
| Transportation - Helicopter | 14,662 |
| Camp supplies and Equipment | <u>3,325</u> |
| | 26,523 |
| Administrative Services - 10% | <u>2,652</u> |
| | <u>\$ 29,175</u> |



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LOCATION MAP SNIP 1-2
BRONSON CREEK, LIARD M.D

Scale: 1cm = 500m Date: 7th OCT '81 Plate:



LEGEND

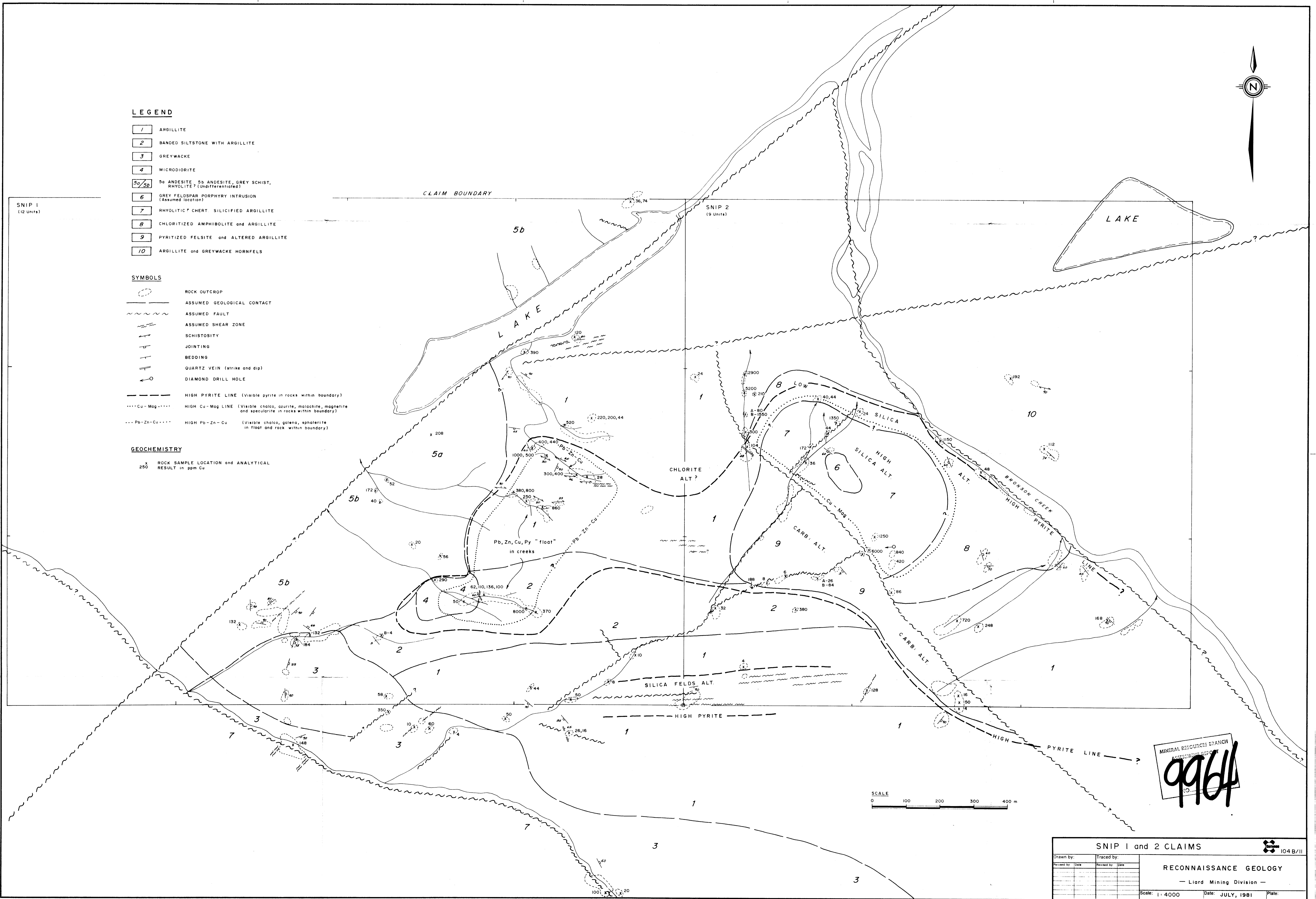
- 1 ARGILLITE
- 2 BANDED SILTSTONE WITH ARGILLITE
- 3 GREYWACKE
- 4 MICRODIORITE
- 5a 5b ANDESITE 5b ANDESITE, GREY SCHIST, RHYOLITE? (Undifferentiated)
- 6 GREY FELDSPAR PORPHYRY INTRUSION (Assumed location)
- 7 RHYOLITIC CHERT, SILICIFIED ARGILLITE
- 8 CHLORITIZED AMPHIBOLITE and ARGILLITE
- 9 PYRITIZED FELSITE and ALTERED ARGILLITE
- 10 ARGILLITE and GREYWACKE HORNFELS

SYMBOLS

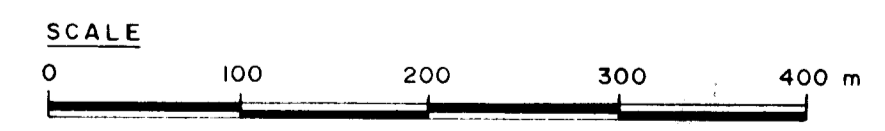
- ROCK OUTCROP
- ASSUMED GEOLOGICAL CONTACT
- ASSUMED FAULT
- ASSUMED SHEAR ZONE
- SCHISTOSITY
- JOINTING
- BEDDING
- QUARTZ VEIN (strike and dip)
- DIAMOND DRILL HOLE
- HIGH PYRITE LINE (Visible pyrite in rocks within boundary)
- HIGH Cu-Mag LINE (Visible chalcocite, azurite, malachite, magnetite and specularite in rocks within boundary)
- HIGH Pb-Zn-Cu (Visible chalcocite, galena, sphalerite in float and rock within boundary)

GEOCHEMISTRY

- x ROCK SAMPLE LOCATION and ANALYTICAL RESULT in ppm Cu



MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9964



| SNIP 1 and 2 CLAIMS | | | |
|-------------------------------|------------------|-------------|---------------|
| Drawn by: | Traced by: | Revised by: | Date: |
| | | | |
| RECONNAISSANCE GEOLOGY | | | |
| — Liard Mining Division — | | | |
| Scale: 1:4000 | Date: JULY, 1981 | Plate: | FORM 210 0/01 |