

# 1888

C O M I N C O      L T D.

EXPLORATION

WESTERN DISTRICT

GEOLOGICAL REPORT  
ON THE PIL NOS. 1 - 12 CLAIMS, SITUATED ON  
JOCK CREEK IN THE OMINECA MINING DIVISION  
57° 17' N, 126° 48' W

<u>GROUP</u>	<u>NUMBER OF CLAIMS</u>	<u>CREDIT REQUESTED</u>
Pil #1 Group	12	1 year each

Located claims on which assessment work credit is requested are as follows:

<u>CLAIM</u>	<u>RECORD NO.</u>	<u>CREDIT REQUESTED</u>	<u>TOTAL</u>
Pil Nos. 1 - 12 inclusive	60306 - 60317 inclusive	1 year each	12 years

Work was done on these claims during the period June 19 - 21, 1968.

REPORT BY  
D. L. COOKE, Ph.D., UNDER THE SUPERVISION  
OF J. RICHARDSON, P. ENG.

DLC/nc  
June 13, 1969.

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DLC/nc  
June 13, 1969  
Vancouver, B C

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 1888 MAP.....

C O M I N C O   L T D.

EXPLORATION

WESTERN DISTRICT

GEOLOGICAL REPORT  
ON THE PIL 1 - 12 CLAIMS, SITUATED ON  
JOCK CREEK IN THE OMINECA MINING DIVISION  
57° 17' N, 126° 48' W

INTRODUCTION

This survey consists of geological mapping and prospecting for copper mineralization on the Pil claims.

The survey was conducted by R. C. Armstrong, assisted by B. K. Bowen, under the direction of D. L. Cooke, PhD. and J. Richardson, P. Eng.

The Pil claims are located in the Omineca Mining Division at latitude N 57° 17', and longitude W 126° 48'. The claims are situated on Jock Creek at an elevation of 4000' - 5000' approximately 14 miles north of Thutade Lake.

Access is by fixed wing aircraft to Thutade Lake from Smithers (190 miles) and then by helicopter from Thutade Lake (14 miles).

HISTORY

No previous staking or exploratory work is known to have been done on the area of the Pil claims.

GEOLOGY

The Pil claims cover a copper prospect which occurs on the western margin of the Cassiar - Omineca intrusions.

Andesitic flows and tuffs on the Pil claims are intruded by quartz feldspar porphyry dykes which are low in mafic minerals and sulphides. A granitic stock, one mile in diameter, occurs on the northern section of the claim block. (Plate PC-68-11)

The feldspar porphyries consist of pink potash feldspar and quartz phenocrysts set in an aphanitic groundmass. Minor amounts of biotite are present, but these rocks are essentially leucocratic. The granite stock is characterized by anhedral alkali feldspars, quartz, hornblende and biotite. The texture is equigranular.

The volcanic rocks are fractured, altered and impregnated with pyrite near the contacts of the intrusions. Alteration of the granite is evident in the local development of chlorite and sericite. The porphyry dykes are relatively unaltered. Evidence of intense fracturing is absent from the intrusive rocks.

Chalcopyrite occurs as local disseminations within the porphyry and the altered sections of the granite. The grade of mineralization was found to be 0.03% copper in grab sample from the porphyry; that in the granitic stock was visually estimated as less than 0.1% copper.

CONCLUSIONS

Minor disseminations of chalcopyrite occur locally in a quartz feldspar porphyry dyke and an equigranular granite stock. The intruded volcanic rocks belong to the Takla Group of Triassic age. Reconnaissance prospecting and geological mapping indicate that the mineralization is very weak and discontinuous in nature.

REFERENCES:

- (1) C. S. Lord, 1948, McConnell Creek Map - Area, Cassiar District, British Columbia, G.S.C. Memoir 251.
- (2) Pil Group - Field Notes - D. L. Cooke, R. C. Armstrong, B. K. Bowen

ATTACHMENTS

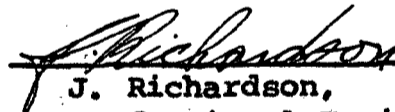
- (1) Statement of Expenditures
- (2) Statutory Declaration of Expenditures
- (3) Statement of Qualifications
- (4) Plate PC-68-11, Geology, Pil Group, 1" = 1000'.

Reported by



D. L. Cooke, Ph.D.,  
Geologist

Endorsed by



J. Richardson,  
Professional Engineer

DLC/nc

June 13, 1969

Distribution

Mining Recorder, Smithers (2)  
Vancouver, Exploration (1)

EXHIBIT "A"

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

1968 GEOLOGICAL SURVEY EXPENDITURES  
PIL GROUP, ON JOCK CREEK  
OMINECA MINING DIVISION  
94 E-7

SALARIES

1 Geologist (R.C. Armstrong)		
3 days June 19-21, @ \$40/man day	\$ 120	\$
1 Field Assistant (B.K. Bowen)		
3 days June 19-21 @ \$30/man day	90	
1 Senior Geologist (D.L. Cooke)		
1 day during period June 19-21		
@ \$50/man day	<u>50</u>	260

CAMP SERVICES

300

TRANSPORTATION

Charter helicopter 5 hrs @ \$140/hr. 720

TOTAL EXPENDITURES \$ 1,280

Signed J. Richardson  
J. Richardson, P. Eng.

This is Exhibit "A" to the Statutory Declaration  
of J. Richardson, declared before me the 26<sup>th</sup>  
day of June, 1969 A.D.

A. Spence  
A Commissioner for taking Affidavits for

British Columbia

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To Wit:

In the Matter of

STATUTORY DECLARATION RELATING TO  
EXPENDITURES ON A GEOLOGICAL  
SURVEY OF THE PIL MINERAL CLAIMS  
PROPERTY OF COMINCO LTD.  
OMINECA MINING DIVISION

I, JAMES RICHARDSON, Professional Engineer

of the City of Vancouver

in the Province of British Columbia, do solemnly declare that

1. I do personally know D. L. Cooke who prepared the accompanying geological report as a result of a survey carried out under my supervision on certain mineral claims situated in the Omineca Mining Division, owned by Cominco Ltd.

2. Copies of the said report are being filed with the Mining Recorder in Vancouver.

3. Attached hereto and marked with the letter "A" upon which I have signed my name at the time of declaring hereof, is a statement of expenditures incurred in connection with the geological survey of the said claims showing in addition the dates during which those making the said survey performed their work.

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 26<sup>th</sup>  
day of June, 1969, A.D.

*J. Richardson*

*[Signature]*  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public for the Province of British Columbia

In the Matter of

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**Statutory Declaration**  
(CANADA EVIDENCE ACT)

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COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

STATEMENT OF QUALIFICATIONS

D. L. Cooke was responsible for carrying out the geological survey on the PIL Group of claims and for the preparation of this report. Mr. Cooke graduated as Bachelor of Science from the University of New Brunswick in Honours Geology 1959. He obtained his MA degree in Geology from the University of Toronto in 1961 and obtained his Phd in Geology at Toronto in 1966 and has been working in a responsible capacity with Cominco Ltd. since May 1, 1966.

I consider him to be an experienced and capable geologist.

  
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J. Richardson, P. Eng.



Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 1888 MAP #1



THE PILLAR

**LEGEND**

**JURASSIC - OR CRETACEOUS**

- 9 Quartz Feldspar porphyry dykes
- 3 OMINECA - CASSIAR INTRUSIONS Undifferentiated
- 2 Granite and quartz monzonite

**TRIASSIC AND JURASSIC**

- 1 TAKLA GROUP - andesite, flows and fragmentals, argillite

Outcrops examined

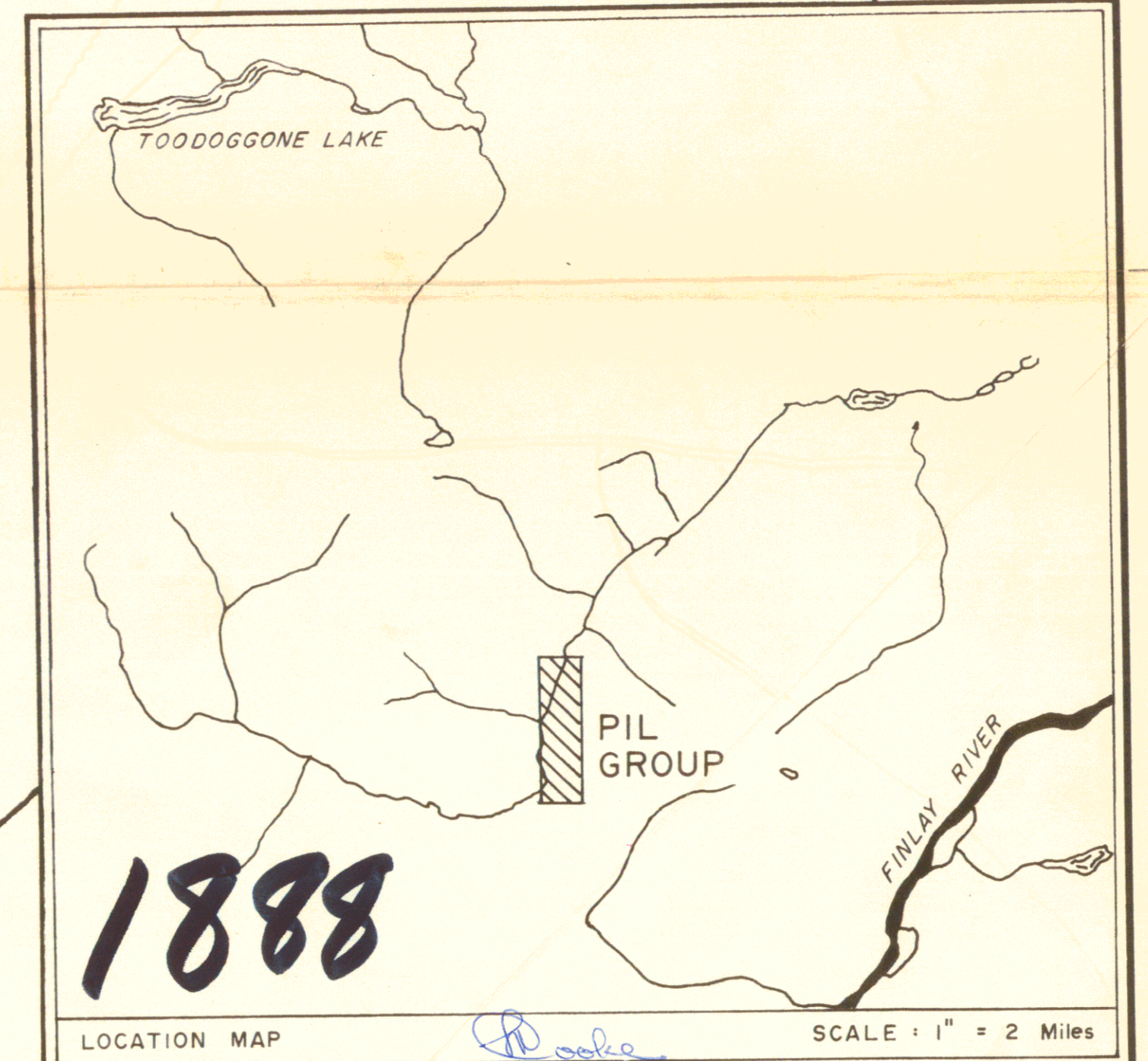
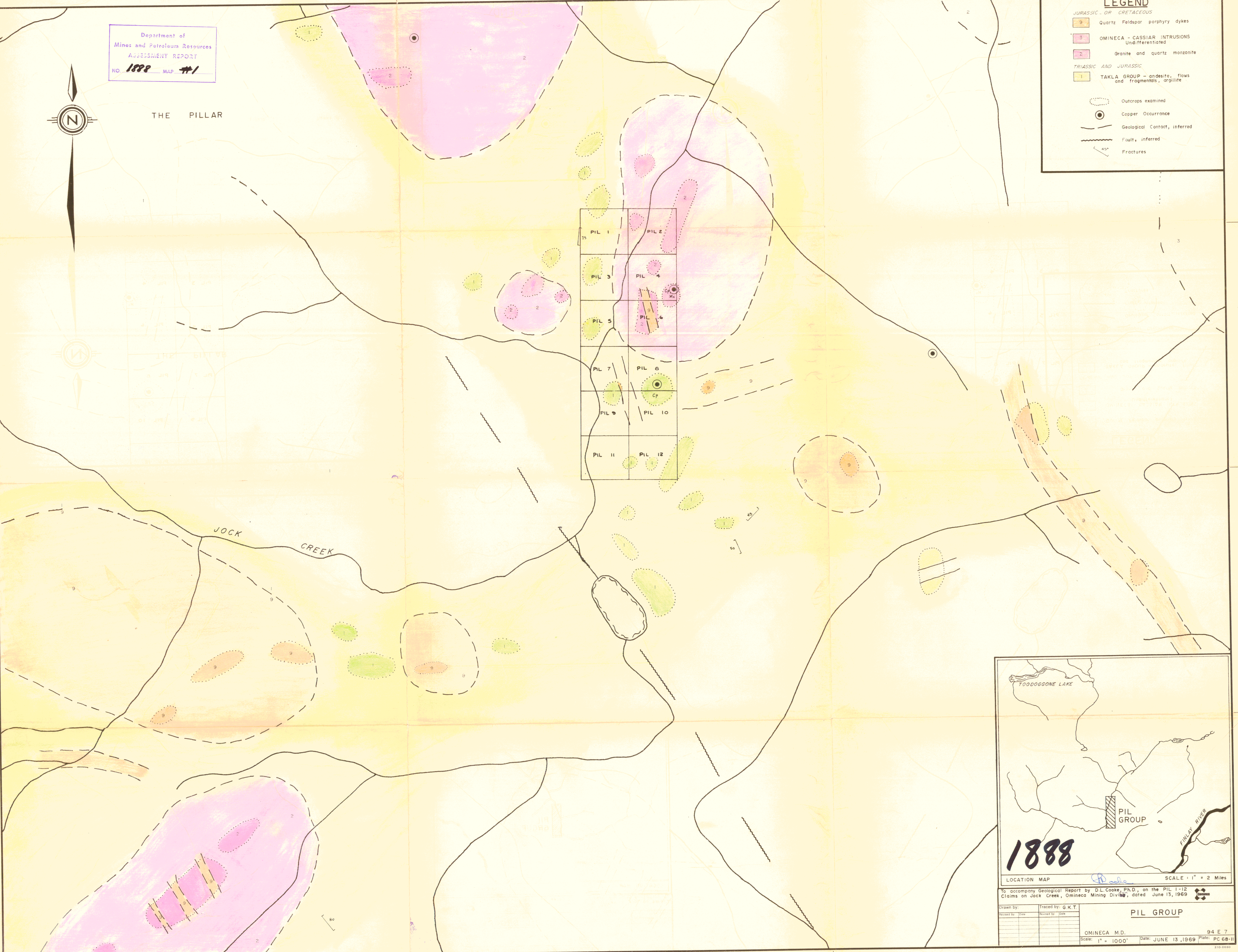
Copper Occurrence

Geological Contact, inferred

Fault, inferred

Fractures

PIL 1	PIL 2
PIL 3	PIL 4
PIL 5	PIL 6
PIL 7	PIL 8
PIL 9	PIL 10
PIL 11	PIL 12



To accompany Geological Report by D.L. Cooke, Ph.D., on the PIL 1-12 Claims on Jock Creek, Omineca Mining Division, dated June 13, 1969

Drawn by:	Traced by: G.K.T.
Checked by: [ ]	Checked by: [ ]

**PIL GROUP**

OMINECA M.D. 94 E 7

Scale: 1" = 1000' Date: JUNE 13, 1969 Plate: PC 68-II