

A GEOCHEMICAL REPORT ON THE "J" CLAIMS (1-24)

COPPER CREEK AREA, KAMLOOPS M.D., B.C.

92I/15W

Located one mile northeast of Copper Creek Station
NTS Sheet 92-I-15 at 50° , 47' N.Lat., 120° 45' W.Long.

for

FALAISE LAKE MINES LIMITED (owners)

by

T.L. Sadlier-Brown and E.O. Chisholm, P.Eng.

DATES: June 6th to June 15th 1972

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Department of Mines and Petroleum Resources ASSESSMENT REPORT NO. 3761 M.P.
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INTRODUCTION

General Statement:

The "J" Group consists of 24 contiguous mineral claims staked by Mr. J. Rudnisky during March of 1972 and presently held by Falaise Lake Mines Ltd., of Vancouver, B.C. The claims were recorded March 13, 1972 under record numbers 106947-106970 inclusive.

In May and June of 1972, an exploration program including prospecting, diamond drilling, and soil sampling was carried out by the company. The following is a report on the geochemical survey.

Location and Access:

The claim group lies immediately north of the Trans Continental line of the Canadian National Railway and about a mile northeast of the Copper Creek Station and Post Office on the north shore of Kamloops Lake. It is readily accessible by a good gravel road from the Trans Canada highway about two miles west of Savona and from this road by a dirt road which turns off to the south 17 miles from the highway. The dirt road crosses the western part of the claims and was in reasonably good condition during the course of the survey except during wet weather when it became very slick and nearly impassable.

Physiography:

The claims are on a moderate southerly slope between elevations of about 1200 and 2000 feet on the north side of Kamloops Lake. They are sufficiently low in elevation to be in the arid or dry belt country which characterizes many of the main valleys of the southern interior of the province.

Vegetation is mainly sage brush and open pine forest and creeks are only intermittent except for Carabine Creek which is just off the property to the west.

In general, overburden is probably fairly shallow and outcrop is sufficient to give an adequate impression of the geology.

History:

The general area has been the focus of mining activity for a century or more with mercury and copper being the metals sought. A number of old adits, tailings piles and the ruins of a retort on the west bank of Copper Creek above the Post Office are the remaining evidence of the mercury mining of the 1890's.

Other workings located on a crown granted claim, the Tenderfoot, which is within the "J" Group constitute development carried out on a zone of copper mineralization staked in 1889. These showings were reported on by George Dawson, among others

in 1894 and have received intermittent attention from that time to the present.

Geological Statement:

The oldest rocks on the claim group are made up of basaltic and andesitic flows and tuffs of mesozoic age. These underlay much of the western and southern part of the claims and are intruded near the south boundary of the property by a granitic stock of mesozoic or tertiary age. They are cut elsewhere by several basic dikes and sills possibly related to the tertiary Kamloops and plateau basalts which occur in the easternmost claims.

An augite porphyry basalt member of the older volcanic sequence appears to be the most important rock type from an economic standpoint.

In the vicinity of the "tenderfoot" claim it is cut by quartz calcite veins mineralized with the boinite chalcocite and secondary copper minerals which prompted the early work on the ground.

In what may be a zone of hornfels near the granitic intrusion mentioned above a small adit has been driven on a cinibar showing but mineralization was very weak.

GEOCHEMISTRY

General Statement:

In June, 1972 a soil sampling program was initiated to search for other mineralized areas within the augite porphyry basalt unit in the vicinity of the Tenderfoot workings. A total of 110 samples were dug by mattock from the "B" soil horizon, placed in paper bags and sent to Vancouver Geochemical Laboratories Ltd., of North Vancouver, B.C. for analysis. Copper and mercury were tested for in the -80 mesh fraction after digestion using hot $HClO_4$ and HNO_3 . Detection was by atomic adsorption spectrophotometer and results quoted in parts per million copper and parts per billion mercury were plotted at a scale of one inch to 400 feet.

Observations and Conclusions:

Background copper values were in the 35 to 45 PPM range and very few anomalous values were detected. These tended to occur in the vicinity of the old workings as expected and downhill from them.

In addition, anomalous values on lines 24N and 28N are attributable to the proximity of outcrops of the augite porphyry basalt which apparently contains small amounts of copper locally. None however, was observed during the course of a careful follow-up examination.

Two anomalous values on line 4N were taken just downhill from an outcrop of basalt similar to the augite porphyry and like it deficient in megascopically observable sulphide.

Copper geochemical response over the western part of the "J" group is not strong except in the vicinity of the Tenderfoot workings. Outcrop or near outcrop areas of augite porphyry basalt, however, do tend to be marginally anomalous in copper which may be attributed to small isolated veins and disseminations one of which has been observed at about 2 north and about 800 feet west of the base line. Other than in the known hydrothermal veins of the Tenderfoot occurrence though, it appears unlikely that copper is present in the grid area in sufficient quantities to be of economic interest.

Mercury values very roughly parallel those for copper with the background taken at less than 1000 PPB. Areas of augite porphyry basalt outcrop or subcrop tend to run higher, over 3000 PPB, but no mineralization could be observed in the rocks and it is suggested that hydrothermal veining similar to the Tenderfoot occurrences but much lower in grade are responsible.

The Tenderfoot area presently appears to contain the only significant mineralization on the surveyed portion of the property. Previous work has indicated, however, that the mineralization here does not persist to depth and is restricted to

veining within a horizon of the augite porphyry basalt.


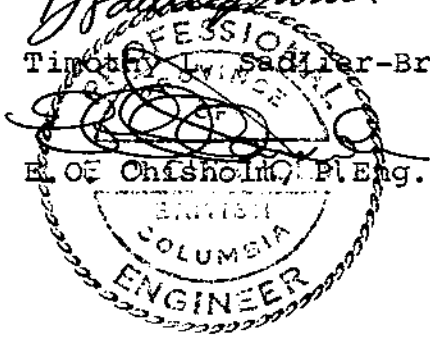
Recommendations:

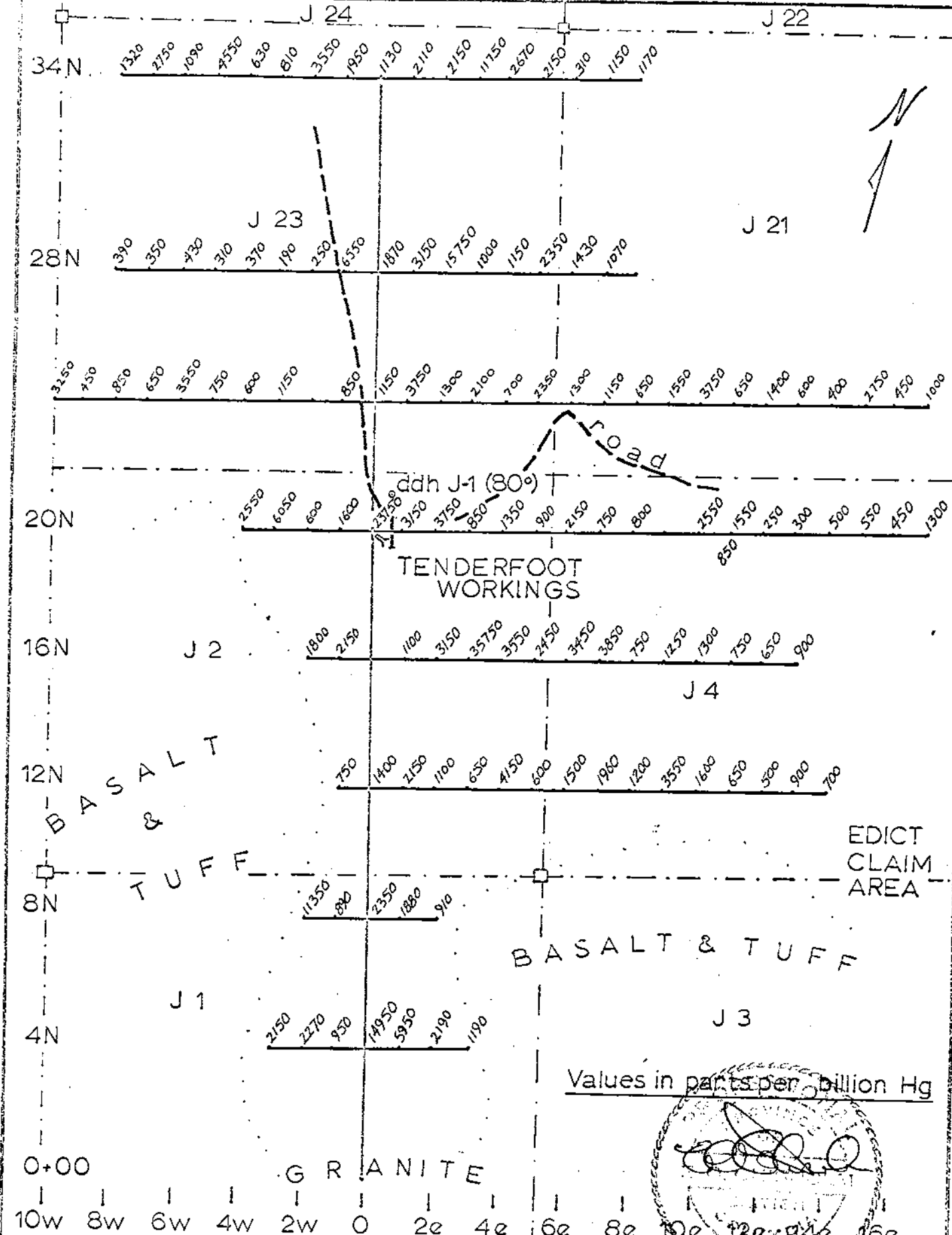
Additional work might be warranted to test more adequately the extent of the Tenderfoot mineralization. This should consist of EM or IP surveys preferably run on lines trending roughly north south.

Additional geochemical work should be done on a reconnaissance scale throughout the entire western two thirds of the property (excluding that part underlain by the tertiary basalts). Samples should be tested for copper only.

An estimate of costs for the geophysical work would be \$1500.00 and for the reconnaissance geochemical work approximately \$3500.00.

Respectfully submitted:

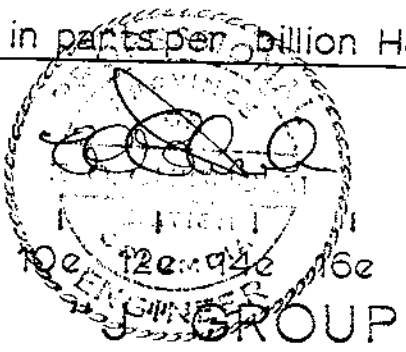

Timothy L. Sadler-Brown

E. O. Chisholm, P. Eng.



MERCURY GEOCHEMICAL PLAN,

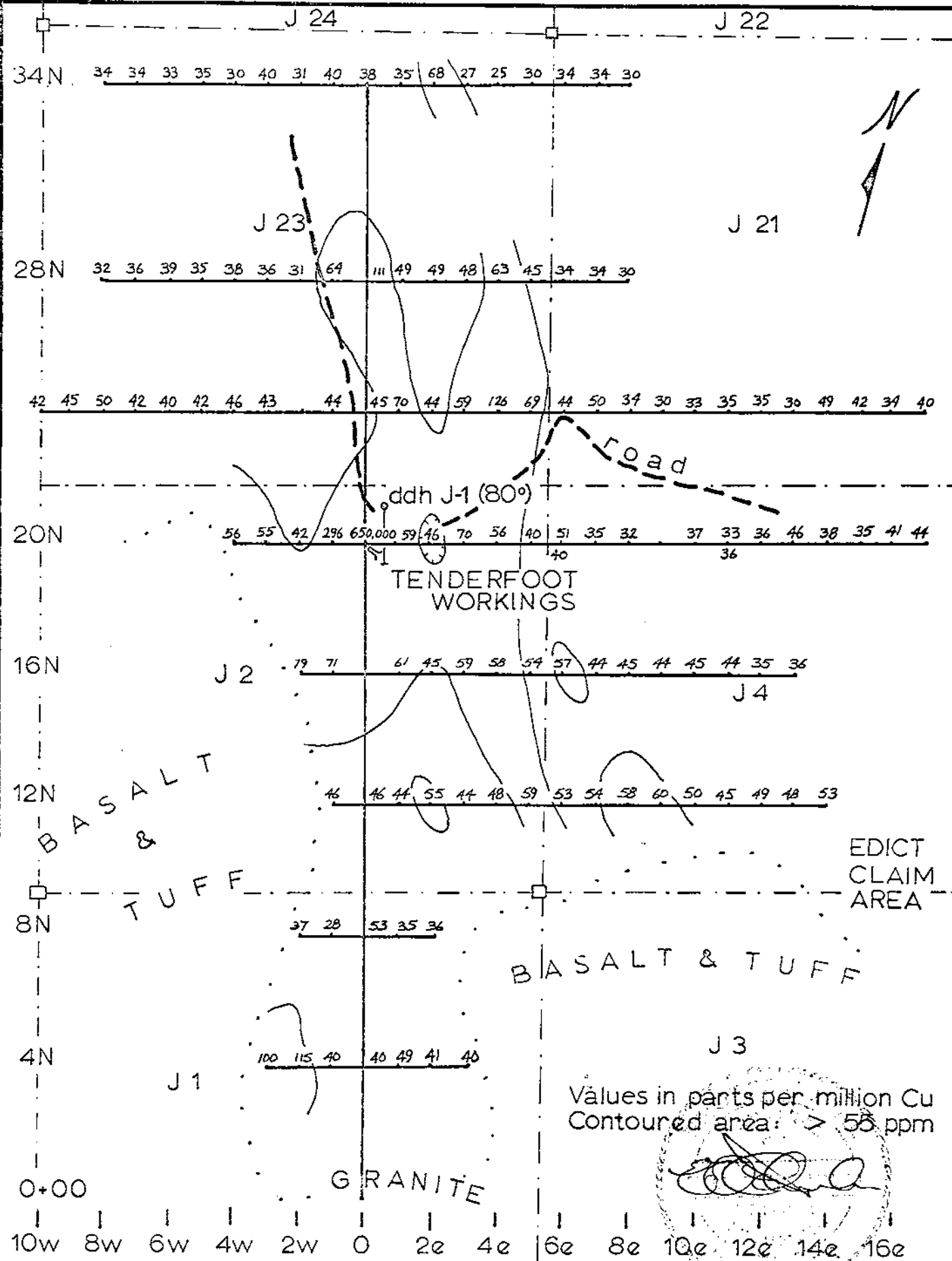
SCALE : 1 inch to 400 feet

To accompany a report by E.O.Chisholm



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3761 MAP #1



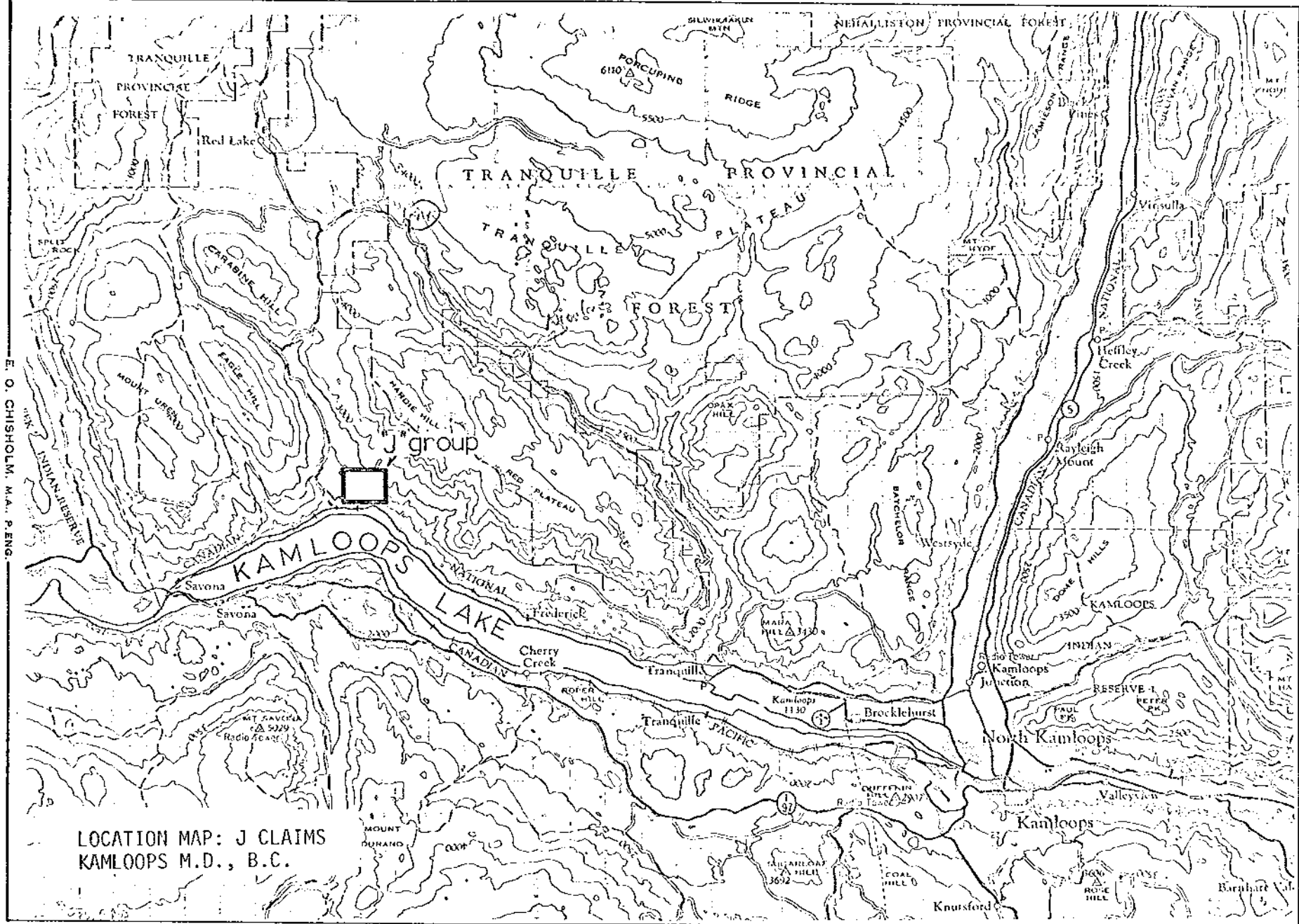
COPPER GEOCHEMICAL PLAN, "J" GROUP

SCALE: 1 inch to 400 feet

To accompany a report by E.O. Chisholm

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NO. 3761 MAP #2



E. O. CHISHOLM, M.A., P. ENG.
 CONSULTING GEOLOGIST

LOCATION MAP: J CLAIMS
 KAMLOOPS M.D., B.C.

Department of
Mines and Petroleum Resources

ASSESSMENT REPORT

NO. 3761 MAP #3

STATEMENT OF COSTS

I declare that the costs outlined below were assumed during the program of work described in the foregoing report.

Line cutting & flagging:	Days	Rate	Total
M. Campbell - June 6 - June 10	5	\$25/day	\$125.
Sample collecting:			
M. Campbell - June 11 - June 15	5	\$25/day	\$125.
Sample testing (Cu & Hg) 110 samples @ \$3.70 ea.			\$407.
Transportation (vehicle rental)			\$250.
Supervision & Consulting			\$250.
Report & Map preparation			\$200.
		TOTAL	<u>\$1,357.</u>

Declared before me at the
of
Province of British Columbia, this
day of

, in the

, A.D.



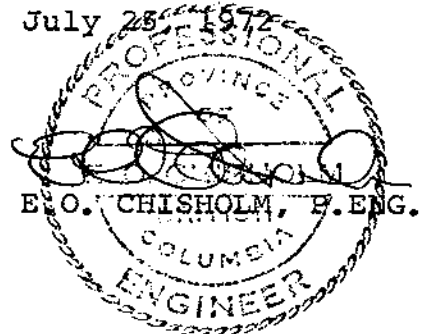
A Commissioner for taking Affidavits within British Columbia or
A Notary Public in and for the Province of British Columbia.

DECLARATION

I, E.O. Chisholm, Consulting Geologist, of
#821 - 602 West Hastings Street, Vancouver,
British Columbia, do hereby state that to
the best of my knowledge and belief the
foregoing statement of costs is both true
and correct.

Vancouver, B.C.

July 25, 1972



FALAISE LAKE MINES LTD.

J GROUP DIAMOND DRILLING PROGRAM, COPPER CREEK, B.C.

LOG OF DRILL HOLE j-1

JUNE 8th, 1972

BY: TIMOTHY L. SADLIER-BROWN

FOOTAGE

- 0- 14 Overburden, cased.
- 14- 28 Badly fractured Augite porphyry basalt; Aphanatic grey groundmass, some calcite veins. Sparse malachite at 25.5 feet.
- 28- 46.5 Augite porphyry as above but unbroken. Malachite at 28.5 feet.
- 46.5- 49 Augite porphyry basalt with red groundmass. Calcite veining and epidotization.
- 49- 61 Augite porphyry basalt with grey-green goundmass.
- 61- 65.5 Augite porphyry basalt with red groundmass. Strong calcite veining, narrow ($\frac{1}{2}$ ") zones of gouge bearing sparse disseminated pyrite and lesser chalcopyrite (at 64.5 feet).
- 65.5- 73.5 Augite porphyry basalt with grey groundmass.
- 73.5- 75 Augite porphyry basalt with red groundmass
- 75- 76 Gouge zone and calcite veins at 80° to core axis.
- 76- 77 Calcite veins at 70° - 80° to core axis.
- 77- 80 Augite porphyry basalt with grey groundmass. Veins of calcite at 70° - 80° to core axis.
- 80-109 Augite porphyry basalt, red groundmass.
- 109-112 Shear with mylonite at 80° to core axis.
- 112-158 Augite porphyry basalt. Mainly grey groundmass but with some narrow bands ahere red dominates.
- 158-196 Augite porphyry basalt with red groundmass. Epidote present in veins and replacing phenocrysts.

- 196-223 Augite porphyry basalt, grey groundmass. Abundant epidote.
- 223-238.5 Augite porphyry basalt, red groundmass with epidote and calcite veins.
- 238.5-275 Augite porphyry basalt with grey groundmass with epidote and calcite veins.
- 275-297 Augite porphyry basalt with red groundmass and epidote.
- 297-316 Augite porphyry basalt with grey groundmass. Sparse epidote.
- 316-339 Augite porphyry basalt with red groundmass.
- 339-358.5 Augite porphyry basalt with grey groundmass.
- 358.5-359.5 Augite prophyry basalt with red groundmass.
- 359.5-370 Laminated red tuff. Laminae at 45° to core axis. (Painted bluffs formation).
- 370-376 Grey green tuff.
- 376-435.5 Red tuff or arkose bedded 10° - 40° to core axis.
- 435.5-438 Grey green tuff with calcite veins.
- 438-478 Augite porphyry basalt with sparse amounts of epidote alteration in phenocrysts. Mainly red matrix but with minor bands of grey.
- 478-486.5 Augite porphyry basalt, red matrix.
- 486.5-488 Calcite vein at 20° to core axis. Some gouge.
- 488-492 Augite prophyry basalt with grey matrix. Calcite veining.
- 492-508 Augite prophyry basalt with red groundmass. Some epidotization of phenocrysts. Gradaturial contact at base.
- 508-612 Augite prophyry basalt, grey matrix.
- 612-621 Augite prophyry basalt, red matrix.
- 621-624 Augite prophyry basalt, grey matrix.
- 624 End of Hole