GEOCHEMICAL REPORT

- on the -

GIL CLAIMS

- for -

BARRIER REEF RESOURCES LTD.,

#904-675 West Hastings Street,
VANCOUVER, B. C. V2B 1N2.

COVERING: Gil (20 units); Gil #2 (10 units).

LOCATION: 50°37'N; 120°38'W.

NTS Map 92I/10E.

21 km. SW of City of Kamloops.

WORK PERFORMED: June 8 - December 30, 1979.

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO 7842

PREPARED BY:

KERR, DAWSON AND ASSOCIATES LTD.,
#1-219 Victoria Street,
KAMLOOPS, B. C.
V2C 2A1.

J. M. Dawson, P. Eng.,
December 30, 1979.

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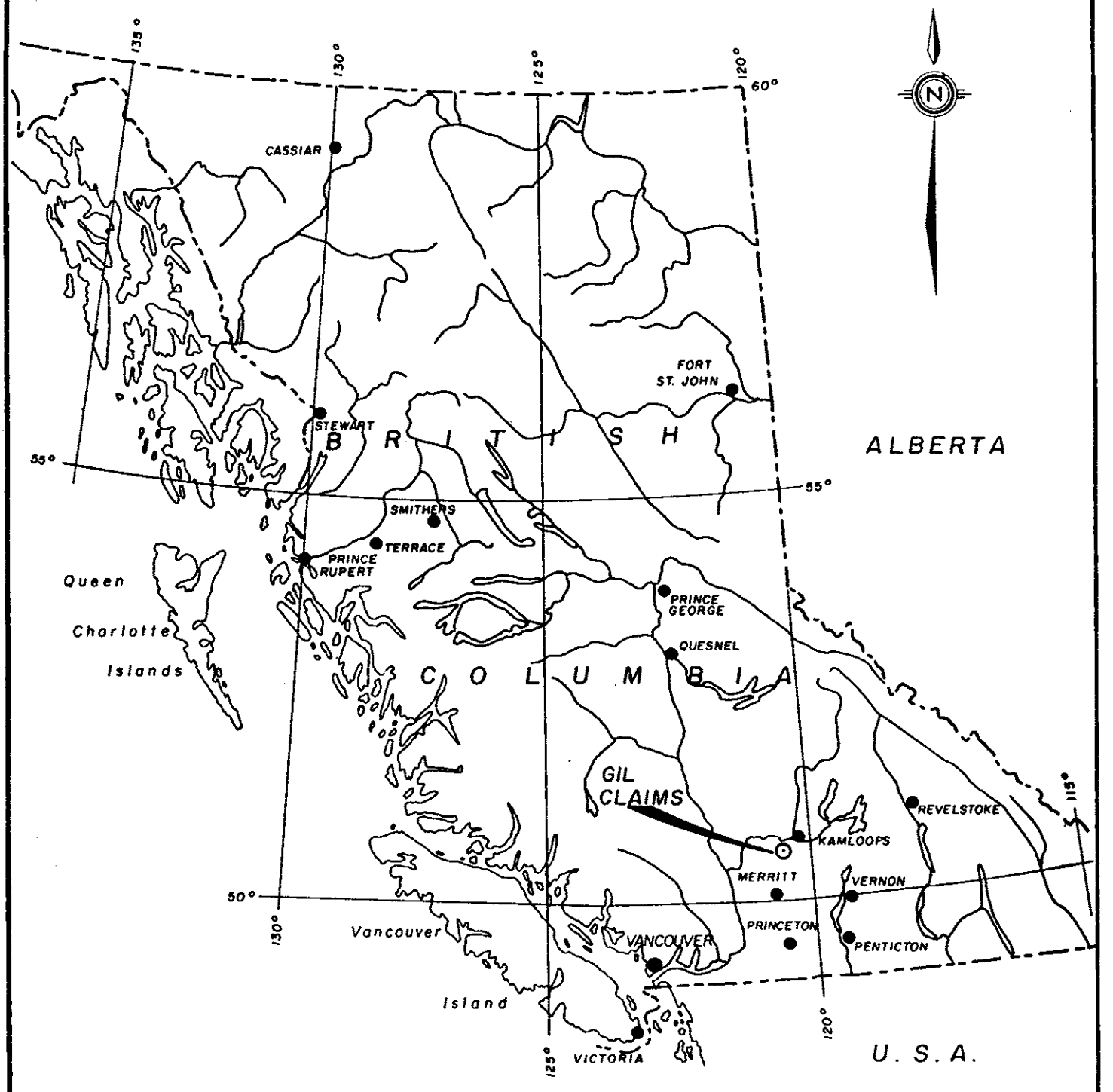


BARRIER REEF RESOURCES LTD(N.P.L.)

LOCATION MAP

GIL CLAIMS

KAMLOOPS MINING DIVISION, B.C.

Technical Work by: Kerr, Dawson & Assoc. Ltd.	Date : Jan., 1979.
Scale : 1cm. = 87 km.	Dwg No. 150-1

INTRODUCTION

This report describes a programme of geochemical prospecting carried out over a portion of the Gil claim group during the 1979 field season.

Results have been interpreted and integrated with previous work and are presented on maps appended to this report.

SUMMARY AND CONCLUSIONS

(1). The Gil property consists of two contiguous metric claims totalling 30 units, located in moderate terrain about 20 km. southwest of Kamloops and is road accessible.

(2). This property has probably been prospected for many years; however, only reconnaissance geochemical and geological surveys are recorded as having been carried out in the early 1970's.

(3). The property is underlain by Nicola volcanic rocks, intruded by several small granitic plugs. Minor copper and ? molybdenum mineralization has been noted in several places.

(4). Copper geochemistry reflects a number of narrow, linear anomalous lenses thought to be related to minor copper mineralization in Nicola rocks. Molybdenum geochemistry has delineated a single large area of anomalous values almost certainly

related to the intrusive plugs as "porphyry type" mineralization.

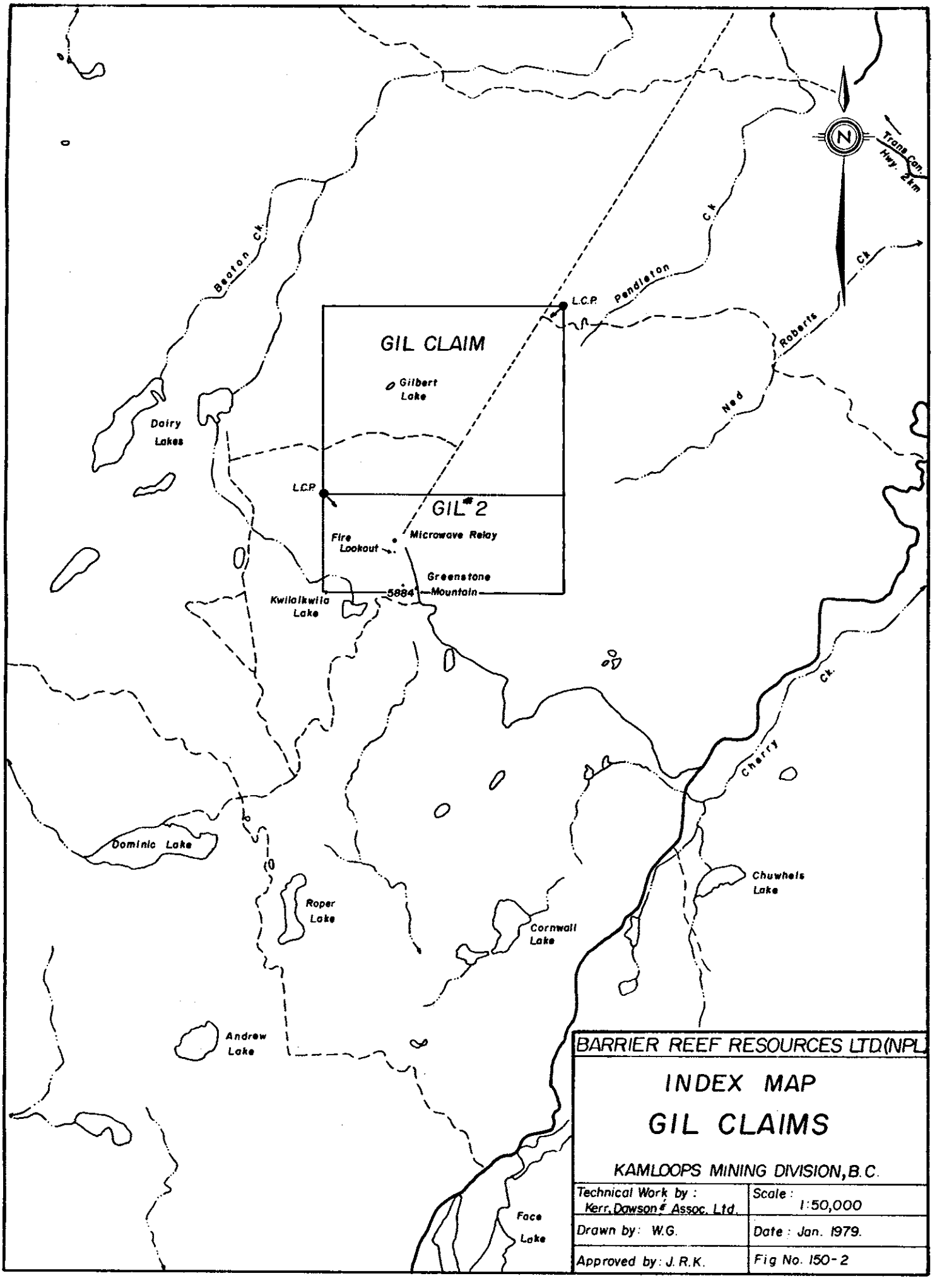
(5). The discovery of additional significant molybdenum and ? tungsten mineralization immediately adjacent to the Gil property on the south indicates that the anomaly outlined on the subject claims is certainly worthy of further work.

PROPERTY

The property consists of two contiguous metric claims totalling 30 units as follows:

Claim Name	Record No.	No. of Units	Expiry Date
Gil	670	20	Jan. 10, 1980
Gil #2	685	10	Jan. 24, 1981

The disposition of these claims is shown on Figure 150-2.



BARRIER REEF RESOURCES LTD.(NPL)

INDEX MAP
GIL CLAIMS

KAMLOOPS MINING DIVISION, B.C.

Technical Work by : Kerr, Dawson & Assoc. Ltd.	Scale : 1:50,000
Drawn by : W.G.	Date : Jan. 1979.
Approved by : J.R.K.	Fig No. 150-2

LOCATION, ACCESS, AND GEOGRAPHY

The property is located in south central British Columbia approximately 21 km. southwest of the city of Kamloops. Approximate geographic co-ordinates are 50°37' north latitude and 120°38' west longitude.

The claims are accessible via Highway No. 1 and the Dominic Lake road which leads south from Cherry Creek and passes over Greenstone Mountain. Various logging roads and skid trails provide access to particular portions of the property.

The property covers the summit and parts of the northern slope of Greenstone Mountain. The area is tree covered except for minor logging slashes. Topography is moderate and elevations vary from 4,500 to 5,900 feet A.S.L.

HISTORY

Intermittant prospecting has probably been done in the general area for many years as some very old hand trenches are noted in the north eastern corner of the claim block.

The first recorded work is in 1969 when Nicanex Mines did soil sampling over a portion of what is now the Gil property.

Extensive staking of the entire district took place during the "Afton Rush" of 1971-1972.

Moneta Porcupine Mines Ltd. carried out a limited programme of geological mapping and soil sampling during 1973 and 1974. The claims were allowed to lapse in 1975.

In 1977 the property was acquired by Barrier Reef Resources Ltd. and a short access road was constructed.

In 1978 a soil sampling programme was performed on the Gil #2 claim.

The present programme expanded the 1978 geochemical survey to cover the whole of the present property.

GEOLOGY

The Gil property is underlain by volcanic rocks of the Nicola group, intruded by several small granitic plugs.

The volcanic rocks consist primarily of massive, porphyritic andesite flows. These rocks are relatively fresh, dark gray-green in colour with euhedral pyroxene crystals up to 1 cm. long. Locally tuffaceous sediments and agglomerates predominate. Near the summit of Greenstone Mountain an area of andesite breccia has been noted. Disseminated pyrite is common in this breccia zone and minor chalcopyrite can be seen in some places.

There are at least three small granitic plugs present on the subject claims. In composition they vary from quartz monzonite to granodiorite. In addition, a number of feldspar porphyry dikes presumably related to these intrusives, cut the Nicola volcanics.

The largest intrusive body is located near Gilbert Lake and is predominently medium grained quartz monzonite. Parts of this plug are reported to be hydrothermally altered and to contain minor quartz veins carrying traces of chalcopyrite and molybdenite.

This showing could not be found by the writer. The area of the reported showing is poorly exposed and swampy and is part of a prominent east northeasterly trending linear depression interpreted to be a through-going fault or shear zone.

The two smaller plugs located on the north slope of Greenstone Mountain are of relatively fresh granodiorite and have no mineralization associated directly with them.

The only other mineralization seen by the writer consists of minor disseminated chalcopyrite in a 3 foot wide quartz vein exposed in a shallow cut or shaft. This showing is located along the edge of the access road at the northeast property boundary.

GEOCHEMISTRY

On the Gil claim, soil samples were collected at 50 meter intervals on lines spaced 400 meters apart (see figures 150-3 and 150-4).

Samples were collected from the "B" horizon where possible (approximately 15 to 45 cm. deep). Sample stations were marked with flagging and the appropriate grid co-ordinates. After collection,samples were stored and shipped in waterproof kraft envelopes.

A total of 252 soil samples were collected and analysed for copper and molybdenum. Analysis was performed by Bondar-Clegg and Company Ltd. at their Vancouver laboratories. Samples were dried and sieved and an aliquot of the -80 mesh fraction obtained. Extraction was attained using hot aqua regia with analysis by atomic absorption spectrophotometry.

The mean and standard deviation for both metals was computed and the data were classified into the following categories:

Negative	0 -	Mean
Possibly Anomalous	Mean	- (Mean + 1 Std. Dev.)
Probably Anomalous	(Mean + 1 Std. Dev.-	(Mean + 2 Std. Dev.)
Definitely Anomalous	>	-(Mean + 2 Std. Dev.)

The values were plotted on 1:5,000 scale base maps of the property and definitely anomalous, probably anomalous and possibly anomalous areas were outlined (see figures 150-3 and 150-4).

Anomalous copper values occur in a number of narrow, linear, east-northeasterly trending lenses. The orientation of these lenses coincides with the major fault (?) which transects the property near Gilbert Lake as well as one of the major fracture directions in the Nicola volcanics. These trends are taken to reflect minor copper mineralization within the Nicola rocks themselves and to have little or no relationship with the intrusives.

Anomalous molybdenum values have very little coincidence with areas of anomalous copper. Almost all anomalous molybdenum values are enclosed within a continuous, but irregularly shaped north to north-northwest trending zone which links the area of the Gilbert Lake stock to one of the smaller plugs or cupolas. There is some ENE, - WSW elongation of the

anomaly at its northern end near the prominent, fault or shear zone mentioned above.

In short, anomalous molybdenum values do seem to be related to intrusive rocks on the subject property and outline an anomaly roughly 2,000 meters long and about 750 meters wide.

EXPLORATION POTENTIAL

A fairly large area of anomalous molybdenum values in soils has been outlined on the subject property. It seems directly related to the Gilbert Lake stock and its ? satellite intrusions.

To the south, immediately adjacent to the Gil property, Cominco is currently doing extensive exploration on a very large block of claims surrounding porphyry-type molybdenum mineralization associated with the Roper Lake stock. Some tungsten mineralization is reported to occur with the molybdenum.

It is possible that similar porphyry-type molybdenum mineralization could occur on the Gil property and that the Roper Lake and Gilbert Lake stocks may be apophyses of the same intrusion.

The setting on the Gil property is certainly deserving of further exploration.

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. M. DAWSON

Respectfully Submitted By:

KERR, DAWSON & ASSOCIATES LTD.,

James M. Dawson

James M. Dawson, P. Eng.,
GEOLOGIST

December 30, 1979,
KAMLOOPS, B.C.

APPENDIX A

PERSONNEL

PERSONNEL

J. M. Dawson, P. Eg.	Geologist	June 8, December 15,16,1979	- 3 days
M. Dawson	Fieldman	June 9 - June 12	- 4 days
S. Williams	Fieldman	June 9 - June 12	- 4 days
W. Gruenwald	Geologist	December 18	- 1 day

APPENDIX B

STATEMENT OF EXPENDITURES

PROGRAMME COSTS

(1).	LABOUR:		
	J. M. Dawson, P. Eng., 4 days @ $160.00/day	$640.00	
	M. Dawson, 4 days @ $95.00/day	380.00	
	S. Williams, 4 days @ $95.00/day	380.00	
	W. Gruenwald, 1 day @ $125.00/day	125.00	$1,525.00
(2).	EXPENSES AND DISBURSEMENTS:		
	(a). Geochemical Analysis	$655.20	
	(b). Truck Rental: 5 days @ $25.00/day $125.00; 220 miles @ 25¢/mile 55.00	180.00	
	(c). Miscellaneous field supplies and equipment rental	97.40	
	(d). Xerox, blue prints, milars, secretarial, binding, freight, etc.	88.65	1,021.25
	TOTAL PROGRAMME COSTS		$2,546.25

APPENDIX C

WRITER'S CERTIFICATE

JAMES M. DAWSON, P. ENG.
GEOLOGIST

SUITE 1 - 219 VICTORIA STREET
KAMLOOPS, B.C.

PHONE (604) 374-6427

CERTIFICATE

I, JAMES M. DAWSON, OF KAMLOOPS, BRITISH COLUMBIA, DO HEREBY CERTIFY THAT:

(1). I am a geologist employed by Kerr, Dawson and Associates Ltd. of Suite #1, 219 Victoria Street, Kamloops, B. C.

(2). I am a graduate of the Memorial University of Newfoundland - B. Sc. (1960), M. Sc. (1963), a fellow of the Geological Association of Canada and a Member of the Association of Professional Engineers of British Columbia. I have practised my profession for 16 years.

(3). I am the author of this report which is based on an exploration programme carried out on the subject property, under my supervision.

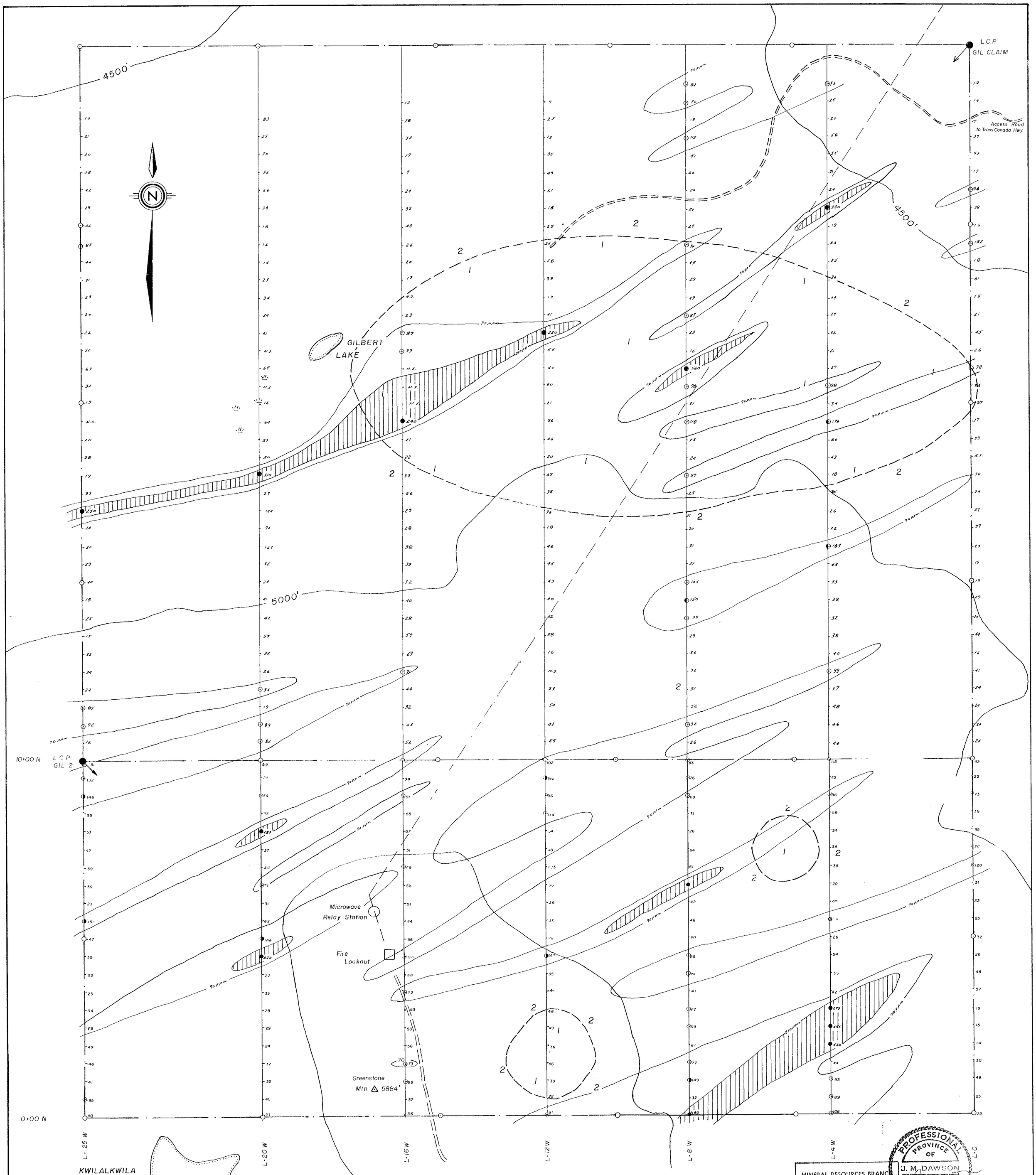
PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. M. DAWSON

KERR, DAWSON AND ASSOCIATES LTD.,

James M. Dawson

James M. Dawson, M. Sc., P. Eng.,
GEOLOGIST

December 30, 1979,
KAMLOOPS, B. C.



LEGEND

- Road
- Hydro line
- 5000 — Topographic contour in feet (a.s.l.)
- 49 — Survey line with sample station and value in parts per million (ppm) Copper
- Claim boundary with Legal Corner Post (L.C.P.)
- Geological contact
- 1 — Granodiorite
- 2 — Nicola volcanics
- MoS_2 — Molybdenite
- Cpy — Chalcopyrite

GEOCHEMICAL CATEGORIES

	Negative	<68.87 ppm Cu
○	Possibly Anomalous	68.87 - 141.35
◑	Probably Anomalous	141.35 - 210.22
⦚	Definitely Anomalous	> 210.22

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PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
J. M. DAWSON

Revised Jan. 1980, to accompany a report by J.M. Dawson, P.Eng.

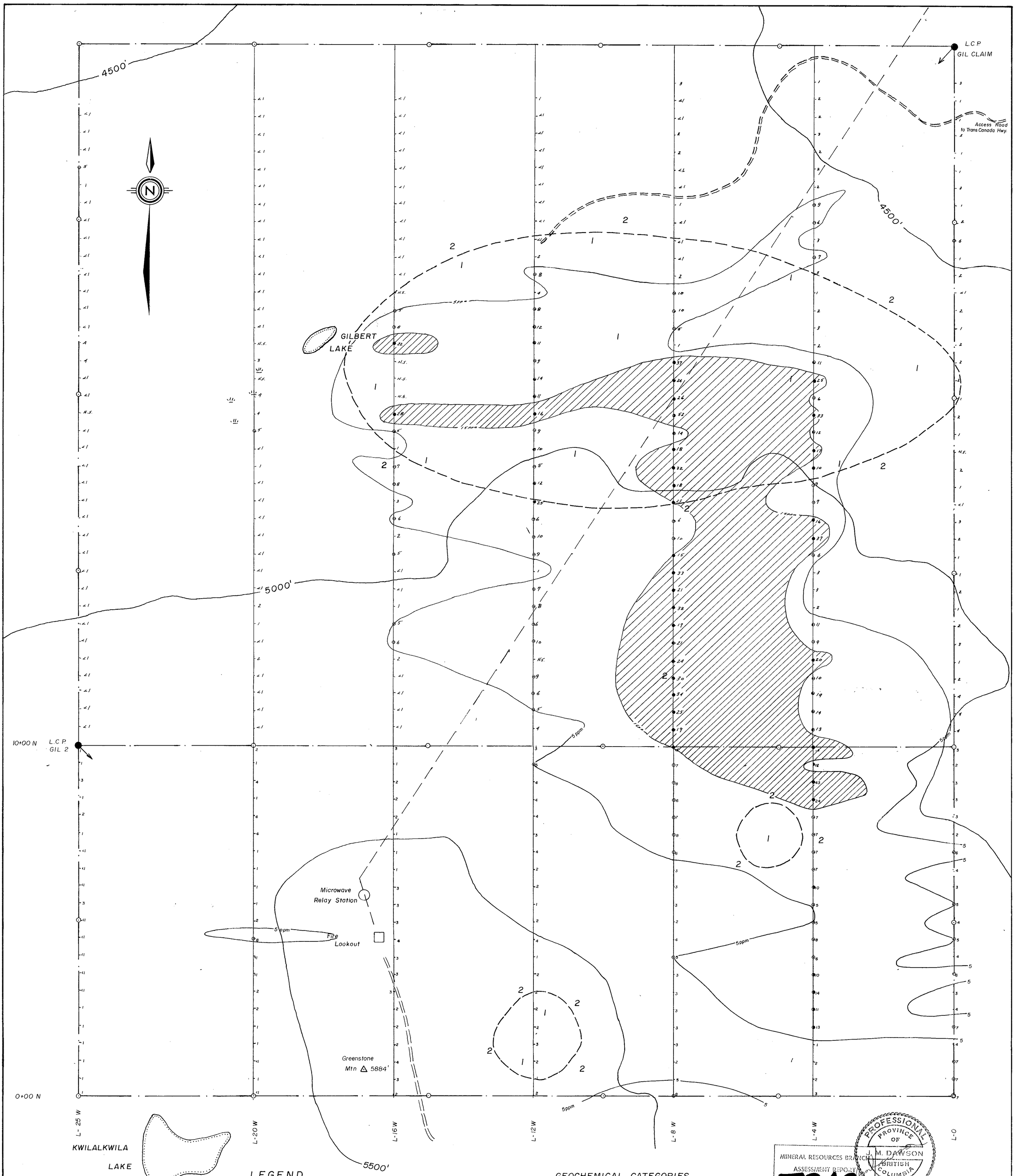
BARRIER REEF RESOURCES LTD (N.P.L.)

Cu DISTRIBUTION IN SOILS

GIL CLAIMS

KAMLOOPS MINING DIVISION, B.C.

TECH. WORK BY: KERR, DAWSON AND ASSOCIATES LTD.	SCALE: 1:5,000 (0 50 100 meters 200m)
DRAWN BY: J.R.K & W.G	DATE JAN., 1979
APPROVED BY: J.R. KERR, P.ENG.	FIG. NO. 150-3



LEGEND

- Road
- Hydro line
- 5000 — Topographic contour in feet (a.s.l.)
- Survey line with sample station and value in parts per million (ppm) Molybdenum
- Claim boundary with Legal Corner Post (L.C.P.)
- Geological contact
- 1 — Granodiorite
- 2 — Nicola volcanics
- MoS_2 — Molybdenite
- Cpy — Chalcopyrite

GEOCHEMICAL CATEGORIES

	Negative	< 4.17 ppm Mo
○	Possibly Anomalous	4.17 - 9.86
◐	Probably Anomalous	9.86 - 15.55
⊘	Definitely Anomalous	> 15.55

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
NO. 7842

PROFESSIONAL ENGINEER — PROVINCE OF BRITISH COLUMBIA — J. M. DAWSON

Revised Jan. 1980, to accompany a report by J.M. Dawson, P.Eng.

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Mo DISTRIBUTION IN SOILS

GIL CLAIMS

KAMLOOPS MINING DIVISION, B.C.

TECH. WORK BY: KERR, DAWSON AND ASSOCIATES LTD.	SCALE: 1:5,000 (0 50 100 meters 200m)
DRAWN BY: J.R.K & W.G	DATE: JAN., 1979.
APPROVED BY: J.R. KERR, P.ENG.	FIG. NO. 150 - 4