

3907

92G/7E

GEOPHYSICAL AND GEOLOGICAL REPORT
ON THE
MILLIE GROUP
(May, June, Millie & April Claims)

West shore of Pitt Lake
Lat. 49°26'N, Long. 122°34'W

by
M. K. Lorimer, B.A.Sc., P.Eng.

for

Yukon Gold Placers, Limited

Work done 31 August - 8 September, 1972

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3907 MAP

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October 4, 1972.

SUMMARY

Magnetometer and geological surveys were made of a portion of the Millie Group at Pitt Lake in August and September, 1972.

The area is precipitous and much of it is virtually inaccessible. Large boulders and finer overburden with a dense forest growth cover most of the accessible areas, but sufficient outcrops exist for geological mapping.

The claims cover a contact between diorite on the west and quartz diorite on the east. Pyroxenite occurs in several areas adjacent to a major fault system. The pyroxenite carries sparse amounts of pyrite, pyrrhotite, chalcopyrite and, possibly, Pentlandite. The magnetometer survey located an anomaly in the northeastern quarter which could not be examined because of overburden.

It is concluded that the pyroxenite bodies, the possible hosts for copper and/or nickel mineralization, are too small and scattered to be of economic importance.

REPORT ON
A GEOLOGICAL AND GEOPHYSICAL SURVEY
OF THE
MILLIE GROUP
NEW WESTMINSTER M.D.

OBJECT:

This report is submitted for the purpose of describing and recording the results of geological and geophysical surveys carried out over a portion of the Millie Group of mineral claims in August and September, 1972, and for the purpose of presenting the conclusions to be drawn from these results.

LOCATION:

The group is located on the west shore of Pitt Lake about 5 miles from the south end of the lake. There is no road access. The claims can most readily be reached by float plane or by boat from the road at the south end of the lake. The road distance from Vancouver is about 30 miles.

The elevations range from approximately sea level (Pitt Lake is tidal) to over 1,500 feet in the northwest corner.

The geographic location is N49°26'; W122°34'; the area is 92G7E of the National Topographic System and the Mining Division is New Westminster.

TITLE:

The property consists of four contiguous claims as follows:

<u>Names</u>	<u>Record Nos.</u>	<u>Expiry Dates</u>	<u>Owners</u>
May	26951	22 Sept/72	Yukon Gold
June	26952	22 Sept/72	Placers Limited
Millie	27997	4 July/72	R. Lee, J. N. Cartisie,
April	27998	4 July/72	D.J. Douglas, G.R. Fay, F.M.P. Warren, J.N. Jones

The Millie and April claims are reported to be held under a declaration of trust in favour of Yukon Gold Placers, Limited.

A compass and chain survey of the property made in conjunction with the laying out of an exploration grid shows the claims to be approximately as drawn on Map 2.

TOPOGRAPHY:

The topography is extremely rugged, particularly the western half and the southeastern quarter. Series of cliffs rise from the water's edge making these areas vitually inaccessible without special equipment and mountaineering techniques. The central part, carrying a south-flowing creek, and the northeastern quarter where gradients are moderate, are the only readily accessible areas.

Much of the accessible ground is covered with an overburden of large boulders which have fallen from the cliffs above.

Finer overburden covers the northeastern quarter, an area which was logged many years ago.

The vegetation is mainly hemlock and cedar with an underbrush of salal, willow and alder.

GEOLOGY:

The area was mapped by the Geological Survey of Canada in the period 1953-5. The resulting map (Map 8-1956) shows the Millie Group to cover a contact between Mesozoic diorite on the west and quartz diorite on the east.

A more detailed description by J. W. Hogan, P. Eng., after a brief examination, states that the underlying rocks are mainly hornblende diorite intruded by, and/or associated with, ultrabasic rocks consisting of hornblendite, peridotite and pyroxenite. Chalcopyrite, pyrite, magnetite, pyrrhotite and, possibly, pentlandite were observed as streaks and disseminations in the ultrabasics. Two grab samples of this material assayed 0.18% copper, 0.14% nickel; and 0.17% copper, 0.21% nickel. Mineralized specimens were moderately to strongly magnetic.

A deeply incised canyon cutting at N20°W was regarded by Mr. Hogan as evidence of a possible major fault.

HISTORY:

At some time in the past, possibly in the period 1945-50, an 80-foot adit was driven on a quartz-filled fissure vein from a point on the lakeshore (Map 2). Gold was probably the target but apparently little was found. In 1971 some minor trenching was done above and to the northwest of this adit. There is no evidence of any other work having been done.

1972 PROGRAMME:

In August, 1972, the present owners embarked on an exploration programme consisting of a grid layout and magnetometer and geological surveys. The object was to determine whether large ultrabasic bodies, which might be host to copper and/or nickel deposits, existed on the property.

A grid was laid out with a base line running north from the No. 1 post of the Millie and April claims near the lakeshore. From the baseline, cross lines were run at right angles at 100-foot intervals with stations staked or flagged at 50-foot intervals. All lines were run by compass and the stations set by measurement with a nylon chain. The lines were marked by blazing, flagging and minor brush-cutting.

No attempt was made to mark or survey the precipitous parts of the property.

A tent camp was established on the property and serviced by boat.

The grid was used for the magnetometer and geological surveys, and from it the claim posts were located.

The work was done in the period 31 August to 8 September, 1972.

The crew consisted of:

M. K. Lorimer, P.Eng.	Supervisor	3 days
S.S. Tan	Geologist	3 days
D. Lorimer	Magnetometer Operator	9 days
E. Lorimer	Line cutter	5 days
V. Shaw	Line cutter	9 days

A cost summary is given as Appendix A.

MAGNETOMETER SURVEY:

A. Procedure

The survey was done with a Scintrex MF2 Fluxgate Magnetometer Serial No. 002192. This instrument has a sensitivity of 50 gammas per scale division on the 3000-gamma scale used during this survey.

Control points were established along the base line by taking a series of readings in both directions so that each point was read twice, then adjusting the readings for diurnal changes and averaging to get values to be used for the survey. During the survey check readings were taken at control points at intervals of less than one hour.

An arbitrary setting of 1000 gammas was made at station 4N on the base line.

B. Results

The adjusted magnetometer readings are plotted and contoured on Map 3.

Readings ranged from 550 to 7700 gammas. The areas of high magnetic intensity are small, indicating that the rocks of interest as potential copper and/or nickel hosts do not form extensive bodies.

A pronounced lineation running northwesterly through the middle of the surveyed area is a manifestation of the faults visible on the surface. A northeasterly lineation to the east of the property is indicative of tributary faulting.

GEOLOGICAL SURVEY:

The geological survey was made by S.S. Tan, F.G.A.C., E.I.T. The results are plotted on Map 4 and his description follows:

Local Geology:

Upper Jurassic hornblende diorite of the Coast Plutonic complex occupies the major part of the property. Pyroxenite occurs in three areas to the east of the base line. Two narrow trap dykes of basaltic composition intrude the hornblende diorite.

Lithology:

The hornblende diorite is medium to coarse-grained and unaltered. Outcrops along the creek contain variably-sized xenoliths of dark-coloured volcanics and sediments. It is inferred that the amygdaloidal dacite outcrop is probably a large xenolith. The diorite and pyroxenite contact is gradational. The pyroxenite is coarse-grained and dark green to black in colour. It occurs as small segregated phases of the diorite. The two trap dykes of basaltic composition are fine-grained and dark greenish-grey in colour.

Structure and Mineralization:

A major N25°W fault that partly parallels the creek traverses the property. Two other faults striking N15°W and N25°E respectively, were mapped. Their projections converge into the major fault just to the east of the base line on line 7N at the swamp. Faults are expressed topographically as steep cliff faces.

Sparse pyrite, chalcopyrite, pyrrhotite and pentlandite (?) are present in all the pyroxenite outcrops. Two grab samples taken by J. W. Hogan, P.Eng., of this office, of the better mineralized material assayed 0.18% Cu-0.14% Ni and 0.17% Cu-0.21% Ni.

Discussion:

The pyroxenite unit is an intrusive phase of the diorite. Its magnitude and sulphide content indicate that it is of no economic significance.

(End of description by S.S. Tan)

RESULTS:

A comparison of the magnetometer and geological survey results shows good coincidence between magnetic "highs" and pyroxenite outcrops in two places and between magnetic linearities and mapped faults. An exception is the pyroxenite immediately north of the swamp which appears as a "low" on the magnetic map. The magnetic "highs" in the northeastern quarter were not mapped geologically because of extensive overburden. The anomaly at 10N, 9E is the largest and strongest on the surveyed portion of the property.

CONCLUSIONS:

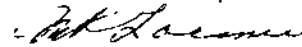
The property has several areas of pyroxenite carrying minor values in copper and nickel but these areas are too small and scattered to be of economic importance.

RECOMMENDATIONS:

It is recommended that no further work be done on this property.

Yours truly,

L. J. MANNING & ASSOCIATES LTD.



M. K. Lorimer, P.Eng.

MKL:kd1

BIBLIOGRAPHY

Hogan, J.W., P.Eng.:

"Report on the Millie Claims,"
private report, 1972.

Geological Survey of Canada:

Map 8-1956, "Pitt Lake", 1956

COST SUMMARY

Labour:

M. K. Lorimer	75 hours @ \$18.75	\$ 1,406.25
D. G. Lorimer	84 hours @ \$ 4.00	336.00
E. M. Lorimer	72 hours @ \$ 3.75	270.00
V. Shaw	76 hours @ \$ 3.75	285.00
S. S. Tan	3½ days @ \$150.00	525.00
	14 hours @ \$10.00	<u>140.00</u>
		\$ 2,962.25

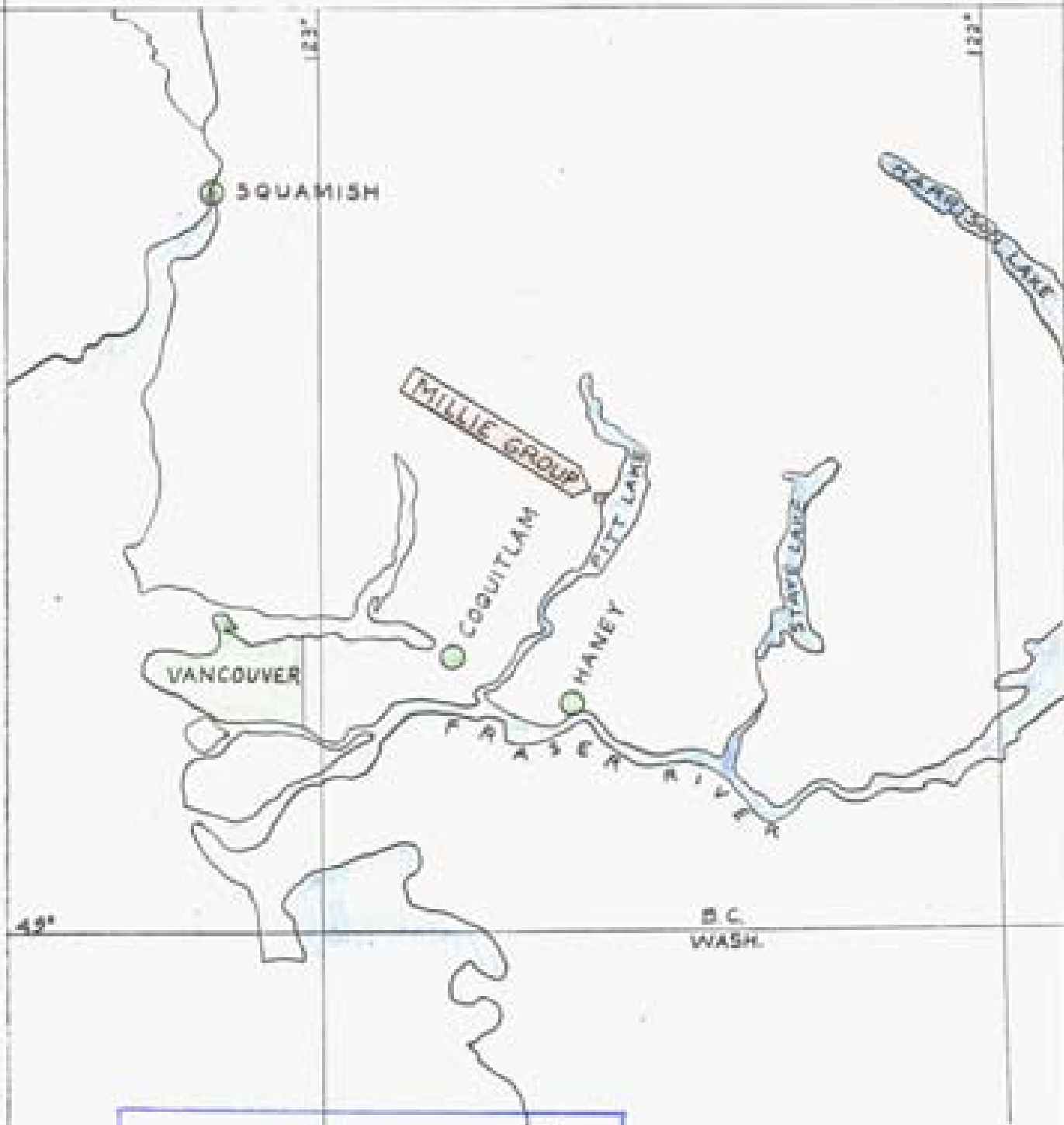
Camp Equipment	255.08
Transportation (Truck, car & boat)	335.06
Camp Supplies	4.26
Groceries	103.89
Meals	5.40
Magnetometer Rental (minimum)	100.00
Miscellaneous supplies	<u>4.41</u>
	\$ 3,770.35

Declared before me at the
of
VANCOUVER, B. C. in the
Province of British Columbia, this

OCT 6 1972 A.D.

[Signature]
Sub - Mining Recorder

[Signature]



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MAP I

YUKON GOLD PLACERS, LIMITED
MILLIE GROUP

LOCATION MAP

Scale: 1" = 10mi.

Drawn: M.K. Larimer Oct 72

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MAP 2

YUKON GOLD PLACERS LIMITED
MILLIE GROUP

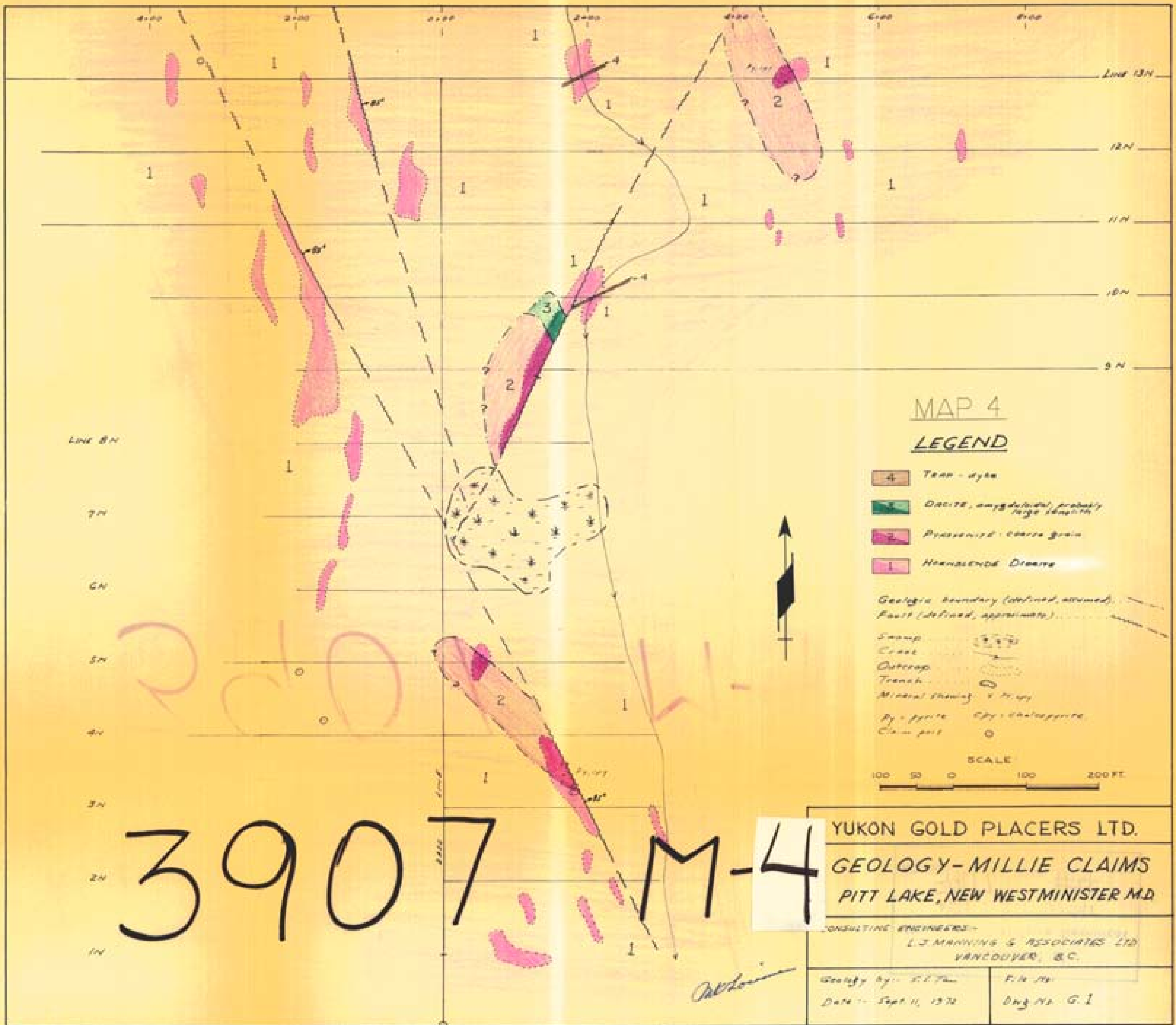
PROPERTY MAP

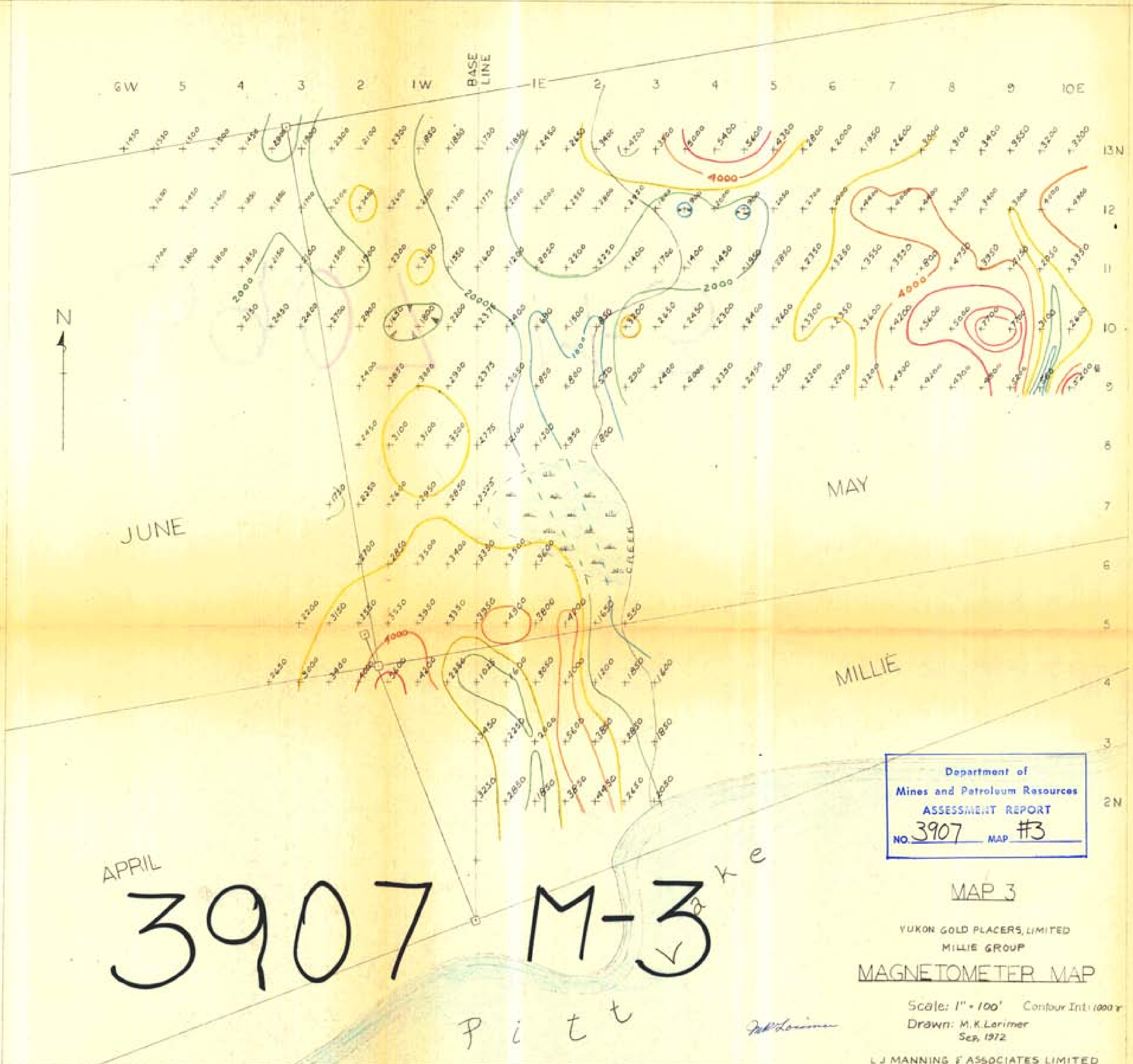
Scale: 1" = 500'

Drawn: M. K. Larimer, Sep 72

L.J. MANNING AND ASSOCIATES LTD.

M. Larimer





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MAP 3
YUKON GOLD PLACERS, LIMITED
MILLIE GROUP
MAGNETOMETER MAP

Scale: 1" = 100' Contour Int: 1000'
Drawn: M. K. Larimer
Sep. 1972

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