THE MICROGOLD PROPERTY

92 I / 8 W

J. S. DE LATRE

841510


206
212 Au
208 Au
215
POTENTIAL

THE MICROGOLD PROPERTY

Stump Lake Area - British Columbia
92 I / 8 W

SUMMARY AND CONCLUSIONS

Microgold exhibits Tertiary-age epithermal characteristics. Encouraging gold values (1 to 2 ppm) and anomalous amounts of arsenic (400 ppm) are found together with typical epithermal wallrock and gangue alteration. According to the genetic model presented by L. J. Buchanan, the surface mineralisation on the Microgold property would lie just above the precious metal horizon.

The 9-unit mineral claim is considered to have excellent potential for a major precious metals discovery within 150 metres from the surface. On the basis of the significant lithogeochemical anomaly (Au-Ag-As) and the diagnostic features of epithermal precious metal veins and/or disseminations encountered at the surface, it appears that a basic exploration programme ($ 25,000.) aiming at subsurface ore mineralisation (the precious metal horizon) is warranted in this low-cost area.

LOCATION

The property is located 2km west of the north end of Stump Lake and 4 km NNE of the gold-silver producing Mineral Hill (1885-1942). It is easily accessible by automobile via Highway 5, 40 km south of Kamloops. The area is semiarid (open grassland), the topography is quite moderate, and there is water available for drilling 100 and 200 m from the showings. The property is at an elevation of 900 m ASL.

PROPERTY

Microgold is a mineral claim of nine units or 225 hectares (equivalent to 26 US lode claims). It is located in the Nicola Mining Division. Recorded at Merritt on June 21, 1982. Record No. 1257.

OWNERSHIP

Mineral title is owned 100 percent by JOHN DE LATRE, Box 1245, Kamloops, B. C.

Land title appears to be as follows:
Lot 1000: Frobek Cattle Co.,74 Seymour St., Kamloops.
North of L. 1000: Wicklow West Holdings, c/o 466 Howe St., Vancouver, B. C.

HISTORY

Survey geologist George Dawson found "gold traces" in a specimen of the rusty quartzite in question and noted its gold exploration potential in 1894 (GSC Ann. Rept Vol. VII,p. 311 B). The area has been staked from time to time, but when the price of gold was one-tenth of what it is now. More recently a fluorite occurrence at the north edge of Microgold was staked and prospected.

The silver and gold deposits on Mineral Hill are among the earliest lode discoveries of British Columbia (1882). They consist of narrow quartz veins and shears striking northerly in Nicola greenstones. Production is over 8 500 oz of gold (0.1 oz/t) and 260 000 oz of silver (3. oz/t).

PROPERTY EXPLORATION

The gold discovery, resulting from geological prospecting, and the ground control by staking were made by John De Latre.

Results of recent preliminary surface evaluation have indicated anomalous gold and silver values in volcanoclastic sediments whereas the overlying volcanic rocks are barren. Some shheelite has been identified with the UV light in some areas. The conceptual geological appraisal indicates a latent epithermal precious metal horizon of substantial dimension.

Previously, on the Redbird fluorite showing, blasting and 120 cubic metres of bulldozed trenching (1977-78) were carried out.

Microgold should be investigated as a potential medium-scale (1000 000 tonnes), high-grade (0.5 plus oz Au/t) precious metals deposit lying at shallow depths, not at the surface. Subsurface evaluation, involving a limited resistivity survey and test drilling (a 150 m borehole) of the Hilltop Rusty Zone (HRZ) is the priority work. The cost of this basic exploration programme is estimated at $ 15,000. minimum.

(a) Resistivity Survey and specialised interpretation - Hilltop area	
3 line km (lines 100 m apart)	$ 5,000.
Grid	500.
(b) Test drilling (IP anomalies, Breccia Zone)	
At least 150 m of diamond drilling at $ 50 m	7,500.
75 assays at $ 12. sample	1,000.
(c) Geological supervision	1,000.

The resistivity survey would only serve as a guide to the test drilling and subsequent grid drilling.

A subordinate objective is deep grid drilling in the Redbird fault zone area.

GEOLOGY

Along the hogback of the prominent rusty hill (HRZ) competetnt quartzite is exposed, apparently due to doming. The white quartzite is stained by iron or manganese oxides and

shows evidence of silicification and banded or crustified structure. The repetitively banded vein fillings is considered a diagnostic feature of epithermal veins. Fluorisation, cryptocrystalline and chalcedonic banded quartz, the leaching and oxidation products of calcite, and manganese staining certainly suggest Tertiary-age mineralisation on the Microgold property.

At the crest of the anticline (just west of sample 76208) the bed or vein is over 2m thick, but averages 1 m . The white quartzite is underlain (footwall) by altered and sheared tuffaceous rock or metaconglomerate (pyritic pebbles of volcanic rocks), and overlain (hanging wall) by barren (epidote, fresh pyrite) greenstones presumably of the Upper Triassic Nicola Group.The local anticline (or doming) strikes northerly, the east limb is cut off by a series of faults a short distance from the exis, the west limb dips 25 to 40 degrees.

About 200 metres west of sample location 76208, a leached and oxidised breccia zone (some 50 m across) exhibits typically gangue and ore mineralogy (quartz, calcite, pyrite with Au, As, Ag, fluorite and possibly barite and some altered adaluria) of the alteration zone above the PRECIOUS METAL HORIZON.(See "Precious Metal Deposits associated with Volcanic Environments in the Southeast, L. J. Buchanan, 1982)

Some 500 m northerly, at the edge of the property, several pits (Redbird Prospect) expose a zoned fluorite-pyrite (Au, Ag)-quartz area striking easterly (steep south dip).

Most of the exposures on the property are barren Nicola greenstones but the underlying quartzite-quartz zone must be extensive (over 500 by 300 m in area).

Volcanoclastic sediments (conglomerate, breccia, tuffaceous sandstone, quartzite, argillite and limestone) form a local basin of sedimentation that outcrops 4 km northeasterly and southwesterly.

The aeromagnetics (Map 5213 G) just north of the property

suggest a blind, subvolcanic intrusion (source of boiling?) perhaps of Tertiary age), with which both horizontal and vertical of mineral deposits in the Stump Lake area may be associated.

GEOCHEMISTRY

The normal gold content in all rocks is 0.002 to 0.005 ppm At the sample location 76208 the gold concemtration is 2 ppm or an enrichment factor of 1000. It shows that the gold ore-forming processes are present. The economic implication cannot be underestimated.
It should also be considered that gold is very readily dissolved in sulphuric acid solutions containing chlorides and manganese dioxide. Manganese is present (700 ppm plus) on the property and a chloride hydrothermal system is suspected in this semiarid environment. Therefore micron gold could be deposited in greater amounts at shallow depths . An enrichment of only 2 or 3 times is required to have a blanket-type deposit of gold ore.
Also, since silver sulphate is readily soluble, it may have precipitated as sulphide enrichment at the water level of the hill in question. Under these conditions, the HRZ showing may indeed be leached of much of its precious metals. The water table is estimated to lie at less than 60 m under the mineralised hill.
Arsenic is a particular useful indicator of gold ores. In the Carlin ores an average 480 ppm As is reported. Arsenic content in HRZ quartzite is 400 ppm (breccia zone). Normal As content in all rocks is 1 or 2 ppm. This As anomaly on the Microgold property is also of potential economic implication.
It is well known that many iron-stained outcrops have had the valuable metals leached from them, and have frequently furnished the clue leading to the discovery of orebodies in depth. In " The Geochemistry of Gold and its Deposits"

page 450, R. W. Boyle states: quote "All such zones should be analysed for gold and silver and their indicator elements such as arsenic. Even where the surface zones are relatively low in these elements, the thought should always be entertained that such zones are the upward manifestations of deeper bonanzas. Where this is suspected deep drilling is suggested utilizing the concepts of primary halos as outlined subsequently".

ORE POTENTIAL

The Microgold property shows enough encouraging gold values and hydrothermal alteration at the surface to qualify as a legitimate prospect.

It is evidently inapropriate at this stage to present even rough approximations of potential reserve but the exploration potential can be envisaged. Gangue and ore mineralogy of the Microgold showings show that, according to the genetic model presented by Buchanan, the present surface (3000 ft ASL) is just above the precious metal horizon characterised by microgold, electrum, argentite and normally grading 0.5 plus ounces gold per ton. Therefore the ore shoots have not been eroded (as on the south side of Stump Lake). Gold: silver ratios tend to be larger higher in the precious metal horizon, but bonanza-rich silver ores may occur at the water table. The tenor of gold found in the quartzite-quartz, breccia zone and the Redbird fault zone, - 0.012 to 0.065 ounces of Au/T, averaging 0.03, does not reflect the grade of the precious metal horizon and its ore shoots.

As the vein deposits of Mineral Hill (2500 ft ASL) are obviously in the BASE METAL HORIZON, the vertical dimension of the precious metal horizon on the Microgold property is in excess of 500 ft or 150 m.

The distance from the Rusty Hill Zone to the Redbird Fault Zone is 600 m and the mineralised (samples) width is in excess of 4 m (including the gold-bearing footwall), there is room on

this property for a substantial (1 000 000 tonnes plus) precious metal zone with rich oreshoots (600 x 4 x 150 m). One million tons averaging 0.4 oz Au/t would generate a total operating profit of at least $ 150 million. (C $ 500 oz Au). The far-seeing exploration manager would also consider the probability of a sharp rise in the price of gold in the next few years.

The present average grade at Carlin, NV and Knoxville, CA,- proved after considerable drilling,- is 0.15 and 0.16 oz Au /t. At Carlin 2.5 million tons of 0.038 oz ores are slated to be heap-leached on site.

FINANCIAL AND ECONOMIC CONSIDERATION

To a resource company, a modest grassroots project (a 2-man party) involving geological and geochemical prospecting, of only 3 or 4 months, will cost in excess of $ 25,000. There is of course no guarantee that a new promising property will be acquired as a result of that effort and money spending.

The cost of the Microgold Project (Phase One) is as follows:

(1) Property acquisition cost (initial payment) $ 10,000.

(2) Property exploration cost (Resistivity survey, test drilling, sampling) $ 15,000. plus

A work option agreement covering the Microgold property would generally provide:

(a) In consideration of $ 10,000, a 9-momth option;

(b) A further payment of $ 30,000 on April 30, 1983;

(c) A new mining reporting company (5 000 000 shares) to be floated on or before December 31, 1983. The optionee (as operator of the project) could earn 65 % equity interest (i.e as share-block options) by expanding $ 2 million on property exploration and development. One million shares would have to be offered to the public. The optionor would retain a 15 % carried interest (750 000 shares of which 3/4 would be escrowed).

The Microgold property is in a low-cost area for exploration and mining. It is easily accessible and convenient to transportation. It would seem that a large portion of the potential ore zone could be mined by open cut or by low-cost block caving methods in the hill area. If the prediction of high-grade ores in the latent precious metal horizon is correct, the property should bring a high return on mining investment.

PROPERTY ACQUISITION COSTS
The Microgold Property

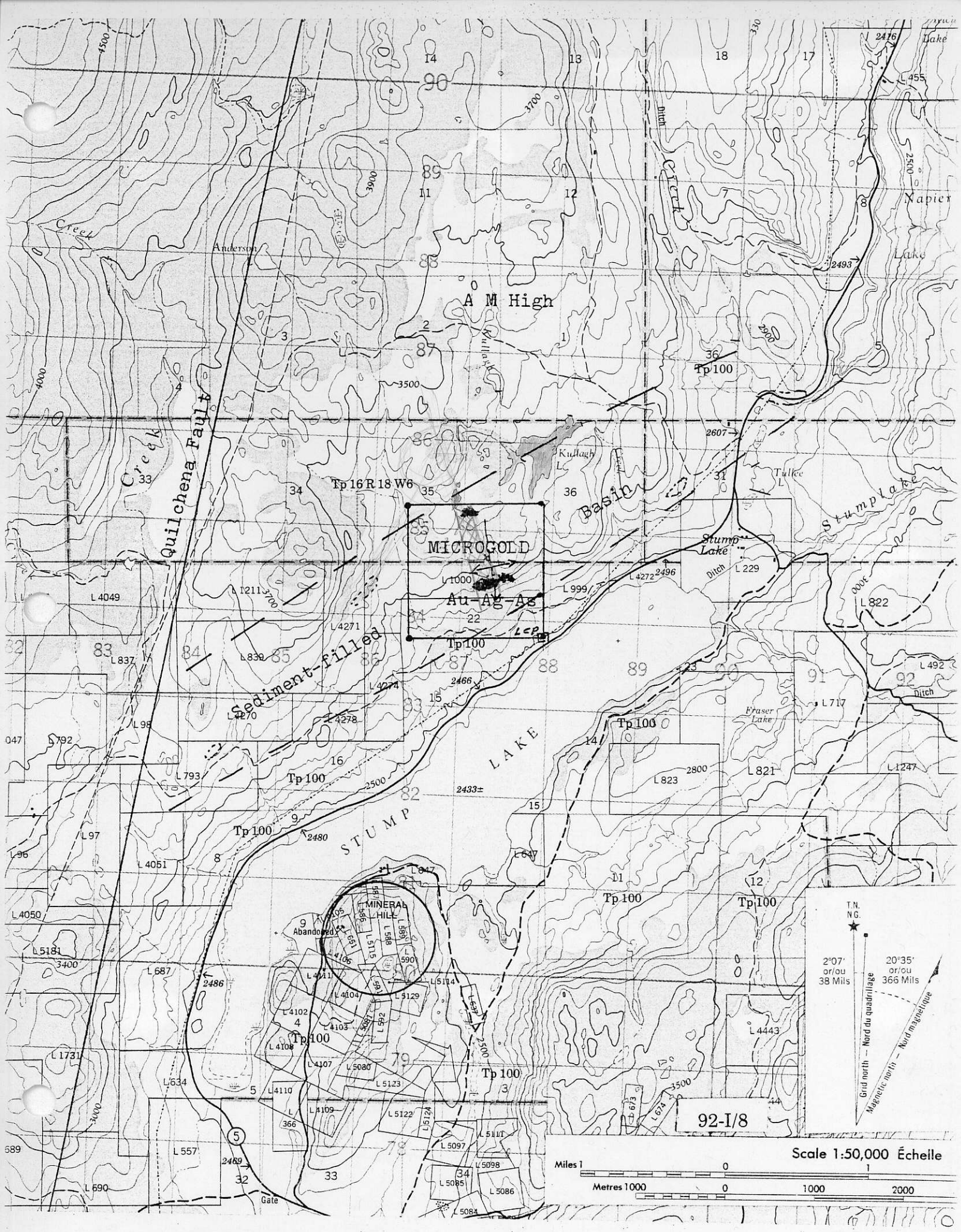
Out-of-pocket Costs		$ 3,000.
Documentation, lic.,stat.,repr.	$ 215.	
Assays	274	
Claims	45	
Camp equip.rental and supplies	300	
Car transportation 3 100 ml @ 30 ¢ ml	930	
Rations, camp fees, motels two months	1290	
Labour (time equivalent to wages)		$ 7,000.
1 month of research	$ 2000.	
2 months of fieldwork (Jn-Jl)	5000.	
Total:		$ 10,000.

(Less provision for income tax)

Respectfully submitted,

JOHN S. DE LATRE
Geologist

Vancouver, B. C.
August 1982


MICROGOLD
Au-Ag-As
A M High
Quilchena Fault
Sediment-filled
Basin
STUMP LAKE
Tp 16 R 18 W6
Tp 100
MINERAL HILL
Abandoned
Anderson Creek
Kullagh Creek
Ditch Creek
Stump Lake
Fraser Lake
Tulkee L.
Kullagh L.
Napier Lake
92-I/8
T.N.
N.G.
2°07'
or/ou
38 Mils
20°35'
or/ou
366 Mils
Grid north — Nord du quadrillage
Magnetic north — Nord magnétique
Scale 1:50,000 Échelle
Miles 1 0 1
Metres 1000 0 1000 2000

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CERTIFICATE OF ASSAY

TO Mr. J. Delatre
Box 1245
Kamloops, B.C.

Certificate No. K 4922
Date June 30, 1982.

I hereby certify *that the following are the results of assays made by us upon the herein described* _____ *samples*

Kral No.	Marked	GOLD	SILVER							
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	76207 Qtz	.007								
2	76208 Qtz	.064	.12							
3	76209 Volc.	.002								
4	76210 Volc.	.019	.26							
5	76211 Volc.	.005	.12							
6	76212 Qtz	.016	.12							

NOTE:
Rejects retained three weeks.
Pulps retained three months unless otherwise arranged.

Registered Assayer, Province of British Columbia

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METALLURGISTS

CERTIFICATE OF ASSAY

TO Mr. J.S. De Latre
Box 1245,
Kamloops, B.C.

Certificate No. K 4953
Date July 21, 1982.

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	GOLD	SILVER							
		Ounces Per Ton	Ounces Per Ton	Percent	Percent	Percent	Percent	Percent	Percent	Percent
1	076214 Sed	.028	.06							

NOTE:
Rejects retained three weeks.
Pulps retained three months unless otherwise arranged.

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CERTIFICATE OF ASSAY

TO Mr. J. S. DeLatre
Box 1245
Kamloops, B.C.

Certificate No. K-4888
Date June 21, 1982

I hereby certify that the following are the results of assays made by us upon the herein described _____ samples

Kral No.	Marked	Au	Ag	As						
		ounces/ton	ounces/ton	ppm						
1	076206 ✓ RTe	.012	.17	393						

NOTE:
Rejects retained three weeks.
Pulps retained three months
unless otherwise arranged.

Registered Assayer, Province of British Columbia

direction of glaciation is nearly transverse to it; and although the ice of the glacial period may have had something to do with clearing the débris from its hollow (see p. 258 B) it does not appear possible, under any circumstances, to consider it as the result of glacial erosion.

The question of the mode of origin of this lake is one deserving further inquiry, and requiring comparison with fiord-lakes such as the Shuswap Lakes. I will here only add, that it seems most easily explicable on the hypothesis of local changes in elevation of the surface, by which this part of the Thompson Valley, after its excavation, became relatively depressed. Such a movement may have been accompanied by faulting, evidences of which at a date posterior to the Miocene are found near both ends of the lake. It will be noted, however, that this supposition does not accord with the permanence of relative level of the surface assumed in connection with the origin of the early Pliocene valleys. The matter is still an open question.

A part of Nicola Lake is also included by the map. A few soundings made in this lake, near the south line of the map, showed the bottom to be almost perfectly flat, with a depth of 130 to 150 feet. In Bonaparte Lake, no soundings were made, but the shelving character of its shores indicate that it is probably not very deep. In connection with the theory of a relative depression of a portion of the surface of the Interior Plateau, it is worth noting that the three large lakes of this district lie nearly in line, north-and-south, though each of them is transverse to this general direction.

MINERALS OF ECONOMIC VALUE.

In the following pages, the conclusions respecting the distribution and mode of occurrence of placer gold which result from the geological study of the region here reported upon, are given in summarized form. This is followed by notes on the various deposits of ores and other useful minerals, including details not given in the foregoing sections of the report, and referring, wherever necessary, to these pages.

AURIFEROUS PLACER DEPOSITS OF DIFFERENT PERIODS.

One of the more important questions of an economic kind connected with the particular region here described, but one which is common also to the greater part of British Columbia, is that of the sources of the gold contained in the placer deposits of the rivers and streams. In investigating this, it is desirable not only that quartz-veins traversing the older rocks should be examined, but also, from the generally close

associations of gold with pyrites, that any considerable masses of rock which have become charged with pyrites should be tested, and that attention should further be given to the conglomerates found to occur in the several formations, representing as these do, the river wash or shore work of former periods of denudation and concentration. With this object in view, specimens were collected from a number of localities, during the progress of the geological work, and of these, those which appeared to be the more important, by reason of their mass or because of other circumstances, have been subjected to assay in the laboratory of the Survey. Assays made.

In most cases, specimens of this kind naturally prove to contain nothing, but where they are found to hold traces of gold, this may be taken as an incentive to further examination of the deposits. The following is a list of specimens examined of pyritized rocks, very often in a decomposed and rusty state, which yielded traces of gold:— Pyritous rocks containing gold.

1. Decomposed syenitic rock with pyrites. Near the little lake shown on the map to the south of Edwards Creek.

2. Decomposed rocks (quartzites?) of the Câche Creek formation. Red Hill, 4½ miles south of Cornwall Creek and ¼ mile east of the wagon-road.

3. Rusty quartzite, 1½ miles west of northern part of Stump Lake.

4. Ferruginous deposit with basalt. Clinton Creek, above the town.

5. Reddish quartzite, 7½ miles north of Clinton, at east base of Marble Mountains.

6. Rusty, shattered and altered rock. Near north edge of Granite. Great Rock-slide, Thompson River. Gold trace. Silver 0·175 oz. to the ton.

7. A considerably metamorphosed greenish-gray rock, apparently clastic, with grains of iron- and copper-pyrites. In-kai-kuh' Creek, Thompson River. A mile east of the railway.

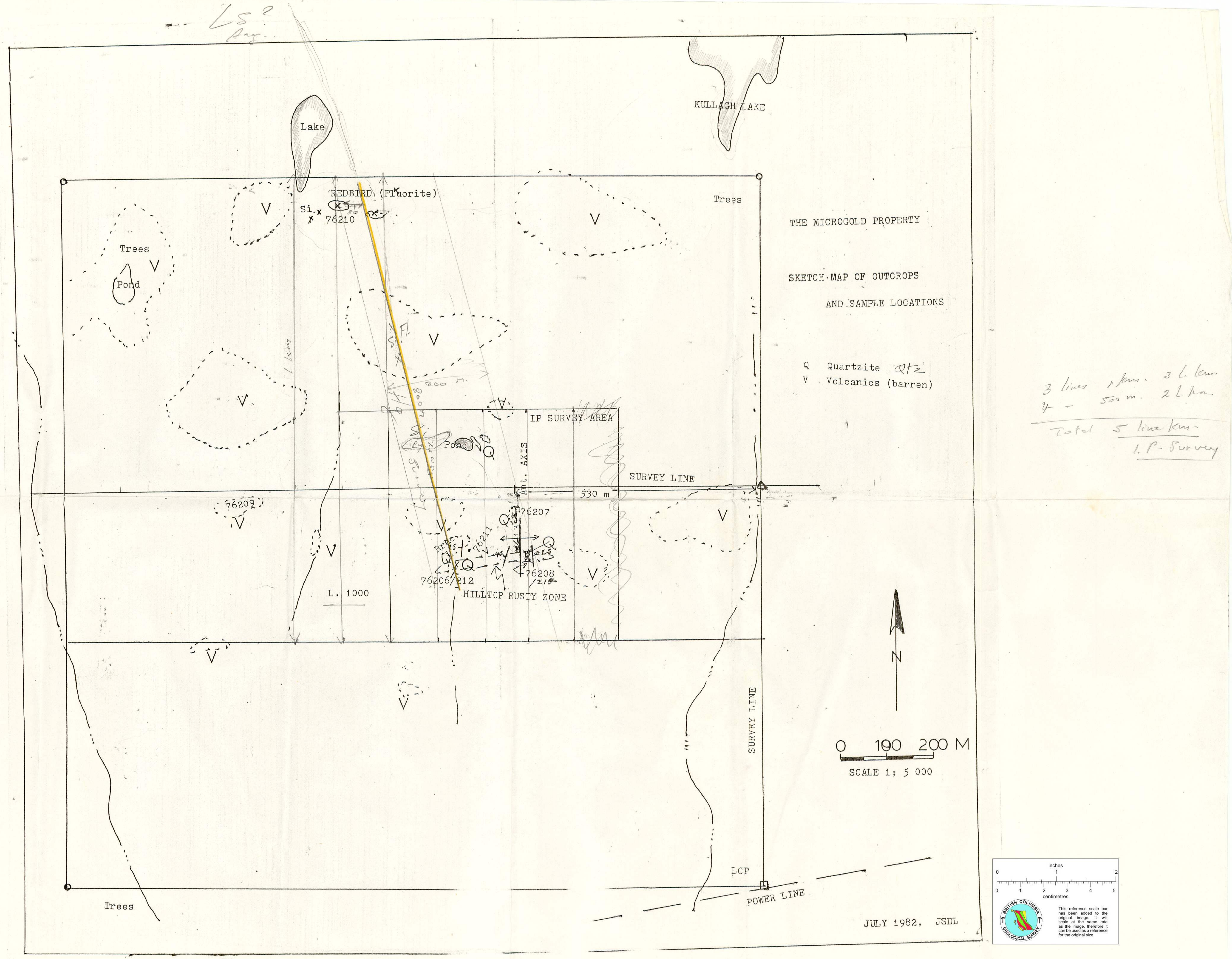
8. Shattered and dolomitized rock. Near the wagon-road between Kamloops Ferry and Tranquille.

9. Decomposed and rusty diabase rock. East side of Nicola Lake, half a mile from the head of the lake.

10. Shattered, rusty Cretaceous rocks, near mouth of Texas Creek, Fraser River.

The following specimens afforded no trace of gold:— Pyritous rocks without gold.

11. Decomposed schists, 4½ miles south of Cornwall Creek and 1½ mile west of the wagon-road. Trace of silver.



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