

520927

PROPERTY EXAMINATION

HIXON CREEK LODE GOLD - VIC GUINET CLAIMS
(QUESNEL DISTRICT)
HIXON CREEK, B.C.

N.T.S. 93G-7E
CARIBOO MINING DISTRICT

FOR
WELCOME NORTH MINES LTD.

May 31, 1979

John Jenks

TABLE OF CONTENTS

	Page
INTRODUCTION	1
IMPRESSIONS, PROBLEMS, AND GEOLOGY	1
COMMENTS ON BETHLEHEM'S WORK	2
CONCLUSIONS	3

INTRODUCTION

Two days were spent on the Hixon ground (May 27 and 28) in the company of Gerald Rayner and Vic Guinet, the owner of the ground, currently consisting of 3 Crown Grants, 6 two-post and 30 conventional claim units.

This brief report, written without benefit of maps, is intended to convey merely my impressions of the geology and related aspects of the property which will be covered in greater detail by Gerald Rayner in his forthcoming report which will have additional data, including maps and analyses.

IMPRESSIONS, PROBLEMS, AND GEOLOGY

The property is by no means easy to evaluate for a couple of reasons; mainly poor outcrop exposure and current lack of knowledge vis-a-vis the factors influencing the concentration of any lode-gold present.

The HIXON ground is presently of interest because of its past history as indicated in Minister of Mines reports which attest to small, though reasonably high grade gold tonnages derived from placer as well as lode mining.

For purposes of our examination, placer gold is excluded from consideration as much of the length of Hixon Creek is presently held under placer claims. This could be a nuisance factor should a modest scale open cast type operation be ultimately contemplated. It none the less illustrates the presence of gold as evidenced by a group of panners which had been winning a few flakes from alluvium during the time of our examination.

Underground lode exploitation would be a tough proposition. It would appear as though the vein structures, which undoubtedly hosted the higher grade gold portions, are narrow, discontinuous and segmented because of the often intense

shearing of the country rock. An extensive degree of support would be required in an underground situation in addition.

Geology of the property is comprised of argillaceous sedimentary rocks (mudstones, graphitic shales, siltstones) interbedded with occasional arenaceous types (sandstones, greywackes) and broad bands or zones of greenstones, probably volcanic in origin. The entire sequence strikes about 145° to 115° and dips generally 20° to 60° to the northeast with some sections sub-vertical.

Most of the section has a strong schistosity corresponding directionally to and in most instances dominating the few bedding exposures observed. In fact, the term schist would more correctly describe 75 percent of the rock exposures.

Minor quartz-carbonate veining was seen, most of which ran parallel to the schistosity, as well as tension fractures oriented obliquely and perpendicularly to it. Associated with carbonate veining in particular were minor amounts of pyrite, chalcopyrite, galena, and sphalerite, as well as an apple-green product, stichtite.

Certain greenstone portions contained up to 10 percent pyrite by volume.

COMMENTS ON BETHLEHEM'S WORK

Work undertaken by Bethlehem included soil geochemistry and some diamond drilling. I would not regard their activity on the property as definitive, for several reasons:

1. Soil sample lines ran obliquely to the main structural trend.

2. Soil samples were tested for gold only in a few instances.
3. Lines were widely spaced (approximately 500 feet) as were sample points (approximately 200 feet).
4. No detailed follow-up geochem was attempted.
5. Their geologic mapping omitted numerous outcrops.
6. It would appear in their diamond drilling that core recovery was non-existent in the upper 60 to 90 feet in two of their boreholes.

CONCLUSIONS

All subsequent work will be required to prove:

1. The extensive presence of gold;
2. its control;
3. the quantities involved.

Pending analyses may give some indications with respect to gold localization and presence. Control may involve one or more of the following features:

- a) Concentration in more siliceous sedimentary members.
- b) Concentration in greenstone bands.
- c) Correlation with high pyrite concentrations.
- d) Structural correlation (the major fault shown on the G.S.C. map which coincides with a trend of magnetic highs may be an influencing factor).

Geochemistry may not have applicability because of variation in overburden type (residual and transported), variation in overburden thicknesses and slope, presence of clay layers and some organic material, and development of soil horizons.

The highly sheared, broken nature of the bedrock may render conventional core drilling difficult, expensive and non-productive. Keystone or cable-tool drilling would be more suitable, particularly in view of the fact that not very deep drilling would be required for open-pit consideration. A closely-spaced series of holes across the section in regions of former high-grade production could be interesting.

Although not considered lode-gold, the bedrock-overburden interface of the fractured, vertical, weathered schists would make an excellent trap for elluvial or alluvial gold.

Should gold content show correlation with pyrite concentration, induced polarization could likely be utilized to good effect.

In summary, recommendations should await the results of pending analyses. Should these be favourable or should the decision be made to proceed with further exploration, the open pit possibilities of the property could be examined basically via a relatively modest expenditure of funds through a series of shallow Keystone or cable-tool drill holes closely spaced across the geologic section.

EXAMINATION REPORT

ON THE

HIXON CREEK LODE GOLD PROPERTY

CARIBOO MINING DIVISION

N.T.S. 93G/7E

Latitude 53°27'N

Longitude 122°31'W

EXAMINATION DATE: MAY 27-28, 1979

EXAMINED BY:

G.H. Rayner

J. Jenks

SUMMARY AND CONCLUSIONS

The lode gold deposits of the Hixon Creek area are probably the source for the considerable placer gold production from the creek.

These lode deposits are located in greenstones of probably intrusive origin. There has been a small production of vein quartz material and low gold values have been reported from the greenstone wall rocks.

The low grade potential for the camp appears to be for stockwork or shatter zone deposits in the vicinity of the gold quartz veins.

INTRODUCTION

The Hixon Gold Quartz property lies on the upstream edge of the Hixon Creek placer workings. It has attracted attention since the 1870's and has a limited production history from quartz veins.

Placer miners have reported washing free gold from weathered bedrock in the area. This gold has been considered to originate in the bedrock rather than in the overlying placer gravels.

In the past limited sampling of underground exposures indicated that low gold values occurred in the greenstone wall rocks as well as in the veins. Grades were on the order of 0.07 oz./ton gold.

The present examination was intended to look at the possibility for a large tonnage of low grade ore including both the vein and greenstone values.

LOCATION

The property lies about 50 kilometers south of Prince George and 5 kilometers to the northeast of the village of Hixon on the Cariboo Highway. Access to the property from Hixon is by good gravel road.

PROPERTY

The initial posts for 2-post claims HIXON QUARTZ 1 and 2 were seen in the field. They were staked by E.O. Johnson on December 15, 1970.

The Legal Claim Posts for M.G.S. claims H.Q. 2 (V. Guinet, March 21, 1979) and H.Q. 3 (J.O. Yeager for V. Guinet, March 25, 1979) were also examined.

All the above claims appear to be properly staked in accordance with the Mineral Act.

Property status was not further investigated.

HISTORY AND PREVIOUS WORK

The district has a long and continuing history as a placer gold camp. The quartz veins have been known since the 1870's and have had a lode gold production of about 300 ounces. Most of this was from the Quesnelle Quartz workings which are on the ground now being considered. There are several hundred feet of underground development in these workings. In 1933 the greenstone wall rocks were extensively sampled by P.E. Peterson who reported low but interesting gold values.

In 1971 Bethlehem Copper held the area under option. They ran a soil geochemistry survey and did limited geological mapping. Following this they drilled four diamond drill holes which encountered some sections grading 0.01 gold. None of these holes were near the Quesnelle Quartz workings.

GENERAL GEOLOGY

In the Hixon Creek area lode gold deposits occur within a dominantly sedimentary group of rocks of Upper Triassic (?) and Lower Jurassic (?) age. On the property these rocks are presently composed of sericite schist and are interleaved with greenstone bands in which the gold veins occur.

These rocks are in part overlain by Tertiary conglomerate of irregular thickness.

Quaternary deposits mantle most of the area severely restricting bedrock exposure.

PROPERTY GEOLOGY

On the property rock exposures are restricted to areas along the creek bed and banks. Other rock exposures on high ground to the north and in the Pedley Lake area are known from old maps and the Bethlehem work. Of these only the Pedley Lake exposures were seen.

The old underground workings are all caved and inaccessible. The site of the Cayanne adit could not be certainly located. As a result conclusions must be based mainly on the old data supported by an examination of the dumps and limited surface exposures.

The youngest rock unit exposed is a Tertiary conglomerate of rather unusual nature. Texturally it is clastic and completely unsorted. The fragments are angular and are made up of variable proportions of schist and greenstone indicating a local origin. The matrix is composed of small fragments and a high proportion of clay. It is quite variable in thickness and is probably mud flow material which has been deposited on an irregular Tertiary land surface.

The older rocks are irregularly exposed in the creek bed above and below the Quesnelle Quartz workings and also in some of the tributary draws.

The schists are strongly sericitic, fissile and do not outcrop well. The attitude of the schistosity is fairly uniform at about 330° to 340° and steep. Graphitic schist was noted on the dump at the Main Shaft but none was seen in outcrop. Over large areas fragments of schist are abundant in the rubble but true outcrops are scarce.

Greenstone makes up the bulk of the material on the dump at the Main Shaft and is exposed at several places in the creek bed in widths up to 30 meters. It is a massive fine to medium grained rock of intermediate to basic composition. The exposures show no flow structures, pyroclastic beds or other evidence to suggest that they are extrusive in origin. Contacts against the schist are sharp and show a suggestion of chilling.

On the basis of the limited exposures seen it appears most likely that the greenstones are a series of dykes or sills interleaved into the dominant sericite schist of the area.

If this is the case, the type of mineralization that can be hoped for is a quartz stockwork or shatter zone rather than a gold deposit with volcanic-exhalative affiliations.

The greenstone seen on the dump would support this view. It is shot through with quartz-carbonate veinlets and much of it shows a light brown colour indicative of carbonate alteration.

The dump is quite spread out and the materials of the different sections quite

varied. Six separate dump areas were sampled with the following results:

<u>Sample No.</u>	<u>Au (oz./T)</u>	<u>Ag (oz./T)</u>
D1	0.015	0.14
D2	0.014	0.08
D3	0.102	0.13
D4	0.002	0.04
D5	0.002	0.03
D6	0.029	0.09

Sample D1 is of graphitic schist. All the others are of greenstone with reticulate quartz-carbonate veinlets.

The workings were driven to follow and test the quartz veins so the greenstone encountered would consist largely of wall rock to the veins. Presumably the rock sampled by P.E. Peterson in 1933 would mainly be of this material.

Peterson reports that a "large tonnage" of greenstone would run 0.07 oz./T gold, however with no plan of his sampling available it is not possible to know how large a tonnage he was considering, nor how much of his sampling was close to the quartz veins.

Previous workers in this camp all state that the vein material is almost entirely confined to the greenstones or their margins. It seems reasonable to accept this and to restrict present efforts to testing greenstone areas. These greenstone areas should be readily outlined by ground magnetometer surveys.

RECOMMENDATIONS

The whole thesis on the property rests on the assays by Peterson and others in the underground workings and on limited dump sampling. Consequently the

first move should be to confirm the presence of interesting widths and grades in the area in which they have been reported. Since the workings are not accessible this must be done by drilling through the old workings.

If encouraging zones are encountered they should be traced with short drill step-outs.

At this stage a ground magnetometer survey should be run to delineate the favourable greenstone.

A geochemical soil survey testing for gold might be tried on a limited basis. However this technique will probably not be too definitive in view of the abundant placer gold, the widespread cover of Tertiary chaotic conglomerate. —?

June 19, 1979

G.H. Rayner
West Vancouver, B.C.

MIN-EN LABORATORIES LTD.

705 WEST 15TH STREET
 NORTH VANCOUVER, B.C.
 Phone: 980-5814

Certificate of Assay

TO: G.H. Rayner,

PROJECT No. _____

626 Duchess Ave.,

DATE June 4/79.

West Vancouver, B.C. V7T 1G7.

File No. 9-156

SAMPLE No.	Ag	Au		
	oz/ton	oz/ton		
D 1	.14	.015		
2	.08	.014		
3	.13	.102		
4	.04	.002		
5	.03	.002		
6	.09	.029		
7	.04	.003		
8	.03	.001		
9	.03	.002		
10	.04	.002		
D 11	.04	.006		

Av. 6
 0.027
 #5
 0.012
 ↑
 ↑
 T
 Rd
 T

MIN-EN Laboratories Ltd
 CERTIFIED BY [Signature]