87-442-16168 7/88

GEOLOGICAL AND GEOPHYSICAL

ASSESSMENT REPORT

on the

GOLD HILL GROUP

located in the

GREENWOOD MINING DIVISION 8ZE/3E 06'54''  $\cdot |z'|0''$ 49° Q7' N latitude & 119° <del>11' W</del> longitude

owned & operated by: owner(9): J. Craney, A. Oupras, P. Peto OPERATOR: Wapiti Exploration Inc.

GOLD HILL SYNDICATE c/o 125 Bassett Street Penticton, B.C. V2A 5W1

written by:

PETER PETO, Ph.D., F.G.A.C. CONSULTING GEOLOGIST

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GEOLOGICAL BRANCH ASSESSMENT REPORT

31 OCTOBER 1986

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#### INTRODUCTION

A preliminary surface exploration program, consisting of 14.7 km of grid preparation, 13.6 line km of VLF-EM surveying, 8 km of magnetometer surveying, 9.7 km of geological surveying and rock sampling of old diggings, was carried out by Peter Peto and Andy Dupras between 8 September and 16 October, 1986. A total of 9 mandays were spent on field operations, 7 days on map and report preparation and a total of 22 rock assays were collected. The results of this work are reported herein for assessment purposes and further exploration work is suggested for the benefit of prospective joint venture partners. Prospecting and physical work have also been carried out but these are the subject of a separate report by Andy Dupras.

## PROPERTY, LOCATION, ACCESS AND PHYSIOGRAPHY

The GOLD HILL GROUP consists of a block of 47 contiguous mineral claims under various ownership titles but beneficially held on behalf of a joint and equal partnership between Peter Peto, Andy Dupras, Joe Craney and Gord Whatley. The claim group consists of the following claims:

NAME	SIZE	TITLE	RECORD #	ANNIVERSARY		
ron	12 · 12 ·	J. Craney	4513	16 Jan.		
BILLIE	6 . 600	P. Peto	4651	14 Aug.		
BILLIE #1	1 / / ^	A. Dupras	4644	8 Aug.		
BILLIE #2-4	4 70°	A. Dupras	4699-4702	19 Sept.		
DOREEN	20 2000 100	A. Dupras	4698	19 Sept.		
GRANITE(L1585)	1 100	A	4191	30 Nov.		
SLAMET(L2663)	1 200	P. Peto	2368	25 July		
BILLIE #6	1 700	A. Dupras	4758	2B NOV		
BILLIE FR.	Fraction	A. Dupras	4759	28 NOV		

and are shown in FIGURE 1.

The claims are located immediately west of the Camp McKinney crown grants, which are located 9 km north of Bridesville and 22 km northeast of Osoyoos. They are accessed via a good gravel road to Mount Baldy ski resort from Oliver or Rock Creek, a distance of 90 km by road from Penticton (FIGURE 2). The claims cover the southern, gently rolling and timbered slopes of Mount Baldy. The area is glaciated and covered by a heavy blanket of overburden; outcrop is scarce.

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## PROPERTY HISTORY

Camp McKinney was discovered at the close of the last century and resulted in the Cariboo-Amelia Mine producing 69,581 ounces of gold and 5359 ounces of silver from 123,457 tons milled between 1894 and 1903. The present claim area covers the area immediately to the west of the old mine which has been superficially explored by means of several old diggings the most notable of which include the Eureka, Dolphin, Annie Fraction and Geo Hurst (FIGURE 3). The Eureka prospect consists of a 159 foot deep shaft and 112 foot drift at the 80 foot level and another 20 foot deep shaft to the southeast. The Dolphin prospect consists of a 75 foot tunnel and several pits. The Annie Fraction also consists of a 50 foot shaft and several pits. The Geo Hurst prospect consists of a 340 foot tunnel and a 20 foot shaft. Published descriptions of these workings are included in APPENDIX 2. Recent exploration work consisting of soil sampling and mapping was carried out by the Rock Creek Joint Venture Syndicate (Allen, 1981. 1982). However this work did not advance the property beyond that accomplished by the Gold Hill Mining Company in 1933. The present work is intended to outline the exploration potential of the property and to prepare the property for further trenching and drilling.

## **GEOLOGY OF CAMP McKINNEY**

The definitive geological description of Camp McKinney was given by Hedley (1940) with a less detailed account given by Cockfield (1935). The geology of the camp consists of finely banded, quartzites and greenstones belonging to the Anarchist group which has been intruded to the south by the Osoyoos batholith. The metasediments which strike northwesterly and dip northeastward are cut by auriferous quartz fissure fillings of variable width, attitude, sulphide and previous metal content. The most productive of these veins is the Cariboo-Amelia which strikes easterly, averages 4 feet in width, consists of milky to blueish quartz carrying pyrite, chalcopyrite, sphalerite, galena and free gold and was mined along strike for over 2000 feet to a depth of 540 feet below surface. The vein is cut and offset by numerous crossfaults. Gold values appear to vary in direct proportion to sulphide content and vein size, tended to be concentrated in east raking ore shoots and was highest when associated with well banded textures and high concentrations of sphalerite and galena. The mine produced 67,864 ounces of gold from 123,848 tons or ore between 1894 and 1904 and 12,000 ounces of gold and 14,000 ounces of silver between 1960 and 1962.

Hedley (1940) also noted that hydrothermal alteration, consisting premarily of silicification, was intense and widespread particularly on the Slamet claim. He also noted that wallrock alteration near the vein was intense and consisted of the development of secondary sericite, carbonate and quartz. Cockfield (1935) also noted the development of ankeritic carbonates and green chlorite in wallrocks of greenstone. Hedley (1940) speculated that the Eureka and Maple Leaf quartz veins could represent the westward extension of the Cariboo-Amelia vein (p.3 & p.18) and suggested the potential for additional reserves to the east and west of the present diggings (p.4).

#### GEOLOGICAL SURVEY

A total of 14.7 km of flagged grid, consisting of 100 meter line spacings and 25 meter station intervals, was put in over LOU and BILLIE claims as shown in FIGURE 2, to facilitate geological and geophysical surveys. The purpose of the survey was to relocate the old diggings, sample them, place them in a general geological context and ascertain possible geological controls on the mineralization. The results of the survey are plotted on FIGURE 4.

The underlying rocks have been divided into 3 units; quartzite (Unit 1), greenstone (Unit 2) and feldspar porphyry dyke rocks (Unit 3). Unit 1 consists of light grey, banded, finegrained, argillaceous quartzites and orthoquartzites. Unit 2 is typically finegrained, dark green to brown, calcareous to siliceous chlorite schist. Unit 3 dyke rocks consist of massive, grey, biotite-feldspar porphyry of probable granodioritic composition. Units 1 and 2 are strongly foliated and locally interbedded and tightly folded. Hedley (1940) noted an overturned syncline with a steep northwest plunge and a steep northeast dip runs through the Sailor and Maple Leaf claims. Quartz veins of

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variable size and attitude cut Units 1 and 2, but not Unit 3 and these are now briefly discussed with respect to previously documented diggings.

EUREKA: (9E + 25N) is said to be a northwest trending quartz vein, 6 to 7 feet wide, can be traced for 250 feet southeastward from the main shaft which is now filled with water. A large dump, consisting of about 2000 tons of variably mineralized quartz returned the following assays: 0.265, 0.049, 0.284, 0.014, 0.359, 0.014, 0.001. 0.008, 0.210 oz/ton gold. A smaller shaft, 20 feet deep, to the southeast, said to carry free gold returned an assay of 0.264 oz/ton gold from pyritic quartz collected from the dump. The Eureka vein may be the same as that found on the Maple Leaf which may represent the westward continuation of the Cariboo-Amelia vein.

The Maple Leaf vein (10E + 25S) not on our claim is exposed in a 15 foot deep shaft, is a least  $4\frac{1}{2}$  feet wide, strikes N70°W, and carries pyritic quartz yielding 0.14 oz/ton gold (Hedley, 1940, p.25). <u>DOLPHIN</u>: (3.5E + 175S) is said to have three separate veins (1) a 3 foot wide vein striking N60°E exposed in a shaft, near 1.75E + 150S, yielded 0.02 oz/ton gold from dump material. (2) a 75 foot tunnel, whose portal is now caved, was run to intersect an 8 foot wide vein, carrying pyrite and galena, "giving fair value of gold", yielded an 0.001 oz.ton gold from quartz on the dump. (3) a 3 to 5 foot quartz vein N70W, "traceable for 1000 feet", was not located and may lie to the west of the grid.

<u>GEO HURST</u>: (5E + 325S) an adit 340 feet long, follows a 4 foot wide quartz vein trending N50°W, yielded low values from the dump but the adit itself has not been mapped nor sampled. Another vein 2 feet wide striking N10° at 4.25E + 375S yielded no assay.

<u>ANNIE L</u>: (9.25E + 150S) has a 15 foot deep shaft, exposing a 4 foot wide vein of bluish quartz yielded 0.013 oz/ton gold.

<u>SAILOR FRACTION</u>: (8.8E + 150S) has a 50 foot deep shaft exposing a mass of quartz 5 by 7 feet; material from the dump yielded 0.148 oz/ ton gold. Nearby the vein is obscured by overburden except near an old trench where a 5 foot wide vein trending N70E yielded 0.199 oz/ton gold from the dump. Further west the vein is obscured by overburden.

<u>MAMMOTH</u>: (5.25E + 125N) has a collapsed adit and shaft driven on a pyritic quartz vein, trending N70°W, yielded 0.027 oz/ton gold from dump material.

<u>SAILOR</u>:  $(10.5E \pm 475S)$  not located on our ground, is reported to have a 175 foot deep shaft sunk on a 4 foot wide quartz vein yielded 0.88 oz/ton gold from galena bearing quartz taken from the dump.

To summarize, no less than 15 distinct quartz vein showings have been located to date, and no doubt additional diggings remain to be rediscovered and sampled. The most important showings sampled to date would appear to be the Eureka, Dolphin, Annie L and Sailor Fraction.

#### VLF-EM SURVEY

A VLF-EM survey was carried out over the grid area to determine whether or not quartz veins are associated with EM conductors. Α Sabre model No. 26 was used using Annalpolis as the transmitter. Readings could not be taken in the vicinity of power lines but valid readings were obtained elsewhere without interference. The results are plotted on FIGURES 5a (raw data) and 5b (Fraser-filtered tilt angles). Four major east trending conductors were delineated: (1) a northwest trending conductor associated with the Maple Leaf-Eureka and Mammoth showings, (2) a coalesing west trending conductor associated with the Annie L, Sailor Fraction and Gold Hill showings, (3) another west trending conductor associated with the Geo Hurst showings and (4) a southeast trending zone south of the highway and near the Sailor in an area obscured by overburden. Using east-west lines and Seattle as the transmitter an attempt was made to delineate northsouth conductors as shown in FIGURE 5c. Unfortunately, strong, clearly defined conductors were not as apparent as was hoped and this may been due in part to the westerly bias of the Seattle transmitter. Nevertheless weak conductors were noted to run through the Dolphin, Geo Hurst and the area to the north of the Sailor.

#### MAGNETOMETER SURVEY

A ground magnetic survey was run over the VLF grid using a proton precession instrument (MP-2) manufactured by Scientrix and the results are plotted on FIGURE 6. The object of the survey was to help deline-

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ate geological features and to see if quartz veins had a magnetic signature. Magnetic patterns appear convoluted showing several spot highs and lows. Magnetic highs appear to be due to underlying magnetic porphyry dykes. Old diggings are situated in areas which are magnetically featureless.

### CONCLUSIONS

A compilation of the geological, VLF-EM and magnetic data are shown in FIGURE 7 for comparison and from which the following conclusions were derived.

(1) Several old quartz vein prospects have been relocated the most attractive of which are the Eureka, Sailor Fraction, Annie L, Dolphin and Geo Hurst veins.

(2) Quartz veins are associated with east trending VLF-EM conductors suggesting that veins could be traced under glacial overburden by VLF-EM.

(3) Grey porphyritic dykes appear as magnetic highs and could be traced by magnetometer.

(4) The VLF-EM conductor configuration suggest that the Eureka-Maple Leaf vein(s) or Sailor-Annie L vein(s) could be the westward extension of the Cariboo-Amelia vein; however further EM surveying to the east is required to confirm this.

#### RECOMMENDATIONS

The above data suggest that several quartz vein bearing structures, which up to the present, have only been superficially explored, can be traced by VLF-EM. A three stage exploration program consisting of further surveying of adjoining area, trenching and surface sampling of main vein structures for new ore shoots to be followed up by diamond drilling, is recommended.

PHASE I:grid preparation, geological mapping, and VLF surveying 132line km33 days @ \$650/day all inclusive......\$21,450.00Report preparation.....5,000.00TOTAL\$26,450.00

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PHASE II: Road preparation, backhoe trenching and rock	chip
sampling of quartz veins:	
D-4 caterpillar: 50 hours @ \$60/hour	.\$ 3,000.00
Backhoe: 100 hours @ \$60/hour	. 6,000.00
Sampling & supervision: 10 days @ \$300/day	. 3,000.00
Assays: 100 gold/silver @ \$15/sample	. 1,500.00
Food, accommodation, vehicles: 29 mandays @ \$50/day	. 1,450.00
Report preparation	. 2,100.00
Mob/Demob	. 1,000.00
TOTAL COST	\$18,050.00
PHASE III: Diamond drilling 3000 feet NQ core	
Drilling costs all inclusive @ \$22/foot	\$66,000.00
Assaying: 200 gold/silver @ \$15/sample	3,000.00
Vehicles, food, accommodation: 30 mandays @ \$100/day	3,000.00
Engineering/Report preparation	9,000.00
TOTAL COST	\$81,000.00
ITEMIZED COST STATEMENT	
Peter Peto: 10 days @ \$300/day	\$ 3,000.00
Andy Dupras: 6 days @ \$150/day	900.00
Andy Dupras, Jr.: 1 day @ \$100/day	100.00
Food & Accommodation: 17 mandays @ \$50/day	850.00
Vehicle rental: 6 days @ \$50/day	300.00
VLF & Mag Rental	593.00
22 assays @ \$11.25/sample	247.00
Expendibles (flagging, hipchain, etc.)	47.00
Reproduction costs, typing, stationary, etc	100.00

TOTAL

Respectfully submitted Peter Peto

PETER PETO, Ph.D., F.G.A.C.

\$ 6,137.00

6 November 1986

REFERENCES CITED

- Allen, G. (1981a) Geochemical Report on RCJV 19 claim, B.C. assessment report #8930 (1981b) Geological and Geochemical Report on RCJV 19 claim, B.C. assessment report #9867 Cockfield, W.E. (1935) G.S.C. Memoir 179 p.11-20
- Hedley, M.S. (1940) Geology of Camp McKinney. B.C. Department of Mines Bulletin #6

# STATEMENT OF QUALIFICATIONS

I hereby certify that I am a professional exploration geologist in the province of British Columbia with a business address at 125 Bassett Street, Penticton, B.C. V2A 5W1

I obtained a B.Sc. and M.Sc. in geology from the University of Alberta in 1968 and 1970 respectively and obtained a Ph.D. in geology from the University of Manchester in 1975.

I am a member in good standing of the Geological Association of Canada.

I have actively practised my profession since 1975.









CAMP MCKINNEY: CIRCA 1900

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# APPENDIX 1

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ACME ANALYTICAL LABORATORIES LTD. DATE RECEIVED OCT 21 1986 852 E. HASTINGS, VANCOUVER B.C. PH: (604)253-3158 COMPUTER LINE:251-1011 DATE REPORTS MAILED Oct 23/86 ASSAY CERTIFICATE SAMPLE TYPE : ROCK - CRUSHED AND PULVERIZED TO -100 MESH. AUTT BY FIRE, ASSAY Deser ASSAYER \_\_\_DEAN TOYE . CERTIFIED B.C. ASSAYER GRANGES EXPLORATION PROJECT GOLD HILL FILE# 86-3322 PAGE# 1 SAMPLE Au\*\* am/t 051301 .69 051302 .03 051303 .03 051304 .03 051305 .03 051306 .03 051307 .03 051309 9.09 051310 5.08 051311 . 45

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### APPENDIX 2

# (page 14)

#### PROPERTY DESCRIPTION OF GOLDHILL GROUP

## LOCATION: N.T.S. 82E/3E, Minfile #82E/43 & 44SW, Camp McKinney area, 49° 07' N latitude & 119° 12' W longitude Greenwood Mining Division Elevation= 1566-1600 meters

<u>ACCESS</u>: Via gravel road to Mount Baldy ski resort from Oliver or Rock Creek, a distance of 90 km by road from Penticton (Fig 1).

<u>PROPERTY DEFINITION</u>: The gold prospects are covered by the LOU and BILLIE claims comprising 12 and 6 units under record numbers 4513 and 4651 respectively (Fig. 2). The claim area covers the following patented claims variously described in the B.C. Ministry of Mines Annual Reports: EUREKA, DOLPHIN, BELLEVUE, BELLEVUE FR, ANNIE GEORGE HURST, BURLINGTON, ALOHA, ALOHA FR, GREENWOOD (Fig. 3).

<u>REGIONAL GEOLOGY</u>: The Camp McKinney gold deposits are in east trending quartz fissure fillings which cut calcareous greenstones and argillaceous quartzites of the Anarchist Formation. The most important producer was the Cariboo-Amelia mine which produced 69,581 oz. gold and 6,359 oz. silver from 123,457 tons between 1895 and 1903. The vein is at least 2000 feet long, 2 to 8 feet wide and has been mined to a depth of 350 below surface yielding an average millhead grade of 0.56 oz/ton or \$224 rock at \$400 U.S./oz. The most comprehensive description of the geology is that given by Hedley (1940) and Cockfield (1935).

<u>PROPERTY DESCRIPTIONS</u>: The following excerpts are taken from the B.C. Minister of Mines Annual reports as they pertain to the following old properties.

#### EUREKA

"on the Eureka, owned by John Douglas, there is a shaft 159 feet deep and a drift at the 80 foot lead of 112 feet. No further work has been done on this claim this season" - B.C.M.M. 1894 p. 754

"Title crown grant, 19.9 acres, Jas Douglas, Midway. Lying west of the Maple Leaf, the vein shows up strongly on this claim and also on the face of the bluff on the Mammoth claim next west, and a shaft was started on a vein of white quartz 6 to 7 feet wide. A little lower, one of the flat dipping faults was struck that threw the ledge a few feet to the south, where, at the bottom of the shaft, it was cross-cut and drifted on for 15 feet, showing 1.5 to 9 feet of white quartz, little mineralized. About 100 feet east, a shaft 15 feet deep was sunk on the same vein and some very high grade ore was found. A large body of quartz is on this property, some of which has assayed very high in gold, which much has given low returns, but no mill test that would give any idea of the average values has been made. Not worked for several years." B.C.M.M. 1897 p. 606.

"Eureka & Eureka Fraction - The claims are owned by J.L. Grant of Bridesville and Rock Creek, and have been prospected during the year. The Eureka was leased from the government and is 1500 feet long and 600 feet wide having been staked many years ago under the old regulations. The Eureka fraction is 1500 feet by 1500 feet according to the owner. Both of the claims lie on the projected strike of the Cariboo mine vein which was profitably worked about 25 years ago for its gold content. The vein, which varies from 4 to 6 feet, strikes N80W (mag) and can be traced for 150 feet in length is made up of segregations of pyrite and chalcopyrite containing gold and silver in a gangue of quartz."

"Development work consists of trenching and several shafts, the deepest of which is 15 feet, on the Eureka Fraction; and one shaft (cavedin) reported to be 100 feet deep and another 25 feet deep on the Eureka claim. Diversified stories are told regarding what values are found in the 100 foot shaft, which cannot be verified. Samples taken from the dump vary extremely in gold content, which is traceable to the presence of free gold known to be associated with Camp McKinney ores. The latest developments have uncovered a continuation of the vein in a westerly direction, but no apparently profitable ore shoots." B.D.M.M. 1925 p. 208.

"Eureka & Sailor Fraction - on the Eureka claim 250 feet westerly from the Maple Leaf is an old shaft, elevation 4572 feet, the collar of which is caved. This shaft was apparently sunk in 1889. The annual reports, Minister of Mines, B.C. state that the depth of the shaft is 159 feet and a drift 112 feet in length exists at the 80 foot level. The vein is as much as 9 feet wide, with only local values, the flat faults are encountered that displace the lower segment of the vein to the south."

"The dump is largely quartz that is for the most part barren; there is one pile of quartz well mineralized with pyrite and a little chalcopyrite. The evidence points to a large vein with only local sulphide. A sample of the best mineralized quartz assayed: gold 0.26 oz/ton; silver 0.8 oz/ton."

"A series of strippings, open cuts and one 20 foot shaft extends from near the main shaft for 200 feet in a direction S68°E, beyond which point the vein is traced an additional 50 feet S45°E. In the northwestern section of these workings the vein is from 4 to 6 feet wide and in the southeastern, it is from 1 to 3 feet wide. The vein is in greenstone and contains little mineralization."

"This vein may or may not be the same as that on the Maple Leaf, which may or may not represent the westerly continuation of the Cariboo vein." - Hedley (1940) p. 17-18.

#### GOLD HILL

"Dolphin - For this claim and the Shannon, crown grants are to be applied for by C.A.R. Lambly, Osoyoos and W. Edwards, Camp McKinney. Lying further west of the Eureka, three veins are claimed to be on

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on the Dolphin: (a) a quartz vein showing at one place in a shaft  $l_2^1$  to 3 feet wide strike N60°E; (b) further west appears to be a band of mineralized quartzose rock said to give good assays in gold towards which a tunnel has been run 60 feet through very quartzose schists. (c) near the westerly line of the claim is a vein of quartz with small amount of pyrites, 3 to 5 feet wide running N70°W and traceable where it stands up above the surface for about 1000 feet, no mill tests." B.C.M.M. 1897, p. 606.

"The Dolphin, lying south west of the Annie L, is one of the old locations. A tunnel 75 feet has been run to intersect one of the three veins of the claim. The vein of quartz is about 8 feet wide, showing pyrites and galena, giving a fair value of gold." B.C.M.M. 1898.

"On the Gold Hill group of eight claims, which lies a considerable distance ot the northwest of the Cariboo, some interesting developments have been reported by John Carmichael, who did some work during 1932. A shaft was sunk between 50 and 60 feet on a quartz vein about 7 feet wide which improved in values at depth. A crosscut driven to the south from the bottom of the shaft encountered three more quartz veins of a slightly different structure than the main vein, but all carrying gold values. A crosscut was also driven north from the shaft at a point 30 feet below the collar and another vein was struck. According to the owners, some of the quartz was a bluish color and resembled the high grade gangue found in the Cariboo Mine." - B.C.M.M. 1932, p. 130.

"On the Camp McKinney Gold Hill Mining Company ground, adjoining the Sailor and extending northwest, developments by shaft-sinking and tunnelling by John Carmichael, have met with some encouragement. During 1933 a 200 foot tunnel was driven on a east-west striking quartz vein which varies from a few inches to 2 feet in width, and although carrying low values in gold and silver near the mouth, a considerable improvement hav been noticed in the face where denser pyrite mineralization occurs. In the shaft, several hundred feet west of the tunnel, free gold was found associated with galena. A well mineralized quartz vein also strikes diagonally across this vein about 200 feet west of the tunnel-face." - B.C.M.M. 1933.

"Annie-L - A fractional claim adjoining the Sailor on the north. The property has recently been incorporated in Spokane and is now owned by Little Cariboo Gold Mining Company." "A small shaft, 15 feet has been sunk in a 4 foot vein of bluish quartz, carrying samll amounts of pyrites. This shaft is being sunk 50 feet." B.C.M.M. 1898, p.1117.

#### ASSAYS

Eureka dump: 1.68, 9.74, 0.03, 0.48, 12.30, 0.48, 8.2 gm/ton gold, Average=4.70 or 0.137 oz/ton gold.

This group of eight claims, the outline of which GOLD HILL. is not fully shown on the map, lies south of the <u>Edward VII</u>. It is owned by Camp McKinney Gold Hill Mining Company Limited, 703 Dominion Building, Vancouver. B. C. Work commenced on this property in 1932 and included sinking a shaft, driving an adit, and re-examination of old showings. No work was being done in 1939. A 60-foot shaft, reported to be on <u>Gold Hill No. 4</u> claim, was not seen by the

A frame-building is at the end of a short branch-road and a blacksmith-shop is at the adit portal. The adit is on the <u>Little Billy</u> claim a short distance north of the cabin. The rocks are chiefly quartzites but include narrow bands of greenstone; a number of dykes cut these rocks.

The adit, elevation 4,540 feet, is driven in an average direction of north 64 degrees west for 340 feet. It commences as a drift on a quartz vein, strike north 48 degrees west, dip 70 degrees north-eastward, which is followed for 60 feet. This vein is 40 to 48 inches wide, is essentially parallel to the quartzites, and consists of dense white to bluish chalcedonic quartz; very scanty mineralization includes pyrite and pyrrhotite. Twenty feet in from the portal the vein narrows

to 12 inches and at 60 feet fades out into silicified rock; several small north-south faults offset the inner segments to the north.

The adit then trends north 75 degrees west for 150 feet, encountering some sheared ground and short sections of quartz up to 10 inches in width. The innermost 130 feet follows a slip that strikes north 58 degrees west and dips 70 degrees north-eastward; there is a discontinuous and narrow quartz stringer in the foot-wall of this slip. The rocks include argillaceous and impure quartzite and some banded greenstone; sheared ground is encountered throughout the adit.

A series of pits and open-cuts, elevation 4,645 feet explore a 200-foot length of vein 175 feet south-westerly from the <u>Edward VII</u>; the vein strikes north 75 degrees east and dips 75 degrees southward. The best quartz is seen in an 8foot pit, where the vein is 20 to 36 inches wide on the footwall of a shear-zone 3 1/2 to 4 1/2 feet wide. In the other showings, some of which are caved, the vein is as narrow as 9 inches. In the 8-foot pit the quartz contains trains and masses of pyrite which are shattered and veined with quartz. A sample chipped across 28 inches on the eastern end of the pit assayed: Gold, trace; silver, trace. A sample of selected material from the dump assayed: Gold, trace; silver.

An old shaft, perhaps 20 feet deep, is 380 feet southwesterly from the above pit. It is in greenstone, and there is a little quartz on the dump. An adit, 175 feet northwesterly from this shaft is driven 132 feet in an average direction of north 27 degrees west. The adit seems merely exploratory, starting on the foot-wall of a greenstone-quartzite contact that strikes about north 40 degrees west and dips steeply north-eastward. No vein is disclosed. (Hedley, 1940)

### GOLD HILL (Cockfield, 1935)

The only property being actively prospected at the time of the writer's visit was the Gold Hill Group owned by the Gold Hill Mining Company. This property consists of the Little Billy, Gold Hill Nos. 1, 2, 3, and 4, Paystreak Nos. 1 and 2, Allan, Mary, Douglas, and Evelyn claims, and is in part a re-staking of the former George Hurst, Dolphin, Bellvue fraction, and Bellringer No. 1 claims. The property is situated about a quarter of a mile to the west of the Cariboo-Amelia. On the Gold Hill a shaft at elevation of approximately 4,800 feet has been put down in a quartz vein a reported distance of 60 feet with 15 to 20 feet of crosscutting at the bottom of the shaft. These workings could not be examined as they were full of water. At the surface the vein is exposed and is 6 feet wide, strikes north 60 degrees west, and dips at 55 degrees to the southwest. The mineralization consists of pyrite occurring in small bunches and along fractures in the quartz. The vein is well jointed parallel to the strike and dip of the schists. About 600 feet southeast along the strike of the vein and approximately 150 feet lower in elevation, an adit 300 feet long has been run as a drift along the vein. In this stretch the vein strikes north 50 degrees west and dips 60 to 85 degrees to the northeast, that is in the reverse direction to that exhibited by the vein at the shaft. At the entrance to the adit the vein is 5 feet wide, but narrows within a few feet to a stringer. From here to the face the vein shows as one or more strands of quartz, which vary considerably in width. The mineralization seen consists chiefly of pyrite; galena and blende occur in spots, but the work done on the adit to the date of the writer's visit is reported to show no continuous ore shoot. At intervals between the adit and the shaft the vein has been picked up by open-cuts.

About half-way between the two workings a small body of feldspar porphry and a dyke of the same rock run in a direction to interesect the vein. but their relations to it could not be observed.

#### REFERENCES CITED:

Cockfield, W.E. (1935) G.S.C. Memoir 179 p11-20.

Hedley, M.S. (1940) B.C. Dept Mines Bulletin #6.

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