

6115

#6115

ASSESSMENT REPORT

ON AN

EXAMINATION OF THE HEAVY MINERALS SUITE

FROM TEST PITS

ON THE

US CLAIM

SITUATED ON

QUALARK (HILLSBAR) CREEK

17 AIR KILOMETERS

NORTH OF HOPE

NEW WESTMINSTER M.D.

N.T.S. 92H/11W

LATITUDE 49°30'N; LONGITUDE 121°20'W

BRITISH COLUMBIA

FIELD WORK BETWEEN OCTOBER 26 AND 29, 1976

ON BEHALF OF

CAROLIN MINES LTD.

US

92H/11W

REPORT BY:

D. R. COCHRANE, P. ENG.
NOVEMBER 26, 1976
DELTA, B.C.

MINERAL RESOURCES BRANCH

ASSESSMENT REPORT

NO. 6115



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geology
geophysics
geochemistry

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INTRODUCTION

In the summer of 1975, a Carolin Mines field crew conducted an exploration program on claims in Hillsbar (Qualark) Creek, a westerly flowing tributary of the Fraser River situated some 15 air kilometers north of Hope in southern British Columbia.

Work consisted of geological mapping, geochemical surveys and test pitting and sampling the soils and gravels in the valley with a view to determining the source of placer gold found in alluvium.

In October, 1976, a field crew conducted limited followup work and this report describes this recent work and the results obtained.

LOCATION AND ACCESS

The Rachel, ME and US claims are located along Hillsbar (or Qualark) Creek, a westerly flowing tributary of the Fraser River situated eleven (11) air miles due north of the town of Hope and 3 miles south of Yale in southern British Columbia. Access to the claims is via a logging road which proceeds north from Hope on the east side of the Fraser. A branch road extends westerly up Hillsbar Creek, however, the upper sections of this 4 x 4 road is now largely overgrown and washed out.



Access to the headwaters of the creek can also be made by charter helicopter and a base is located in Hope.

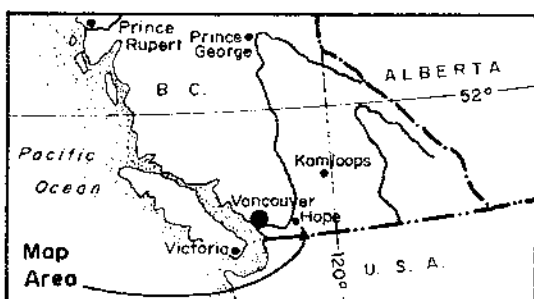
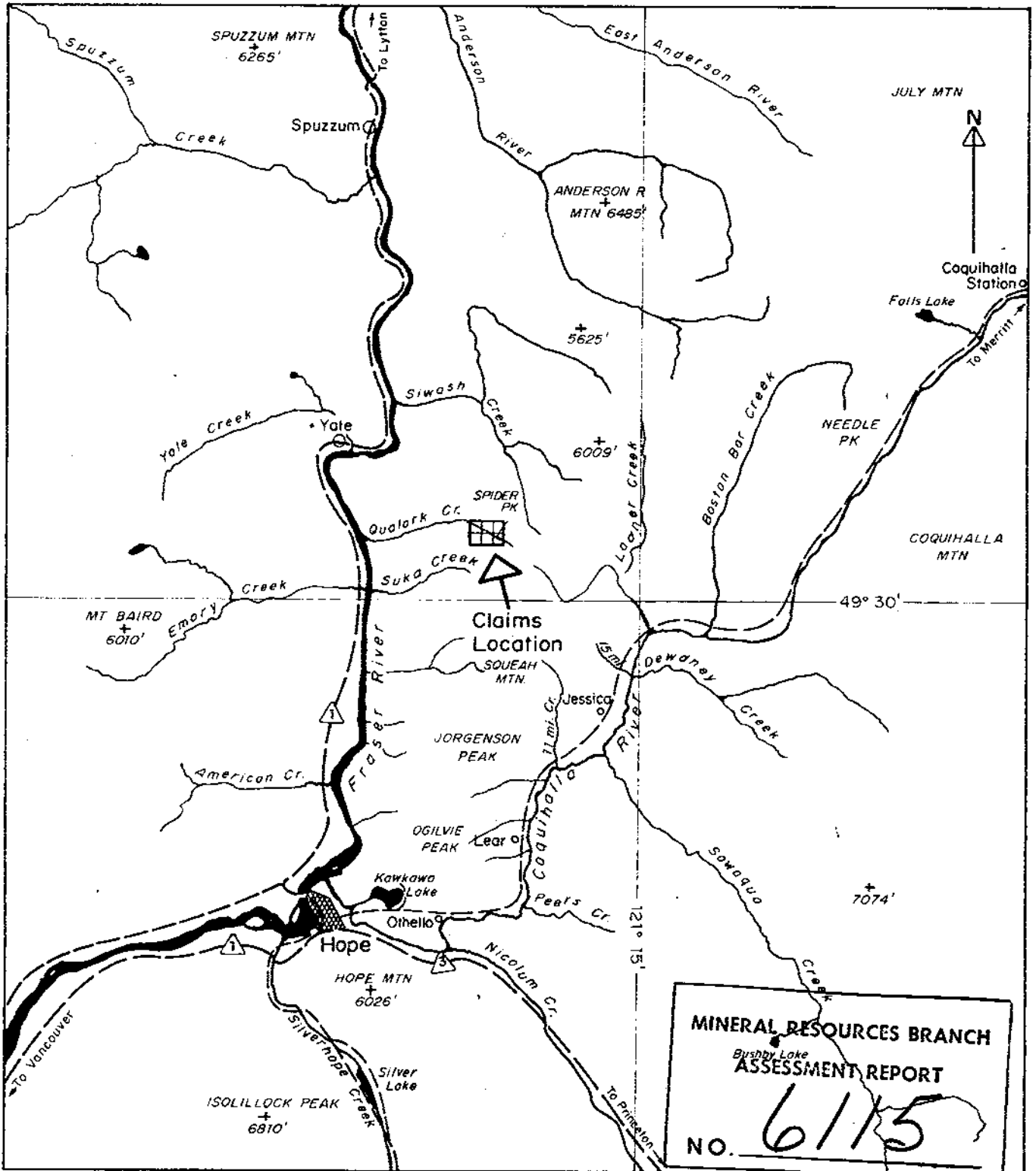
The latitude is $49^{\circ}30'N$, and longitude $121^{\circ}20'W$.

CLAIMS INFORMATION

The US claim is a new (modified grid) six (6) unit claim situated near the headwaters of Qualark Creek in the New Westminster Mining Division. It was staked by Mr. G. Giroux on the 19th day of December, 1975, and recorded in New Westminster on December 22, 1975.

The US claim is 3 unit lengths west and 2 unit lengths north and the record number is 78.





LOCATION MAP

Fig. 1

CAROLIN MINES LTD.

US CLAIM - HILLSBAR PROJECT
 QUALARK (HILLSBAR) CREEK AREA
 New Westminster Mining Division, B. C.

Cochrane Consultants Limited
 4642 Dora Street Delta B.C.

N.T.S. 92 H/11 W.

Scale 1:250,000

GENERAL SETTING

The claims are located at the northerly end of the Cascade Mountains which extend from Washington State into southern B.C. The area is quite rugged and mountainous, with local peaks rising to between 5000 and 6000 feet above sea level. This section of B.C. is a moderately wet climate area and in general, below the 4,500 foot level a dense thick coniferous forest covers the hillsides. Normally outcrops are restricted to creek bottoms and cliff and talus slopes and a glacial mantle of drift covers the vast majority of bedrock.

The uppermost ME and US claims lie at elevations close to 3500 feet above sea level, and the old Hillsbar workings are at an elevation of 2700 feet. Spider Peak which is located just over 2 miles east of the Hillsbar adit rises to just over 5000 feet above sea level.



HISTORY

Placer gold was first discovered in quantity on the Fraser River near Yale in 1858. This precipitated the Fraser Rush which eventually culminated in the discovery of Barkerville. Emery Bar and Hillsbar on the Fraser were important producers of placer gold for several decades and production was intermittent until commencement of the first world war. The mother lode of these bars was not actively sought until the late teens. The 1912 Report of the Minister of Mines (p. 186) describes "considerable placer prospecting on Hillsbar Creek", however, according to Cairnes (1923) it was not until the summer of 1921 that lode gold was found in place on Hillsbar (or Qualark) Creek. Cairnes describes the principal showings in the creek valley as "a series of quartz veins" in slates occurring 100 to 200 feet distant from a granodiorite contact". The veins were reported to pinch and swell from a few inches to up to three feet wide. Cairnes continues "Ore mineralization is, on the whole, very scanty in these quartz veins and is represented chiefly by free gold and arsenopyrite". Cairnes describes a sample containing no visible gold and assayed by the Mines Branch in Ottawa running 0.13 oz. Au/ton. Apparently a 27 foot adit had been driven on the Hillsbar showing at this time.



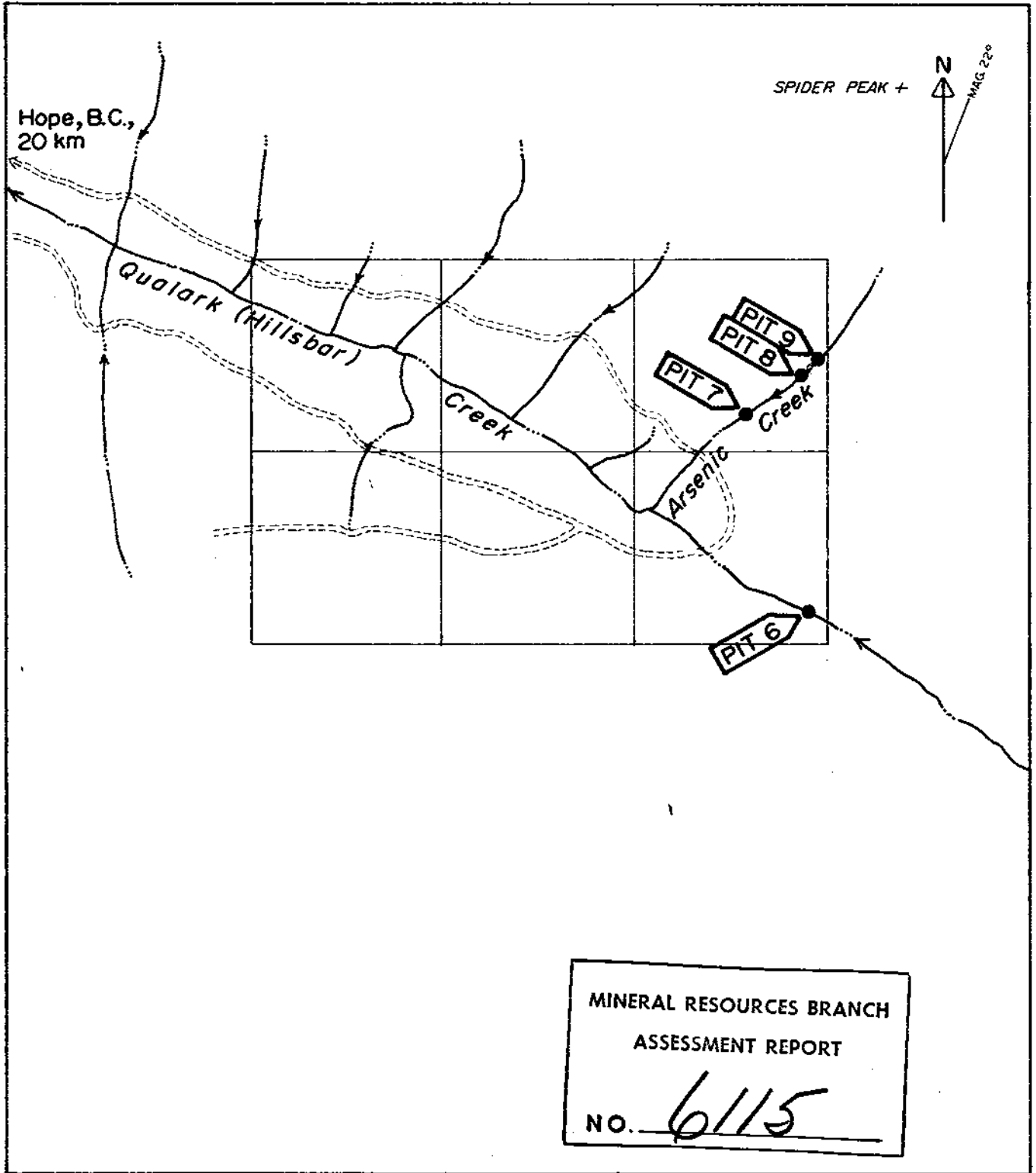
References to the Hillsbar occurrence and "Gold" Mineral Claims Group continues in the Minister of Mines Reports until 1927. The 1927 report describes three adits, the largest of which was 197 feet long. Apparently the underground work had uncovered six well defined veins as opposed to seven located in the Creek bottom. The #3 vein is reported as averaging \$20.00 per ton (1927 prices - \$20.67) across 3 feet. Reference is also made to a sample collected across 3 feet running 0.82 oz. Au per ton and 0.10 oz. Ag per ton. The old workings are now covered by the Rachel claim.

The discovery of the Hillsbar (or Gold Group) lode caused considerable excitement in 1921 and in following years since Hillsbar on the Fraser River 3 miles below Yale was one of the richest bars on the Fraser. It was suspected then that the mother lode had at last been found.

Work on the property and adjacent area however probably continued sporadically during the late 20s and early 30s but there is no further reference to the Hillsbar or Gold Group in subsequent Minister of Mines Reports.

It can be assumed that the area had a short lived revival during the readjustment in gold price in 1933 but since then probably very little work has been conducted in the area. The situation has changed somewhat of course commencing in 1972 and again in 1973 as the gold price has continued to rise from the pegged \$35 per ounce standard.





CLAIMS & TEST PIT LOCATIONS

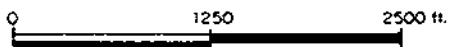
Fig. 2

SCALE: 1 : 15,000



CAROLIN MINES LTD.

US CLAIM - HILLSBAR PROJECT
 QUALARK (HILLSBAR) CREEK AREA
 New Westminster Mining Division, B. C.



Cochrane Consultants
 4862 Delta Street

NTS 92 H / 11 W.

Drawn Wm. C.

Traced B. A. C.

FIELD AND OFFICE WORK

The October 1976 field work consisted of the hand excavation of four (4) pits, three being on Arsenic Creek a southwesterly flowing tributary of Hillsbar Creek and one pit on the upper reaches of the main creek. The accompanying map shows the pit locations relative to the claim boundaries. The pits were excavated in the stream gravels by shovel, and a minus ten mesh sample was panned, inspected and the pan concentrates saved. The following summarizes the field crews field notes.

Pit #6: Main Hillsbar Creek, 25 meters west of the initial post of US claim and 65 meters upstream from the road. Course gravel and boulders, pit 1.5 x 1.5 x 2 meters.

Pit #7: 100 meters upstream on Arsenic Creek from road. Large boulders, pit size 1 x 1 x 0.5 meters.

Pit #8: 150 meters upstream from road on Arsenic Creek. Large rocks, poor sample, some organic material. Pit size 0.5 x 0.5 x 0.5 meters.

Pit #9: 160 meters upstream from road on Arsenic Creek. Good sample to bedrock. Pit size 1 x 1 x 0.5 meters.

NOTE: Sizes are length x width by depth in all cases.

The pan concentrates were shipped to the office of Cochrane Consultants where they were examined by the author under a binocular microscope.



An ultraviolet light test on the concentrates was conducted with a Model J330 Ultra Violet Product mineralamp, and a radioactive test with a Precision Model 107C geiger counter.

RESULTS

Concentrates from Test Pit #6.

Ultraviolet Light Test: Negative

Radioactive Test: Negative

Description: Heavy minerals suite consists of magnetite, traces of pyrite, quartz, feldspar fragments, epidote, garnet, sphene, zircon, chlorite, tourmaline (?), and amphibole.

Gold: Two (2) colours, very small. One very platy and high fineness; second rounded, lower fineness (more silvery lustre).

Concentrates from Test Pit #7.

Ultraviolet Light Test: Negative

Radioactive Test: Negative

Description: Similar to above with more garnet.

Gold: None detected.



Concentrates from Test Pit #8.

Ultraviolet Light Test: Negative

Radioactive Test: Negative

Description: Gauge minerals same as #7 but fragments
of serpentine.

Gold: A few small colours, hackly and angular, high
fineness or tarnished.

Concentrates from Test Pit #9.

Ultraviolet Light: Negative

Radioactivity: Negative

Description: Gangue minerals include fragments of slate,
fragments of serpentine and/or greenstone,
quartz, feldspar, garnet, zircon, epidote,
amphiboles, sphene (?) and magnetite. Trace
of pyrrhotite (?).

Gold: Several colours very small, all free of matix,
hackly rough appearance and slightly tarnished.
Same as gold in test pit #8.

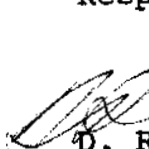



COMMENTS

Minor amounts of placer gold was identified in pan concentrates from three out of four pits excavated on the US claim. Test pit #6, the only one on Hillsbar Creek contained what appears to be two types of gold, both quite worn, flattened or rounded off, and one with a distinct pale cast. The other three test pits were excavated on Arsenic Creek, a tributary to Hillsbar, entering the main creek below test pit #6. The lowermost pit contained no observable gold, the middle pit a few colours and the uppermost pit, several colours. The gold from Arsenic Creek is different in several respects from that on Hillsbar Creek in that it has a hackly aspect and is somewhat tarnished (possibly due to some impurity?).

Based on this limited check work, it would appear that the source gold deposits are upstream from the uppermost pit on both Hillsbar and Arsenic Creeks, and that the source deposits have native gold which is somewhat different in composition.

Respectfully submitted,



D. R. Cochran, P. Eng.,
November 26, 1976
Delta, B.C.



APPENDIX I

Project: Test Pitting, Hand Panning, and Examination of Pan Concentrates.

Location: Qualark (Hillsbar) Creek.

Mining Division: New Westminster.

Sponsor: Carolin Mines Ltd.

Claim: US - Record No. 78, six units.

Field Crew: October 28 & 29, 1976, William Chase, Delta, B. C., experienced field man.
October 28 & 29, 1976, David Heino, Hope, B. C., experienced prospector.

Work Done: (a) Four (4) test pits by hand, three on Arsenic Creek, one on Qualark (Hillsbar) Creek. Sampled pit and hand panned to concentrate.
(b) Office: examination of concentrate under microscope, D. R. Cochrane, P. Eng., November 15, 1976.
(c) Report preparation, D. R. Cochrane, P. Eng., November 26, 1976.
(d) Drafting and reproduction, B. A. Cochrane, A.O.C.A., December 6, 1976.

Cost: November 15, 1976, D. R. Cochrane, P. Eng.,
one (1) day @ \$200.00 per day.....\$200.00
November 26, 1976, typing.....20.00
December 6, 1976, drafting and reproduction.....37.00
\$257.00



APPENDIX II

Bibliography

- CAIRNES, C. E., G.S.C. Summary Report, 1923, part A, page 81, Hillsbar Gold Claims, Yale District.
- CAIRNES, C. E., (1924), G.S.C. Memoir 139, Coquihalla Area, British Columbia.
- COCHRANE, D. R., Geology, Geochemistry, Geophysics of the Aurum and Idaho Zones, (B. C. Department of Mines Assessment Report No. 4852).

Reports of the Minister of Mines, British Columbia:

1. 1896, p. 569, in regard to placer gold on Hill's Bar.
2. 1899, p. 195, " " " " " " " "
3. 1902, p. 195, " " " " " " " "
4. 1904, placer reference.
5. 1907, " "
6. 1912, p. 186, 187, considerable placer work on Hill's Bar Creek.
7. 1922, p. 123.
8. 1923, p. ~~143~~ 163
9. 1924, p. 137.
10. 1925, p. 182.
11. 1926, p. 198.
12. 1927, p. 209.

