

83-#455 - 11660

7/84

Geological Report On
The Gwednolyn's Glory Claim
Gold Bridge, B.C.

$122^{\circ} 55'$
 ~~$123^{\circ} 10'$~~ long. $50^{\circ} 50'$ lat.

April 26, 1983

NTS 925 15W

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,660

Consultants:

E. W. Grove

E. W. Grove Consultant Ltd.

Compiled by:

A. K. Sweet

Professional Prospector

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Geological Report
on the
GOLD BRIDGE PROPERTY
of
CHALICE MINING INC.
Part A

SUMMARY AND CONCLUSIONS

The Gold Bridge Property held by Chalice Mining Inc. is located 13 km from the former gold producing Bralorne and Pioneer Mines.

Other smaller former gold producers are located along the northwesterly belt of metamorphosed sedimentary and volcanic rocks. A central structure, along the Cadwallader Creek Valley with which the gold bearing quartz fissure veins of the Bralorne Intrusives appear to be associated is projected northwestward to the Chalice Property.

It is concluded that the Chalice Property is within a geologically favorable area for the occurrence of economic gold mineralization. The favorable structural indicators in addition to the favorable preliminary exploration results substantiate the merit of the property. An exploration program to delineate and test prime anomalous areas should be initiated.

RECOMMENDATIONS

A three phase exploration program is recommended to be carried out on the property. The exploration program is designed to intially delineate localized correlative anomalous areas which would be tested by diamond drilling.

It is also recommended that Chalice Mining Inc. allocate \$74,200 to initiate and execute the recommended program.

Geological Report
on the
GOLD BRIDGE PROPERTY
Part B

INTRODUCTION

The Chalice property was examined to assess the geological potential for economic gold mineralization on the Gunn Lake property.

With the strategic location of the property in a known "gold camp", the Chalice property area should be examined for surface and/or underlying mineral potential.

Information for this report was obtained from material as cited under references in addition to a property examination carried out on April 25 through April 27, 1983.

PROPERTY

The property is comprised of one located mineral claim consisting of 12 units. Particulars are as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Gwendolyn's Glory (12 units)	2589 (8)	August 23, 1983

LOCATION AND ACCESS

The property is located six km west of Gold Bridge and two km west of the south end of Gunn Lake in the Lillooet Mining Division.

Access from Gold Bridge is westward for seven km via good gravel road to the Gunn Lake road. The Dunn road cut off is taken for one km to the property.

WATER AND POWER

Sufficient water for all phases of the exploration program could be available from Penrose Creek which is in part covered by the property.

Electric power is available within 500 meters of the claims.

TOPOGRAPHY

Moderate to steep slopes prevail on the property with elevations up to 1900 meters and relief in the order of 750 meters.

HISTORY OF THE AREA

The history of the area is centred around the Bralorne and the Pioneer Mines where lode gold production was carried on from the early 1900's.

The Bralorne and Pioneer situated on Cadwallader Creek within 13 km southwest of the Chalice property, in addition to other significant former properties such as the Ben d'Or and the Wayside are located within a mineralized belt on the western flank of the Ben d'Or mountains.

During the early 1900's, production initially utilizing arrastras was carried out at these properties with the Bralorne producing to 1972 when shut down for economic reasons.

Adjacent to the property to the south is the Veritas property where former exploration included a "tunnel 225 feet long and several open cuts" on a vein cutting an augite-diorite and serpentine. A total of a thousand feet of underground work in three tunnels is reported.

Except for recent exploratory work performed by Chalice the writer is not aware of any other previous exploration work on the Chalice property.

GEOLOGY

In the area of the Chalice property Triassic sedimentary and volcanic rocks including variably metamorphosed units are intruded by three or more intrusive episodes including an ultrabasic or intrusive. Generally, the Triassic formations include the middle Triassic Ferguson group of cherts to limestone in addition to biotite schists, the younger Noel Formation, Pioneer Formation and the Youngest Hurly Formation which in addition to fine grained sedimentary rocks, include conglomerates, agglomerates and andesites.

The individual formations are exposed to a greater irregularity towards the central Cadwallader Creek extending northwesterly to Mt. Penrose west of Gunn Lake. The band is generally enveloped by diorite to syenodiorite intrusives with localized ultrabasic and augite diorite. Bralorne intrusive plugs and northwesterly stretched stocks are associated with the central formations.

The major aerial structural feature is a broad northwesterly trending and plunging anticlinal arch centered east of Cadwallader Creek in the Ben d'Or range of Mountains. The western limb in which the principal ore deposits of the area occur, extends into the Cadwallader Creek valley, which reflects a major structure. The major structure resulted in secondary and minor folds which resulted in complex distortion of the formations in addition to providing a locus for the ultrabasic and gold associated Bralorne intrusives. The lenticular intrusives extend to the Chalice property area where topographical structural features are not as obvious as along the Cadwallader Creek valley.

The gold bearing quartz fissure veins of the Bralorne intrusives and more specifically, the veins in the Bralorne and Pioneer Mines are conspicuous for the exhibited ribboning effect where quartz ribbons are "separated by thin, dark-grey films of ground-up sulphides, sericite, white mica and gouge and occasional slickensided free gold".

The vein fissures extending from the augite diorite are persistent into the Pioneer greenstone with weaker indications in thinly bedded sediments and "feathering out" in serpentine.

Associated indicator minerals that are found in the Bralorne-Pioneer veins and can reflect gold mineralization are mariposite, scheelite, arsenopyrite, sphalerite and galena. Other metallic minerals include pyrite, chalcopyrite, stibnite, tetrahedrite, marcasite and sylvanite (?) or calaverite (?).

RECOMMENDED EXPLORATION PROGRAM

An exploration program should be designed to locate prime correlative anomalous areas that would be tested by diamond drilling. The program should be set up in three phases, the first of which would be comprised of a magnetometer and E.M. survey to locate potential favorable structures for localizing mineralization and to aid in geological mapping. A geological mapping program would be carried out in association with the geophysical surveys.

The second phase would be comprised of a geochemical survey in addition to an I.P. survey. Both the exploration programs should delineate prime correlative anomalous zones to determine specific sites for diamond drilling.

REFERENCES

- Annual Report of the Minister of Mines of the
Province of B.C., 1933 p. A 263
- MCCANN, W.S. - Geology and Mineral Deposits of the Bridge
River Map area, British Columbia, G.S.C.
Memoir 130 1922
- RODDRICK, J.A. et al. - Pemberton (East Half) Map-Area,
British Columbia, Geological Survey of Canada
Paper 73-17, 1973
- STEVENSON, J.S. - Lode-Gold Deposits South-western British
Columbia, B.C. Department of Mines, Bulletin
No. 20 - Part IV 1947 p.p. 31-35

Certification

I, Anthony K. Sweet, of Sechelt, B.C., do hereby certify that:

1. I have been a prospector continuously since 1976.
2. I have worked for the following companies:
Green Valley Mining
Lakewood Mining
Climex Mining of B.C.
Chalice Mining
3. The information for accompanying report was based on work done personally and from Mineral Inventory assessment reports and government publications.
4. I am a Director of Chalice Mining.
5. I attended the "Mineral Exploration for Prospectors" course at Selkirk College in May, 1977

SELKIRK



COLLEGE

CASHEGAR, B. C., CANADA

DEPARTMENT OF CONTINUING EDUCATION

THIS IS TO CERTIFY THAT

ANTHONY SWEET

HAS PARTICIPATED IN

"MELT, EXPLOSION & FORTYCEBS"

For information

See the program of the Department of Continuing Education
for the year 1970-1971

May 1971



INSTRUCTOR PROGRAM


Peter C. ...
CHAIRMAN OF CONTINUING EDUCATION

CERTIFICATE

I, Edward W. Grove, of the Municipality of Central Saanich, do hereby certify that:

1. I am a consulting geologist with an office at 6751 Barbara Drive, Victoria, British Columbia.
2. I am a graduate of the University of British Columbia (1955) with a Master's degree, Honours Geology (M.Sc. Hon. Geol.) and a graduate of McGill University (1973) with a doctorate in Geological Sciences (Ph.D.).
3. I have practiced my profession continuously since graduation while being employed by such companies as the Consolidated Mining and Smelting Co. of Canada Ltd., British Yukon Exploration Ltd., the Quebec Dept. of Natural Resources, and the British Columbia Ministry of Energy, Mines and Petroleum Resources. I have been in corporate consulting practice since January 1981.
4. I have no direct, indirect or contingent interest in Chalice Mining Incorporated or any of its properties, nor do I expect to acquire any such interest.
5. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
6. I consent to the use of this report in a Prospectus or Statement of Material Facts.

June 1, 1983
Victoria, B.C.


Edward W. Grove, Ph.D., P.Eng.

ITEMIZED COST STATEMENT

TOTAL WAGES PAID

§

E. W. Grove

April 25 thru 27, 1983

examination of property, report writing preparation, etc.

TOTAL 2,611.03

A. K. Sweet

April 25 thru 27, 1983

3 days @\$125.00/diem 375.00

Expenses: April 25-27, 1983

Room @\$35.00/diem x 2 days 70.00

Gas 18.00

Ferry 17.00

Food @\$20.00/diem x 2 men x 3 days 120.00

A.K. Sweet

May 5 thru 7, 1983

Map and report @\$100/diem x 3 days 300.00

TOTAL COST OF THIS REPORT

3,511.03

APPENDIX

E. W. Grove Consultants Ltd.

6751 Barbara Drive, Victoria, British Columbia V8Z 5T4 (604) 652-2884

May 2, 1983

Mr. John LaRue, President
CHALICE MINING INCORPORATED
P.O. Box 2240
Sechelt, B.C.
V0N 3A0

Dear Mr. LaRue:

Re: GWENDOLYN'S GLORY Claim Group
Gold Bridge Area, Lillooet, B.C.

At your request I made a trip to Gold Bridge to examine the GWENDOLYN'S GLORY claim group on April 25 through April 27, 1983 accompanied by Mr. Kim Sweet. We examined rock exposures along Penrose Creek, Gun Lake, and westerly along the Downton Lake logging roads. Snow did not allow examination of the upper Penrose Creek portion of the G.G. WEST 1 and G.G. NORTH claims. The Veritas vein was also examined in order to view known local mineralization.

The Veritas vein has been fairly well described in the G.S.C. publications (McCann, Cairnes), but in my view the vein system which trends about $120^{\circ}/64^{\circ}\text{NE}$ to $120^{\circ}/\text{V}$ has been formed along a fracture system in altered volcanics (greenstone) which have been locally intruded by a Bralorne-like microdiorite pluton. The vein(s) lie within the volcanics just westerly of the intrusive contact. The microdiorite has been partially serpentized with the development of some chrysotile veinlets near the contact. The altered volcanics and the Veritas vein system have been deformed by narrow northwesterly trending shears which have left the quartz veins as irregular lenses over the known length of the vein system. Outcrop and workings (4) show that the vein zone extends over a length of about 1,000 feet and over a vertical height of about 400 feet with widths of from a few inches to a maximum of four (4) feet. The observed vein(s) comprise massive milky white quartz with little or no sulfides. A review of the available literature suggests that gold-sulfide mineralization in the vein was erratic, concentrated along the foot wall and not commercial. The presence of a single 4-6 inch vein at the uppermost workings (X-cut) within sheared volcanics near the gabbro and the apparent absence of any further workings to the northwest suggests the vein either did not continue or has been offset by faulting. Alternatively, the vein may have been cut off by the microdiorite pluton. Simple prospecting and trenching should solve the possibility of the northwest vein extension across GWENDOLYN'S GLORY and G.G. WEST.

A review of the geology west from the Gun Lake - Downton Lake road junction showed a thick sequence of mixed sandstone, siltstone and carbonate rich conglomerate (possibly sedimentary breccias) with minor, thin rhyolite/dacite volcanic members. Although shown as Noel and Hurley formations on the Pemberton geology map, the sequence appears to be mainly Hurley Formation trending northwesterly and dipping uniformly southwesterly well beyond your G.G. WEST 1 claim. The G.S.C. map indicates the main granodiorite intrusive (Bendor Pluton) cuts across the sediments on Mt. Penrose leaving a small reentrant from the head of Penrose Creek to the middle of Gun Lake. Thus, the brief geological excursion suggests that G.G. WEST 1 includes mainly undeformed sediments cut by the main granodiorite pluton. In terms of Bridge River geology there is little evidence to support the possibility of gold vein mineralization in this claim area.

The geology of the Penrose Creek portion of the claims is somewhat more complex. A preliminary interpretation suggests that pods of deformed, altered volcanics and serpentinites occur as large inclusions (pendants) within a fairly extensive phase of the microdiorite which may grade into granodiorite and underlie much of the area. The mineralization examined in the serpentinite east of Penrose Creek was seen as irregular carbonate (calcite, ankerite) and quartz stockwork with erratic pyrite, chalcopyrite and scant arsenopyrite. The observed carbonate-quartz veining on G.G. WEST occurs within brecciated altered green volcanics east of a serpentinite lens.

I have reviewed the available materials on the general area and the detailed geochemical and geophysical results from the 1979 exploration work program. I do not recommend performing any major exploration program on the GWENDOLYN'S GLORY claim group and suggest that the G.G. WEST 1 claim be allowed to lapse. As I was unable to examine the G.G. NORTH and easterly portions of GWENDOLYN'S GLORY I cannot make any authoritative comments on this area.

On review of the areal geology and a brief examination of the GWENDOLYN'S GLORY claim group I cannot at this time recommend including this property in a prospectus with the CHALICE property. I trust we will be able to discuss this further before I complete my report.

Yours truly,


Edward W. Grove, Ph.D., P.Eng.

E. W. Grove Consultants Ltd.

2501 E. BROADWAY DRIVE, VANCOUVER, B.C. V6Z 5T4 (604) 652-2884

April 30, 1983

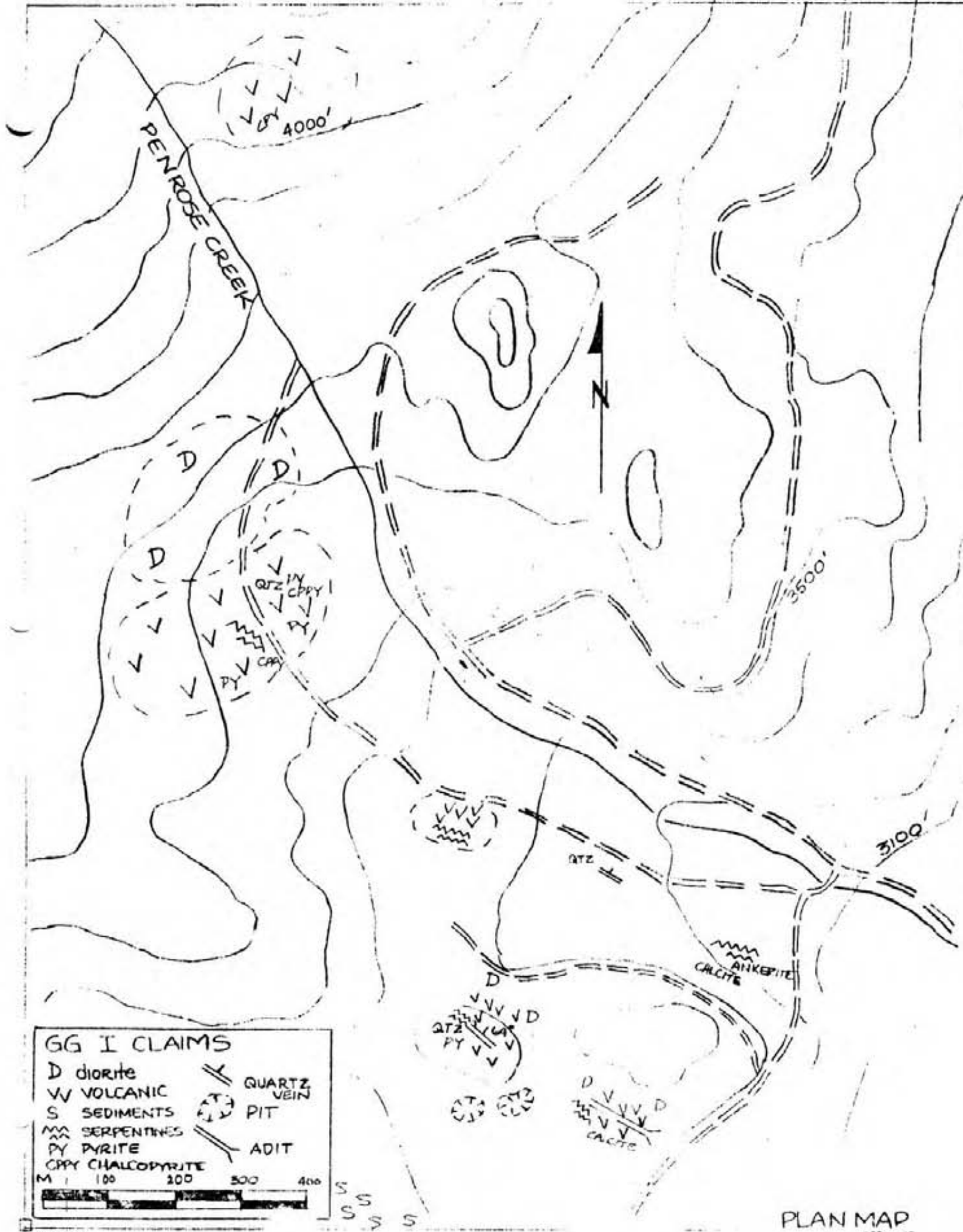
CHALICE MINING INCORPORATED
P.O. BOX 2240
Sechelt, B.C.
V0N 3A0

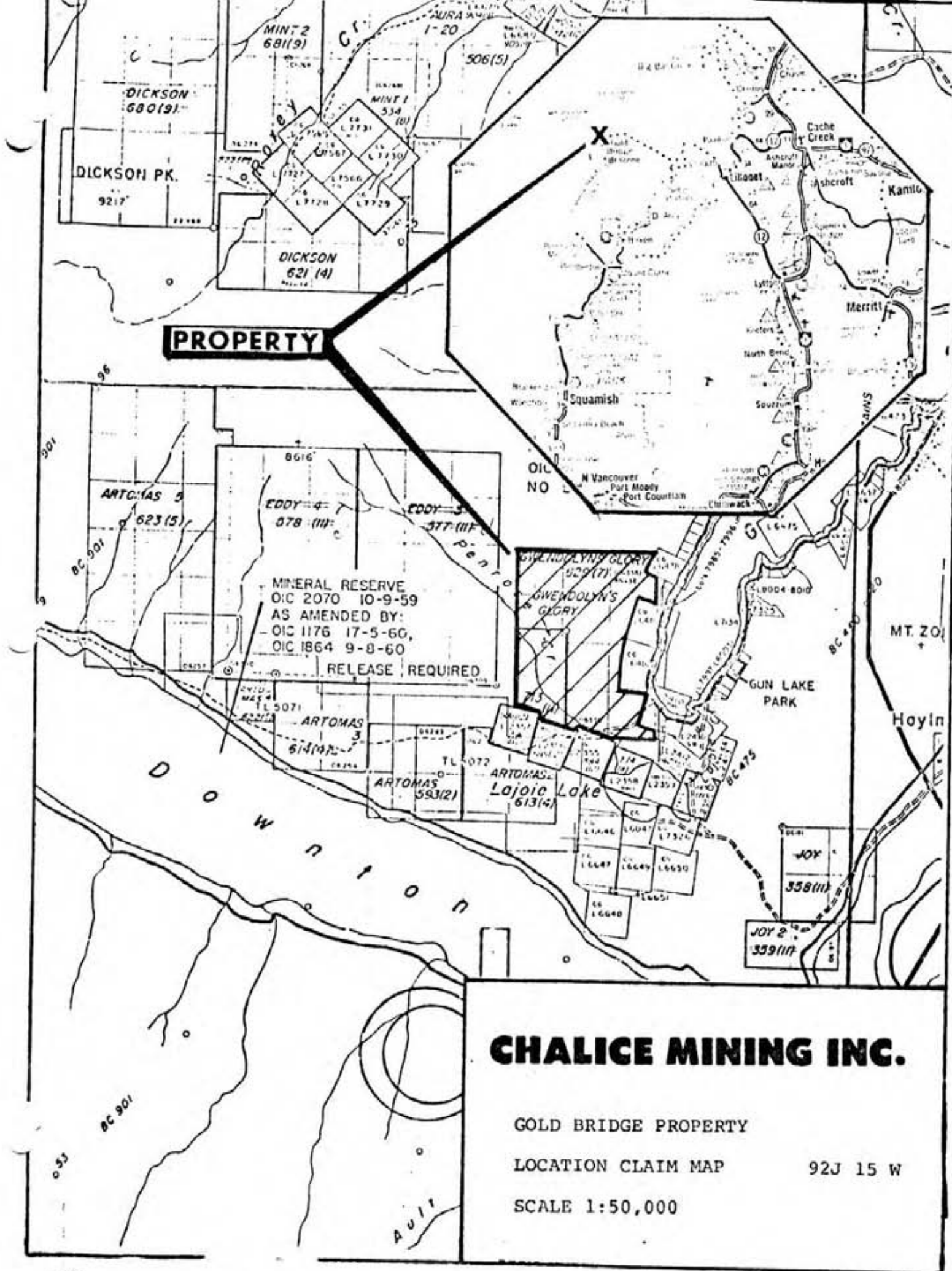
INVOICE # 132

TO: PROFESSIONAL SERVICES

To examine the Gwendolyn's Glory Claim Group near Gold Bridge,
on April 25 through 27, 1983; and prepare a brief letter report.

FEE: Total of 4.75 days	\$2,130.00	
Mileage	<u>425.00</u>	
Total fees		\$2,555.00
DISBURSEMENTS:		
Ferry (2x\$16.95)	33.90	
Claim maps	6.00	
Long distance tele	6.53	
Meals	<u>9.60</u>	
Total disbursements		<u>56.03</u>
TOTAL AMOUNT DUE THIS INVOICE		\$2,611.03





PROPERTY

MINERAL RESERVE
 OIC 2070 10-9-59
 AS AMENDED BY:
 - OIC 1176 17-5-60,
 OIC 1864 9-8-60
 RELEASE REQUIRED

CHALICE MINING INC.

GOLD BRIDGE PROPERTY

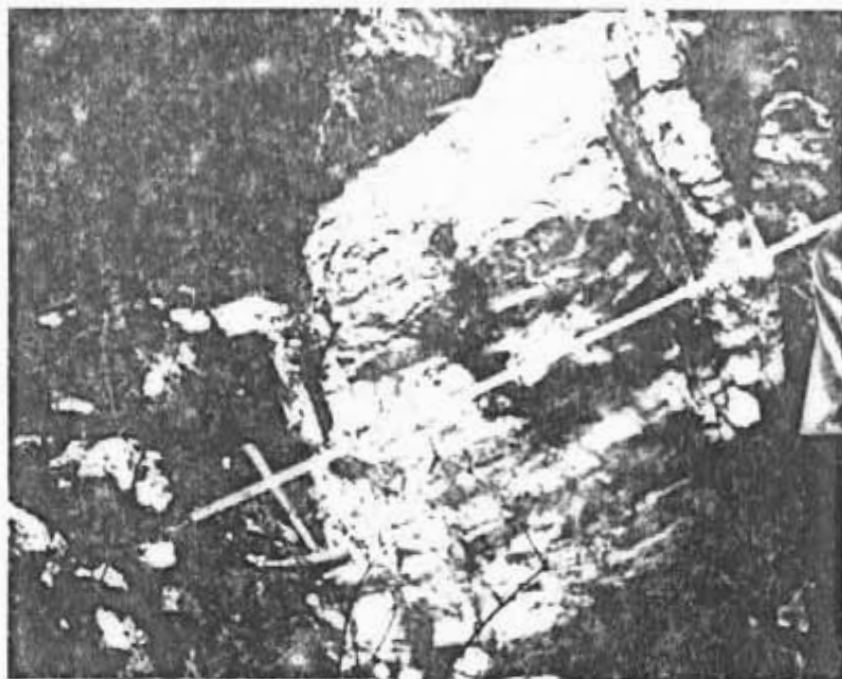
LOCATION CLAIM MAP

92J 15 W

SCALE 1:50,000



looking toward Mt. Penrose, April 26, 1983



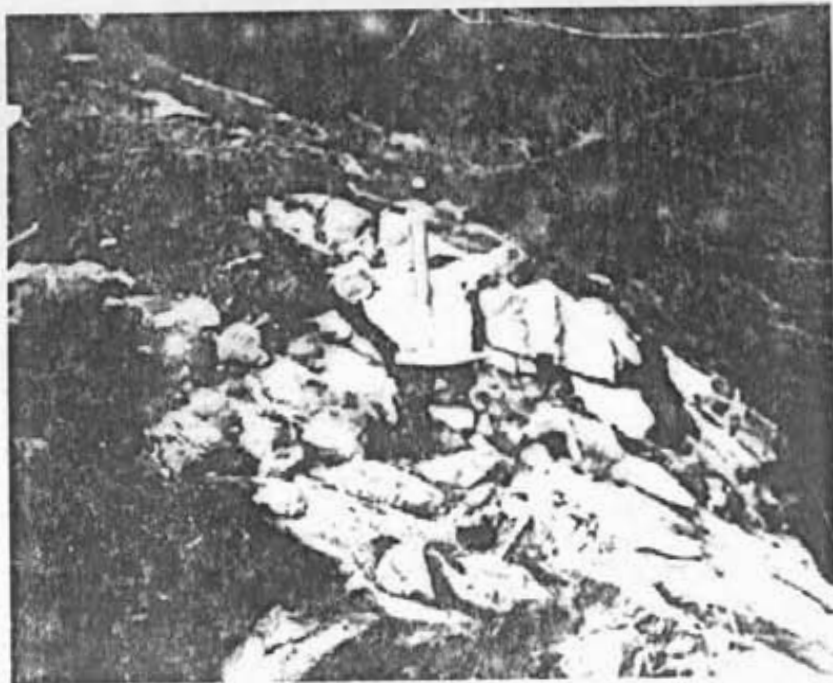
quartz vein, Veritas claims



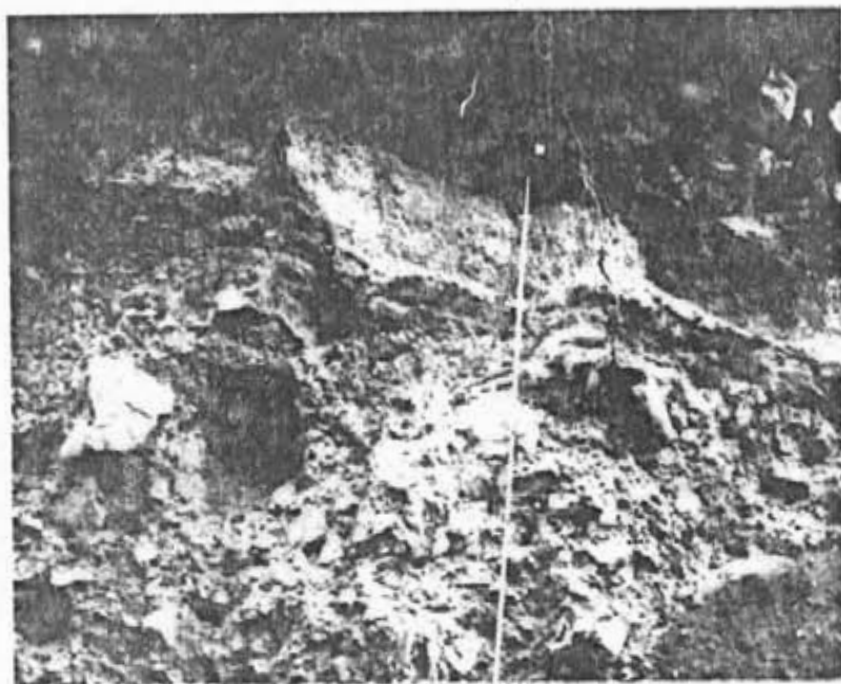
chrysotile veinlets



sedimentary conglomerate



carbonate and quartz stockwork, G.G. claims



pumice and glacial overburden, G.G. claims



Gun Lake, view from G.G. claims



Pioneer Mine, Bralorne, B.C.