

ARIS SUMMARY SHEET

District Geologist, Victoria

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ASSESSMENT REPORT 21427

MINING DIVISION: Victoria

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NTS 092C09W

CAMP: 022 Leech River Gold Belt

CLAIM(S): Potosi 1-14

OPERATOR(S): Beau Pre Ex.

AUTHOR(S): Grove, E.W.

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Granitic sills, Diorite dykes

WORK

DONE: Geological
GEOL 350.0 ha
Map(s) - 1; Scale(s) - 1:10000

RELATED

REPORTS: 20050

GEOLOGICAL REPORT
ON THE
POTOSI 1-14 CLAIMS

SAN JUAN RIVER AREA
SOUTHERN VANCOUVER ISLAND

FOR
BEAU PRE EXPLORATIONS LTD.

VICTORIA MINING DIVISION

48°34' N 124°19' W

N.T.S. 92C/9

BY
EDWARD W. GROVE, Ph.D., P.Eng.

VICTORIA, B.C. JUNE 14, 1991

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**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

21,427

SUMMARY

The POTOSI mineral property owned 100% by Beau Pre Explorations Ltd. includes 14 staked, contiguous 2-post claims. The claims lie about 8 kilometers east of Port Renfrew in the San Juan River valley on southern Vancouver Island. Access to the claims is by paved road to Port Renfrew, then about 3.5 km along the Mosquito Main logging road. A good system of secondary logging roads accesses most of the area which has been largely clear cut. Because of location the area is accessible most of the year.

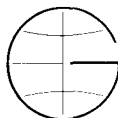
The general area has a record of placer gold activity since 1864 when gold was first located north of Sooke on the Leech River. Since then fine placer gold has been found in virtually every stream within the systems draining the Leech River Block. These streams currently include at least two thirds of all the known gold placer deposits on Vancouver Island and crudely outline a unique geological environment. It was not until 1976 that native gold in quartz veins was found on Valentine Mountain by prospectors. Since then a number of other significant auriferous quartz vein systems have been discovered between Valentine Mountain and Port Renfrew within Leech River Assemblage rocks.

Although gold deposits are currently the main target of prospectors and explorationists in this area, a number of other metals including copper, nickel, cobalt, lead, zinc and platinum have been found and occasionally mined. These various mineral occurrences and deposits have all been found and developed within a short distance of the main well developed roads near the ocean. This has been a result of lack of road access in the past and the former presence of a heavy, mature forest cover. This situation has now changed because logging has allowed access to essentially virgin prospecting ground.

Although no significant gold or other mineral deposit has yet been discovered on the POTOSI claims, further work to maintain claim status can be done economically.

INTRODUCTION

The POTOSI 1-14 staked, 2-post mineral claims, owned 100% by Beau Pre Explorations Ltd. of Victoria, B.C., lie in an east-west group on the south side of the San Juan River 8 km east of Port Renfrew on the southwest coast of Vancouver Island. These claims form a contiguous group which joins the OX claim group on the east. Work on these claims in 1991 comprised only geological mapping and evaluation.



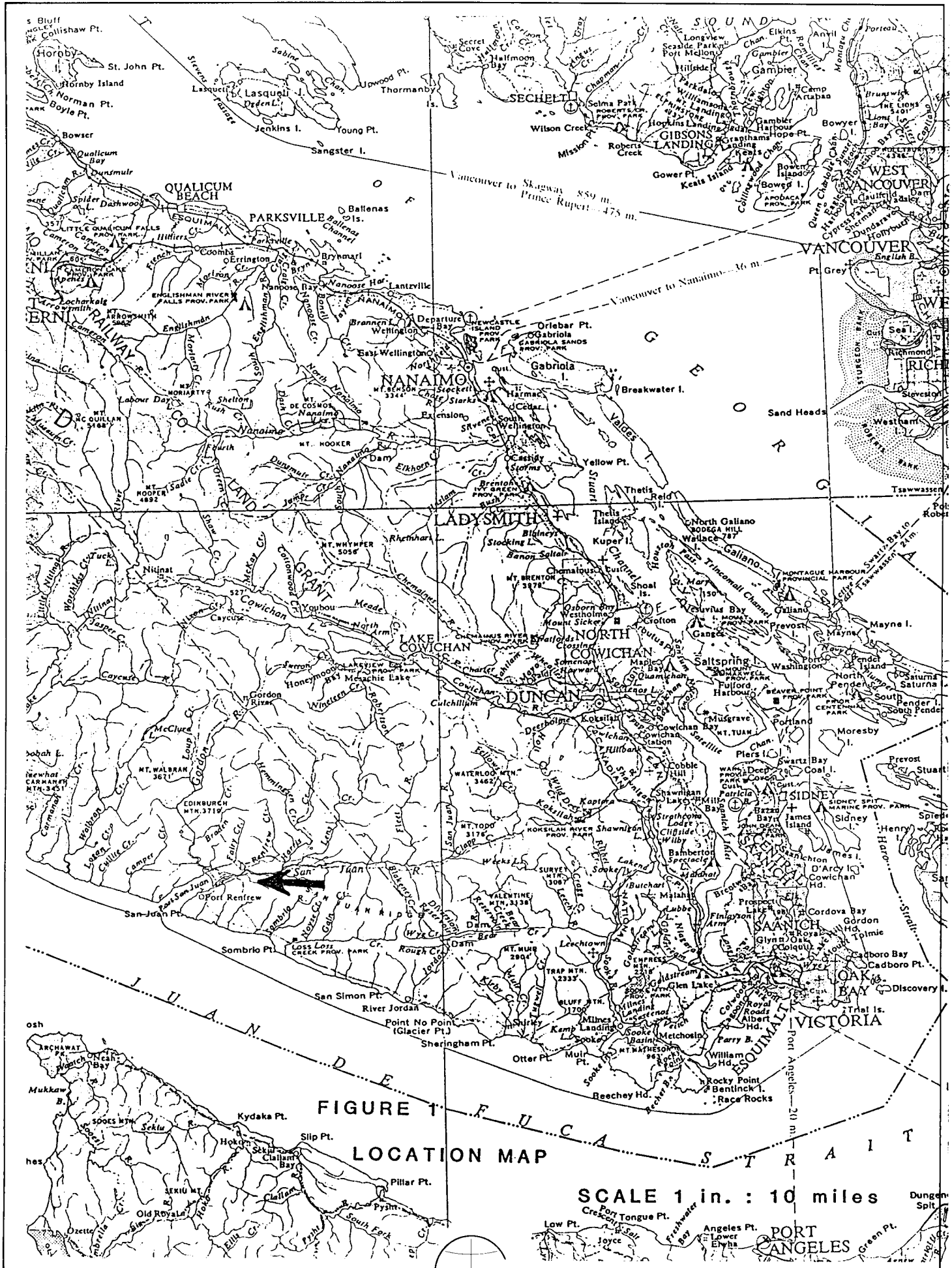


FIGURE 1
LOCATION MAP

SCALE 1 in. : 10 miles

PORT CANGELES

Visible gold in narrow quartz veins was recognized in this area in 1980 on the OX claims. Significant gold values were first discovered on the OX claims in albitite and diorite dikes in which auriferous arsenopyrite has been crystallized in varying concentrations. The POTOSI claims now cover the earlier FOX, COX, and part of the OX claim group which were examined in some detail by Utah Mines Ltd., Cominco Ltd., and Lacana Mining Corp.

Lode gold deposits found in the Leech River Block at Valentine Mountain in 1976 and at the OX property south of the San Juan River in 1980 and at the RENA property on Loss Creek in 1983 have increased exploration interest in what is still a relatively poorly known and virtually unexplored area.

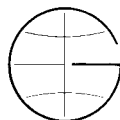
Mineral exploration in this area which lies within the west end of the Leech River metamorphic complex was first basically limited to the main highway and older well developed logging roads and largely concentrated on copper deposits. Recent work has shown that the area is geologically more complex than generally known and that several types of gold deposits can be expected. Until recently all of the placer gold found in streams on the southern part of Vancouver Island were judged to be derived from reworked glacial deposits. The discovery of free gold in quartz veins within the Leech River complex from Sooke to Port Renfrew refutes this outdated concept.

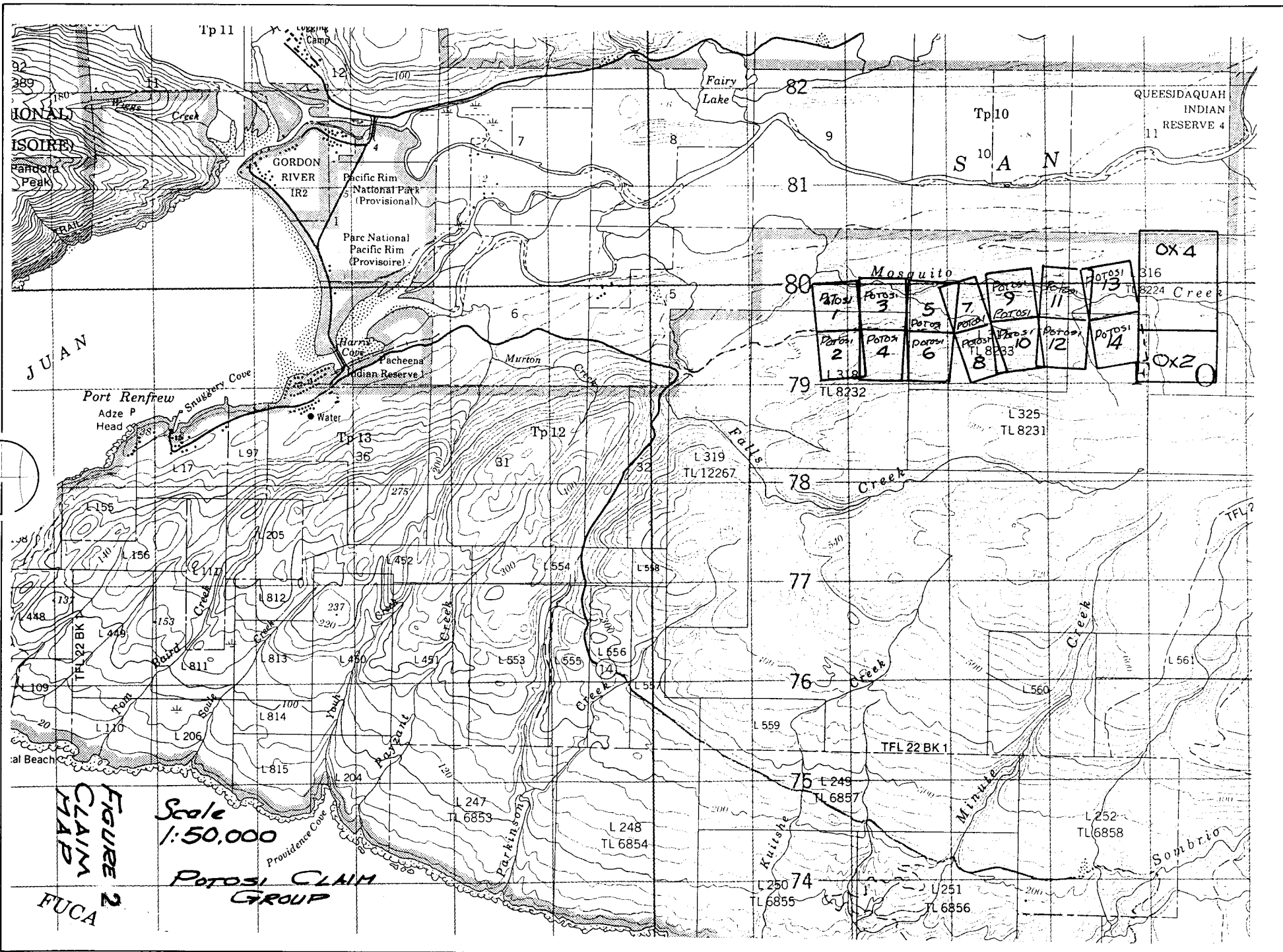
As a result of the writer's regional and detailed geological studies in the general area over many years a new perspective has evolved which places gold mineralization with respect to the new geology. Ideally this concept of a mineralization model for vein gold deposits can be applied throughout the Leech River terrain. The writer performed 1 day of field work on the claims during March 1991.

This report on the overall geology and mineralization was produced at the request of Mr. Robert Beaupre, President, Beau Pre Explorations Ltd.

LOCATION AND ACCESS

The POTOSI staked, 2-post mineral claims lie about 8 km ENE of Port Renfrew, on the south side of the San Juan River (Figure 1). The claims lie astride the Mosquito Main logging road and a swarm of accessory roads which provide good access along the length of the claim group. Elevations on the claims range from 90 m at Mosquito Creek, to about 560 m near the upper part of San Juan Ridge. The claim area has been extensively clear cut and is difficult to traverse on foot except along roads.





Scale
1:50,000

POTOSI CLAIM
GROUP

FIGURE 2
CLAIM
MAP
FUCA

Rock outcrop on the claim group is found along the several streams which form Mosquito Creek, and extensive rock has been exposed along the logging road network.

Port Renfrew is about 90 km by good paved road from Victoria, B.C. and has limited facilities for exploration crews. Because of the coastal location work can be performed in the area most of the year at low elevations and from 8 to 10 months at high elevations.

PROPERTY

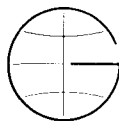
The staked 2-post POTOSI 1-14 claims form a contiguous group lying within the Victoria Mining Division (Figure 2).

<u>Claim Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
POTOSI 1	2304	March 24, 1992
POTOSI 2	2305	March 24, 1992
POTOSI 3	2306	March 24, 1992
POTOSI 4	2307	March 24, 1992
POTOSI 5	2308	March 24, 1992
POTOSI 6	2309	March 24, 1992
POTOSI 7	2310	March 24, 1992
POTOSI 8	2311	March 24, 1992
POTOSI 9	2312	March 27, 1992
POTOSI 10	2313	March 27, 1992
POTOSI 11	2314	March 27, 1992
POTOSI 12	2315	March 27, 1992
POTOSI 13	2316	March 27, 1992
POTOSI 14	2317	March 27, 1992

HISTORY

The Victoria District experienced a minor gold rush in 1864 after the announcement by Lieutenant Peter Leech that he had found gold on one of the forks of the Sooke River about 10 miles from the sea. A tent city and camp soon mushroomed in the wilderness to as many as 4,000 people located at the junction of the Leech and Sooke rivers about an hour drive from Victoria. Within one year an estimated \$100,000 in placer gold was recovered with nuggets of from 0.5 to 1 ounce reported. By 1865 the rush had faded and current estimates place the total value of placer gold recovered from the field at from \$100,000 to \$200,000. Like many placer areas the mystique of placer gold and the possibility of finding the source has attracted prospectors to the area.

Interest in the Leech River Block was first generated by the finding of placer gold which is known to occur in most of the streams flowing southerly across the block into or across



the Leech River fault zone. Panning of the streams in the general area has produced concentrates with minerals representative of the local rocks, gold attached to quartz fragments and free fly-speck to rice grain sized gold. So far it appears that little of this gold is related to the glacial materials but comes from locally derived eluvial materials which have their greatest concentration in sediments deposited near or in the Leech River and Loss Creek systems.

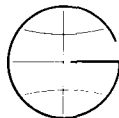
In 1966 while logging on the upper east slope of Valentine Mountain, Fred Zorelli noted a metallic glint as a tractor kicked up a loose rock. He examined the float and recognized free gold. He later mentioned the find to Robert Beaupre and partner Alec Low who were prospecting the area. Their subsequent detailed prospecting led to the discovery in 1976 of the 'A' vein, a narrow quartz vein with visible bright yellow gold similar to the placer gold recovered from local creeks. Subsequent work was concentrated on the 'A' vein and included trenching, bulk sampling, and soil sampling.

Since 1980 when the writer examined the property and determined the nature and structure of the mineralization more than 85 gold bearing veins have been discovered in an east-west trending zone about 300 meters wide by 2000 meters long. Drilling has also shown the continuity at depth of the vein systems over a depth of at least 125 meters.

In 1980 a free gold in quartz discovery was made by prospector Ted Archibald at the OX property located east of Port Renfrew on the south side of the San Juan River. Previous work on this property had shown significant gold values in arsenopyrite-bearing dioritic dikes. In 1983 an auriferous quartz vein - quartz stockwork system was discovered by geochemical surveys west of Valentine Mountain near the head of Loss Creek on the RENA property.

The discovery of lode gold over such a wide area in deposits of such similar aspect and geological occurrence strongly suggests that the placer gold in the area has been locally derived; not produced by the reworking of glacial deposits as still repeated in government papers.

In addition to the gold potential of the Leech River Block metasediments, recent prospecting efforts on properties located east of Port Renfrew along the south side of the San Juan River has disclosed extensive 'iron formation' units with significant cobalt, nickel, and vanadium content. The gold potential of these formations which appears to extend west into the 3X3 and OPHIR 2 claims remains to be explored. Gold occurrences have also been explored in the Baird Creek area covered by the SILVER FOX claim, north of Port Renfrew.



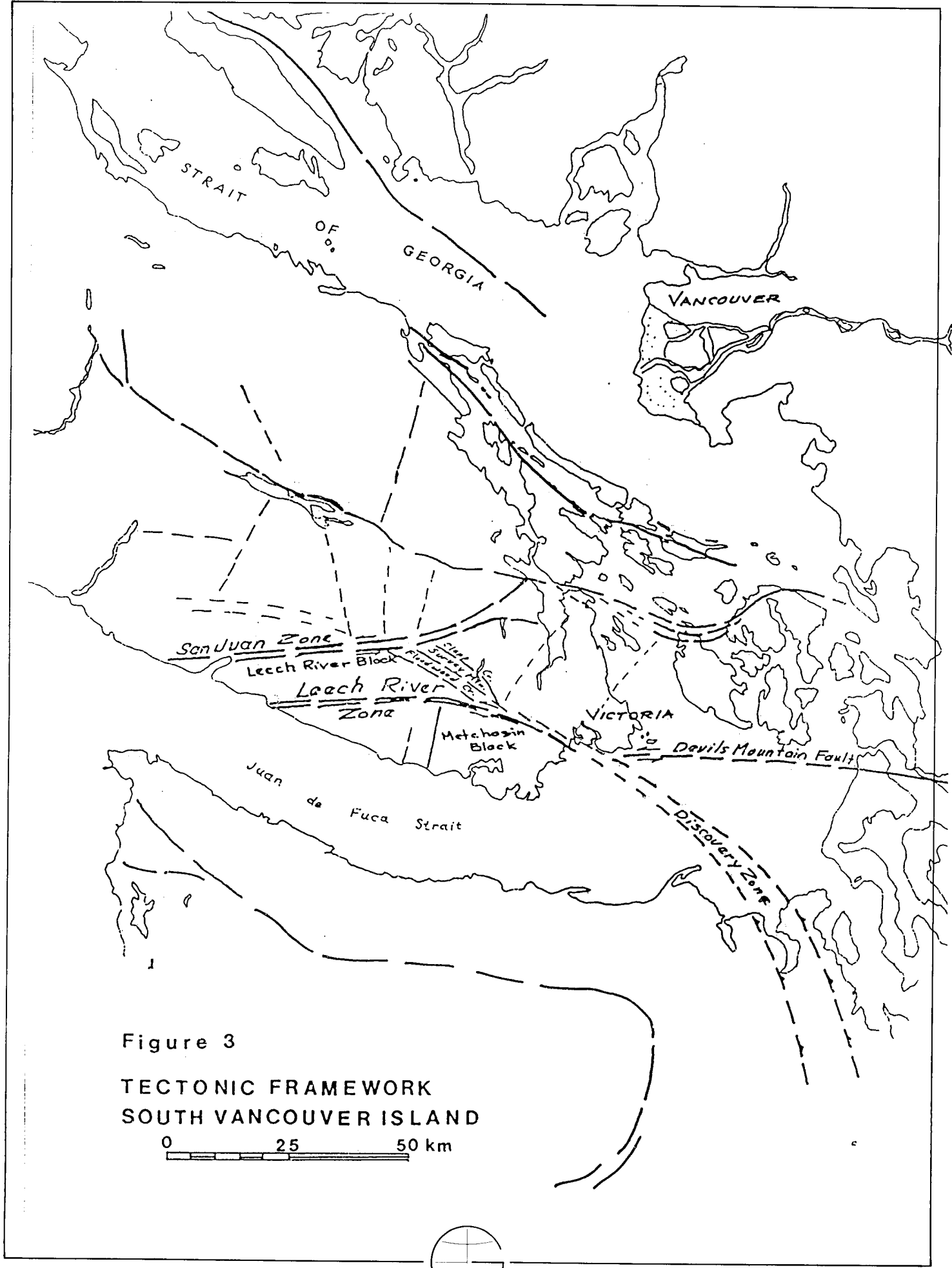


Figure 3

TECTONIC FRAMEWORK
SOUTH VANCOUVER ISLAND

0 25 50 km

Base metal mineralization has also been located just north of the San Juan River in an area marked by geological complexity involving Palaeozoic and younger country rocks and Mesozoic intrusives. Mineralization discovered to date includes contact and strata bound deposits with pyrite, magnetite and chalcopyrite with some gold and silver values. The OPHIR and GAD claims cover a significant area along the south side of the San Juan River which remains to be explored for base metal deposits. The POTOSI claims lie on strike west of these claims.

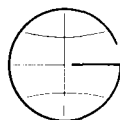
GEOLOGY

INTRODUCTION

The Leech River Block is a discrete geotectonic unit separated along the northerly edge by the San Juan fault zone from Lower Jurassic Bonanza volcanic rocks. The southerly edge of the Leech River Block is separated from Eocene Metchosin Group volcanic rocks by the Leech River fault zone. Relationships along the easterly edge of the Leech river Block with the Lower Palaeozoic (?) Wark diorite and Colquitz gneiss are less certain but suggest a fault contact (Figure 3) named the Cragg Creek fault by Fairchild (1979). The area outlined by these strong shear zones is a narrow east-west trending crustal block extending from Port Renfrew on the west coast of Vancouver Island to Langford, near Victoria, on the east coast. The block has an overall length of about 75 kilometers and a width of about 7 to 12 km in the west half, narrowing to less than 2 km southeast of Survey Mountain.

Although fault bound and easily accessible, the age of the Leech River country rocks has been of concern and consternation for many years (Dawson, 1876 in Clapp, 1912; Muller, 1975). The country rocks (so-called Leech River Schists) have suffered deformation, metamorphism, and intrusion and have not yet yielded discernable fossils. Various correlations to known units have been made on the basis of apparent similarities, but the lack of detailed geology makes these attempts as fraught with error as they would be in any Precambrian metamorphic terrain. The only rock age dates available indicate that deformation and metamorphism were probably complete by 40 m.y. BP.

Resolution of the many intriguing question about the origin, age and development of the Leech River Block will come about only by detailed geologic mapping and related studies. An important part of these studies will concern the gold-quartz veins, the pegmatites and other mineralization, and the generation of these deposits within the metallogenic evolution of Vancouver Island and the Western Canadian Cordillera.



GENERAL GEOLOGY

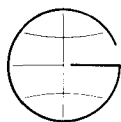
This portion of southern Vancouver Island is marked by the strong east-west trending San Juan and Leech River fault zones (Figure 3). Rocks north of the San Juan River fault are generally considered to include a variety of Mesozoic and older country rocks intruded by the Mesozoic Island Intrusions. The segment lying between the two major faults is known as the Leech River Block and includes a variety of folded volcanic and sedimentary units altered by regional metamorphism and cut by scattered swarms of Tertiary plutons.

The general geology of Vancouver Island was first studied by George M. Dawson who made a reconnaissance of the Leech River area in 1876 and examined the newly discovered Leech River placer gold deposits. Subsequently a more detailed study of Southern Vancouver Island by Charles H. Clapp (1912) resulted in the basis geological framework which persists today. The most recent general geology of southern Vancouver Island has been produced by J.E. Muller (1975, 1977). Detailed geology of the Survey Mountain area by L.H. Fairchild (1979) and of the adjacent Valentine Mountain area by Edward W. Grove (1982) provide the only current descriptions of the rocks comprising the Leech River Block, the structural framework, and the gold bearing quartz veins.

Generally, all of the rock units forming the Leech River Block were called Leech River Formation by Dawson and Clapp who considered these units to be the oldest on Vancouver Island. Muller (1975) subsequently suggested the country rocks represented mainly turbiditic greywacke-argillite sequences latterly metamorphosed to schist and slate and were of possible Triassic-Jurassic age.

All of the published reports restrict the Leech River schists to a unique structural block between the apparently simple throughgoing San Juan fault on the north, and the equally simple, parallel Leech River fault on the south margin. Fairchild (1979) showed that the easterly end of the Block included both metavolcanics and metasediments forming a large gently easterly plunging antiform. He also speculated that the San Juan and Leech River faults now outline an allochthonous microplate pushed into position during the Tertiary.

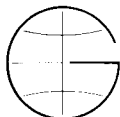
Geological studies in various parts of this terrain since 1976 have completely revised concepts regarding the lithology, structure, and mineral potential of the Leech River Block. Detailed geological mapping near Port Renfrew and in the east half of the block from Walker Creek to Survey Mountain shows that rocks forming the Leech River Block are dominated by thick sequences of metasandstone with intercalated metapelites,



quartzites, metavolcanics, 'iron formation', and minor limestone. This assemblage has been folded by compressive forces into relatively simple, large, open, easterly plunging folds. The fold geometry is controlled by the competent thick metasandstone units which express cylindrical fold geometry. Recognition by the writer of a series of unique metavolcanic members (amphibolites) within this pile as marker horizons has allowed the interpretation of the regional and detailed rock structures and has led to recognition and interpretation of metamorphism and mineralization. Of less extent, but of economic interest are the gold bearing quartz veins, pegmatites and tourmaline deposits localized within all major rock types.

Rocks forming the Leech River Assemblage have undergone two well defined but overlapping periods of metamorphism in part followed by Eocene intrusion along the strong east-west fold trends. The combination of regional metamorphism and late intrusive activity has culminated in upper amphibolite grade mineral assemblages. In the metapelites (mudstone) the rocks exhibit staurolite-andalusite-garnet-biotite mineral assemblages. Andalusite represents the first high temperature phase and is unstable, and staurolite represents the lower temperature second phase metamorphic event. In the altered volcanic rocks metamorphism is marked by lower grade actinolite-chlorite to higher grade hornblende-biotite material in which magnetite, epidote, calcite and sphene are common and tourmaline marks upper amphibolite alteration. Because metasandstones which dominate the rock assemblage rarely indicate metamorphic grade, intercalated schists which are fairly common are the best local guides. Andalusite remnants, known as shimmer aggregates, marking the overall high grade nature of the rocks have now been identified through most of the block. Late stage faulting and shearing along the San Juan and Leech River structural zones and the related conjugate shears have resulted in extensive retrograde metamorphism masking earlier minerals and textures. Faulting and cataclasis, including the San Juan and Leech River fault systems, of the Eocene intrusive rocks as well as the associated pegmatites and gold-quartz vein systems represent the latest significant geological event in the Leech River Block.

Rock structure in the Leech River Formation was generally ignored until Fairchild's thesis work (1979) in the Leech River area. This study indicated that the assemblage east of Walker Creek forms a gently east plunging antiform truncated north and south respectively by the San Juan and Leech River shear zones. He also introduced some complex refolding to explain the appearance of volcanic (amphibolite) units at several places. Ongoing studies by the writer have confirmed the major east plunging antiform (anticline) but have shown that the various amphibolite occurrences represent discrete members



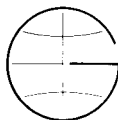
within the same sequence rather than refolded or repeated units. Because of their unique composition, striking aspect and coloration, and relative competency the amphibolites have been used as crude marker horizons to outline both major and minor structures within the pile. More importantly the amphibolites on Valentine Mountain appear to have played a role in the localization of gold-quartz veins.

Several leucocratic granitic plutons are well exposed in the Jordan River cut and to the west in the Walker Creek and Loss Creek areas. These units have intruded the country rocks as east-west trending, sill-like (or dike) masses and appear to plunge easterly at a relatively low angle to the east. Rock ages on these plutons (?), reported by Wanless et al (1978), range from 38.2 to 40.0 Ma and thus have been correlated with the Tertiary Catface Intrusions prominent along the west coast of Vancouver Island (Muller et al, 1981). Exposures along the Walker Creek Main reveal that these intrusions have been cut by shears related to the Leech River Fault. In the western portion of the block plutonic rocks are represented by narrow granitic dike/sill swarms and diorite dikes.

Shear zones are conspicuous features forming both the boundaries of the Leech River Block, and east-west to southeasterly trending linears within the block. Retrograde metamorphism related to the shear motion has produced a variety of phyllitic rocks with schistose, slaty, and flaggy habits. These shears are commonly marked by oxidation and differential weathering. It has been noted throughout the general area that where these shears have intersected quartz veins and vein systems the vein material has been preferentially shattered and commonly liberated from the country rock. As a result quartz float can be easily traced to the veins. It seems likely that this is the most significant mechanism which has released free gold from the veins to be concentrated in the soils and then by local streams. Garnet, magnetite and other heavy minerals have responded to the same processes.

PROPERTY GEOLOGY

The POTOSI claim group lies south of the San Juan structural system usually shown simplistically as a narrow east-west fault. Detailed work suggests otherwise. The San Juan Fault is the dominant geologic structure affecting the continuity of geologic units in the general area and, as indicated, appears to separate Leech River Assemblage rocks from the more extensive Vancouver Island Group units to the north. The San Juan Fault is not a single fault line but a complex zone of shearing involving a wide diversity of rocks along the zone now recognizable as phyllite and semi-schist. In addition to the main fault zone the rock units of the Leech River Assemblage



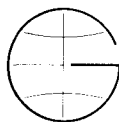
have been cut by hundreds of narrow, southeasterly trending shears, many of which appear to extend into the Leech River Fault zone forming a complex conjugate fault system. In addition to cutting and offsetting the rock units of all ages, these faults and shears have transected most of the known mineral deposits.

Preliminary geological mapping and some prospecting of the Beau Pre Explorations POTOSI property show that the claims encompass a variety of sedimentary, volcanic, metamorphic and intrusive rocks marked by major faulting, shearing, and folding (Figure 4). Three apparently distinct geologic systems are separated by the major east-west trending San Juan Fault zone, and by the east-west trending Leech River Fault zone forming the central Leech River Block and southerly Metchosin Block (Figure 3). The study suggests that the property encompasses few of the main lithological and structural features known so far to favour the localization of gold, base metal and 'iron mineralization'.

METASANDSTONE

Thick, massive, generally poorly bedded metasandstone underlies much of the Leech River Block west of Survey Mountain. Exposures along the deep Jordan River valley and Sombrio River suggest thicknesses of several thousands of feet accentuated by folding. These rocks are typically buff weathering with a weak to strong foliation defined by fine grained biotite. The recrystallized matrix comprises a fine to very fine grained mosaic of quartz and feldspar with accessory apatite, sphene and occasional muscovite and pyrite. Hornblende, actinolite, garnet, epidote and K-feldspar are irregularly present as incipient to fine grained disseminations in most of the dominantly biotitic gneisses. An unusual texture imparted to the gneisses by close spaced biotite rich layers has been termed 'wood grain' sandstone because of the distinctive appearance and seems to represent primary layering. The thickest metasandstone unit, called the Valentine metasandstone by Fairchild (1979), is exposed along Jordan River where it forms most of the steep slopes and high ridges on Valentine Mountain. Although massive, discrete layers and lenses of metapelites, and occasional sedimentary breccia mark primary bedding. Within the Leech River Block and indeed within much of the western Metchosin Block the metasandstone forms the most common rock type.

In composition these biotite gneisses or metasandstones are typically quartz-rich (20-30%) with low to moderate amounts of biotite and hornblende. Granite or granodiorite gneiss suffices as a rock name. The original composition is not known, but on the basis of current knowledge, these rocks were probably arkose or arkosic greywacke.



Detailed mapping along the roads and portions of the creeks on the POTOSI claims suggests that the thick metasandstone units found to the east on the GAD property (Grove, 1990) thin or wedge out to the west in the mainly metapelite sequence underlying the POTOSI property.

METAPELITES (SCHISTS, PHYLLITES)

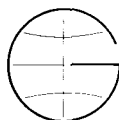
On the basis of the published descriptions of the Leech River Block it would appear that metamorphosed pelites form the most abundant rock type. These range in composition from carbonaceous sericitic chloritic phyllite to carbonaceous andalusite-staurolite-garnet-biotite schist reflecting retrograde metamorphism and middle to upper amphibolite grade regional metamorphism. Metapelites, that is, phyllites and schists, are only second in order of apparent abundance after the metasandstones. Because of their original nature and composition, they are the best indicator of regional metamorphic grade and of deformation.

In the POTOSI claim area the metapelites comprise mainly phyllite, finely banded phyllitic sandstone, various semi-schists including incipient sericitic (muscovite) semi-schist and weakly graphitic semi-schist. These rocks have undergone intense cataclasis which has almost completely destroyed their metamorphic heritage. Some andalusite fragments and extensive shimmer aggregates have been preserved in phyllite lenses where intercalated with thin metasandstone. Like the Valentine Mountain area regional metamorphism was probably upper amphibolite grade prior to intense pre-Eocene retrograde dynamic metamorphism.

PLUTONIC ROCKS

To date, mapping in the general POTOSI, OX, and GAD area suggests that intrusive rocks, mainly sills, are concentrated forming a narrow E-W trending zone within the main phyllite sequence. These sills comprise light colored, fine grained 'aplite', medium grained biotite granite, and the occasional diorite. Most sills are less than 10 meters wide, of indeterminate length, and have been injected along the existing metamorphic structure. Some of the sills have been faulted forming boudins.

Unlike the OX and GAD-TUT claim areas to the east, plutonic rocks such as stocks and dikes are not abundant. So far only one major diorite dike has been mapped. It lies along the south edge of the POTOSI 2 and POTOSI 4 claims where it is exposed along the ENE trending logging road. Late quartz veins and vein swarms appear to be localized near this dike south of the claim boundary.



A major problem mapping in this area has been caused by extensive downslope slumping and collapse of the steep schist/phyllite sequence. As a result many of the road and other exposures are not in place, and mappable structures are often misleading.

STRUCTURE

Layering, banding and bedding are present in the sandstones and metapelites but must be discriminated with caution from metamorphic differentiation. Tops were determined using cross bedding at a number of sites in metasandstone, and intraformational structures between the various intercalated schist and metasandstone members also gave sufficient tops to rationalize the major structures. Gross layering was the most useful tool in determining both large and small scale features.

The most conspicuous feature in the metasandstone and schist is a well developed foliation which over most of the area is parallel to both large and small scale compositional layering.

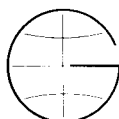
Regional mapping by the writer as well as detailed mapping in the general Valentine Mountain area suggest that the Leech River Block country rocks comprise an east-west trending, mainly easterly plunging sequence of open folds. The relatively simple fold pattern shown by the metasandstone units is also repeated by the massive amphibolite units which form the best marker horizons. The metapelites (schist) have not acted as competent units and therefore present a disharmonic, very complex geometry requiring considerable experience to interpret.

In the POTOSI claim area simple compositional layering suggests a relatively simple east-west trending, moderately north dipping homoclinal sequence in which facies thinning and thickening plays a major role. Major folds and fold patterns have not been determined but the generally upright nature of the sequence combined with small scale drag fold evidence suggest an anticlinal axis to the south.

Small scale folds are prominent in the phyllite, semi-schist, and alteration zones. Unlike the central and eastern portions of the Leech River Block where folds and laminations indicate at 10' to 15' easterly plunge, structures in the GAD-TUT, OX, and POTOSI area suggest an almost uniform 10' westerly plunge. This data will be of more importance when the detailed geology of the larger area is known.

FAULTS AND SHEARS

The San Juan and Leech River lineaments represent



major shears/faults with unknown offset and motion. The two east-west zones are joined by a multitude of southeasterly trending conjugate shears which cut across the Leech River and Metchosin blocks along which considerable erosion has taken place resulting in features such as the Floodwood and Cragg Creek lineaments. Evidence from the field relationships shows that the latest motion (at least) cuts both the Eocene intrusives and the younger gold-quartz veins. As a result of the extensive crushing gold has been released from the vein systems and latterly collected as scattered placer deposits.

MINERALIZATION

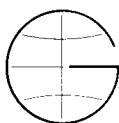
GENERAL

Prospecting and exploration in the southern portion of Vancouver Island has been largely limited to the shoreline, highway, and major creeks. Recently extensive logging has cleared large portions of the mature forest and provided road access to this part of the Island. As a result the majority of older known mineral deposits near the coast and new finds are in the recently logged off areas inland.

The known mineral deposits and mines located along the coastal strip between Sooke and Port Renfrew are mainly cupriferous deposits with associated pyrite, pyrrhotite, with accessory lead, zinc, cobalt, nickel and minor to rare gold, platinum and silver. These comprise mineralization in or related to ultrabasic intrusions, skarn, and occasionally quartz vein systems. A second group of mineral deposits localized northerly of Port Renfrew along Gordon Creek are magnetite and magnetite-copper deposits localized at the margins of quartz diorite intrusions in skarn. Only one of these (Alfrida) contains significant gold and silver.

New discoveries since 1976 have been made at various places of easy access within the interior of this area in Leech River rocks. These include the gold-quartz veins at Valentine Mountain (grades up to 34 oz. Au/ton), the auriferous arsenopyrite bearing dikes and gold-quartz veins on the OX property east of Port Renfrew, the auriferous quartz vein - quartz stockwork system at Loss Creek on the RENA property and more recently the so-called 'iron formation' in the OX and GAD claims area. This iron formation sequence was first examined for the magnetite content and its associated vanadium, nickel and cobalt content. The operators have also examined the gold potential of the many quartz veins on the claims.

Currently the main prospecting and exploration interest in the general area relates to gold quartz systems but the possibility of auriferous stratabound and stratiform



deposits has also been considered. Exploration for both categories of deposits requires careful detailed prospecting, and an understanding of the complex geology of the area. The search for stratiform and stratabound deposits requires detailed geology well beyond that currently available.

At Valentine Mountain (Beau Pre Explorations), and on the adjacent Loss Creek property (RENA) the writer has shown that the gold-quartz veins and systems are spatially and genetically related to dike-like Eocene intrusives. As a result of ground preparation the gold-quartz systems are predominantly confined to recent fracture systems with a roughly east-west (080°) trend, within zones of complexly intercalated metasediment and volcanic rock and to similar zones cut by the dike-like intrusives. Most of these deposits have associated arsenopyrite and pyrite, and are marked by magnetite, hornblende, epidote, tourmaline, and calcite alteration which is strongly evident in the volcanic units.

Although it is still early to discuss the 'iron formation' in detail, evidence such as the presence of cummingtonite indicates local high grade metamorphism. The complexity of these extensive zones demands detailed studies because of the potential for strata-type deposits.

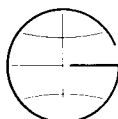
PROPERTY MINERALIZATION

Prospecting and exploration on the POTOSI, OX, and GAD-TUT claim area dates to 1978. In 1981 a large part of the general area including the east portion of the current POTOSI claim group was explored in considerable detail using geological, geochemical, and geophysical techniques (Assess. Rept. 9807). Apart from the gold-quartz veins, and several auriferous arsenopyrite-bearing diorite dikes no economically significant mineralization was discovered.

Panned concentrate sampling on the POTOSI group of claims in 1989 (Allen, 1990) indicated the presence of a few scattered grains of alluvial gold along Mosquito Creek on POTOSI 3, 5, and 7. Rock mapping in 1991 showed the presence of several scattered quartz vein swarms at high elevations on the claims and south of the claims but no significant gold or other mineralization was located.

DISCUSSION

The situation in this area is clear. The area has some potential for gold, copper, and nickel-cobalt type deposits but requires detailed geology, geophysical work, and prospecting of the untested areas.



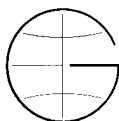
Detailed and preliminary regional geological studies by the writer have considerably changed and enhanced the general understanding of the Leech River Block. As indicated here the Leech River rocks are not a simple, monotonous assemblage of schists and slates but comprise a complex sequence of deformed and highly altered sandstone, mudstone, flows, pillow lava, and some iron formation. The sequence has been subjected to various periods of deformation, intrusion and alteration and contains a variety of mineral deposits comprising copper, nickel, cobalt, vanadium, platinum, and late stage gold and silver mineralization.

It is difficult if not impossible to make an analogy of the Leech River terrain with a comparable system in the Western Cordillera. At present the best comparison is with the Geraldton area of Ontario where similar rock units (iron formation included), similar metamorphic grade, intrusive activity, tourmaline pegmatite and tourmaline quartz, and gold quartz deposits are well known.

It has taken more than 100 years (1864-1976) to locate free gold in the quartz veins in the Leech River rocks, largely because of poor and misleading geological concepts regarding the area. New ideas based on detailed field work suggest that gold-quartz systems will occur at a number of sites within the area, and also that the possibility for stratabound deposits must be recognized.

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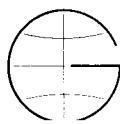
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STATEMENT OF COSTS - POTOSI CLAIM GROUPConsultant

E. W. Grove, Ph.D., P.Eng.	
1.5 days @ \$500/day, March 21, 22/91	\$750.00
P. Grove, B.Sc.	
1 day @ \$250.00, March 22/91	250.00

Truck & Fuel

1 day, 385 km @ 0.35/km	134.75
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Report Preparation

E. W. Grove, 1.5 days	750.00
Report typing, copying, binding	<u>260.00</u>

Total \$2,144.75

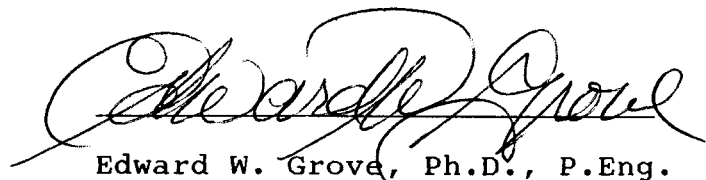
CERTIFICATE

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

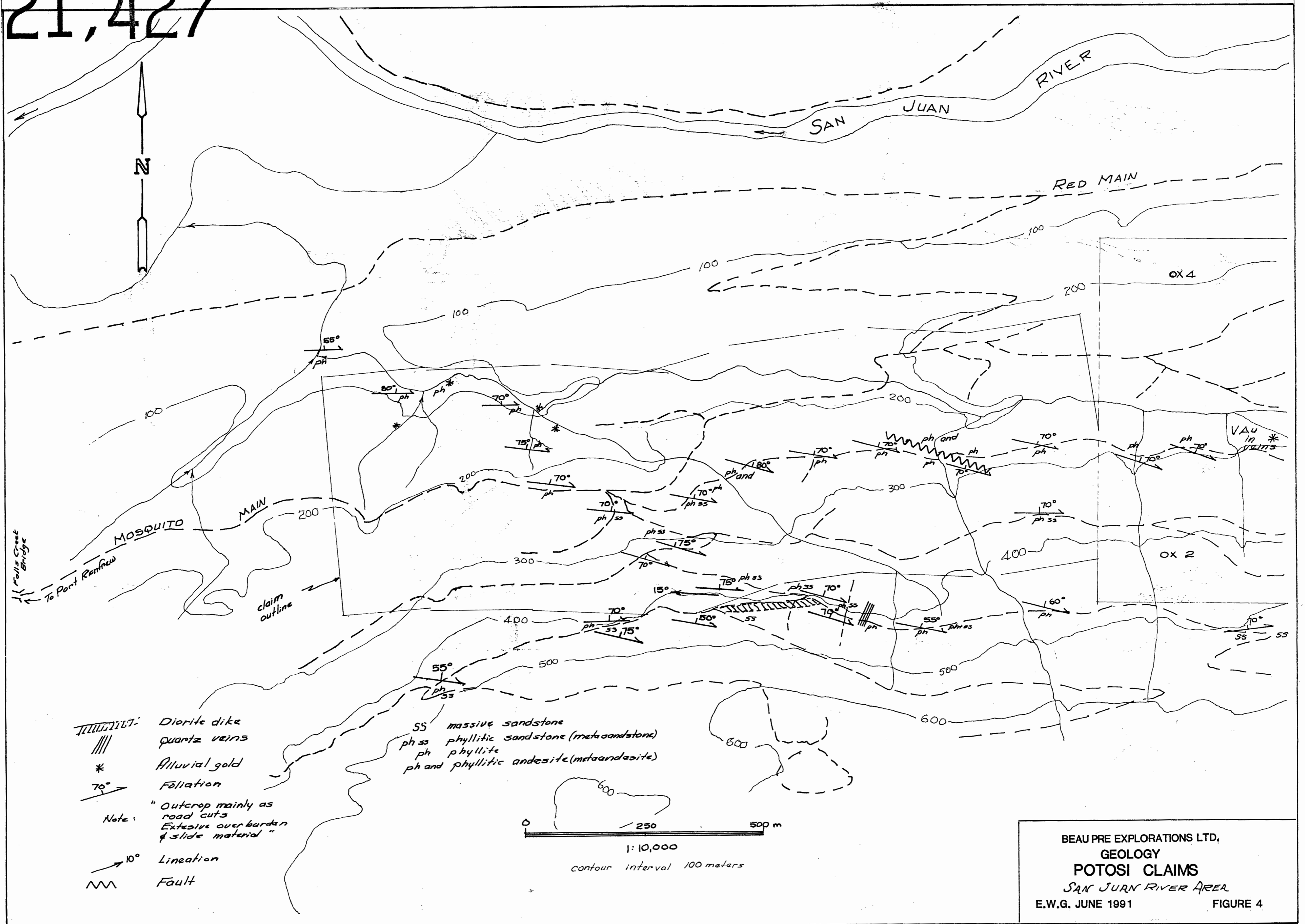
1. I am a consulting geologist with an office at 4581 Boulderwood Drive, Victoria, British Columbia.
2. I am a graduate of the University of British Columbia (1955) with a Master's degree, Honours Geology (M.Sc. Hon. Geol.) and a graduate of McGill University (1973) with a doctorate in Geological Sciences (Ph.D.).
3. I have practised 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 Department 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. This report is based on the writer's own work on the claims on March 22, 1991.
5. I am a member in good standing of the Association of Professional Engineers of British Columbia.

June 14, 1991

Victoria, B.C.


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

21,427



Diorite dike
 quartz veins
 Alluvial gold
 Foliation
 Note: "Outcrop mainly as road cuts
Extensive overburden
& slide material"
 Lincation
 Fault

SS massive sandstone
 ph ss phyllitic sandstone (meta sandstone)
 ph phyllite
 ph and phyllitic andesite (meta andesite)

0 250 500 m
 1:10,000
 contour interval 100 meters

BEAU PRE EXPLORATIONS LTD,
 GEOLOGY
 POTOSI CLAIMS
 SAN JUAN RIVER AREA
 E.W.G, JUNE 1991 FIGURE 4