

#### TABLE OF CONTENTS

18th

治理部

护

<u> <u>R</u>ed</u>

**k**a

																									F	PA(	GΕ
SUMMARY .	• •		•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	1
INTRODUCTI	ON	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	٠	•	1
LOCATION A	AND	ACC	ES	s	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	3
GEOGRAPHY	AND	CI	IM	AT	Е	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	3
PROPERTY .	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	5
HISTORY .	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	٠	•	•	•	5
PREVIOUS W	VORK	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•	•	7
GEOLOGY .	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	7
INTRO	DUC	TIC	DN	•	•		•	•	•		•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	7
GENEF	RAL	GEC	DLO	GΥ		•	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	9
PROPE	ERTY	GE	EOL	OG	Y	•	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	12
WORK PERFC	ORME	D	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		12
MINERALIZA	ATIO	N	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		13
GENEF	RAL	•	•	•	•	•			•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•		13
PROPE	ERTY	MI	INE	RA	LI	ZA	TI	101	1	•	•	•	•	•	•	•	•	•		•	•	•	•	•	•		15
REFERENCES	5.	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		15
STATEMENT	OF	COS	STS	-	F	RS	1	.2	CI	LAI	Μ	•	•	•	•	•	•	•	•	•	•	•	•	•	•		16
CERTIFICAT	re .	•	•	•	•	•	•		•	•	•	•	•	•	•	•	•		•	•	•	•	•	•	•		17
FIGURES																											
1.	$\mathbf{Loc}$	ati	ion	М	aŗ	)	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	2
2.	Cla	im	Ma	р	•	•	•	•		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	4
3.	Tec	tor	nic	F	ra	me	wo	or]	c I	Jar	nco	ouv	/ei	: ]	[s]	lar	nd		•	•	•	•	•	•	•	•	8
4.	Pro	pei	cty	G	ec	lc	gy	7	•	•			•	•	•	•	•		•	•	•	•	•	F	poq	ck	et
5.	Roc	k S	Sam	pl	е	Lc	oca	at:	ior	າຮ	•	•	•	•	•	•	•		•	•	•	•	•	•	•		14

APPENDIX I - Geochemical Assay Certificates & Report

#### SUMMARY

The FRS 12 mineral claim jointly owned by Beau Pre Explorations Ltd. and Point Resources Ltd. (Valentine Gold Corp.) comprises 14 units which lie along the east end of the Bear Creek Reservoir about 19 km northwest of Sooke on southern Vancouver Island. Access from Sooke and Highway 14 is about 14 km along the all weather Butler Main logging road.

Work on this claim has generally entailed prospecting, geochemical soil and silt sampling, rock sampling, some geological mapping, and limited geophysical surveys. The area to the north along Valentine Mountain, also controlled by Beau Pre Explorations/ Point Resources joint venture, has been studied in much more detail because of the occurrence of a large number of auriferous quartz veins in which coarse free gold is found over a known length of over 6 km.

The geology of the FRS claim area is not well known because of the thick, extensive cover of sand, gravel, and till, and the Bear Creek Reservoir. Mapping suggests that the northern two-thirds of the claim includes a generally east-west trending, steeply dipping phyllite sequence forming part of the extensive Leech River fault/structural zone. The southern third of the claim has limited outcrop and scattered pits and rock cuts in mainly basaltic volcanic rocks with some intercalated sedimentary units.

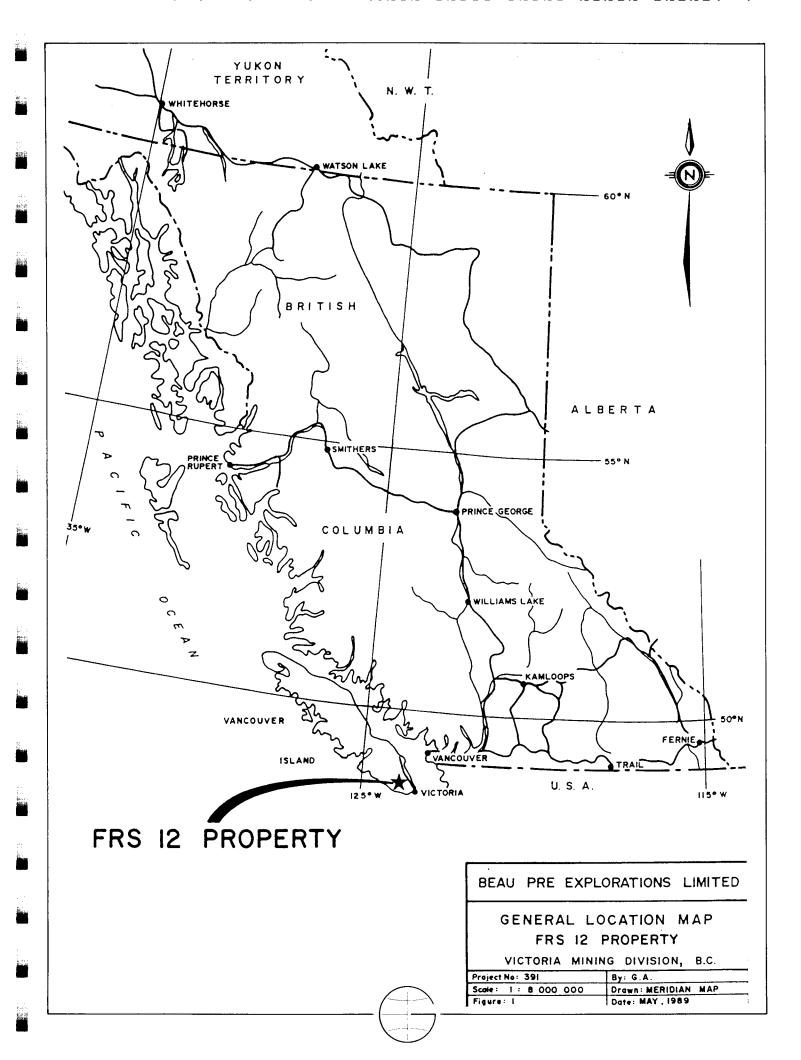
Several quartz and quartz/carbonate breccia veins have been located and sampled in both major rock units on the FRS 12 claim but as yet no significant mineralization has been identified.

#### INTRODUCTION

Prospecting, sampling, and limited geological mapping on the FRS 12 claim was conducted at various times from late June 1989 through mid April 1990. The writer examined veins and outcrop areas on the claim on April 7, 1990.

It was not until 1976 that spectacular native gold was found in place in narrow quartz veins within the Leech River on Valentine Mountain, about 42 kilometers west of Victoria. Subsequently a detailed stream silt survey accompanied by detailed prospecting during 1981 revealed a large number of gold bearing quartz veins localized within an area about 3000 meters long (E-W) and from 200 to 300 meters wide on the upper east slope of Valentine Mountain. Although there have been a variety of geological surveys and studies in the area it was obvious that the real geology of the Leech River rocks was far more complex than previously assumed.

Lode gold deposits found at Valentine Mountain since 1976 and more recently at the OX and GAD properties south of the San Juan River in 1980, at the RENA property on Loss Creek have



increased exploration interest in what is still a poorly known and virtually unexplored area.

Mineral exploration in this general area has been basically limited to the main highway and older well developed logging roads and largely concentrated on copper deposits. 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 several years a new perspective has evolved which places the 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 one day of field work on the claim on April 7, 1990.

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

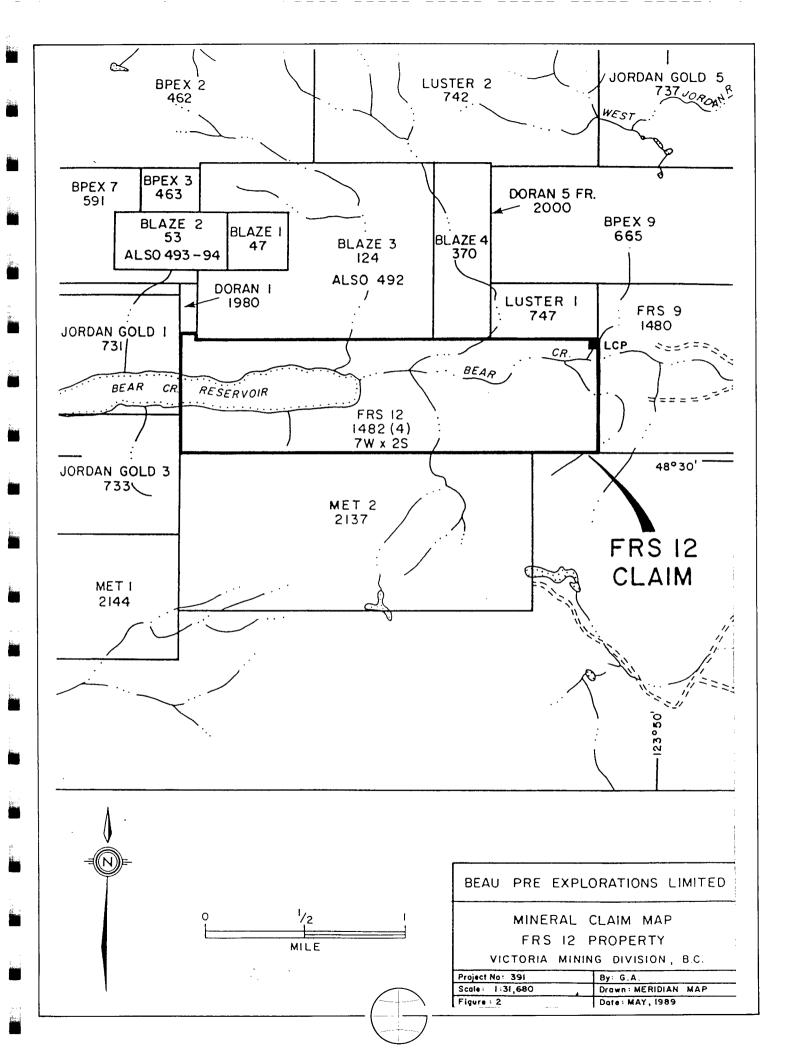
#### LOCATION AND ACCESS

The FRS 12 claim lies along the east end of Bear Creek Reservoir about 19 km northwest of Sooke and can be reached by the all weather Butler Main logging road from Highway 14 (Figure 1). Logging roads traverse both sides of the reservoir. Rock exposure is largely confined to pits and rock cuts and walking is relatively easy.

#### GEOGRAPHY AND CLIMATE

The Leech River Block is included within the Vancouver Island Mountains of the Insular Mountains (Holland, 1964). This landscape is the result of mature dissection of a former Tertiary erosion surface of relatively low relief now expressed as monadnock-like plateaus south of the San Juan River. Fault controlled valleys and fault-line scarps such as the San Juan and Leech rivers, and Loss Creek are conspicuous features of southern Vancouver Island. Pleistocene glaciation modified this topography below about 1200 meters, particularly along the structurally controlled valleys.

The east-west trending Leech River Block is largely drained by the westerly flowing, fault controlled San Juan and Leech river systems, and the lesser southerly flowing antecedent Jordan and Sooke rivers. The height of land within the block called San Juan Ridge gives rise to numerous small, steep, consequent streams which feed the major rivers.



Glaciation and recent consequent stream development have deeply incised the ridges with cirques well developed on the north side and deep, sharp gullies on the south. Stream flows are erratic, depending on the snow and rain which is generally heavy during the short winter.

The glacial and recent morphological development of the area has not been studied in detail but appears to involve several repeated glacial events of both areal and local origin. Roches moutonnees indicate an early major ice advance westerly across the area while large erratic bounders of Island origin indicate a later southwards push of till across the southern part of the Island. Recently downslope creep and isolated slides have contributed to erosion and landscape evolution. Parts of the area are covered by a dense relatively mature coniferous forest.

The climate in this area is fairly typical of the inland portion of southern Vancouver Island. Heavy precipitation takes place mainly during the period November through February with snow at the higher elevations. The rest of the year varies from hot and dry in spring and summer to cool and moist at any time. Generally, the area is drier and sunnier than nearby seaside Sooke. Because of the location the climate is relatively mild and work can generally proceed for 8 to 10 months of the year.

#### PROPERTY

The staked FRS 12 mineral claim comprises 14 units in the Victoria Mining Division along the east half of the Bear Creek Reservoir and the broad Bear Creek valley (N.T.S. 92B/12, approximately 48'30'34" N and 125'50'21" W) (Figure 2). The claim is jointly owned (50/50) by Beau Pre Explorations Ltd. and Point Resources Ltd.

<u>Claim Name</u>	Record No.	<u>Units</u>	Expiry Date
FRS 12	1482	14	April 15, 1991

#### 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.

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.

6

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.

Since 1980 when the writer examined the Valentine Mountain 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. Free gold in quartz veins has now been located over a length of at least 6 km on the Valentine Mountain property.

In 1980 another 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 has shown significant gold values in arsenopyritebearing 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. More recently free gold in quartz has been discovered on the GAD property located east of the OX.

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.

The mineral potential of the so-called Metchosin Block rocks which appear to underlie the southerly third of the FRS 12 claim has generally been considered to include mainly copper deposits related to gabbro sills which have intruded basaltic country rocks. The main deposit of this type was the Sunro Mine which produced 1,329,034 tonnes which yielded 13,754,271 kg copper, 202,877 g gold, and 2,262,651 g silver during the short life of the mine. Detailed underground sampling by Cominco also indicated the presence of cobalt, nickel and platinum group metals.

Like the Leech River Block and most of Vancouver Island the detailed geology of the Metchosin Block is poorly known. In recent years prospecting and exploration of this area have concentrated on gold and have ignored the potential for copper and related metals.

#### PREVIOUS WORK

The area south of Bear Creek and Jordan reservoirs was prospected and staked during the early 1980's as a result of spectacular gold finds on adjacent Valentine Mountain. An extensive airborne Mag/EM survey was flown over the general area in 1984 (Pezzot & White) and a smaller airborne survey flown by Dighem for Valentine Gold Corp. in 1987 covered part of the FRS 12 claim. The latter survey indicated an east-west trending EM conductor with a corresponding resistivity low in the east central part of the claim.

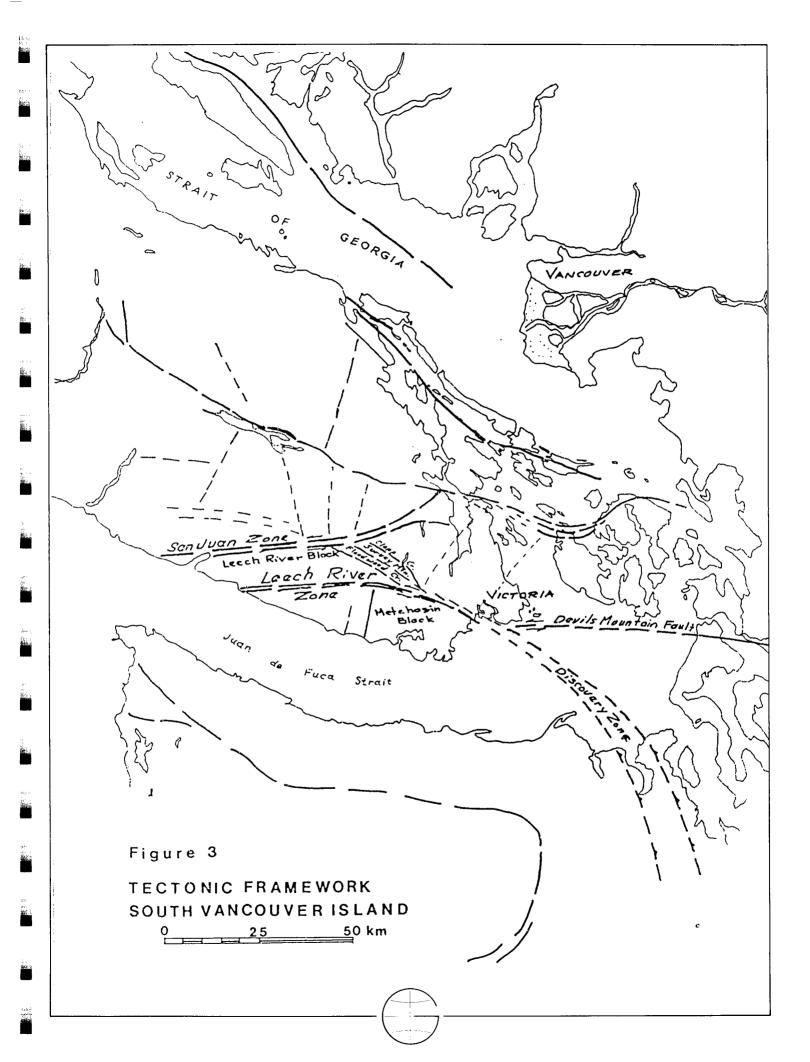
More recently, Beau Pre Explorations Ltd. personnel completed a preliminary mapping and rock sampling program on the FRS 12 claim with negligible results (Allen, 1989).

#### GEOLOGY

#### INTRODUCTION

The Leech River Block which includes the Valentine Mountain area 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 Paleozoic (?) 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 major structural 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.

The geology of the Metchosin Block has generally been assumed to be relatively simple. Regional concepts suggest a generally flat to shallow dipping basaltic sequence cut by various gabbroic plutons and in part overlain by small sedimentary basins. The block is however so poorly known in detail that current hypotheses are fiction.

Resolution of the many intriguing question about the Metchosin and Leech River blocks will come about only by detailed geologic mapping and related studies. An important part of these studies will concern the gold-quartz veins, the copper deposits 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 segment forming the southerly tip of Vancouver Island is generally known as the Metchosin Block.

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 Subsequently a more detailed study of Southern qold deposits. 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 produce by J.E. Muller (1975, 1977). Detailed geology of the Survey Mountain area by L.H. Fairchild (1979) and of the adjacent Valentine Mountain by Edward W. Grove (1982) provide the only area 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 (San Juan Ridge) 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, Fairchild (1979) parallel Leech River fault on the south margin. showed that theeasterly end of the Block included hoth 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 area 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, 'iron metavolcanics, 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 early 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 quides. 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 goldquartz 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 eastwest 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.

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.

The various Leech River Block country rocks are separated from the southerly Metchosin units by the extensive east-west trending Leech River structural zone which has apparent widths of up to 500 meters in the Bear Creek valley. This zone is marked by a monotonous dark, steeply dipping sequence in which scattered deformed remnants of country rock are found and in which steep, north plunging, isoclinal folds are common.

Like the Leech River Block metapelites etc. the Metchosin volcanic and sedimentary rock units are strongly deformed along the Leech River structural zone where they are also represented by phyllite. Mapping of the less disturbed Metchosin units immediately south of the fault has been limited but generally units suggests a largely basaltic sequence cut by narrow east-west trending granitic dikes similar to those found along the north side of the reservoirs (Eocene Catface type). Scattered sedimentary members within the basalts suggest significant tilting (& Along Jordan River, and in deep creek cuts to the west folding?). the Metchosin units can be seen to overlie deformed, amphibolite grade Leech River-like sediments.

#### PROPERTY GEOLOGY

The FRS 12 claim lies along the axis of the Leech River structural zone and includes portions of the Leech River Block, Leech River fault zone, and Metchosin Block (Figure 4).

Extensive rock cuts, stream beds, and outcrop areas on the north side of the Bear Creek Reservoir comprise a basically phyllitic sequence in which less deformed andalusite and garnet staurolite schist are found as extensive lenses. One lens of possible amphibolite lies along the shore. The bulk of the claim is underlain by dark, thinly fissile phyllite forming part of the main fault zone which includes remnants of local country rocks as well as thin lenses of altered, deformed, granitic dikes. The contact of the fault zone with massive Metchosin rocks to the south is relatively sharp overall but in detail is distinctly sinuous.

Local Metchosin rocks are well exposed in several quarries, pits, rock cuts and streams in the southwest corner of the FRS 12 claim where fine to coarsely porphyritic basalt dominates. Sedimentary lenses intercalated within the volcanic rocks suggest this part of the sequence is steeply south dipping. Overall, outcrop is too isolated to study structure, but steep, north plunging isoclinal folds are uniform.

#### WORK PERFORMED

Work performed on the FRS 12 mineral claim during the period April 15, 1989 to April 15, 1990 involved mainly detailed prospecting, rock sampling, and a geological overview.

#### MINERALIZATION

#### **GENERAL**

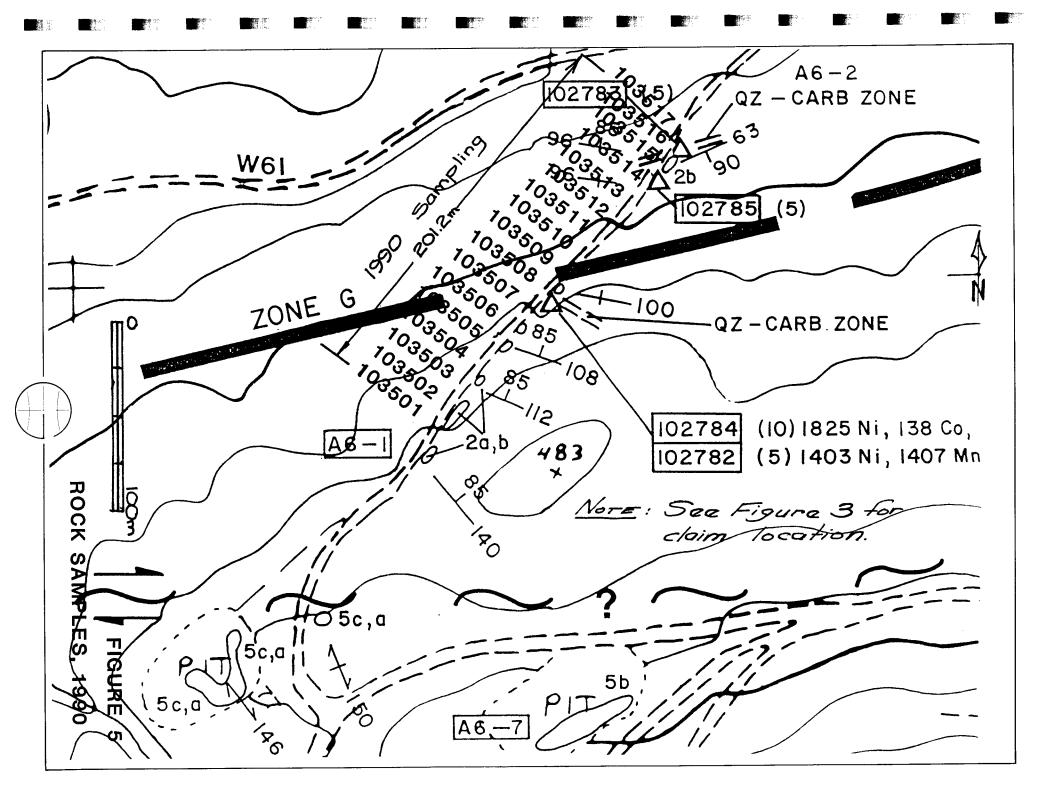
Prospecting and exploration in the southern portion of Vancouver Island has been largely limited to the shoreline, highway, and major creeks. Only recently has extensive logging cleared large portions of the heavy mature forest and provided road access to this part of the Island. As a result the majority 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.

#### PROPERTY MINERALIZATION

Work on the FRS 12 claim in 1989 (Allen) disclosed a number of "quartz carbonate" lenses in the phyllitic fault zone as well as several quartz veins north of the reservoir in Leech River rocks. No significant mineralization was located however.

In 1990 the "quartz carbonate" veins were reexamined and sampled but were found to be discordant lenses of altered dike (see Figure 5 for locations). Several new quartz veins, and quartz carbonate breccia veins were found north of the reservoir but no economic mineralization has been located to date (see Figure 4 for sample locations).

#### REFERENCES

- Allen, G.J. (1989): Report on Geological Mapping and Rock Sampling on the FRS 12 Property, for Beau Pre Explorations Ltd., May 26, 1989.
- Clapp, C.H. (1912): Southern Vancouver Island; Geol. Surv. Can., Memoir No. 13.
- Dawson, G.M. (1887): Vancouver Island and Adjacent Coasts; Geol. and Nat. Hist. Surv. Can., Part B. Annual Report 1886.
- Fairchild, L.H. (1979): The Leech River Unit and Leech River Fault, Southern Vancouver Island, British Columbia; M.Sc. Thesis, Univ. of Washington.
- Grove, E.W. (1981): Assessment Report 10,110, BLAZE & BPEX Claims, Beau Pre Explorations Ltd., Victoria M.D.

(1982): Geological Report and Work Proposal on the Valentine Mountain Property for Beau Pre Explorations Ltd., August 1982.

(1983): Geological Report and Work Proposal on the RENA Claims, for Gator Resources Corporation, July 22, 1983.

(1984): Geological Report and Work Proposal on the Sombrio Property, for Unicorn Resources Ltd. & Nirvana Oil & Gas Ltd., January 2, 1984.

(1984): Geological Report and Work Proposal on the RENA Claims, Loss Creek Area, Southern Vancouver Island, for Gator Resources Corporation, January 23, 1984.

(1984): Geological Report and Work Proposal on the

Valentine Mountain Property for Beau Pre Explorations Ltd., February 28, 1984.

Holland, S.S. (1964): Landforms of British Columbia, A Physiographic Outline, B.C. Dept. of Mines & Petroleum Resources, Bull. No. 48.

Muller, J.E. (1975): Victoria Map-Area, British Columbia; Geol. Surv. Can., Paper 75-1, Part A, p. 21-26.

> (1977): Geology of Vancouver Island, Geol. Surv. Can., Open File 463.

- Pezzot, E.T., & White, G.E. (1984): Assessment Report 12,185, Geophysical Report on an Airborne VLF-Electromagnetometer and Magnetometer Survey, Leech River Gold Project, Victoria M.D., for Expeditor Resource Group. (1984): Assessment Report 14,327.
- Wanless, R.K., et al (1978): Age Determinations and Geological Studies, K-Ar Isotopic Ages; Rept. 13, Geol. Surv. Can., Paper 77-2.

#### STATEMENT OF COSTS - FRS 12 CLAIM

TOTAL COST FOR FRS 12 CLAIM	\$6,514
Consultant E. W. Grove 1 day fieldwork, April 7, 1990 500 3 days report preparation/draft. 1,500 Report typing, copying, binding <u>290</u>	2,290
Supplies, Shipping, miscellaneous	250
Laboratory Analyses 19 (including preparation) 400 4 (Te, ppm) <u>24</u>	424
Truck Rental (including fuel) 11 days	1,100
S. Cooper, prospector helper 1 day @ \$125, April 8, 1990	<u>125</u> 2,450
V. Beaupre, prospector helper 1 day @ \$125/day, April 7, 1990	125
<u>Personnel</u> R. Beaupre, prospector 11 days @ \$200, June 20, 24; July 6, 12; Aug 6, 15, 18; Sept. 4, 1989; April 6,7,8, 1990	\$2,200

#### 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 in the area during 1989 and 1990.
- 5. I am a member in good standing of the Association of Professional Engineers of British Columbia.

July 2, 1990

Victoria, B.C.

\_Edward W. Grove, (Ph.D., (P.Eng.

APPENDIX I

1945 AN

Steel

١.

\_

Sec.

**1** 

 Bondar-Clegg & Company Ltd.

 130 Pemberton Ave.

 North Vancouver, B.C.

 V7P 2R5

 (604) 985-0681 Telex 04-352667



A DIVISION OF INCHCAPE INSPECTION & TESTING SERVICES

REPORT: V90-00465.0 ( COMPLETE )

REFERENCE INFO:

SUBMITTED BY: BEAU PRE

DATE PRINTED: 3-MAY-90

TENT: BEAU PRF EXPLORATIONS LID.

				NUMBER OF	L OWER		
	ORDER		ELEMENT	ANALYSES	DETECTION LINIT	EXTRACTION	METHOD
	1	Au	Gold	19	5 PPB	Not applicable	Inst. Neutron Activ.
	2	Ir	Iridium	19	100 PPB	Not applicable	Inst. Neutron Activ.
	3	Ag	Silver	19	5 PPN	Not applicable	Jnst. Neutron Activ.
	4	Zn	Zinc	19	200 PPN	Not applicable	Inst. Neutron Activ.
	5	No	No lybdenu <b>n</b>	19	2 PPM	Not applicable	Inst. Neutron Activ.
	6	Ni	Nickel	19	50 PPN	Not applicable	Inst. Neutron Activ.
7	7	Co	Cobalt	19	10 PPM	Not applicable	Inst. Neutron Activ.
	8	Cd	Cadmium	19	10 PPN	Not applicable	Inst. Neutron Activ.
	9	As	Arsenic	19	1 PPM	Not applicable	Inst. Neutron Activ.
<u>.</u>	10	Sb	Antimony	19	0.2 PPN	Not applicable	Inst. Neutron Activ.
1	11	Fe	Iron	19	0.5 PCT	Not applicable	Inst. Neutron Activ.
····	12	Se	Selenium	19	10 PPN	Not applicable	Inst. Neutron Activ.
4) 20	13	Te	Tellurium	19	20 PPM	Not applicable	Inst. Neutron Activ.
	14	Ba	Barium	19	100 PPN	Not applicable	Inst. Neutron Activ.
	15	Cr	Chromium	19	50 PPM	Not applicable	Inst. Neutron Activ.
	16	Sn	Tin	19	200 PPN	Not applicable	Inst. Neutron Activ.
	17	<b>W</b>	Tungsten	19	2 PPM	Not applicable	Inst. Neutron Activ.
	18	Cs	Cesium	19	1 PPM	Not applicable	Inst. Neutron Activ.
	19	La	Lanthanum	19	5 PPM	Not applicable	Inst. Neutron Activ.
	20	Ce	Cerium	19	10 PPN	Not applicable	Inst. Neutron Activ.
	21	Sa	Samarium	19	0.1 PPM	Not applicable	Inst. Neutron Activ.
Ì	22	Eu	Europium	19	2 PPM	Not applicable	Inst. Neutron Activ.
	23	1Ь	Terbium	19	1 PPM	Not applicable	Jnst. Neutron Activ.
	24	YЬ	Ytterbium	19	5 PPN	Not applicable	Inst. Neutron Activ.
	25	Lu	Lutetium	19	0.5 PPM	Not applicable	Inst. Neutron Activ.
	26	Sc	Scandium	19	0.5 PPM	Not applicable	Inst. Neutron Activ.
	27	Hf	Hafnium		2 PPM	Not applicable	Inst. Neutron Activ.
<b>E</b>	28	Ta	Tantalum	19	1 PPN	Not applicable	Inst. Neutron Activ.
	29	Th	Thor i un	19	0.5 PPM	Not applicable	Inst. Neutron Activ.
	30	U	Uranium	19	0.5 PPN	Not applicable	Inst. Neutron Activ.
-	31	Na	Sodium	19	0.05 PCT	Not applicable	Inst. Neutron Activ.
	32	Br	Bromine	19	1 PPM	Not applicable	Inst. Neutron Activ.
	33	Rb	Rubidium	19	10 PPM	Not applicable	Inst. Neutron Activ.
	34	Zr	Zirconium	19	500 PPN	Not applicable	Inst. Neutron Activ.

**Bondar-Clegg & Company Ltd.** 130 Pemberton Ave. North Vancouver, B.C. V7P 2R5 (604) 985-0681 Telex 04-352667



Geochemical Lab Report

RFPORT:	V90-00465.0 ( COMPLETE )		REFFRENCE JNFO:										
	BEAU PRE EXPLORATIONS LTD. FRS 12/90		SUBNITTED BY: BEAU PRE DATE PRINTED: 3-MAY-90										
	SAMPLE TYPES	NUMBER	SIZE FRACTIONS		SAMPLE PREPARATIONS NUMBER								
	R ROCK OR BED ROCK			19	CRUSH,PULVERIZE -150 19 LARGF VIAL SURCHARGF 19								
	REPORT COPIES TO: BEAU	PRE EXPLORA	TIONS LTD	INV	DICE TO: BEAU PRE EXPLORATIONS LTD								
		· · · · · · · · · · · · · · · · · · ·											
<b></b>													
<b>È</b>													
					· · · · · · · · · · · · · · · · · · ·								
<b>N</b>													
Ann													

**Bondar-Clegg & Company Ltd.** 130 Pemberton Ave. North Vancouver, B.C. V7P 2R5

V7P 2R5 (604) 985-0681 Telex 04-352667



### Geochemical Lab Report

									F PRINTH	): <u>3-may</u> .	-90		
REPORT: V9D-	00465.0		·					PRO	JECT: FR	S 12/90	F	PAGE 1A	
MPL F NUMBER	ELENENT UNITS	Au PPB	Jr PPB	Ag PPN	Zn PP <b>M</b>	Mo PPM	Ni PPM	Co PPN	Cd PPN	As PPN	Sb PPM	Fe PCT	Se PPM
103501		9	<100	<5	<200	<2	<50	15	<10	31	0.7	2.5	<10
103502		7	<100	<5	<200	<2	<50	21	<10	27	0.4	3.7	<10
R2 103503		21	<100	<5	<200	<2	<50	16	<10	40	0.6	3.5	<10
<u>aa</u> 103504		8	<100	<5	<200	<2	<50	<10	<10	24	0.4	2.7	<10
103505		<5	<100	<5	<200	<2	<50	26	<10	31	0.5	4.1	<10
R2 103506		<5	<100	<5	<200	<2	<50	12	<10	21	0.4	2.6	<10
103507		5	<100	<5	<200	<2	<50	12	<10	14	0.4	3.5	<10
103508		10	<100	<5	<200	<2	<50	24	<10	22	0.4	4.7	<10
R2 103509		<5	<100	<5	<200	<2	850	J10	<10	192	9.4	4.7	<10
103510		<5	<100	<5	<200	<2	1200	140	<10	117	8.4	6.1	<10
R2 103511		17	<100	<5	<200	<2	1100	160	<10	177	8.3	8.3	<10
103512		8	<100	<5	<200	<2	1000	130	<10	407	14.0	6.2	<10
103513		41	<100	<5	<200	<2	<58	16	<10	40	0.8	4.2	<10
RZ 103514		<5	<100	<5	<200	<2	<5N	11	<10	12	0.4	1.8	<10
R2 103515		<5	<100	<5	<200	<2	<50	21	<10	4	0.3	3.9	<10
103516		<5	<100	<5	<200	<2	<50	12	<10	10	0.6	2.6	<10
R2 103517		<5	<100	<5	<200	<2	730	84	<10	1100	7.6	4.7	<10
103518		<5	<100	<5	<200	<2	<50	<10	<10	13	0.3	0.9	<10
103519		<5	<1110	<5	<200	<2	<50	<10	At>	6	<11.2	<0.5	<10

Bondar-Clegg & Company Ltd. 130 Pemberton Ave. North Vancouver, B.C. V7P 2R5 (604) 985-0681 Telex 04-352667



### Geochemical Lab Report

<u> </u>			DATE PRINTED: 3-MAY-90										
REPORT: V9N-I	00465.0		<u> </u>					PRO	UECT: FR	6 12/90	P	AGF 1B	
MPLE MBER	ELEMENT UNITS	Te PP <b>n</b>	Ba PP <b>N</b>	Cr PPH	Sn PPM	N PPN	Cs PPN	La PPM	Ce PPN	Sn PPN	Eu PPN	Tb PPN	Yb PPN
103501	·	<20	570	140	<200	3	2	17	26	3.6	</td <td>&lt;1</td> <td>&lt;5</td>	<1	<5
103502		<20	430	150	<200	<2	<1	15	23	3.6	<2	<1	<5
R2 103503		<20	600	220	<208	<2	t	20	25	3.9	<2	<1	<5
P? 103504		<20	490	190	<200	<2	1	16	27	2.8	<2	<1	<5
103505		<20	540	160	<200	<2	1	20	31	4.4	.</td <td>&lt;1</td> <td>&lt;5</td>	<1	<5
R2 103506		<20	200	260	<200	<2	<1	13	20	2.3	<2	<1	<5
£103507		<20	460	200	<200	<2	t	t4	25	3.0	<2	<1	<5
<b>103508</b>		<20	590	170	<200	<2	2	20	30	4.2	<2	<1	<5
R2 103509		<20	<100	2700	<200	<2	<1	<5	<10	D.4	<2	<1	<5
Fî 103510		<20	<100	3300	<200	<2	<1	<5	<10	<[1.2	<2	<1	<5
R2 103511	·	<20	<100	4900	<200	<2	<1	<5	<10	0.3	</td <td>&lt;1</td> <td>&lt;5</td>	<1	<5
R? 103512		<20	<100	2780	<200	<2	<1	<5	<10	0.6	<2	<1	<5
F 103513		<20	34N	290	<200	3	2	18	32	4.4	<2	<1	<5
82 103514		<20	<100	290	<200	<2	<1	<5	<10	1.0	<2	<1	<5
R2 103515		<21	630	180	<200	<2	2	17	24	3.3	<2	<1	<5
F 103516		<20	280	28(1	<200	<2	<1	11	19	2.2	<2	<1	<5
R2 103517		<20	<100	1900	<200	<2	<1	<5	<10	<0.2	<2	<1	<5
R <sup>2</sup> 103518		<20	150	270	<200	<2	<1	<5	<10	0.6	<2	<1	<5
F 103519		<20	<100	270	<200	<2	<1	<5	<10	<0.2	<2	<1	<5

Bondar-Clegg & Company Ltd. 130 Pemberton Ave. North Vancouver, B.C. V7P 2R5

(604) 985-0681 Telex 04-352667



### Geochemical Lab Report

- <b>1</b>								DAT	F PRINIFD	: 3-MAY-	-90	
REPORT: V90-	00465.0							PRO	JECT: FRS	12/90	Р	AGE 1C
AMPLE	FLEMENT UNITS	Lu PPN	Sc PPN	Hf PPN	Ta PPM	Th PPN	U PPM	Na PCT	Br PPN	Rb PPM	Zr PPM	
2 103501		<0.5	11.0	2	<1	4.8	1.9	(ì <b>.78</b>	<1	60	<500	
<b>1035</b> 02		<0.5	13.0	3	<1	3.8	1.6	1.10	<1	38	<500	
R2 103503		<0.5	14.0	3	<1	4.9	2.0	0.51	<1	56	<500	
<u>P?</u> 103504		<0.5	11.0	<2	<t< td=""><td>3.9</td><td>1.6</td><td>0.88</td><td>&lt;1</td><td>50</td><td>&lt;500</td><td></td></t<>	3.9	1.6	0.88	<1	50	<500	
103505		<0.5	16.0	4	<1	5.4	2.0	0.93	<1	60	<500	
R2 103506		<0.5	9.2	<2	<1	2.8	1.2	1.10	2	37	<500	
103507		<0.5	13.0	<2	<1	4.0	1.7	1.20	<1	50	<500	
103508		<0.5	19.0	3	<1	5.2	1.6	0.72	<1	68	<500	
R2 103509		<0.5	4.6	<2	<1	<0.5	<0.5	0.12	<1	<10	<500	
2 103510		<0.5	4.9	<2	<1	<0.5	0.7	0.08	<1	<10	<500	
R2 103511		<0.5	7.6	<2	<1	<0.5	A.6	0.11	2	<10	<500	
R2 103512		<0.5	7.6	<2	<1	t.D	0.9	0.11	1	<10	<500	
103513		<0.5	18.0	3	<1	4.1	1.9	0.73	<1	66	<500	
103514		<0.5	7.3	<2	<1	0.6	<0.5	0.44	<b>&lt;1</b>	<10	<500	
R2 103515		<0.5	18.0	2	<1	4.2	1.9	0.58	<1	57	<500	
103516		<0.5	10.0	<2	<1	2.8	1.1	1.10	<1	30	<500	
R2 103517		<0.5	5.8	<2	<1	<0.5	<0.5	0.11	3	<10	<500	
<u>P2 103518</u>		<0.5	2.0	<2	<1	0.7	<0.5	0.25	<1	19	<500	
103519		<0.5	0.7	<2	<1	<0.5	<0.5	<0.05	<1	<10	<500	



### Lab Analytical Chemists \* Geochemists \* Registered Assayers

212 BROOKSBANK AVE., NORTH VANCOUVER, BRITISH COLUMBIA, CANADA V7J-2C1 PHONE (604) 984-0221

To : ROSSBACHER LABORATORY LIMITED

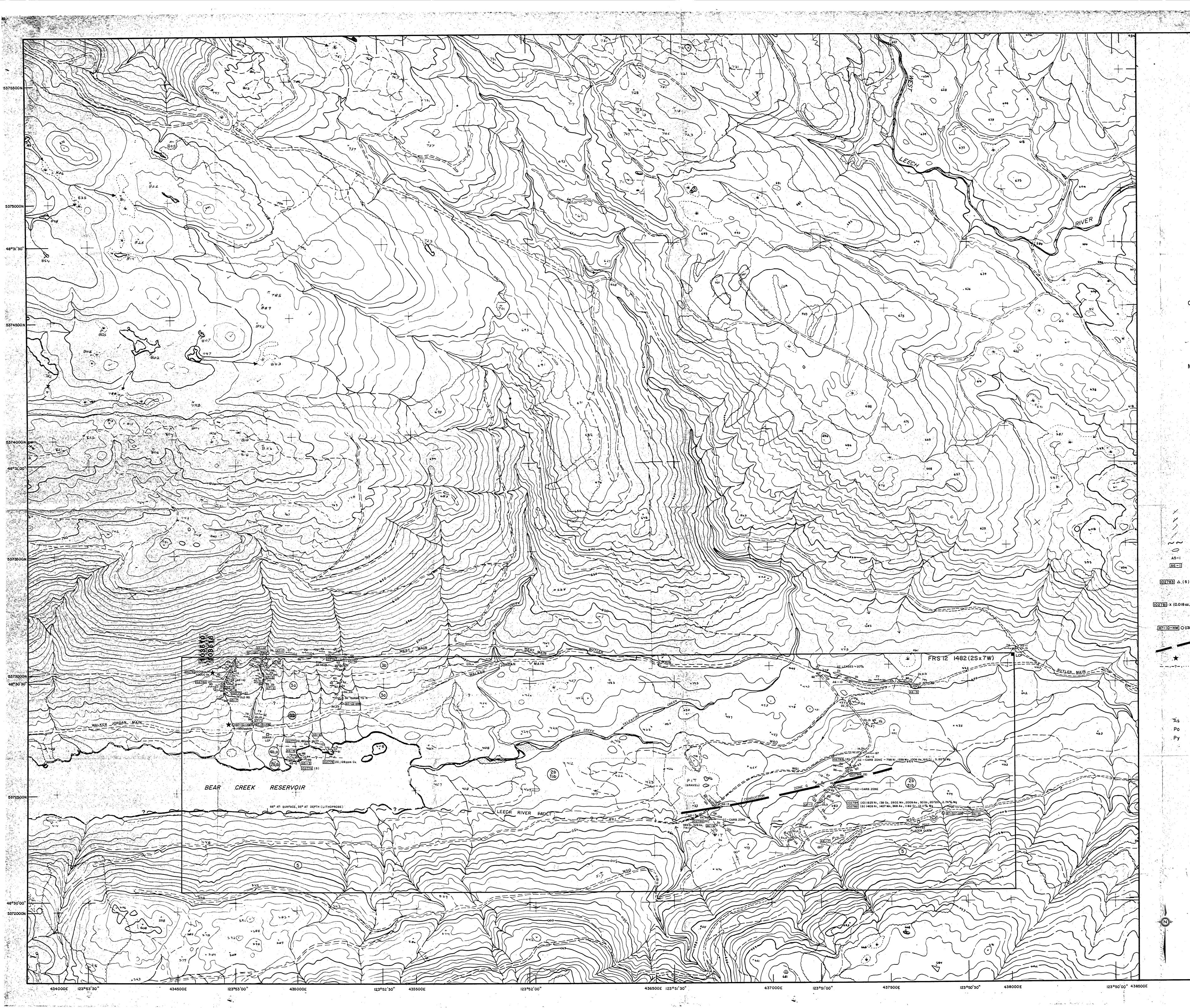
2225 SOUTH SPRINGER AVENUE BURNABY, B.C. V5B 3NI Project : BEAUPRE Comments:

Page No. 1 Tot. Pages: 1 Date : 26-JUN-89 Invoice # : I-8917604 P.O. # :NONE

FRS 12

### CERTIFICATE OF ANALYSIS A8917604

SAMPLE DESCRIPTION	PREP CODE	Te ppm		1				,	
102782 102783 102784 102784	214 214 214 214	< 0.05 0.20 0.05 < 0.05						2 2 2	
				1 1 1				• • •	
				!					
	•			:					
	-			• •					
		<b>4</b>	<u></u>	L	 CERT	IFICATION :	tai	Worch	Ler_



# GEOLOGICAL LEGEND

### CENOZOIC EOCENE

METCHOSIN VOLCANICS 5 a BASALTIC TUFF b MASSIVE BASALT (FLOW?) c SCHISTOSE TUFF

## MESOZOIC (?)

LEECH	I RIVER FORMATION
4 a	AMPHIBOLITE
. <b>b</b> 🤊	PHYLLITIC AMPHIBOLITE
3 a	BIOTITE SCHIST
JU	in the provide the second s
<b>b</b>	BIOTITE ANDALUSITE SCHIST
·	
2 a	ARGILLITE
b b	PHYLLITIC ARGILLITE
10	METASANDSTONE
b	PHYLLITIC METASANDSTONE
,	

# SYMBOLS

BEDDING FOLIATION, SCHISTOSITY JOINTING, FRACTURING VEIN

FAULT OUTCROP FIELD NOTE LO

A5-1 FIELD NOTE LOCATION
 [A6-]] FIELD NOTE LOCATION, HAND SPECIMAN COLLECTED
 SAMPLES FOR ANALYSES
 [02783] △ (5) BEDROCK SAMPLE SITE AND ANALYSES

(ppb Au) AND OTHER ELEMENTS CONSIDERED ANOMALOUS (in ppm) [10278]] x (0.018 oz /t) FLOAT SAMPLE SITE AND ANALYSES : (oz /ton Au) AND OTHER ELEMENTS CONSIDERE

(oz/ton Au) AND OTHER ELEMENTS CONSIDERED ANOMALOUS (in ppm) <u>B7-10-HM</u> O (1350) HEAVY MINERAL CONCENTRATE FROM STREAM

SEDIMENT SAMPLE (ppb.Au) CONDUCTOR AXIS AS DEFINED BY DIGHEM AIRBORNE GEOPHYSICAL SURVEY OUTSTANDING MINERALIZATION OR ANALYSIS

★ OUTSTANDING MINERALIZATION OR ANALYSIS --,-?-,.... LITHOLOGICAL CONTACTS: DEFINED, ASSUMED, GRADATIONAL

# ABBREVIATIONS

AS ARSENOPYRITE Po PYRRHOTITE Py PYRITE

> PROJECT No. 391 SCALE : 1:5000

DRAWING No. : FIGURE 4

NOTE CLAIM LINES FROM POST LOCATED IN FIELD IOm CONTOUR INTERVAL

> GEOLOGICAL BRANCH ASSESSMENT REPORT

BEAU PRE EXPLORATIONS LIMITED

GEOLOGY

AND ROCK SAMPLE LOCATIONS

BY: G.A. P.M. EWG

DRAWN MERIDIAN MAP

DATE : APRIL , 1989, 1990