

BR #1 MINERAL CLAIMS
BRITTAIN RIVER AREA
JERVIS INLET, Princess Royal Reach
VANCOUVER MINING DIVISION

NTS: 92-K-1 E

LATITUDE 50° 04'N, LONGITUDE 124° 03'W

Prepared for BRITTAIN RIVER RESOURCES LTD.

6630 Madrona Crescent West Vancouver, British Columbia Phone: 604-921-7146

Fax: 604-921-7143

Prepared by

J.T. SHEARER, M.Sc., P.Geo.

Consulting Geologist

Unit 5 - 2330 Tyner Street

Port Coquitlam, BC

V3C 2Z1

Phone: 604-970-6402 Email: Homegold@bc.sympatico.ca

GEOLOGICAL SURVEY BRANCH

ASSESSMENT STRORT

Fieldwork completed between March 30 and November 15, 1998

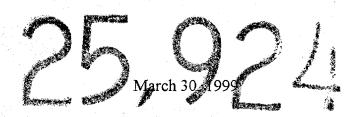


TABLE OF CONTENTS AND LIST OF ILLUSTRATIONS

		Page
Summary		i
Introduction		1
I agatian an		
Location an	d Access	2
Claim Statu	s, List of Claims	 2
History of F	ield Procedures	3
Regional Ge	eology	4
		•
Mineralizati	on and Fieldwork in 1998	5
Previous Ge	eochemical Results	9
Conclusions	and Recommendations	9
Cost Estima	te for 1999	11
References		12
Appendix I	- Statement of Qualifications	
Appendix II	- Statement of Costs	
	LIST OF TABLES	
Table 1	List of Claims	
		Following
	LIST OF FIGURES	Page
Figure 1	Location Map (1:7,500,000)	1
Figure 2	Topographic Map (1:50,000)	2
Figure 3	Claim Map (1:50,000)	3
Figure 4	Regional Geology (1:125,000)	4 5
Figure 5 Figure 6	BR #1 Claim - Geology (1:50,000) Detail Prospecting Traverses and Property Geology	in pocket
		-

SUMMARY

The BR #1 claim was staked in March 1998 and is located east of Brittain River at about 45 kilometres east of Powell River and 110 kilometres northwest of Vancouver. Central to the claim is the westerly flowing small creek (McConnell Creek) which enters the Brittain River approximately 11 km north of its mouth at Princess Royal Reach on Jervis Inlet.

Exploration activity in the general region commenced during the 1920's and has been carried out intermittently ever since. The most notable recent effort was made by Anaconda Canada Exploration Ltd. during 1983 and 1984 drilling on the nearby Diadem Pb/Zn/Ag property. The Diadem property covers part of a belt of Jurassic volcanic and sedimentary rocks which locally contain precious and base metal values in quantity and widths sufficient to indicate mining potential. The BR #1 claim covers a felsic stock which intrudes granodiorite of the Coast Plutonic Complex. Molybdenum and copper values have been found on the BR #1 claim. A prospecting program completed in 1998 along new logging roads, confirms the presence of anomalous copper and molybdenum minerals. Additional exploration is recommended to consist of detailed rock sampling, detailed geological mapping and induced polarization surveys totalling a proposed \$97,700.00.

Respectfully submitted

J.T. Shearer, M.Sc., P.Geo. Consulting Geologist, March 30, 1999

INTRODUCTION

The author first visited the claims in March 1998 accompanied by Doug Stelling, President of Brittain River Resources Ltd., who is familiar with the area and the results of previous work. A short prospecting and geological mapping program was completed in the summer of 1998 along the access provided by new logging roads.

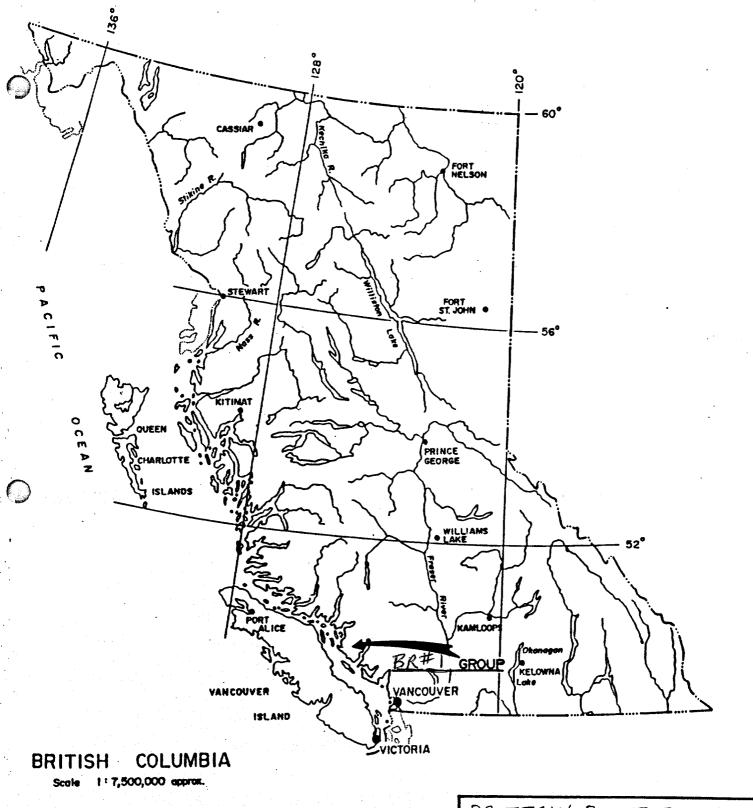
Much pertinent data were provided by an Assessment Report by M.J. Gray, B.Sc., dated September 12, 1986. The field work discussed in this report occurred between March 30, 1998 and November 15, 1998.

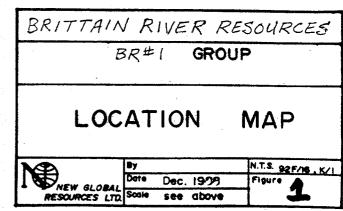
Significant molybdenum and copper mineralization with character sample values of up to 0.68% Mo and 0.82% Cu is associated with quartz veins and veinlets within a 1 square km area. Principal host rock is a leucocratic quartz-feldspar porphyry. Geological features of the property are typical of porphyry molybdenum-copper deposits which include evidence of multiple intrusive phases, locally intense sericite and K-feldspar alteration and at least two stages of quartz veining.

Previous work outlined a soil geochemical program has partially defined a 2 by 1.5 km area of +20 ppm molybdenum centred on the main quartz-feldspar porphyry intrusion.

Anomalous copper values are also mainly coincident with the quartz-feldspar porphyry.

By applying the "Climax-type" model of Mo deposits to the BR #1 area, it might be postulated that more consistent molybdenum-copper mineralization may be present at depth within the partially unroofed quartz-feldspar porphyry intrusive phase. This potential can best be tested by wide spaced drilling. Induced Polarization survey may be useful in localizing drill targets. Estimated cost for the recommended two-phase program is \$97,700.00.





LOCATION AND ACCESS

The BR #1 claim is located approximately 45 kilometres east-northeast of Powell River, B.C., about 110 km northwest of Vancouver, at latitude 50° 04'N and longitude 124° 03'W. The terrain is rugged and precipitous with elevations up to 1200 metres. Exploration has been mainly restricted to densely vegetated and talus covered portions the central creek valley (McConnell Creek) and to sub-alpine meadows above 1000 metres. Snow cover at the highest elevations does not usually permit exploration until late May or early June.

The lower western portion of the claim is serviced by a logging road on the east side of Brittain River valley. The bridge over the Brittain River south of the property was installed a few years ago. Helicopter support is helpful for access to the northern part of the claims. Part of the property has been logged and environmental concerns should not present problems too great for mineral production. Local magnetic declination is approximately N24°E.

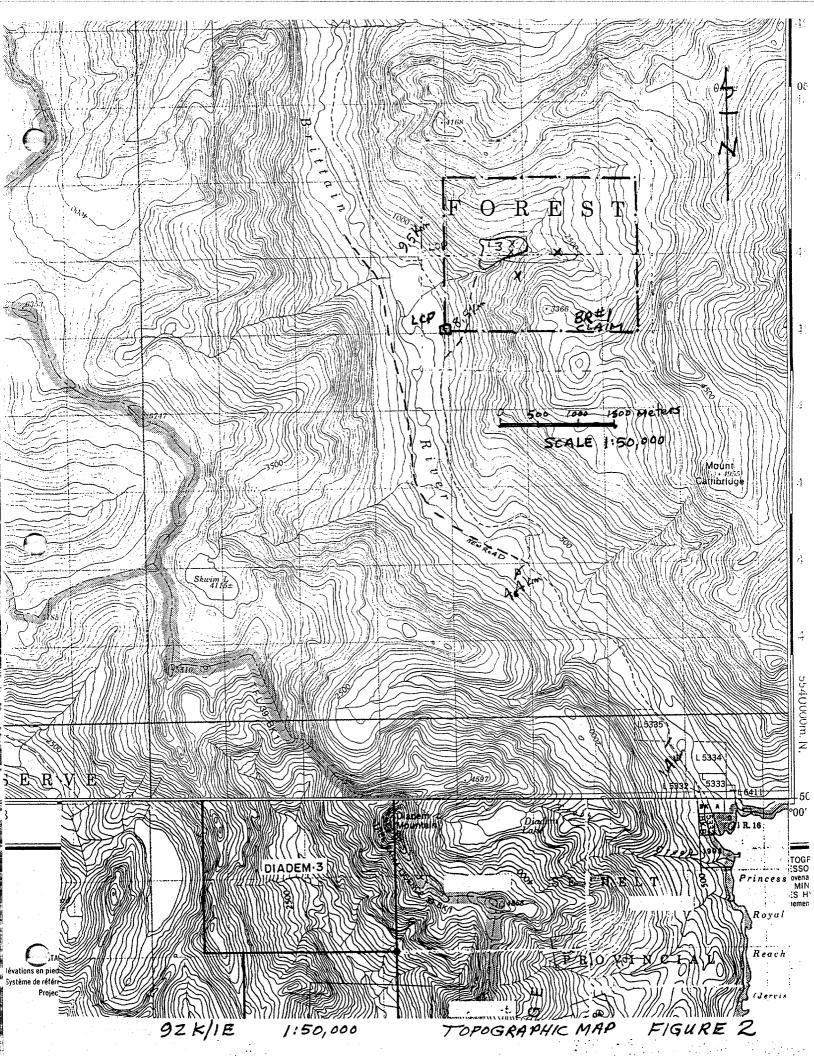
CLAIM STATUS

The BR #1 claim is wholly owned by Brittain River Resources Ltd. through a Bill of Sale held in the company files. Table 1 lists the particulars of the claim.

TABLE 1
List of Claims

Claim Name	Record Number	Units	Size	Location Date	*Current Anniversary Date
BR #1	361762	<u>20</u>	4NX5E	March 23/98	March 23, 2001
	Total	<u>20</u>			

^{*} upon the acceptance of assessment work documented in this report.



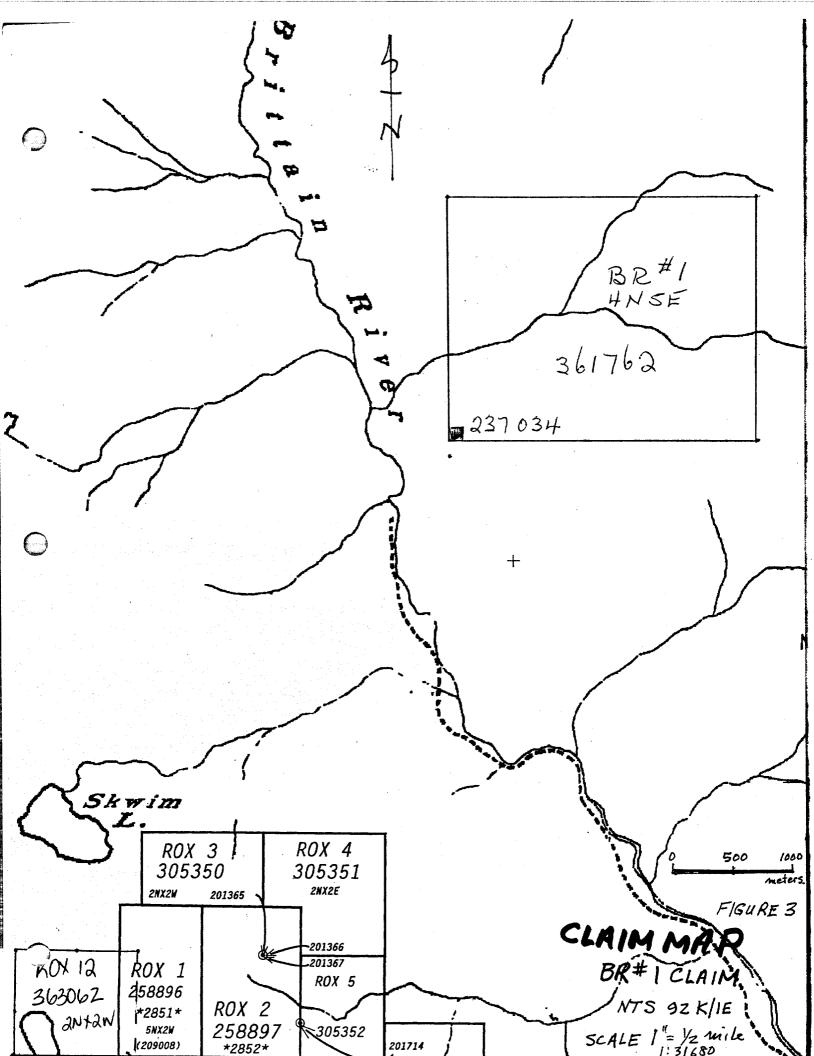
HISTORY

Massive sulfides were discovered in 1928 near the headwaters of No Man's Creek, north of Diadem Mountain. Britain River Mining Co. Ltd. and Mount Diadem Mines Ltd. staked claims north and west of Mt. Diadem. Later, trenching and adit work exposed mineralization consisting of pyrite, chalcopyrite, sphalerite and galena up to 19 feet in width, but usually less than 5 feet with considerable variations in the type of sulfides along short strike lengths. Sampling of the upper quartz vein on No Man's Creek is recorded as yielding 1.07 ounces per ton over an average width of 3.4" uncut. (Report of the Minister of Mines, 1950)

In 1947, the Diadem claims restaked by International Nickel Company and optioned to Bralorne Mines Ltd. in 1949. A gap of many years in exploration occurred until Tiger Silver Mines Ltd. performed magnetometer and geochemical soil surveys in 1970. No relation between magnetics and known mineralization was established (Bullis, 1970). In 1971, Britain River Syndicate conducted geological, electromagnetic, magnetic and soil geochemical surveys. New anomalous areas were found. Fury Explorations Ltd. and R. Schmidt acquired claims in 1980, later optioned by Anaconda. Nine holes were drilled in 1983, 899 metres. Silver assays were interesting. The best intersection obtained by drilling was 4 metres averaging 10.5 oz/tonnes Ag, 2.1% Cu, 7.9% Pb and 2.5% Zn. Metal ratios apparently support a volcanogenic origin as similar ratios occur in deposits, such as Britannia and Westmin's Buttle Lake Deposits.

In 1950, Don Knight, then timber cruising for B.C. Forest Products in the Brittain River area, noted metallic mineralization in a canyon of McConnell Creek at an elevation of 365 metres. A sample submitted for assay returned good molybdenum values and about 1 oz/ton silver. No claims were staked and a major forest fire in the valley the following year curtailed logging operations.

Knight returned to the area in May of 1980 to identify the tributary creek where mineralization had been noted 30 years earlier. Float with molybdenite mineralization was noted at the junction of McConnell Creek and Brittain River. In July 1984, samples were



collected from the lower showings area and claims were staked the following month.

Brittain River Resources Ltd. was subsequently incorporated as a private company.

In 1985, work included prospecting, sampling and the construction of trails and two helicopter pads. A report on the property was commissioned (Carter 1983), and an option agreement was negotiated with Cominco Ltd. In early 1986 Cominco (Gray, 1986) completed geological mapping and contour soil sampling.

FIELD PROCEDURES

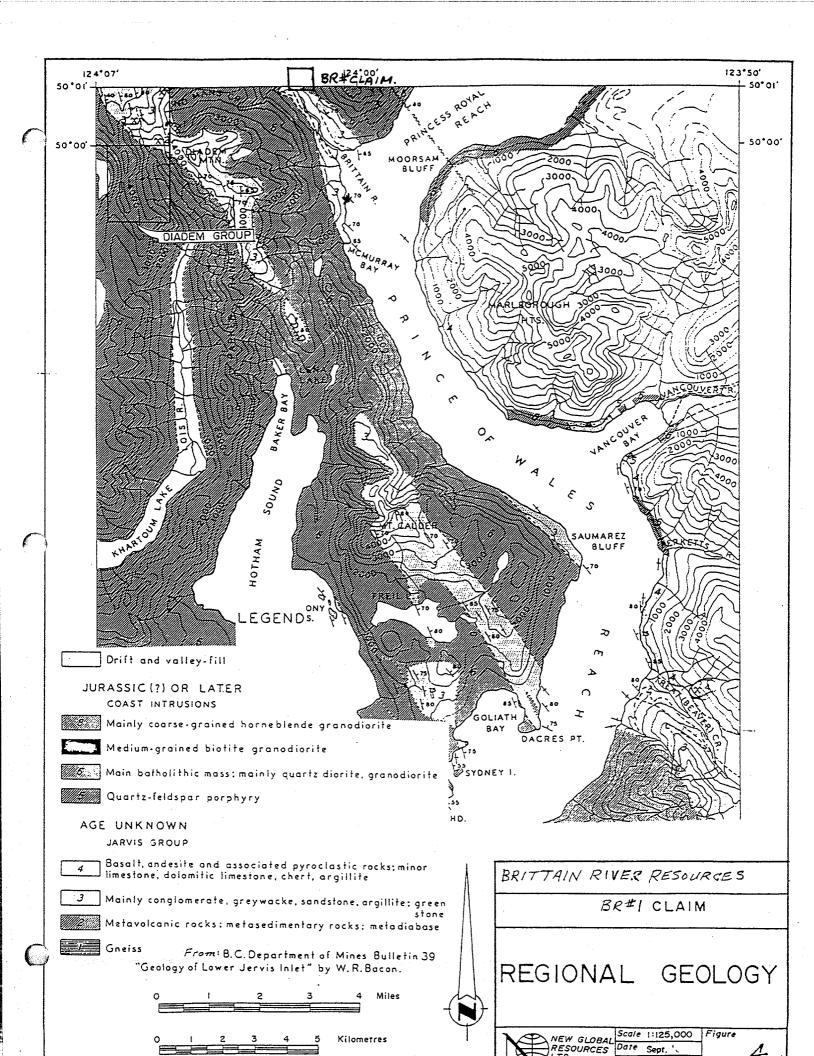
Prospecting traverses for work in 1998 were plotted on 1:50,000 scale topographic maps and later transformed to the 1:5,000 base map. Sketch maps of variable scales were prepared for each prospecting traverses. Road intersections were valuable points of references at the lower elevations. Both prospecting and geological traverses were aided by hip chain measurements. Geological sketch maps were prepared from hip chain and compass measurements in conjunction with available 1:5,000 topographic base mapping.

REGIONAL GEOLOGY

The property lies within the Coast Plutonic Complex along its western boundary with the Insular Belt. The Coast Plutonic Complex consists mainly of quartz diorites, granodiorites, gneisses and migmatites enclosing numerous elongated, northwest trending belts of volcanics and sediments.

The age of the intrusives in the southern part of the Coast Mountains ranges from 75 to 158 my (Price et. al., 1981), whereas pendant rocks are generally referred to as Jurassic. Greenschist and less commonly amphibolite grade metamorphic facies prevail in pendant rocks.

The Skwim Lake pendant to the west of the Br #1 claim is dominated by weakly metamorphosed clastic sediments and tuffs, with lesser amounts of volcanic flows and/or



intrusives occupying the eastern (basal?) portion of the section. A more detailed study of the regional geology can be found in Bacon (1957), Figure 3.

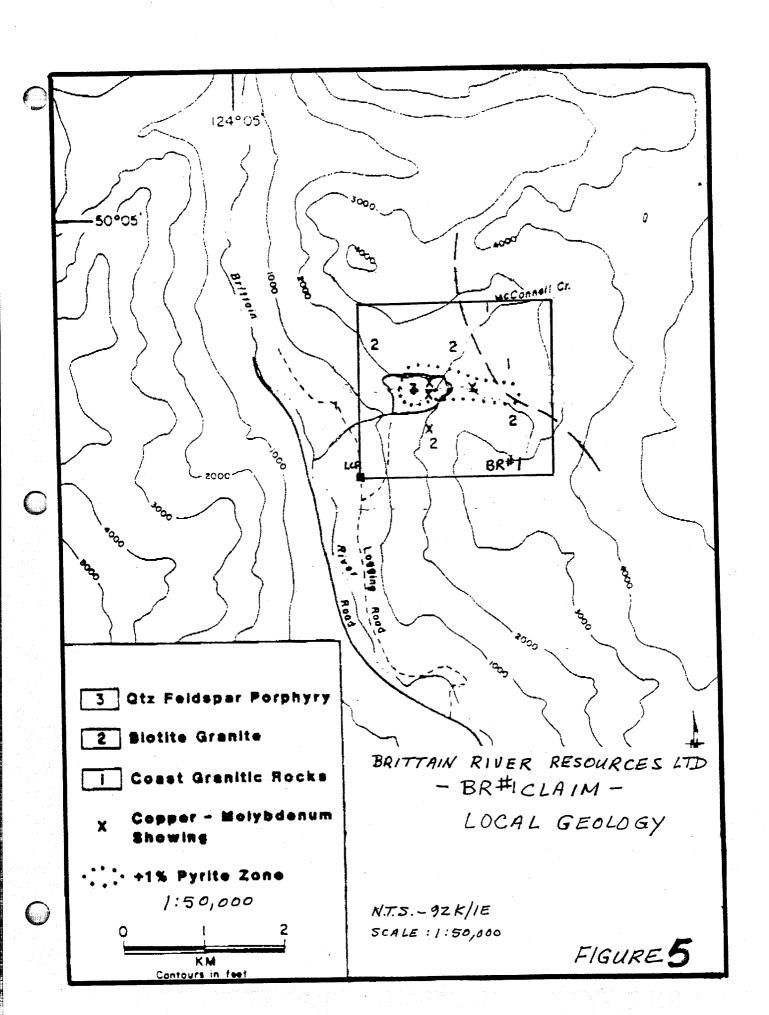
The pendant rocks to the west of the BR # 1 claim are believed to be, in part at least, Lower Jurassic in age, based on the presence of ammonites identified as Arnioceras Kwakiutiarus by H.W. Tipper of the Geological Survey of Canada. Faunal evidence suggests the Skwim Pendant stratigraphy to be time equivalent to the Bonanza Group of Vancouver Island (Riccio et. al., 1983).

All rock units in the pendant are near vertical and strike in a north to northwest direction. Structural deformation has been intense with the early development of tight, steeply to moderately (60-20°) north plunging folds. These are characterized by the presence of a penetrative to fracture axial planar cleavage. Locally developed isoclinal folds may indicate an earlier period of folding. Late open style folds disrupt earlier phase folds and cleavages. Two shear directions predominate. One is sub-parallel to regional banding and is generally parallel to the penetrative foliation while a second set of shearing strikes 060° to 100° and is steeply dipping. Both appear to locally control zones of massive sulfide mineralization in the vicinities of the Upper and Lower Adits on the Fury claims (Riccio et. al., 1983).

LOCAL GEOLOGY AND MINERALIZATION AND FIELD WORK IN 1998

The BR #1 claim is underlain by Coast Plutonic Complex foliated granodiorites and quartz diorites and by younger porphyritic granitic rocks. No layered rocks have been recognized in the vicinity of the principal showings.

Coast granodiorites are well exposed in the upper reaches of McConnell Creek on the east side of the BR #1, Figure 4. These are light to dark grey equigranular rocks with up to 25% hornblende and biotite which locally impart a northerly foliation. Rounded to elongate diorite-gabbro xenoliths are abundant (Gray, 1986).



The granodiorites are intruded by a younger (probably Tertiary age) biotite granite which underlies most of the area of the central and western part of BR #1, Figure 5. Limits of this phase are not known; Gray (1986) suggests a size of at least 2500 by 2000 metres. The biotite granite is leucocratic and weathers to a light grey colour. A locally porphyritic texture is imparted by 4 mm biotite books and quartz and feldspar phenocrysts.

The biotite granite is cored by a partially unroofed, oval quartz-feldspar porphyry, elongate in an east-west direction and measuring 750 by 500 metres. This phase is exposed central McConnell Creek. The quartz-feldspar porphyry is a pink to cream coloured leucocratic, fine to medium grained rock with minor biotite and 2-4 mm phenocrysts of euhedral white feldspar and quartz eyes in a quartzofeldspathic matrix.

Younger intrusive phases, observed cutting both the biotite granite and quartz-feldspar porphyry, include randomly oriented aplite dykes and east-striking grey feldspar porphyry dykes with chilled margins. Both varieties are commonly less than one meter wide.

A prominent east-northeast linear feature, extending from west of Brittain River and through McConnell Creek, may have been instrumental in localizing the quartz-feldspar porphyry intrusion. Major joint and fracture patterns developed in the quartz-feldspar porphyry include an east-northeast set paralleling the regional trend and a north-northwest set. These dip moderately to steeply north and west respectively.

The regional east-northeast trend also appears to be a governing factor in the orientation of the four known mineralized zones all of which are within or adjacent to the quartz-feldspar porphyry plug.

Two showings within quartz-feldspar porphyry, in and adjacent to McConnell Creek at elevations of between 425 and 530 metres, include east-northeast, moderately north dipping, parallel 2-30 cm wide drusy quartz veins enveloped by 2-15 cm selvages of greygreen sericite which are commonly bordered by secondary potassium-feldspar. Coarse grained pyrite, rosettes of molybdenite and some chalcopyrite occur within the quartz

veins and molybdenite is also disseminated in the sericite envelopes. Some pyrite was noted replacing biotite in the quartz-feldspar porphyry (Gray, 1986).

Fracture and vein density ranges from 1 per 10 cm to 1 per 15 cm. Overall pyrite content ranges from 1 to 5%.

Several chip and character samples from these two zones, collected in the past, (Gray, 1986), returned the following range of values (in ppm except for Au).

Type of sample	<u>Cu</u>	<u>Mo</u>	<u>Pb</u>	<u>Zn</u>	\underline{W}	$\underline{A}\underline{g}$	<u>Au (ppb)</u>
Character	3200	6800			8	3.1	20
10 m chip	2300	1040	4	88	2	1.4	10
Grabs	2800	4100	4	141	2	2.7	10
1 m chip	576	580	-	•	-	-	- ·
Grabs	1940	1770	-	-	-	-	_

The other two known showings, while developed in quartz-feldspar porphyry, are marginal to the main quartz-feldspar porphyry core (Carter). One of these, in the south fork of McConnell Creek at an elevation of 680-700 metres, includes disseminated pyrite and 2-10 cm wide, north-northwest striking quartz veins 30-60 cm apart which contain pyrite, molybdenite and chalcopyrite. Veins of this orientation cut earlier east-southeast quartz veins which contain molybdenite as selvages along vein walls. 2-5 cm envelopes of grey sericite are developed adjacent to mineralized veins and pink K-feldspar borders hairline fractures.

Various samples collected from this zone returned the following values (in ppm except for Au) (Carter, 1992).

Type of sample	<u>Cu</u>	<u>Mo</u>	<u>Pb</u>	<u>Zn</u>	\underline{W}	Ag	<u>Au (ppb)</u>
Character	8200	6000	-		5	7.3	30
QFP Host-grab	999	752	_	_	-	-	
4 m chip	558	1070	4	79	4	0.4	10
Grabs	1190	380	4	42	2	1.0	10

A small showing 450 metres south of McConnell Creek at 625 metres elevation, consists of quartz-feldspar porphyry with disseminated molybdenite, traces of chalcopyrite and 2& pyrite in sericite and quartz veinlets. A 20 cm chip sample returned values of 576 ppm Cu and 2240 ppm Mo (Gray, 1986).

Prospecting and geological traverses in 1998 (Figure 6, in pocket) were carried out using access provided by a recent logging spur road which enters the BR#1 Claim approximately 250m east of the Legal post and extends to McConnell Creek at an elevation of 425m. This area is a short distance below the Lower Don Showing. Prospecting and geological observations are shown on figure 6, in pocket, and generally confirm the geological results reported by Gray, 1986.

PREVIOUS GEOCHEMICAL RESULTS

Soils sampling was completed in 1986 by Cominco and are discussed in this report for the sake of completeness. Due to the steep terrain, soil samples were collected at 50 metre intervals along topographic contours approximately 200 metres apart (Gray, 1986). The 321 samples collected yielded copper values of between 1 and 444 ppm and molybdenum values of 2 to 252 ppm. Statistical analysis (Gray, 1986) indicate anomalous values of +80 ppm for copper and +20 ppm for molybdenum.

Anomalous molybdenum values, while centred on the quartz-feldspar porphyry plug, are widespread. In contrast, anomalous copper values are much more restricted in areal extent and are partly coincident with the quartz-feldspar porphyry plug. This feature is interpreted as being due to acidic soils conditions (Gray, 1986) since chalcopyrite is present in all known showings areas. Two soil samples from the strong Mo core anomaly (444 ppm Cu, 145 ppm Mo; 374 ppm Cu, 51 Mo) were also analyzed for Au, Ag, W, F and returned values of <10 ppb Au, <.4 ppm Ag, <2 ppm W, and 78-100 ppm F.

Soil profiles sampled in four locations on the property indicate that Mo has not been concentrated in the organic A horizon. The low Cu values seen over most of the property may be explained by acidic soil conditions. Under these conditions the tendency is for Mo to be fixed by iron, whereas under similar pH conditions Cu is more soluble and will be leached.

CONCLUSIONS AND RECOMMENDATIONS

Molybdenum - copper mineralization on the BR #1 claim is spatially related to a partially unroofed quartz-feldspar porphyry plug. Previous workers (Carter, 1992), suggest that there is evidence for a much larger size of mineralized body than exposed in McConnell Creek, which includes the molybdenum - copper zones hosted by a similar porphyry phase several hundred metres away from the exposed limits of the plug and a broad zone of +1% disseminated pyrite and widespread anomalous molybdenum values both of which extend outward a considerable distance from the central quartz-feldspar porphyry.

This quartz-feldspar porphyry phase is regarded by the previous workers (Carter, 1992 and Gray, 1986) as being typical of molybdenum - copper porphyry host rocks. Other features of the BR #1 property which are characteristic of this deposit type include the presence of several intrusive phases, abundant sericite and potassium-feldspar alteration of host rocks and at least two generations of quartz veining, one of which is cut by a younger porphyry dyke phase.

It is significant that the one of the largest known porphyry deposits, Quartz Hill in southeast Alaska (+1 billion tons grading 0.15% molybdenite), is associated with a multiple phase porphyry pluton which intrudes older Coast Crystalline belt gneisses and granitic rocks. This geological setting is similar to that of the BR #1 property. Also in the southwest Coast region, widespread molybdenum (and copper) mineralization is known at the OK prospect north of Powell River and at Salal Creek at the headwaters of Lillooet River.

Available evidence suggests that the host quartz-feldspar porphyry underlies a large area of the property. The potential for a large tonnage of molybdenum - copper mineralization of economic grade can best be tested initially by percussion drilling in conjunction with road construction into the central property area. An Induced Polarization survey is recommended over the area of anomalous molybdenum geochemistry to better define drill targets.

Respectfully submitted,

J.T. Shearer, M.Sc., P.Geo. Consulting Geologist,

March 30, 1999

PROPOSED COST ESTIMATE FOR 1999

Salaries, 21 days, geologists and 2 prospectors (\$1100 x 21)	\$16,800
Helicopter	4,000
Food	2,000
Dynamite	300
Bulldozing	15,000
Camp	3,000
Fuel	600
Blasting equipment rental	500
Plugger rental	800
Assays	1,500
Transportation including boat	3,000
Prints, maps, reports, drafting	4,000
Field supplies	1,200
IP survey and Line cutting	30,000
Contingencies	15,000

GRAND TOTAL

\$97,700.00

Respectfully submitted,

J.T. (Jo) Shearer, M.Sc., P.Geo. Consulting Geologist March 30, 1999

REFERENCES

- Bacon, W.R., 1957, Geology of Lower Jurassic Inlet, B.C., B.C. Dept. of Energy, Mines and Pet. Res. Bull. 39.
- Bullis, A.R., 1970, Report on the Linda Group and Moon Claims for Tiger Silver Mines Ltd., Assessment Rept. 2621.
- Carter, N.C., 1992, Geological Report on the DON Molybdenum Copper Prospect, Jervis Inlet Area, Vancouver MD Private Report for Brittain River Resources Ltd.
- Cunningham-Dunlop, 1971, Brittain River Syndicate, Jervis Inlet Property, Geophysical, Geological and Geochemical Report, L.G. White Assessment Report 3329.
- Glass, J.R., 1980, Report on Geophysical and Geochemical Survey on Diadem Mineral Claim for Fury Explorations Ltd., July 2, 1980, Assessment Report 8630.
- Glass, J.R., 1981, Report on Geochemical Rock Chip Sampling on Diadem Mineral Claim for Fury Explorations Ltd., Assessment Report 9315.
- Gray, M.J., 1986: DON Property, Assessment Report on Geological Mapping and Rock and Soil Geochemical Surveys, Vancouver MD.
- Laird, J.W., 1985. Geology and Geochemistry of the Mendella Claim Group, Report for Newmont Explorations of Canada, April 26, 1985, Assessment Report #13626.
- Price, R.A., Monger, J.W.H. and Muller, J.E., 1981, Cordilleran Cross-Section, Calgary to Victoria, G.A.C. Field Guide to Geology and Mineral Deposits, Calgary, pp. 261-334.
- Report of the Minister of Mines (B.C.), 1950, pp. A172 to A177.
- Riccio, L., Growe, G., Scott, A., Matysek, P., 1983 Skwim Project, Final Report, 1983, Internal Anaconda Canada Exploration Ltd. Assessment Report 11641.
- Riccio, L., 1985 Diamond Drilling Report on the Diadem Lois 5, 6, 8, 9 Claims, Anaconda Canada Exploration Ltd. Assessment Report 13814.
- Shearer, J.T., Prospecting, Geological and Geochemical Assessment Report on the Diadem One, Two, 3 and 4 Mineral Claims for Covenant Resources Ltd., 30 Nov., 1988.

APPENDIX I

STATEMENT OF QUALIFICATIONS

J.T. SHEARER, M.Sc., P.Geo.

March 30, 1999

Appendix 1

STATEMENT OF QUALIFICATIONS

I, Johan T. Shearer, of 1817 Greenmount Avenue, in the City of Port Coquitlam, in the Province of British Columbia, do hereby certify:

- 1. I am a graduate of the University of British Columbia (B.Sc., 1973) in Honours Geology, and the University of London, Imperial College (M.Sc., 1977).
- 2. I have over 25 years experience in exploration for base and precious metals and industrial mineral commodities in the Cordillera of Western North America with such companies as McIntyre Mines Ltd., J.C. Stephen Explorations Ltd., Carolin Mines Ltd. and TRM Engineering Ltd.
- 3. I am a fellow in good standing of the Geological Association of Canada (Fellow No. F439) and I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia (Member No. 19,279).
- 4. I am an independent consulting geologist employed since December 1986 by Homegold Resources Ltd. at #5-2330 Tyner St., Port Coquitlam, B.C.
- 5. I am the author of a report entitled "Prospecting and Geological Assessment Report on the BR #1 Mineral Claims, Brittain River Area, British Columbia" dated March 30, 1999
- 6. I have visited the property in March and November 15, 1998. I have carried out mapping and sample collection and am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the BR #1 claim by examining in detail the available reports and maps and have discussed previous work with persons knowledgeable of the area.
- 7. I have no interest in the securities of Brittain River Resources Ltd., or any subsidiary company, nor do I expect to receive any interest in the BR Claims. I consent to the company using this report for any corporate purpose.

Dated as Vancouver, British Columbia, this 30th day of March, 1999.

J.T. Shearer, M.Sc., F.G.A.C., P.Geo.

APPENDIX II

STATEMENT OF COSTS

March 30, 1999

Appendix 1

STATEMENT OF COSTS

BR #1 CLAIM Brittain River Area

Wages & Benefits

	Sc., P.Geo., Geologist 350 per day days Prospecting		\$1,400.00
F. Godwin			
	200 per day		800.00
2 days Travel, 2 d			800.00
			\$2,200.00
		GST	154.00
		Subtotal	\$2,354.00
			,
Expenses			
4x4 Truck	4 days @ \$53.50		\$214.00
Boat	4 days @ \$100.00		400.00
Ferry	Vancouver - Langd	ale	48.50
Gas for Truck and	d Boat		65.00
Hotel	2 nights		180.00
Meals & Food			210.00
Camp Rental			150.00
Motorcycle Renta	al on Property 4 days @	\$50.00	200.00
Report Preparatio			450.00
Map drafting and	enlargement		300.00
Word processing	_		350.00
		Subtotal	\$2,567.50
		TOTAL:	\$4.921.50

