

DATE: April 22, 1991  
 TO: Alex Davidson  
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 SUBJECT: Randi 1 and Randi 2 Claim Property Submittal near Boston Bar, B.C.

ARCTEX ENGINEERING SERVICES/MADRONA RESOURCES INC.  
 PROPERTY SUBMITTAL  
 BOSTON BAR AREA, B.C.  
 NTS 92 I/4 E  
 LATITUDE 50° 06'N, LONGITUDE 121° 41'W

**TARGET: MESOTHERMAL LODE AND DISSEMINATED GOLD**

**RECOMMENDATION:** FIELD EXAMINATION

**Current Status:** The Randi property consists of the Randi 1 and 2 mineral claims totalling 16 units. Current status is as listed:

CLAIM NAME	SIZE IN UNITS	RECORD NUMBER	EXPIRY DATE
Randi 1	8	3209	Jan. 7, 1998
Randi 2	8	3210	Jan. 7, 1998

**Location and Access:** The claims are located on the eastern side of Pyramid Mountain 16.5 km southwest of Lytton and 24 km northwest of Boston Bar, B.C. Roads lead northerly from Boston Bar along the west side of the Fraser River and westerly into Kwoiek Creek valley. Logging roads extend southerly to the northwest corner of the property. The most recent assessment report (1986) states approximately 1 km of new road would be required to extend access to the mineralized zone.

**Geology:** The claims are underlain by a northwest-southeast trending belt of serpentinite of Permian or Jurassic age. To the northeast this unit is in fault (thrust?) contact with Permian to Jurassic Bridge River Formation lower greenschist facies phyllite, quartzose phyllite siliceous and chlorite schist. To the southwest the serpentinite unit is in stratigraphic contact with Jurassic and Cretaceous Relay Mountain Group phyllite, semischist and local

conglomerate. These stratigraphic relationships are taken from recently published geology maps by Monger (map 42-1989). Kallcock (1986) tentatively correlates the metasediments to the northeast with the Jurassic Ladner Group and thus placing the property in a tectonic and stratigraphic environment similar to the Carolin sediment hosted disseminated Au replacement deposit to the southeast. These metasediments are, in fact, correlative with the Permian to Jurassic Hozameen complex in the Carolin area. Kallcock also correlates the serpentinite on the Randi claims with serpentinite in the Carolin area. This unit should be correlated with Ray's (1984) northern serpentine belt, which is unrelated to the southern belt associated with the Carolin area. Given the more recent regional mapping in the area, I feel it is best to look at this property from a Bridge River Camp perspective (structurally and stratigraphically controlled mesothermal quartz veins and pyritic replacement deposits, or cupriferous gold veins), rather than the Carolin deposit type Kallcock alludes to.

**Area Deposits:** A number of Au deposits occur along the major terrane boundary separating the Coast Crystalline Belt and the Intermontane Belt. Most notable are the Carolin (Idaho) deposit (863 139 tons mined from 1982-1984, 43 543 oz Au produced, Au reserves of 102 400 oz) in the Coquihalla gold belt, and the Bridge River Camp (8 067 600 tons mined from 1900-1978, 4 178 069 oz Au produced, Au reserves of 566 380 oz). Information has been obtained from Schroeter, et. al. (1989).

**Previous Work:** The claims have been trenched in the past and may have been known as the Paystreak group of claims. This group was described by H.C. Horwood (1936) as having small quartz vein showings, mostly barren, containing small amounts of tetrahedrite. Work on the property in 1984 to 1986 by Arctex Engineering Services consisted of geological mapping, trenching and rock sampling, magnetometer and VLF-EM surveys and soil sampling.

**Results:** Results of the work by Arctex were encouraging. Of thirty-six rock samples taken of 20 were found to contain over 100 ppb Au. Of the 20 samples, 11 were of grey, greenish grey or iron-stained phyllite with quartz veinlets containing various amounts of orange-brown limonite and/or pyrite. Four samples were found to be weathered phyllite with variable amounts of iron stain. Three samples were quartz vein chip samples containing variable limonite or pyrite and two samples were of serpentinite or quartz-carbonate-tremolite. Nine of the samples contained greater than 1000 ppb Au. Of the 9 highly anomalous samples 5 were found to contain quartz with limonite or pyrite with little phyllite. Three of the 9 were 3 metre channel samples of phyllite with some quartz veining, and one sample was of phyllite only. The best result was a 3.0 metre chip sample of grey phyllite containing a 3 cm quartz vein with a 5-10 cm alteration halo. This sample contained 5800 ppb Au (assay 0.174 oz/ton Au).

Soil samples were analysed for only 3 elements: Au, As, and Ag. A total of 931 samples were taken. Values for Au range from 5 ppb to 4300 ppb. A threshold of 70 ppb Au was chosen. Kallock (1986) reports a long, semi-linear string of anomalies occurring in the phyllite adjacent to the serpentinite contact between line 8+00 E and 5+00 W. Three other areas within the phyllite reportedly contain multi-element anomalies of greater than 70 ppb Au. Maps are not available for review at this time.

Only 9 of the 931 samples contained over 1.0 ppm Ag. Arsenic values in soil range from 1 to 8900 ppm and correlate well with Au response.

**Other Notes:**

VLF-EM geophysics generally defines the northwest trend of the serpentinite belt and of the steeply dipping metasediments. The magnetic survey strongly reflects the presence of the serpentinite belt.

Serpentinite is altered in areas to listwanite. This is reported by Kallock (1986) as a zone of hydrothermally altered tremolite-talc-carbonate up to 500 metres wide. Ankerite veins

occur locally within the tremolite zones. Quartz-carbonate-mariposite zones occur near the tremolite contact. Uncommon zones of massive chlorite and spotty asbestiform minerals are also reported.

**Summary and Recommendations:** The Randi claims are located within oceanic terrane near a major convergent terrane boundary separating the Coast Crystalline Belt from the Intermontane Belt. Serpentinite of Permian to Jurassic age is in fault contact with the Permian to Jurassic Bridge River Complex to the northeast. Jurassic and Cretaceous Relay Mountain Group phyllite, semi-schist and conglomerate in the southwest are in stratigraphic contact with the serpentinite. The serpentinite is altered in a zone up to 500 metres wide to tremolite-talc-carbonate, and quartz-carbonate-mariposite locally near the tremolite contact. Spatial and/or genetic relationships between Au mineralization and listwanite alteration are presently unknown, lacking maps of the property showing geology and sample locations. The highest Au values tend to occur within the phyllite, but their spatial relationship to the alteration zones is likely important.

Rock sampling and soil sampling by Arctex Engineering Services in 1986 returned encouraging results. Any work after 1986 is not known at this time. During their sampling program only Au, Ag, and As were analysed for leaving a wide range of pathfinder elements untested.

The potential for mesothermal vein and disseminated replacement mineralization exists on the claims. Structural and tectonic setting, associated rock types, and hydrothermal alteration indicate the property may be suitable for further exploration. The land package involved is unfortunately small, and a claim search is recommended to determine the land status of the surrounding area. Maps to accompany the assessment report should be obtained for review, as should any more recent reports and information. A field examination is warranted.

## REFERENCES

- Kallock, Paul. **Geological, Rock and Soil Geochemical, VLF-EM and Magnetic Surveys: Randi 1 and 2 Mineral Claims.** Unpublished assessment report #15,360 prepared for Madrona Resources Inc by Arctex Engineering Services, October, 1986.
- Panteleyev, Andre: **Gold in the Canadian Cordillera - A Focus on Mesothermal and Epithermal Environments.** In "Ore Deposits, Tectonics and Metallogeny in the Canadian Cordillera". Mineral Deposit Research Unit, Short Course No.3, U.B.C. 1991.
- Ray, G.E.: **Carolin Mine - Coquihalla Gold Belt Project (92H/6,11).** In "Geological Fieldwork 1981: A Summary of Field Activities". Ministry of Energy, Mines and Petroleum Resources, 1982.
- Ray, G.E.: **Coquihalla Gold Belt Project (92H/11,14).** In "Geological Fieldwork 1983: A Summary of Field Activities". Ministry of Energy, Mines and Petroleum Resources, 1982.
- Ray, G.E. et. al.: **Precious Metal Mineralization in Southwestern British Columbia.** In "Field Guides to Geology and Mineral Deposits in the Southern Canadian Cordillera". GSA Cordilleran Section Meeting, Vancouver, B.C. May '85; ed. Dirk Tempelman-Kluit, G.S.C, 1985.
- Schroeter, T.G. et. al.: **Gold Production and Reserves in British Columbia.** Open File 1989-22, Energy, Mines, and Petroleum Resources, 1989.

**ROCK SAMPLE DESCRIPTIONS**  
**RANDI 1 AND 2 MINERAL CLAIMS**

<i>Coordinates</i>	<i>Description</i>	<i>Au, ppb</i>
4+90 E 1+80S	Grab sample of fine-grained quartzite and siliceous phyllite with disseminated magnetite crystals and pyrite cross-cut by numerous quartz veinlets; located near massive chlorite within tremolite altered serpentinite.	<5
0+10 W 0+10 N	0.3 m vertical chip sample across N70°W 35°N quartz veins within tremolite zone; 1-2% mariposite, traces disseminated tetrahedrite, trace malachite.	190
3+28 E 0+55 N	2 m chip sample of very strongly altered talc (?) schist, spotty dark brown limonite; foliation trend N72°W 90°.	<5
3+10 E 0+55 N	0.3 m chip sample of tremolite (?), carbonate, lesser quartz and minor orange-brown limonite.	<5
4+00 E 0+66 N	0.5 m chip sample of calc-silicate altered grey schist with strong orange-brown limonite.	<5
3+00 E 4+95 N	0.5 chip sample across zone of sericite and mariposite (?) or fuchite (?) schist; trend N68°W 75°S; hosted in grey slaty phyllite.	<5
3+00 E 5+35 N	Grab sample from shallow dipping quartz veins hosted in dark quartzose schist; areas of intense quartz flooding and brecciation of schist; strong orange-brown limonite, minor carbonate.	<5
10+20 E 2+10 S	Grab sample of several shallow dipping quartz veinlets hosted in green phyllite; 2-4 cm alteration selvage of orange-brown stain and disseminated cubic pyrite. Assay:	1120 0.032 oz/ton Au
7+25 E 0+02 N	Grab sample of shallow dipping quartz veinlets with orange-brown limonite selvages up to 3 cm wide; hosted in green phyllite. Assay:	1060 0.030 oz/ton Au
7+15 E 0+05 S	Select sample of several quartz veins with strong orange-brown limonite, minor carbonate, traces pyrite. Assay:	1460 0.044 oz/ton Au

Rock Sample Descriptions (continued)

Coordinates	Description	Au, ppb
2+30 E 1+95 S	0.2 m chip sample of massive white ankerite (?) vein; hard, heavy, crystalline with orange oxidation; hosted in tremolite zone.	<5
1+00 W 5+00 N	Grab sample of several float cobbles from silicified fine-grained quartzite; numerous quartz veinlets; weak limonite oxidation.	10
0+10 W 1+60 N	Chip sample of float boulder of quartz with very strong orange-brown limonite and traces of pyrite; weathering <i>in situ</i> indicated by other similar silicified cobbles.	5
0+80 E 5+60 S	0.3 m chip sample across thinly bedded, bleached phyllitic schist; trace disseminated cubic pyrite; strong orange-brown limonite stain; weak to moderate silicification.	100
1+80 E 0+03 S	3.0 m chip sample in trench from 0+00 baseline to 0+03 S; black phyllite trending N58°W 80°E, lesser grey and greenish grey phyllite; central 1.0 m of sample is strongly silicified with local disseminated pyrite and strong limonite stain.	545
1+80 E 0+06 S	3.0 m chip sample, continuation in trench; grey phyllite; lesser strongly silicified zones with numerous quartz veinlets, white, no iron oxides.	210
1+80 E 0+09 S	3.0 m chip sample, continuation in trench; numerous reddish brown, soft phyllite zones 3-5 cm in width appear to be stratiform; also several quartz veins trending N60°W 25°N which also have reddish brown alteration envelopes.	2950
	Assay:	0.098 oz/ton Au
1+80 E 0+12 S	3.0 m chip sample, continuation in trench; mostly grey phyllite; one N30°W 30°N, 3 cm quartz vein with 5-10 cm alteration hole.	5800
	Assay:	0.174 oz/ton Au
1+50 W 9+50 N	Grab sample of serpentized mafic intrusive, green serpentine, moderate carbonate, hard, not magnetic. no tremolite, 20 metres wide.	110
1+00 W 1+29 S	2.0 m chip sample of silicified contact between serpentinite and black metasediment; hard, porous carbonate and silicate, tan to light grey colour; numerous quartz veinlets.	20

Rock Sample Descriptions (continued)

Coordinates	Description	Au, ppb
12+57 W 0+30 S	Grab sample of very hard, silicified metasediment; also numerous clear, acicular crystals; trace to $\frac{1}{8}$ very finely disseminated pyrite and traces of chalcopyrite; moderate limonite.	<5
0+50 E 2+75 N	Grab sample from 1 m by 2 m talc, carbonate, limonite exposure in contact with quartz bearing grey phyllite.	<5
3+05 E 0+43 S	0.1 m chip sample from bottom of 1 m deep pit excavated in old trench; greyish green phyllite with black schistose interbed.	530
The following 7 samples are continuous 3 m chip samples in a trench between 0+89 S and 1+10 S.		
4+45 E 0+92 S	3.0 m tan to reddish brown iron-stained phyllite includes one 3 cm sub-horizontal quartz vein.	1350
4+45 E 0+95 S	3.0 m mostly greyish green phyllite.	540
4+45 E 0+98 S	3.0 m soft talcose, altered phyllite, smears white when crushed.	20
4+45 E 1+01 S	3.0 m mostly grey phyllite; one horizontal 3 cm reddish brown altered zone within phyllite (no visible quartz).	70
4+45 E 1+04 S	3.0 m dark to light grey phyllite; includes 10 cm basalt dyke.	120
4+45 E 1-07 S	3.0 m includes 2.0 m of basalt and diabase; host is black phyllite.	20
4+45 E 1+10 S	3.0 m includes 1.5 m of tan to reddish brown phyllite, locally strongly iron-stained and 1.5 m grey phyllite.	240
4+64 E 0+37 S	3.0 m chip sample from re-excavated trench; sample extends from 0+34 S to 0+37 S; mostly grey phyllite although a 0.6 m tuff (?) horizon which is hard and massive occurs at 34.5 S.	270
4+64 E 0+40 S	3.0 m chip sample continuous from previous sample; includes 15 cm of orange weathered calc-silicate with quartz veinlets; 1.0 m of greenish grey phyllite. 20 cm quartz vein (vertical) and several gently north-dipping quartz veinlets with orange-brown alteration envelope in grey-green phyllite.	410



Rock Sample Descriptions (continued)

<i>Coordinates</i>	<i>Description</i>	<i>Au, ppb</i>
1+50 E 0+28 S	Grab sample of rusty quartz in bottom of 1 m deep pit, imbedded in grey clay; no bedrock.	3300
3+50 E 0+43 S	1.0 m chip sample of black and white graphitic quartz schist, lesser grey phyllite; overlain by 20 cm hard grey clay.	40
3+03 E 0+40 S	Grab sample of reddish brown soil and quartz fragments from 1.2 m pit excavated in old trench; no bedrock.	1400
0+00 N 0+00 E	Grab sample of grey to tan phyllite at 1.7 m deep in pit, may not be bedrock; soil profile shows 10 cm reddish brown soil at 0.4 m depth.	1100