



Kettle River Resources Ltd. TSE-KRR

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KETTLE RIVER RESOURCES - GOLD PROPERTIES

PHOENIX PROPERTY, B.C. (100% KRR)

The Phoenix property is located 6 kilometres east of the City of Greenwood in Southern B.C.. Phoenix was discovered in 1891 and produced direct smelting copper gold ore during the period 1899-1919. Mining was by underground and open cut methods. The mine was reopened in 1956 and produced until 1974 by open pit methods. The Phoenix property produced 27,000,000 tonnes of ore containing 30,225 kg gold, 92,055 kg silver and 230,000 tonnes of copper (Paper 1986-2, BC Ministry of Mines). The property comprises 7,640 acres with resources of 1,000,000 tonnes of 0.8% copper and 0.03 opt gold as well as significant exploration potential.

Ore from the Phoenix was treated in a flotation plant mainly for its copper content in chalcopyrite. The gold bearing pyrite was depressed and sent to the tailings pond. Later experiments in the 70's looking at recovering the pyrite were not successful due to the iron content of the concentrate.

In 1981 Noranda, then the owner of Phoenix, optioned the project to Kettle River Resources. Exploration by Kettle River discovered significant gold occurrences in non-copper ore, and Noranda optioned the property back from Kettle River and conducted a widespread regional exploration program. In 1990 Noranda dropped the option and Kettle River received 100% ownership in the property.

In 1990 Battle Mountain optioned the property and conducted an exploration program specifically directed at looking for a skarn gold deposit until late 1992.

Kettle River has the large data bank on the property and company geologists are studying gold targets in flat thrust faults beneath the copper gold skarn deposits. Previous drilling has encountered economic gold grades over narrow widths, lying beneath the limestone hosted skarn deposits. The structural geology is being studied to see if zones of significant size can be located.

PHOENIX TAILINGS (Deposits from flotation milling 1959 - 1978)

During 1959 - 1978, 14,778,000 tons ore were treated. Gold and silver in the free state were not recovered by the flotation process.

There are 3 tailings deposits, the grades listed below are calculated from Granby tailings sample records. Recent testing, although not in depth enough to be conclusive, has indicated potential significantly higher grades.

	Tremblay**	Twin Creek	Open Pit
Tonnage	4,623,556	8,082,107	1,759,615
Copper (%)	0.151	0.084	0.087
Gold (opt)	0.011	0.008	0.005
Silver (opt)	0.109	0.093	0.065

Based on these figures, the metal content of these 3 deposits is estimated to contain 126,000 oz Au, 1.3 million oz Ag, 30 million lbs Cu.

** At the Tremblay tailings site, a large berm was constructed of hydrocycloned tailings which deposited the coarse and heavy material. This may represent 2 million tons of material of the 4,623,556 tons that will be of higher grade. Recent sampling indicates grades in the order of 0.05 opt Au.

PHOENIX - CON'T
INITIAL TESTING:

A preliminary cyanidation test recovered 67% of the gold on a representative split of tailings. Because of the large size and partially oxidized nature of the sulfides, it is expected that grinding of the sulfides would result in greatly increased gold recovery by cyanidation.

A flotation test run on a sample of the Tremblay tailings resulted in a sulfide recovery of 62.3%, and a gold recovery of 56.9%. As above, grinding prior to flotation is expected to greatly improve gold and sulfide recoveries.

Additional testing by an independent company involved running material over a shaker table and further refining the concentrate on a Gemini table. The conclusion was that the material from the Tremblay and Twin Creek deposits responded to gravity concentration with gold recovery ranging from 44 to 55% in approximately 10 weight percent of the feed. In the coarser, higher grade berm area of the Tremblay tailings, the grade of this heavy mineral concentrate was 0.294 opt Au. The concentrate from the finer portion of the Tremblay tailings graded 0.186 opt Au. The Gemini cleaner table concentrates showed free gold in the sample indicating that a gold concentrate as well as a gold sulfide concentrate could be produced.

Magnetic separation tests showed that the tailings contain 4.8% magnetite and 27.2% of +100 mesh garnet.

These preliminary results are very encouraging and further testing as well as bulk sampling of the tailings is planned for 1995.

TAM O'SHANTER PROPERTY, B.C. (100% KRR)

The Tam O'Shanter property is located just west of Greenwood, B.C., covering an area of approximately 24 square kilometres. The property is adjacent to and covers parts of the historic Deadwood and Copper Mountain Camps.

The claims are underlain by volcanics and sediments of the Late Paleozoic Knob Hill Group, intruded by Cretaceous dykes and stocks, and covered in part by Tertiary (Eocene) sediments and volcanics. The Tertiary sediments form the eastern part of the Toroda Graben in this part of the property. A large northeast trending fault, the Deadwood Fault, passes through the claims, forming the eastern boundary of the graben. South of the border the Toroda Creek Graben is important in controlling mineralization at the Granny deposit (about 30 kilometres south of the Tam O'Shanter property). The nearby Eocene Republic Graben controls gold mineralization at Republic, Washington where over 2 million ounces of gold have been produced since 1937, with an average grade of 0.6 opt Au.

On the Tam O'Shanter property a large area of epithermal alteration (intense clay alteration and silica flooding) occurs in the Tertiary sediments along the Deadwood Fault zone, with local pyrite mineralization and brecciation. Silicification and quartz veining also occur in Knob Hill Group rocks.

Drilling in 1991 and 1992 by Minnova identified a roughly 2 metre wide northwest trending quartz vein within Knob Hill Group rocks, southeast of the large altered area described above. The drilled zone contains values of 0.3 to 1.0 opt Au, over a strike length of over 700 metres. Due to a change in direction of the company Minnova returned the property, without testing the northwestern extension of this zone into the area of the Deadwood Fault and of the exposed epithermal alteration.

There is an excellent target here, both to extend the known gold zone, and to test for a source to the zone related to the Deadwood Fault. In addition, pervasive alteration of the Eocene and Permian porous sediments indicates excellent potential for a bulk tonnage type gold deposit, where these units are intersected by the Tertiary faults. Drilling in 1995 will test these targets.



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MARCH CREEK PROPERTY, B.C. (100% KRR)

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The March Creek property is located about 8 kilometres west of Midway, covering an area of approximately 15 square kilometres. The property is located 5 kilometres northeast of the Crown Jewel deposit, and in an area with excellent potential for both Au (+ Cu) skarn mineralization, as well as for epithermal Au-Ag mineralization and for vein or bulk tonnage type mineralization related to thrust faulting.

The claims are underlain by a series of volcanic flows of the Eocene Marron Formation with minor sediments of the Eocene Kettle River Formation. The Eocene rocks form the western portion of the Toroda Creek Graben in the property area, with a complex set of steep, north trending faults forming the western graben boundary. As noted above in the discussion of the Tam O'Shanter property, the Toroda Creek graben is an important control in the distribution of epithermal mineralization. West of the graben boundary, metasediments and metavolcanics of the Permian Attwood and Knob Hill Groups occur. At the nearby Crown Jewel deposit, where reserves are 8.7 million tons at 0.186 opt Au, gold skarn mineralization occurs in Permian Knob Hill Group rocks. A number of gold skarns are also known in the Toroda graben in the Curlew-Republic area, with Tertiary aged mineralization of Permian metasediments related to the intrusion of Eocene rocks (ie. Key-Overlook with 800,000 tons of 0.142 opt Au, and Lamefoot with 1.6 million tons of 0.19 opt Au). Finally, a northwest trending and moderately northeast dipping, pre-Tertiary thrust fault is evident in the Permian rocks west of the Tertiary graben. The presence of this type of faulting provides the possibility for a third type of mineralization. In the Greenwood area, numerous precious and base metal occurrences are known to be related to this episode of faulting (ie. Atheisten-Jackpot, Imperial-Riverside, Midway Mine, Skomac).

The claims were staked in 1989 to follow-up anomalous Au,Cu,Pb,Zn from heavy mineral sampling. The claims were optioned to Battle Mountain in 1990 and a small program of ground work was completed. Soil sampling revealed several areas of anomalous gold, as well as a large area of anomalous copper, spatially associated with a north trending Tertiary fault. Mapping identified several areas of silicification within the Tertiary volcanics near this structure, as well as minor skarn development in Permian rocks. The source of the soil and stream anomalies was not located, and the property was returned to Kettle River.

The close proximity of the property to the Buckhorn Mountain Crown Jewel deposit, along with favourable geology and structure, and the unexplained heavy mineral anomalies make this a very promising target. In particular, the Au-Cu soil anomaly spatially associated with Tertiary faulting is encouraging, since at Phoenix, Tertiary epithermal Au-Cu veining is closely associated with older Cu-Au skarn mineralization. The next phase of exploration for the property, to be completed in the summer, is an airborne radiometric, magnetic and EM survey. This technique has recently proven to be very effective in identifying areas of alteration related to a wide variety of mineral deposits.

PERKY CLAIM, B.C. (100% KRR)

The Perky property is located about 20 kilometres southwest of Pentlton, covering an area of 5 square kilometres. The claim was staked to cover structurally controlled epithermal alteration with anomalous gold exposed on surface. The property has good potential for both large bulk tonnage type mineralization (Wenatchee type), as well as for high grade bonanza type veins. Little exploration has been done, and the known showing is untested both along strike and at depth.

The claim is underlain entirely by basaltic and andesitic flows of the Eocene Marron Formation. The volcanics overly a polymictic pebble to boulder conglomerate (the Eocene Springbrook Formation) which is exposed on surface to the west of the property, and forms the base of the Tertiary in the property area.

PERKY - CON'T

Alteration occurs in the Marron volcanics, consisting of silicification and chalcedony veining (with anomalous gold to 1229 ppb), as well as argillic alteration. This alteration is associated with steep north trending structures. At Republic, Washington, the epithermal veins occur in the Eocene Sanpoil volcanics, the equivalent of the Marron Formation. Over 4 million ounces of gold have been produced from the Republic Camp since the early 1900's. Elsewhere in the southern Okanogan, epithermal-type mineralization occurs in Marron equivalent volcanics at the Brett property.

In contrast to the Marron volcanics, conglomerates of the underlying Springbrook Formation form a good, porous horizon and provide the possibility of pervasive type, bulk tonnage mineralization, similar to that at Wenatchee, Washington (the Cannon Mine has reserves in the order of 5 million tons of 0.21 opt Au).

The Perky showing is essentially untested. The minor amount of ground geophysics done was very successful in identifying structures and areas of alteration along the structures. Further ground work and drilling of the surface showings and geophysical anomalies is planned for 1995.

SGN #1 CLAIM, MANITOBA (50% KRR, 50% NNA)

The SGN #1 claim is located along the Grass River, 8 kilometres southwest of Elbow Lake, in the Flin Flon - Snow Lake greenstone belt. The area has historically been important as a gold camp. Interest in the area has been renewed as a result of the Pioneer Metals Puffy Lake deposit, as well as recent discoveries by Hudson Bay, Dunlop, and Ram Petroleum.

Typically gold occurs in quartz veins and shear zones, of significant widths, related to NW trending, steep SE dipping structures, and to the contact of porphyritic intrusions with mafic volcanics. The SGN #1 claims has an excellent setting for hosting such mineralization. The NW trending Grass River Fault passes through the claim, forming the Cranberry Shear Zone. This fault zone controls known gold mineralization in the Elbow Lake, Grass River and Cranberry Lakes areas. East-west trending structures intersect the Grass River

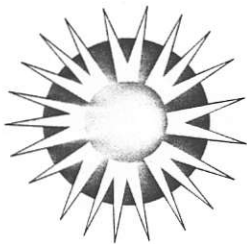
Fault in the central claim area. An airborne geophysical survey was conducted over the property in early 1995, which helped to locate and identify these structures.

In the central claim area, near the junction of the NW and EW structures, an 8 metre wide tuffaceous zone was drilled in the 1950's during a base metal exploration program. The zone is weak to strongly silicified and contains sections of pyrite and chalcopyrite mineralization. It is untested for gold.

Plans for 1995 include detailed prospecting and geological mapping of the property, and drill testing of the above described zone, as well as other targets resulting from the mapping program.



An artist's conception of the Phoenix pit in the 1970's, with buildings of the former town superimposed in their correct original places. by Frank Western Smith



About the logo

The logo for Kettle River Resources Ltd. represents the shadow pattern of a round, brilliant cut diamond immersed in methylene iodide (a heavy liquid), positioned on a white background and illuminated overhead by a single light source. This is done by gemologists to help determine the identity of a true diamond, versus the diamond simulants such as Cubic Zirconium (CZ), Strontium Titanate, G.G.G. and Y.A.G.

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