THE NEWSPAPER'S VIEW he Sum Hug, 29/6 B.C. needs more than PR spin to ensure a prosperous future

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There's little doubt that British Columbia is in the midst of a construction boom with more than \$100 billion worth of projects planned or under way. But to suggest, as the provincial government does, that this level of activity demonstrates investors' high level of confidence in the provincial economy or that it will provide long-term job opportunities is — to put it charitably — pure spin.

Not to rain on the parade, but most of the entries in the government's <u>Major Projects Inventory released</u> last week have been there for some time — a few dating back nearly a decade when a different party was in power and the economy was on the skids. In fact, only 71 of the 769 projects are new to the latest quarterly report, representing capital investment of \$5.4 billion that will only be realized in the unlikely event they all proceed.

Furthermore, about \$2 billion of this new investment is in residential development, which may help alleviate the housing crunch but does little to increase B.C.'s productive capacity and incomes.

And those confident investors the government claims are counting on B.C.'s continued growth are mainly taxpayers who are funding the biggest capital projects — from the Ministry of Transport's Gateway Program to the Surrey Health Services Capacity Initiative.

The largest private sector project is a preliminary proposal from Pembina Pipeline Corp. to build a marine terminal at Kitimat and a pipeline to Summit Lake near Prince George to carry condensate to Edmonton, a project valued at \$1 billion. So far, it's mainly talk. Pembina has yet to confirm capacity commitments from shippers. Besides, the proposal reflects confidence in Alberta's economy rather than B.C.'s. The condensate will be used to dilute bitumen and heavy oil from Alberta's oilsands so it can be shipped to export markets.

Another of the <u>big private</u> projects cited in the inventory is the <u>\$650-mil</u>lion development of the Kutcho Creek Mine near Dease Lake by Western Keltic Mines. The company recently hired a new management team to conduct a feasibility study on the the copper-zinc deposit. Since April, when the study was announced, the price of Western Keltic Mines's stock has <u>dropped by</u> more than half to 45 cents a share from a high of 92 cents, suggesting investors are not nearly as excited about the prospect as is the government.

Of course, there is plenty of good economic news in B.C. The Bank of Montreal forecasts growth in gross domestic product of 3.5 per cent this year while personal disposable income is expected to jump by more than seven per cent according to the Conference Board. Retail sales are robust, unemployment remains at 30year lows and the value of exports has been rising.

But recent statistics indicate that the torrid pace of economic growth is slowing. Manufacturing shipments declined in the second quarter of 2006, and a slackening in the rate of growth of non-residential permits suggests moderation in industrial and commercial construction.

More importantly, B.C. still suffers from weak research and development spending, not much investment in machinery and equipment, low labour productivity, a lack of large companies (outside of the resource sector) and head offices, insufficient training in science, engineering and technical trades and a small number of value-added manufacturers. Failure to inculcate a culture of innovation and risk-taking does not bode well for B.C.'s future prosperity.

The inventory of major projects may look impressive, but it is not a reliable indicator of economic health. Building houses in Esquimalt won't support the economy for long. What will support our economy is much more business (machinery and equipment) investment.

B.C. will have to <u>work harder</u> and <u>smarter</u> to stay <u>competitive</u> in the <u>global marketplace</u> if it's to attract the kind of investment that could boost productivity and incomes in the years to come.



ueenstake Resources Ltd. [QRL-TSX] recently acquired the Jerritt Canyon property near Elko, Nevada that has four operating underground gold mines. The acquisition, completed in June, included a 1.5 million ton/year mill with associated infrastructure and 100 square iles of exploration lands. Queenstake management is of the view there are sufficient resources and reserves for between five and seven years of production with further exploration expected to yield more ore reserves. The company anticipates that direct production costs over the next five years will average about US \$240 per ounce. Chris Davie, president, says the project is expected to produce some 1.5 million ounces of gold over the next six to seven years.

Queenstake is now approaching the end of its first quarter as owner of Jerritt Canyon. Third quarter production is expected to be about 78,000 ounces. Revenues for the quarter from the sale of 73,000 ounces of gold should total approximately US \$26,400,000 at an average sale price of US \$362 per ounce. Cash operating costs are expected to be US \$265 per ounce and then gradually decrease to about US\$250 per ounce.

As estimated by Donald Colli, Chief Mine Geologist, and Mark Odell, Mine Manager, (qualified persons as defined by Canadian National Instrument 43-101), total proven and probable reserves as of June 30, 2003 stand at 524,168 ounces. Measured and indicated resources are 1,952,590 ounces as compared to 1,837,685 ounces as reported at December 25, 2002.

Queenstake has been increasing the pace of development at Jerritt Canyon and over the next few months results from a definition drilling program from newly developed underground drifts will be incorporated into a new resource and reserve estimate by the end of this year.



NEWS Western Keltic Acquires Kutcho Creek Project

Don McInnes, president, reports Western Keltic Mines Inc. [WKM-TSXV] has agreed to acquire the Kutcho Creek volcanogenic massive sulphide deposits located in northern British Columbia. When the purchase is completed from Barrick Gold Corp. [ABX-TSX], it will be the first time that the three known deposits that make up the Kutcho Creek land package will have been assembled under one owner.

Discovered in the late 1970s, the three Kutcho Creek sulphide deposits were explored through the 1980s. The largest deposit, the Kutcho deposit, contains an open-pittable reserve of 14.2 million tonnes grading 1.76% copper, 3.47% zinc, 34.2 grams silver/tonne and 0.34 grams gold/tonne as stated in a report by independent consultants Wright Engineers in a 1981 pre-feasibility study. The Esso West deposit, the smallest one, hosts an inferred resource of 1.5 million tonnes averaging 3.37% copper, 5.71% zinc, 63.4 grams silver/tonne and 0.54 grams gold/tonne. The Esso West deposit remains open to expansion. The third deposit, the Kutcho lens, has a strike length of 1,700

metres, a maximum thickness of 40 metres and extends down to a depth of some 200 metres. Previous operators spent more than \$20 million on exploration.

As proposed in the out-of-date prefeasibility study, the mining plan would require significantly higher metal prices. However, McInnes says that the company has estimated an indicated resource for the higher-grade core zone of the Kutcho deposit totalling 6.3 million tonnes grading 2.71% copper, 4.01% zinc, 46.5 grams silver/tonne and 0.52 grams gold/tonne. Western Keltic plans to evaluate the potential for underground mining of this material together with that of the Esso West deposit. As many early drill holes were not assayed for gold, there is a possibility to improve the precious metal grades. In addition, some exploration targets were never drilled. It is a common practice for mining companies to blend ore from more than one deposit and, by using careful grade control, optimize the operation for maximum profitability and long life. ◆



Kika Ross, MSc. P.Geo., with URS and Alistair Kent, P.Eng. with AMEC, sampling and examining, respectively, the creek draining the exposed part of the Kutcho lens. Photo courtesy of Western Keltic Mines Inc.



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gold's price moves inversely with the true value of the U.S. Dollar. His studies go back to the beginning of the last century and if you read his newsletters, you will see that Paul's logic is quite reasonable.

The U.S. Dollar may firm up in the short term, but gold's behavior is telling us that over time it will soften until we get on sound economic footing.

Jim Rogers, author of the bestseller Adventure Capitalist wrote the following about Bill Bonner's book Financial Reckoning Day, "As Financial Reckoning Day demonstrates, artificially low interest rates and rapid credit creation policies set by Alan Greenspan and the Federal Reserve caused the bubble in U.S. stocks of the late "90s... Now, policies being pursued at the Fed are making the bubble worse. They are changing it from a stock market bubble to a consumption and housing bubble.

And when those bubbles burst, it's going to be worse than the stock market bubble..."

Bill was a guest on our program a few weeks ago and he was very convincing when he told listeners that some changes need to be made to get the economy back on sound footing.

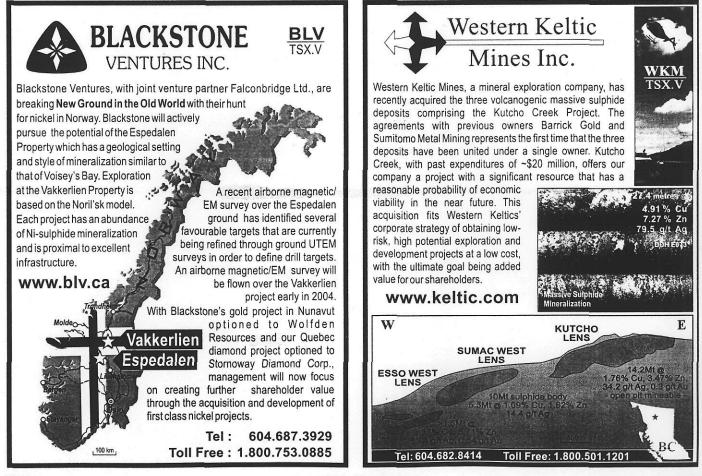
That is really what the gold market is telling us. Investors are directing their capital in that direction because they are convinced that it represents safety.

Does this mean that we are on the verge of a major economic collapse? In my opinion, it's a matter of degree. I agree with Congressman Ron Paul when he says that we are in for some rough economic times. And I do believe that Paul van Eden is correct when he discusses the inverse correlation between the U.S. Dollar and gold. I am hedging my bets by investing some of my family's money in gold related investments. To me it simply makes good sense

There are always two sides to every argument. The Dow Jones Industrial Average, over the long term, has appreciated and our country is based on the companies that make it up. Some of our investments should be there. Just how much is the question. The recent guests on The Korelin Business Report have convinced me that under the current conditions my investing emphasis should be weighted toward hard asset type savings.

Editor's Note:

Alexander B. Korelin contributes his Northwest Commentary to several media outlets and he consults for public companies. He hosts The Korelin Business Report, a weekly radio program Portland, Oregon's KUIK, 1360AM. The program is archived at: www.kuik.com/KH/KH.html



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felsic intrusions at the Capoose prospect (~64-7.
K. Dunn, 1988) contain either porphyry copper or on. The youngest deposits of Eocene are, comprise K-Ar: ~47-50Ma., Whole Rock: K. Dunn, 1988)
; K-Ar: 49 Ma. Biotite, 52 Ma. Hornblende).

ul/Transitional Au/Ag prospect, Nechako Plateau

verty was located as a result of Granges' Tahtsa 973. Through successive follow up surveys Au and through drill programs in 1985-1986. Cumulative des 41 diamond and 34 reverse circulation holes.

urassic Hazelton group Naglico formation rhyolite controlled and has a close spatial association with wbanded subvolcanic rhyolite dikes. Alteration ion and kaolinization. Mineralization is comprised yrite, pyrrhotite, with lesser sulphosalts and native generally falling in the range 1.27-4.86 g/t Au for vary from roughly 1:1 to 1:10 for high and low Au

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'OSTER DISPLAYS VE SULPHIDES - Pacific Ballroom

s, President, Western Keltic Mines Ltd.

b Sedex Deposit, Gataga District, Northeastern

unada, J.L. Nelson, British Columbia, Ministry of urces, Geological Survey Branch, R. Farmer, Teck

nsists of two mineralized lithofacies - a restricted erally extensive barite \pm sulphide (mostly pyrite) iciclastic rocks of the Middle to Late Devonian rbonate facies may be stratigraphically lower than orm an apron outboard to the sulphide-carbonate consists of massive and laminated spheroidal and , sphalerite and carbonaceous siliceous mudstone

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and chert. The barite \pm sulphide fac. onsists of beds of blebby and laminated barite and laminated pyrite (minor sphalerite and galena) interbedded with siliceous black argillite.

The Sullivan Deposit and its Geologic Environment

The Sullivan Project Group (Project leader: John W. Lydon, Geological Survey of Canada

The Sullivan Project is led by the Geological Survey of Canada in collaboration with Cominco Ltd. and involves researches from the B.C. Geological Survey, U.S. Geological Survey and a number of universities. The purpose of the Sullivan Project is to document the geological and geochemical details of the Sullivan deposit for the public record, and to enhance understanding of its geological environment pertinent to mineral exploration models. Studies focus on the tectonic setting and basinal environment of the host Aldridge Formation, controls on siting of the Sullivan deposit, timing of mineralization and its relationship to gabbro sill emplacement, the nature and source of hydrothermal fluids, and the processes of ore formation within the Sullivan orebody. The compiled results of the Sullivan Project will be published as a GSC volume "The Sullivan deposit and its Geological Environment" in 1996.

The Kutcho VMS Deposit, British Columbia

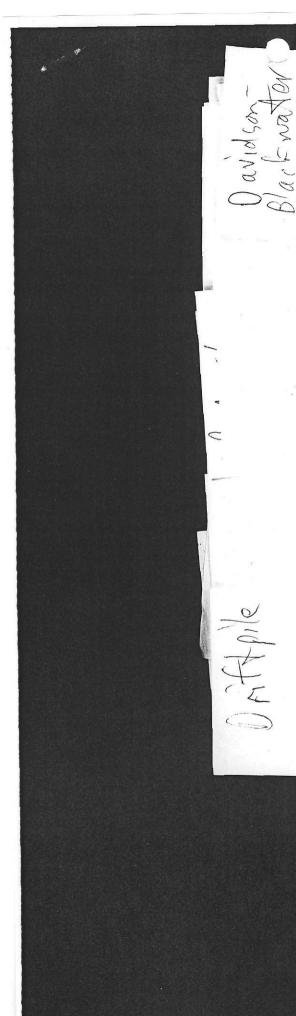
John F.H. Thompson, T.J. Barret, R.L. Sherlock, F. Childe, Mineral Deposit Research Unit, Department of Geological Sciences, University of British Columbia, P. Holbek, Princeton Mining Corp.

The Kutcho deposit is located within the King Salmon allochthon, a discrete thrust and fault-bounded block of uncertain terrane affiliation, in northwestern British Columbia. The allochthon comprises an assemblage of volcanic and intrusive rocks overlain by a sedimentary package. The lower part of the volcanic assemblage consists of intercalated rhyolite and basalt of mixed flow and fragmental character and minor sediments, intruded by an equigranular trondhjemite and several quartzplagioclase porphyritic bodies of rhyolite composition. The upper part of the assemblage is dominated by felsic fragmental rocks of probable mass flow and pyroclastic origin, which are divided into a lower plagioclase-quartz porphyritic unit, an overlying fine grained tuffaceous unit, and an upper coarse quartz-plagioclase porphyritic unit. The volcanic assemblage is overlain by locally well graded siltstones and argillites, capped by a conglomeratic unit containing locally derived volcanic clasts. Several thick plagioclase-augite porphyritic gabbro sills intrude both the siltstone-argillite package and the upper part of the underlying volcanic assemblage.

Massive sulphide mineralization occurs in several lenses at the base of the upper quartz-plagioclase porphyritic fragmental unit. The adit across the Kutcho lens exposes massive chalcopyrite-sphalerite-pyrite mineralization locally cross-cut by bornite-rich veins, and a finely laminated dolomite-sulphide unit that may represent a primary carbonate-rich exhalite. Alteration in both footwall and hanging wall is

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characterized by quartz-sericite-dolc___e-pyrite with pyrite-quartz veins common in the footwall.

Volcanic Setting of the H-W Massive Sulfide Deposit, Myra Falls, Southern British Columbia

Timothy J. Barrett, and Ross L. Sherlock, Mineral Deposit Research Unit, Department of Geological Sciences, University of British Columbia

The Myra Falls deposits occur on Vancouver Island, in Paleozoic Sicker Group rocks of the Wrangellia terrane. The H-W orebody has total past production and current reserves of 13.7 million tonnes grading 1.9% copper, 0.35% lead, 4.0% zinc, 1.9 g/t gold, and 30.9 g/t silver (Pearson, 1993). The stratigraphic footwall to the orebody consists of >300 metres of mainly massive to pillowed mafic flows of basaltic andesite composition and island-arc tholeitic affinity. Directly under the orebody, a strong sericite-quartz-pyrite alteration zone interpreted as the main feeder pipe extends 25-50 metres into the footwall. Calculated mass changes in this zone reveal very large additions of K, near total loss of Ca and Na, and variable changes in Si. Whole rock δ^{18} O values and fluid inclusion data indicate data indicate that temperatures in the feeder pipe were ~150-250 \approx C.

Above the H-W orebody are 50-100 metres of subaqueous felsic volcaniclastic mass flows and pyroclastic beds, and intercalated black mudstones, collectively known as the H-W interval. Felsic rocks in this interval are of transitional to mildly calcalkaline affinity. Tholeiitic mafic sills commonly intrude the H-W interval, producing widespread peperitic textures and disruption of bedding, indicating intrusion into unconsolidated sediments.

Directly above the H-W deposit, a thick sequence of black mudstone accumulated with episodic introduction of felsic mass flows. However, in the direction of the North Lens, a small deposit located several hundred metres laterally away from the H-W orebody, the proportion of felsic mass flows increases until massive rhyolites are encountered. These relations suggest that the H-W deposit may have attained its large size in part because only mudstones were accumulating in this area of the basin. By contrast, deposition of the North Lens orebody was arrested by the extrusion of massive rhyolites and associated flanking felsic debris.

The Tulsequah Chief and Big Bull Volcanogenic Massive Sulphide Deposits, Northern British Columbia

Chris F.B. Sebert, Timothy J. Barrett, and Ross L. Sherlock, Mineral Deposit Research Unit, Department of Geological Sciences, University of British Columbia,

The Devono-Mississippian Tulsequah Chief and associated nearby Big Bull volcanogenic massive sulphide deposits are in the Stikine Terrane about 100 kilometers southwest of Atlin, BC. At the Tulsequah Chief deposit, the stratigraphically lowest unit is composed of basalts and basaltic andesites rocks which form

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