

Paper Abstract  
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The Cogburn Magnesium Project  
By  
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Leader Mining International Inc.

The Cogburn Magnesium Deposit is a large ultramafic intrusive body containing consistently high-grade magnesium silicate (+24% magnesium). The discovery, made in June 2001, is located 115 kilometres east of Vancouver, British Columbia, Canada near the town of Hope. The deposit has a significant infrastructure advantage in that high-capacity grid electric power, high-pressure mainline natural gas, mainline rail, provincial highways and barge access to nearby deep-sea ports are all adjacent to the property. In addition, the project is located in a historic mining and forest products extraction region with extensive supporting skilled labour and a broad spectrum of service industries.

The enriched Emory Zone (~+26% magnesium) extends over a one kilometre square area, within the ten kilometre by two kilometre surface exposure of the main ultramafic intrusive body. A composite surface sample, extracted from outcrops exposed along new logging road cuts within the Emory Zone, was tested for hydrochloric leach extraction of magnesium followed by purification and filtration by Process Research ORTECH Inc. under the direction of HATCH. Successful testing resulted in scoping level activities during the summer of 2001, culminating in the completion of a Scoping Study by HATCH in October. The Study determined that the Cogburn deposit because of its large size, high magnesium grade, low impurity levels, favourable metallurgy, and proximity to infrastructure has the potential to be developed into a world-class, long-life magnesium operation.

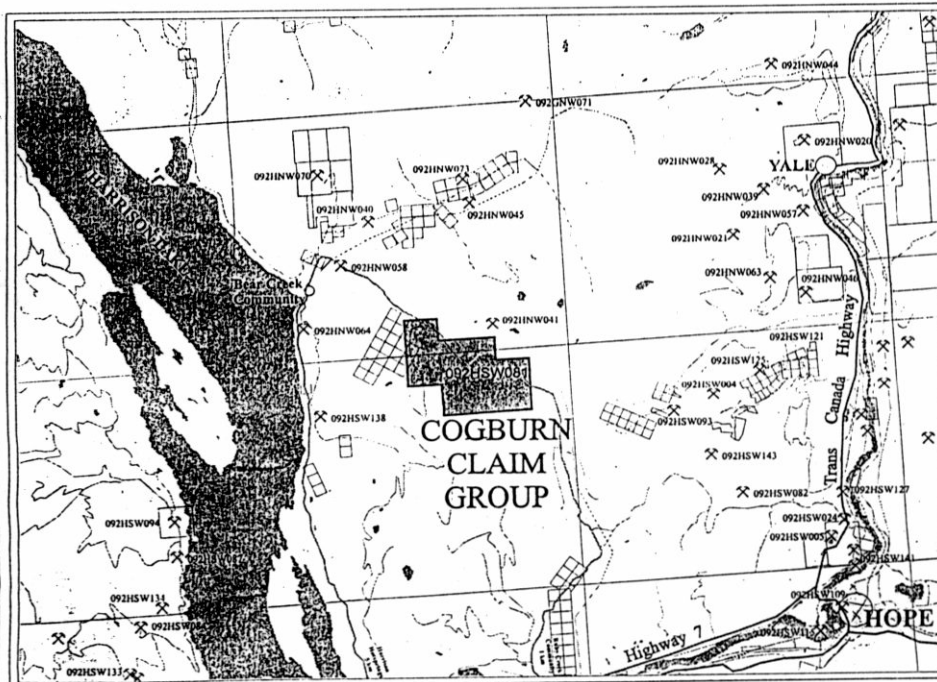
To fast-track Cogburn development, Leader Mining appointed a Project Senior Advisory Group in December. In January the Company commenced a Production Feasibility Study for a 120,000 mtpy high-purity magnesium metal operation for completion mid-December 2002. Management has also commenced, in lock-step with the Feasibility, negotiations for options on electric power and natural gas and will soon be approaching major automobile manufacturers for long-term off-take contracts.

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# **COGBURN PROPERTY**

## ***Fact Sheet, June 2000***

- Location**
- 120 km east of Vancouver, near Hope, British Columbia, Canada. Reference NTS maps 092H05E and 092H12E.
- Access**
- By logging road from Ruby Creek at Highway 7 then up Garnet Creek to its headwaters (16km), or from Harrison Hot Springs by logging road up Cogburn Creek and then to the headwaters of Talc Creek (42km).
- Land Package Ownership**
- Nine contiguous Mineral Claims consisting of 68 Units (1,700ha) in the New Westminster Mining Division.
  - John A. Chapman (50%) and KGE Management Ltd. (50%). Gerald G. Carlson is the President and major shareholder of KGE Management Ltd.
- Completed Exploration**
- In 1971, Giant Explorations Ltd. (a subsidiary of Giant Mascot Mines Ltd.) discovered the Cogburn nickel deposit while conducting a wide area airborne geophysical and stream silt geochemistry program. The survey area, which identified a number of ultramafic intrusions, covered a 12km wide swath from the Giant Mascot nickel, copper, cobalt mine northeast 25km to Harrison Lake. This preliminary work was followed by grid surveys over the Cogburn deposit area, including soil geochemistry, magnetics and rock chip sampling and then core drilling (1971 to 1975).
- Resources**
- The only mention of resource potential was in the George Cross News Letter of September 1, 1971, "Present indications are in the order of 200,000 tons per vertical foot, which gives 100 million tons per 500 feet of depth ... A number of the samples from the property have been subjected to carefully controlled ascorbic acid tests which indicate that between 90% and 95% of the nickel is in sulfide form ... All of the samples from within the discovery area have presented a remarkably consistent value between 0.19% and 0.25% nickel". G.E. Eastwood, a geologist with the BC Department of Mines, in his property report (EMPR GEM 1971 pgs 258-264) stated, "samples from southeast of Daihoff Creek (Cogburn deposit) ..... contained 0.19% to 0.22% sulfide nickel .... These results are to be compared with Nickel Syndicate averages of 0.22% nickel obtained from systematic rock chip sampling over an area of approximately 80 acres and 0.20% from diamond-drill core ... Southeast of Daihoff Creek 17 holes were diamond drilled to an aggregate length of over 4,000 feet". PGE values within the deposit are not known.
- Area Production**
- Eight kilometers to the east of Cogburn is the former Pride of Emory mine that was operated by Giant Mascot Mines Ltd. from 1958 to 1974. The mine produced 4.3 million tonnes of ore and recovered 26.6 million kg of nickel, 13.2 million kg of copper, 140 thousand kg of cobalt and minor gold and silver. At closure in 1974 the resource estimate was 863 thousand tonnes grading 0.75% nickel, 0.30% copper and 0.03% cobalt. Zones within the Pride of Emory deposit were reported to contain PGE's. The Minfile No. 092HSW004 reports, "In 1936, one 22.7 tonne bulk sample taken from the 488 metre (1,600 feet) crosscut averaged 2.74 grams per tonne platinum and palladium and 0.68 grams per tonne gold. Early samples of ore yielded 3.98 grams per tonne platinum and palladium and 7.89 grams per tonne gold .... In 1978, ..... three samples collected on the surface were anomalous in platinum and yielded 1.17, 1.61 and 1.61 grams per tonne platinum respectively ... One high-grade sample from the bottom of the "1500" orebody assayed 2.85 grams per tonne platinum and 4.94 grams per tonne palladium".
- Geology**
- The Cogburn deposit, similar to the Pride of Emory, is within ultramafic rocks composed primarily of altered pyroxenite and peridotite. The pyroxenite is strongly uralitized and contains pyrrhotite with minor magnetite and traces of pyrite, chalcopyrite and possibly pentlandite that are all finely disseminated throughout the rock.
- Environment**
- The deposit is located between 800 meters and 1,500 meters elevation on the headwaters of Talc and Garnet Creeks. The area is being actively logged. In the past 10 years approximately 60% of the claim area has been clear-cut.
- Potential**
- The Cogburn deposit and surrounding area has potential for discovery of further nickel, copper, cobalt and PGE's. The deposit setting lends it to development as a large low-grade open pit operation. Major highways, high capacity electric transmission lines and a high capacity natural gas pipeline are all located within 16 kilometers of the deposit.
- Status**
- The Cogburn claims are available for option. Contact John Chapman at 604-536-8356 (E-mail: [jacms1@sprynet.com](mailto:jacms1@sprynet.com)), or Gerald Carlson at 604-688-0833 (E-mail: [gcarlson@copper-ridge.com](mailto:gcarlson@copper-ridge.com)).



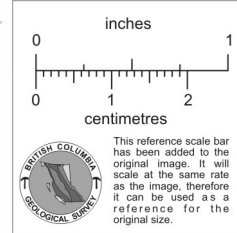
**FAST FACTS**

■ In Canada, magnesium mines or proposed mines are:  
 Beccanour, Quebec  
 Haley Station, Ontario  
 Danville, Quebec  
 Inwood, Manitoba  
 Cassiar, B.C.  
 Baie Verte, Newfoundland

■ In other parts of the world, magnesium is found in:  
 China, U.S. Russia, Norway, Israel, France, Brazil, Kazakhstan, Ukraine, Serbia, Montenegro, India, Japan, Australia

■ Properties of magnesium:  
 magnesium is the lightest of structural metals,  
 forms compounds or alloys with other metals  
 ■ melting point—650 degrees C  
 ■ boiling point—1103 degrees C  
 ■ colour—silvery grey  
 ■ atomic number—12  
 ■ atomic mass—24.31

■ Magnesium is used for:  
 primarily the manufacture of car parts in the United States;  
 secondary uses include pop can tops, fireworks, aerospace components, laptop computers, mobile phones and chemical manufacturing processes



# Mine-boggling potential

Hundreds of jobs could be generated by magnesium mine near Hot Springs

By Lisa Morry  
 Times Reporter

A billion-dollar magnesium mine east of Harrison Hot Springs could provide the economic grail the Fraser Valley badly needs.  
 The rich, unusually pure deposit, among the largest in the world with enough resource for 500 years, could mean a huge economic boost, not only for the Fraser Valley, but also for the ailing provincial economy.  
 Leader Mining, a Calgary-based company, is on-site right now, conducting tests with the intention of attracting investors to build a \$1 billion to \$1.5

billion open-pit magnesium mine eight kilometres east of the Resort at Harrison Hot Springs. The mine, if built, would employ 1,000 to 1,200 people during construction and 300 to 500 people during operation with job spinoffs of four to five times that, say company officials.  
 Leader Mining discovered a 10 kilometre by two kilometre surface deposit with values consistently more than 25 per cent. That means there are low levels of contaminating metals.  
 That makes the deposit a very clean one, according to Jasi Nikhanj, president of Leader Mining International Inc.

"It's a lot cleaner than a lot of the field stock being used," Nikhanj said, terming the deposit an "unique opportunity" in a good location. It has the potential to be a very big project and to become a dominant player in the global market, he said.  
 The Harrison deposit is in a logged area, with a logging road leading into the site. It has easy access to cheap hydro power and natural gas. It's close to Highway 1 and the Port of Vancouver.  
 "It has all that going for it," said Nikhanj, adding, "We are moving forward in an aggressive way."

Nikhanj said they are investing \$8 to 10 million U.S. over the next 10 to 12 months in taking more samples, drilling, environmental baseline work, site selection and negotiations with B.C. Hydro and B.C. Gas.  
 Chilliwack-Kent MLA Barry Penner said the Ministry of Mines in Victoria said Leader Mining is a very credible organization and some of the people they've retained are leaders in the industry. One of those people is credited with starting two mines in Canada at a time when no other mines were opening up, Penner said.  
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# Mine-boggling potential

FROM PAGE 1

Penner said he's cautiously optimistic about the project, but added that he was cautious about Stream, which met and exceeded expectations in Chilliwack.  
 "Mining in B.C. has been on its back with the previous provincial government. This is a major shot in the arm for our economy if it pans out. This is more than a local good news story."  
 Penner said a lot of development work and major investors are needed, adding that Leader Mining seems to be able to attract investment.  
 "It's not going to happen overnight," Penner said. "But there is work going on right now."  
 The provincial government's role is in ensuring the project meets environmental standards and in helping procure sufficient electricity for the project.  
 "At this point everything's moving along," Penner said. "The company indicates they're very enthusiastic about B.C. under the new government and the tax structure."

**"We are concentrating on the local force and local professionals because we believe they know the province, the rules and the environment."**

JASI NIKHANJ, PRESIDENT OF LEADER MINING INTERNATIONAL INC.

Penner credited the government's move to remove taxes from major equipment as an incentive for this project.  
 Asked if the government will provide any financial help, Penner said their policy is no subsidies for business, adding that the project has a lot going for it that may eliminate the need for subsidies, including roads and proximity to infrastructure.  
 "What we get out of it is hundreds of high-paying jobs and the income taxes and spin-off benefits of those jobs, taxes from a profitable corporation and hopefully the development of secondary industries, according to Penner.  
 "We need jobs. Double emphasis," he said.  
 And they should be local jobs, according to Nikhanj. "We are concentrating on the local force and local professionals because we believe they know the province, the rules and the environment," he said. "B.C. is endowed with high-calibre mining expertise and we're going to draw on that."  
 Leader Mining's website is [www.leadermining.com](http://www.leadermining.com)

# Leader has shaky mining track record

By DAVID BAINES  
SPECIAL TO THE TIMES

A Calgary stock promoter who told *the Times* last week that he intends to build a \$1 billion to \$1.5-billion magnesium mining facility near Hope has a history of promoting mining projects that do not succeed.

Jasi Nikhanj, president of Leader Mining International Inc., which is listed on the Canadian Venture Exchange, told *the Times* that the magnesium deposit, eight kilometres east of the Harrison Hot Springs Resort, is among the largest in the world.

In a front-page article entitled "Mine-boggling potential," Nikhanj said the resource was large enough to produce 90,000 tonnes of magnesium per year for the next 500 years.

He also said the mine could employ up to 1,200 people during construction and up to 500 during operation with job spin-offs four to five times that.

Investors appear to be excited about the Leader's prospects. Its stock price, which traded as low as 23 cents in June, peaked at \$2.75 on Nov. 20 in brisk trading volume, and has since settled to \$2.42.

But disclosure records show that, since the company went public on the Alberta Stock Exchange in 1987, Nikhanj has promoted exploration projects in numerous Canadian provinces including Manitoba, Saskatchewan, Ontario, Nova Scotia and Labrador, and far-flung coun-

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