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# Canadian Mining Magazine

Winter 2008 - 2009

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Canadian Mining Magazine

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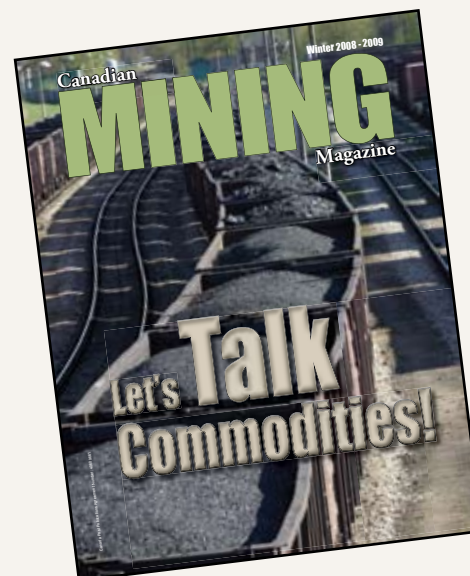
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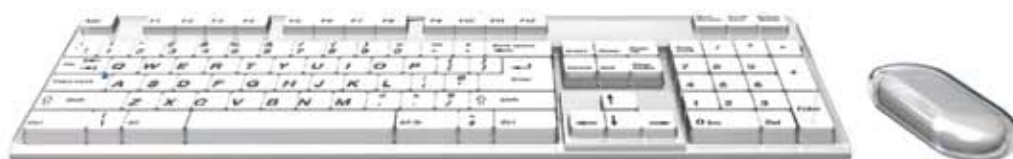


## ON THE COVER:

This issue our cover story talks about how drastically the Canadian mining landscape has changed in just one short year. Share prices have declined, credit has tightened and across-the-board, confidence is waning. Is there hope? Read this article (page 5) for a perspective from Daryl Hodges of Jennings Capital Inc.

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# The “About Face” of Canadian Mining

By Daryl Hodges, M.Sc., Jennings Capital Inc.

About one year ago, we put forth an upbeat article entitled The Changing Face of Canadian Mining. How quickly things change! Take a look around the Canadian mining landscape today and you see a very different scene from just five months ago. A hurricane has swept over the financial business that has decimated the resource industry in three ways: share price declines, tightening up of credit, and across-the-board loss of confidence. The result is an almost complete halt in project advancement, whether it be in exploration, development, or construction.

Innumerable projects have been put on hold, and mining equipment that recently had two-year lead times is now becoming available. Wait a few months and these pieces will likely be available at discounts. The reasons for this financial meltdown will likely be debated and studied for years by future business students, so we won't try to enter into that debate. The share price declines and the tight credit are systemic liquidity problems related to the financial markets. The loss of investor confidence is a two-pronged sword. One is the loss of confidence that companies can advance their projects, the other is whether the projects will ever be economic.

Project advancement relies on funding which has all but dried up these days. The project economics rely on metal prices, costs and management. The price of the exchange traded metals for copper, nickel, zinc, (see accompanying charts) have fallen off cliffs at various times this year. The minor metal prices have tended to hold up, in some cases (tungsten and cobalt) but have been the subject of a rapid sell-off and negative forward sentiment (molybdenum). In all cases, the price corrections are believed to be overdone. But the reality is that nobody is feeling confident on which way the market is trending. The costs of projects are influenced by the cost of raw materials, and as these drop, the metal prices required for positive project economics will fall.

We are in a different world from where we were back in the first

quarter of the year when project construction costs were escalating every two months. The silver lining here is that we will likely see operating costs come down, as material costs fall, and of course as the companies react by cutting costs. In these volatile times, metal prices and costs are in such a state of flux that investors have been left in a state of confusion. In this sense they are well-aligned with managements.

And what has been the reaction of the mining sector? The industry has been very fast to react. The list of mine closures and projects that have been put on hold, or which have been shelved is very long. Those few lucky ones that were able to get into production are now struggling under the current price weakness. Mine operations are once again being trimmed back, development work deferred, all costs are being heavily contained. Exploration spending peaked in the first half of 2008, but is rapidly declining. There is a shortage of cash on the balance sheets.

Since 2002, the commodity prices had risen to dizzying heights, as everybody reading this article is aware. Most analysts and industry people knew the peak prices of 2007 were not sustainable, however few, if any, predicted the dramatic fall that has occurred in 2008.

The “vibrant and tenacious” Canadian junior mining sector has also been stung by lack of available funds and several projects have been affected. New mines in Canada are struggling to make a profit, such as North American Tungsten Corporation Ltd., in the Yukon, First Metals Inc. in Noranda, Quebec, and Blue Note Mining Inc. in New Brunswick. Advanced development projects have either been shelved, such as the Ruby Creek molybdenum project of Adanac Molybdenum Corporation, and the nickel deposits of Canadian Royalties Inc., in Raglan, Quebec, or are being closely re-evaluated such as Afton copper-gold deposit of NewGold Inc., in B.C. The Imperial Metals Corporation and Princeton Mining Corporation, copper mines in B.C., are coming close to the marginal costs. Few companies managed to finally make it to production, notable exceptions being Mercator Minerals



We are in a different world from where we were back in the first quarter of the year when project construction costs were escalating every two months. The silver lining here is that we will likely see operating costs come down, as material costs fall, and of course as the companies react by cutting costs.

Ltd., Globestar Mining Corporation, Red Back Mining Inc., Semafo Inc., and Katanga Mining Ltd.

Hardship and difficult times are not uncommon in the mining industry and in the current downturn it is difficult to see a way forward. The junior mining sector will go through a period of difficulty and will likely see consolidation. Once the capital markets and metal prices rebound, the industry will continue on the long commodity bull market, and the bulls will come with a thundering sound, even louder than this current cycle.



*Daryl Hodges is a co-founder of the Toronto operation of Jennings Capital Inc., and currently oversees the investment banking group. The focus of the group is small- to mid-cap corporations with above average growth potential. Over the last ten years Daryl has carried out both mining equity research and investment banking at Jennings Capital, and has structured, arranged, participated in, and led financings and M&A transactions totaling billions of dollars. He has worked in the mining industry for 18 years throughout Canada, Sweden, Finland, Russia and South-East Asia, before entering the investment industry.*



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# Bilateral Investment Treaties Provide Protections to Canadian Mining Investments

By Orlando Silva, John Boscarol and Roger Taplin

**M**ining projects, by their very nature, are commercially risky investments. There is never a guarantee for any given deposit that significant upfront expenses at the exploration stage will lead to commercially profitable operations at the exploitation stage. Add to this the fact that many of the most promising mining prospects in the world are found in countries that suffer from varying degrees of political and economic instability, and the risks can increase exponentially.

Traditionally, when subjected to government action detrimental to their foreign operations, investors had to either seek a diplomatic resolution at the state-to-state level or take action in the domestic courts. However, achieving an effective diplomatic resolution of the matter requires strong support from the investor's government, and the investor has little, if any, control over the process. At the same time, the investor may view the domestic court system of the host state, for one reason or another, as being inadequate or biased towards the host government.

## Bilateral Investment Treaties (BITs)

Bilateral investment treaties (BITs), referred to as foreign investment protection and promotion agreements (FIPAs) in

Canada, can serve to alleviate much of the political and non-commercial risks associated with mining ventures and are a powerful tool for businesses seeking protection for their investments in foreign jurisdictions. In the event of a dispute stemming from government action such as discriminatory, unfair or expropriatory treatment, BITs enable investors to seek monetary damages from the foreign government by bringing a claim before an independent arbitral tribunal.

Over the last decade or so, BITs have developed as a viable option for businesses seeking protection for their investments in foreign jurisdictions. At the end of 2007 there were some 2,500 BITs in force worldwide, over eight times the number of BITs that existed in 1990.

## Canada's increasing BIT and FTA activity

Within the last couple of years, Canada has stepped up efforts in negotiating BITs, or in some cases free trade agreements (FTAs) that provide for similar investor protections, with a variety of countries that have significant Canadian investment in the mining sector.

For example, on June 20, 2007, the Canada-Peru BIT<sup>1</sup> came into force, adding to the BITs that Canada already has with countries in the region where there is significant Canadian investment in the mining

sector (such as Ecuador). Canadians are among Peru's largest foreign investors and the largest foreign investors in the mining sector. The Canada-Peru BIT was the first BIT to be negotiated by Canada in eight years and the first to be based on Canada's new Model BIT. It was followed by the signing of a comprehensive FTA with Peru on May 29, 2008. The investment chapter of the Canada-Peru FTA builds on and includes provisions from the Canada-Peru BIT.

On November 21, 2008, Canada announced the signing of an FTA with Colombia, one that is on par with the Canada-Peru FTA in terms of scope with similar investor protections provided under its investment chapter.

Canada is currently negotiating BITs with six countries, including Tanzania and Mongolia (countries with significant mining prospects), and has recently concluded BITs with India, Jordan and Madagascar. Canada expects to conclude BIT negotiations with China shortly. Within the last couple of years, Canada has launched FTA negotiations with the Dominican Republic, the Caribbean Community and Jordan. Canada also recently held a successful inaugural round of negotiations toward an FTA with Panama. These took place in October 2008 in Ottawa.

## Protections available under Canada's BITs?

The three key substantive investment obligations imposed on host governments under Canadian BITs are as follows:

- Non-discriminatory treatment: The foreign investor must be accorded treatment no less favourable than that accorded in like circumstances to domestic investors (national treatment) and investors from any other country (most-favoured-nation treatment);
- Fair and equitable treatment: The foreign investor must be accorded fair and equitable treatment in accordance with international law; and
- Expropriation: Expropriation or measures equivalent to expropriation must be for a public purpose, non-discriminatory, in accordance with due process of law, and accompanied by payment of prompt, adequate and effective compensation.

A BIT may include other obligations relating to transfers of profits and other amounts out of the host territory, performance requirements, and host government measures concerning the nationality of senior management and boards of directors.

The primary attraction of a BIT is its dispute resolution mechanism. In addition to government-to-government procedures, BITs also contain a private investor-state dispute mechanism enabling private foreign entities to sue host governments for damages arising out of their failure to comply with their BIT obligations. This mechanism is available regardless of whether the investor already has a contractual or arbitration arrangement with the host state or one of its governmental entities.

Under existing Canadian BITs, the foreign investor has the option of proceeding with either an ad hoc arbitral panel under the United Nations Commission on International Trade Law (UNCITRAL) Rules or proceeding with an institutional alternative, such as an arbitral panel established under the auspices of the World Bank's International Centre for the Settlement of Investment Disputes (ICSID). Most BITs contain acknowledgements that each treaty government has consented to the submission of claims to arbitration under the BIT in accordance with the requirements of international conventions for the recognition and enforcement of arbitral awards, including the 1958 New York Convention.

Generally, BITs require that the arbitral proceedings be brought in a state that is party to the New York Convention. Under the New York Convention, contracting parties are required to enforce arbitral awards made in the territory of other state parties. The procedure for obtaining the enforcement of an arbitral award under the New York Convention is relatively straightforward. The arbitral award does not have to be confirmed by the courts in the jurisdiction of the seat of arbitration. The investor seeking enforcement is only required to supply the court in the enforcing jurisdiction with a duly authenticated original award and the relevant BIT.

Within the last couple of years, Canada has stepped up efforts in negotiating BITs, or in some cases free trade agreements (FTAs) that provide for similar investor protections, with a variety of countries that have significant Canadian investment in the mining sector.

## Conclusion

Given the significant risks associated with mining operations in foreign jurisdictions, it is critically important that companies not only possess the requisite mining sector expertise, but also understand the BIT protections available to them when considering mining investments in foreign countries. Certainly, when faced with discriminatory, unfair or expropriatory measures from host governments, BITs offer a potentially powerful means for mining companies to address these challenges, in addition to traditional government-to-government diplomacy or the pursuit of a remedy in the domestic court system. Even in the absence of a full-blown arbitral dispute, understanding one's rights under BITs can play a critical role in any negotiations or settlement discussions with the host government.

There are currently at least six reported BIT cases involving the mining sector pending before ICSID and at least one reported BIT case pending under the UNCITRAL Rules against host governments in Burundi, Congo, Venezuela, Bolivia, South Africa and the Kyrgyz Republic. The claims range from in the hundreds of millions to over a billion dollars. Approximately a quarter of all BIT cases filed to date relate to mining or oil and gas exploration activities. **M**

*McCarthy Tétrault LLP is a full-service national law firm with significant experience in all aspects of international trade and investment law and mining law. The authors of this article, John Boscarior, Orlando Silva and Roger Taplin, are partners with the firm. John Boscarior and Orlando Silva are in the firm's International Trade and Investment Law Group, and are based in Toronto. They regularly advise clients on BIT matters.*

*The firm's International Trade and Investment Law Group is recognized worldwide for its experience in trade and investment law matters, and McCarthy Tétrault is consistently ranked as one of Canada's leading firms in international trade law. Our lawyers acted as counsel for a Canadian investor against a Latin American government in the first Investor-State dispute litigated under one of Canada's BITs. Roger Taplin is in the firm's Mining Law Group and is based in Vancouver. The firm's Mining Group is involved in some of the largest national and international mining transactions.*

*Our lawyers work under both common and civil law regimes and in numerous languages in key mining regions around the world, including Africa, Australia, Central and South America and China.*

1. Prior to its BIT with Peru, Canada had concluded BITs with the following countries (entry into force date): Russia (1989), Poland (1990), Czech Republic (1992), Slovak Republic (1992), Argentina (1993), Hungary (1992), Ukraine (1995), Latvia (1995), Philippines (1996), Trinidad & Tobago (1996), Barbados (1997), Ecuador (1997), Egypt (1997), Romania (1997), Venezuela (1998), Panama (1998), Thailand (1998), Armenia (1999), Uruguay (1999), Lebanon (1999), Costa Rica (1999), and Croatia (2001).



# IR Keeps West Virginia Coal Miners Safe

When all safety procedures are followed, coal mining is a very safe industry. Infrared testing is used to monitor the direct current trolley systems that power transportation vehicles. The trolley system can extend for 20 to 30 miles underground, and consists of a positive or negatively charged wire mounted near the roof on insulators. The rail (track) is the return. These systems power rail jeeps and locomotives that transport men and supplies to working sections of the underground. Trolley insulators are approximately 10 feet apart and insulate the trolley wire from either the roof or ground. If these insulators short, they can heat the roof and cause either a fire or a cave-in. With infrared testing, we can see bad insulators and loose connections on the track and rectifiers before they present a danger.

## INTRODUCTION

An underground mine is similar to a small city. It takes electrical power, water, air ventilation and a transportation system to provide a safe working environment. One of these components is the transportation system (trolley system) and this is what

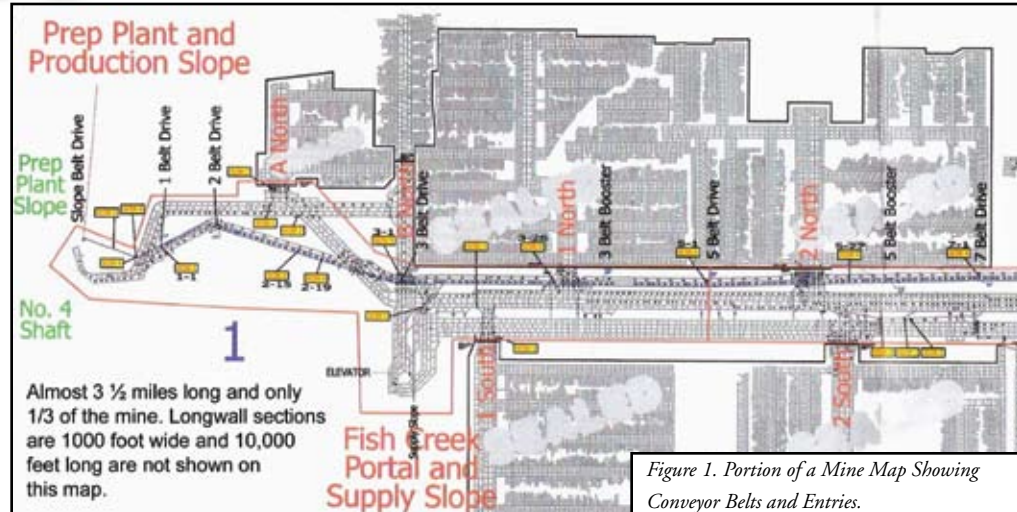


Figure 1. Portion of a Mine Map Showing Conveyor Belts and Entries.

we will cover in this paper. To understand the safety advantages of using infrared in the mining industry, we should first look at how the trolley system works.

Figure 1 shows the portion of a mine map showing the belt line and some of the main line entries. A mine begins with between 3 to 12 entries and expands to include many sections and longwall areas. As the mine expands, the employees need transportation to the working and advancing areas. This is accomplished in many mines with track and electrical DC powered equipment. Other

mines use battery or diesel power for transportation of employees and materials.

Figure 2 shows a close-up view of the mine entrances used to transport coal on belts, track entries, and entries for ventilation. The second portion of the figure shows a diagram of the trolley system with high voltage (7,200 or 12,470 volts) feeding a rectifier that supplies 300 volts DC to the trolley and track system. The trolley wire is normally positive and the rails are the return. The trolley wire is attached to insulators and hung from the mine roof along with a feeder wire. These items are shown later in the infrared images.

Figure 3 shows a diagram of a shorted trolley insulator which poses a dangerous situation. The roof can heat and potentially catch on fire, or heat over time and cause a roof fall, along with the shock hazard of the roof bolt being energized with 300 volts DC.

## UNDERGROUND MINING SURVEY

During a trolley survey we rode in an open mantrip or jeep to view the trolley and rails. The underground temperature may vary in the winter from 17.7°C (0°F) at an intake area to 21°C (70°F) in other locations. An average temperature underground is between 7.2 and 12.7°C (45 and 55°F). The infrared camera normally is used with a -12.2°C (10°F) temperature span and emissivity of 0.98. Air ventilation splits from multiple ventilation fans cause temperature changes and air currents up to 32 kilometres per hour (20 miles per hour). In these areas of high air movement, I recommend completing the survey in both directions of travel and at a slow traveling speed. Some track

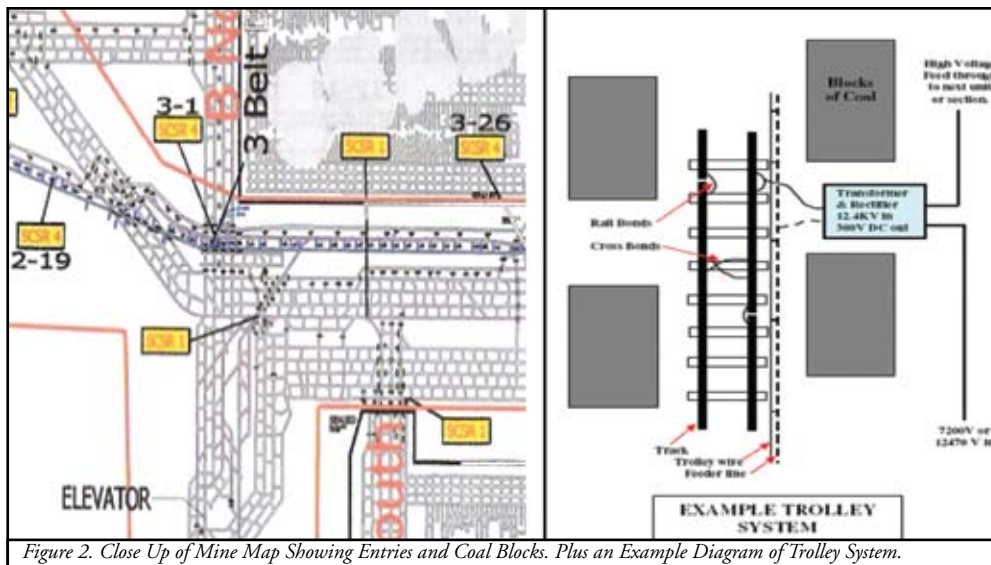


Figure 2. Close Up of Mine Map Showing Entries and Coal Blocks. Plus an Example Diagram of Trolley System.

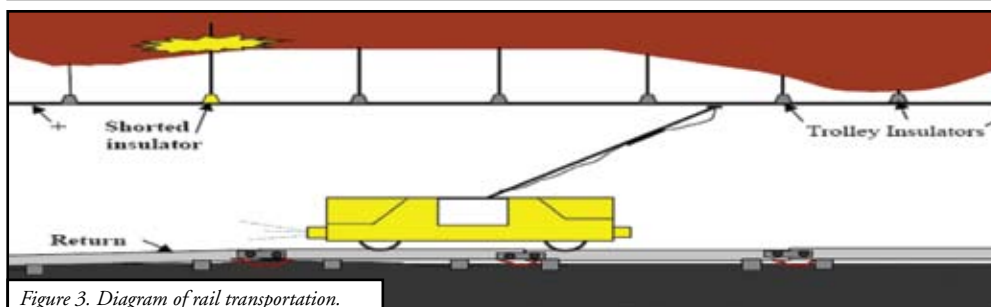


Figure 3. Diagram of rail transportation.

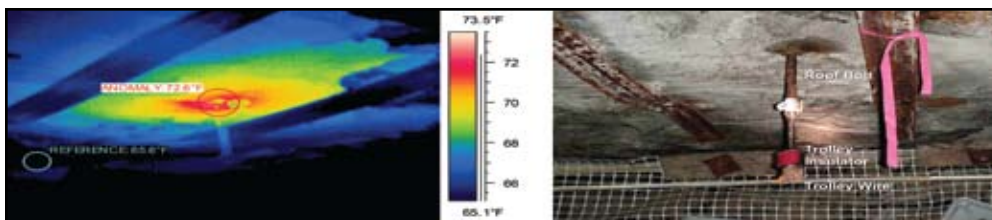


Figure 4. Thermogram/photo pair showing problem of a shorted insulator putting current into the top heating the top.

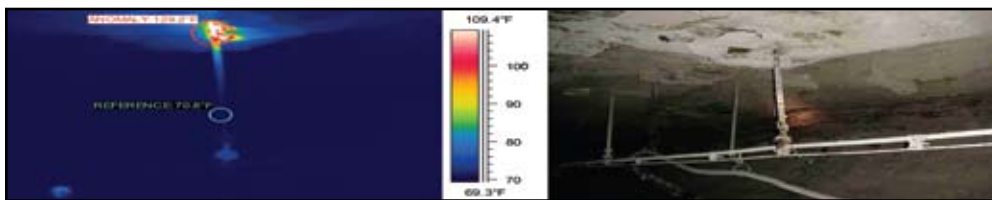


Figure 5. Thermogram/photo pair showing problem of a shorted insulator putting current into the top heating the top.

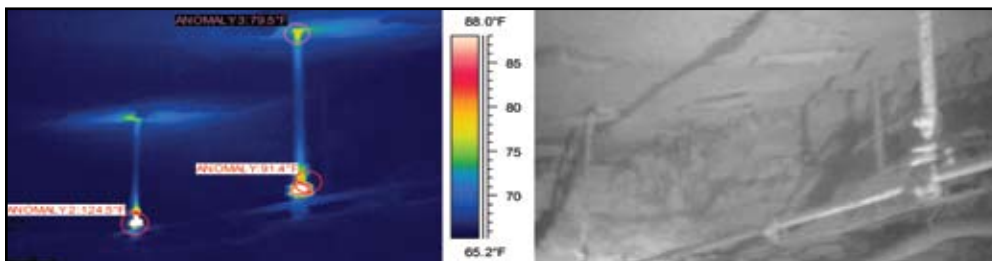


Figure 6. Thermogram/photo pair showing problem of a TWO shorted insulator putting current into the top heating the roof. This is a potential for a roof fall.

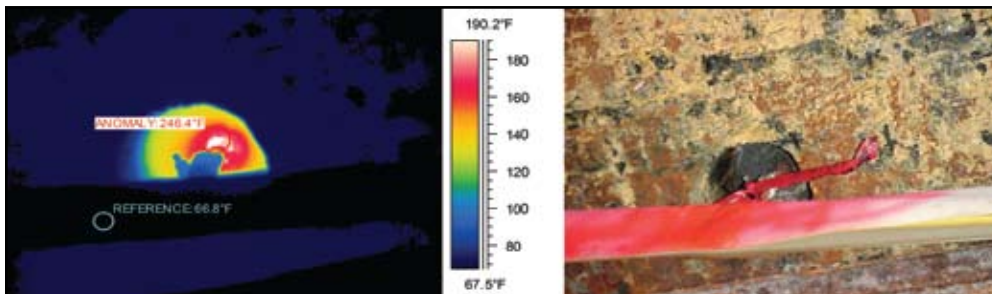


Figure 7. Thermogram/photo pair showing problem of a shorted insulator putting current into the top heating the roof to a high temperature.

entries with large amounts of air flow are not suitable for infrared testing. If exact temperatures are needed then calculations for air flow are completed. In the majority of my mining experience, the delta T is the most important part of the survey.

During an underground survey we also check many other electrical and mechanical components. Examples are high voltage plugs on cables and transformers, rectifier connections, belt starter low voltage connections, water pump starter boxes, belt drive gear cases and motor temperatures and other specific items as requested by our customers. The following examples show many potentially serious underground conditions.

Figure 4 is an IR image of a shorted roof bolt that is sending current into the roof and heating the roof. At temperatures in the 22°C (72°F) range, a -13.8°C (7°F) temperature rise is not a serious condition. However it still needs to be corrected immediately.

Figure 5 shows a shorted trolley insulator that has raised the temperature of the roof above 120 degrees where the roof bolt enters the roof. A serious condition, as we do not know the temperature two feet further up in the roof.

Figure 6 shows a serious condition: multiple shorted trolley insulators leaking current into a wider roof area.

This heating of the roof can cause a major roof fall, disrupting production and adding a major safety hazard. I have seen one location where multiple shorted insulators were found and corrected with in a few hours, but within a month the roof fell in (120 foot long, 4 to 12 foot high and 20 foot wide) causing that area of the mine to be closed. A fall can cause a disruption in ventilation and a mine evacuation along with the possibility of injury. All my customers view infrared inspections as a very important part of their predictive and proactive maintenance program.

Figure 7 shows a very high temperature area (remember we are looking into a hole and the temperature is not exact). The roof bolt holding the trolley insulator was installed in a hole. The temperature of the roof bolt was above 93.3°C (200°F). With the air movement (see ribbon in digital picture) you could still feel heat radiating from the hole. The roof bolt was removed from the hole and water was pumped into the roof. Temperatures were taken by management until the roof was back to ambient temperature. This location was close to the elevator area leaving the bottom of the mine, and a

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fire would present a very serious situation. I need to repeat that any fire or potential for a fire underground in or around a coal seam is a very serious situation and extreme measures must be taken to prevent it.

Figure 8 shows a slightly different anomaly, with the trolley support attached to a metal cross roof strap. When the trolley insulator shorts or fails, then the metal strap is energized and poses a safety hazard. The trolley insulator has a temperature of 59.4°C (139°F) and has a good connection to the cross roof strap, but the strap has a location where the voltage is seeking ground part way across the strap. Communication and control cables are attached to these straps in some locations and could present a shock hazard to an electrician working on a communication circuit or control circuit, plus the always potential fire hazard. The trolley insulator was immediately replaced and the area was rechecked at the end of the shift.

Figure 9 shows another shorted insulator with a temperature of 74.4°C (166°F). You can also see that the roof is starting to heat. The lower picture of the insulator shows a good digital picture of the insulator and how it is burnt on the bottom. These items were corrected immediately.

Figure 10 shows the return side with also loose connections on the rail. The rails are connected with plates and bolts. To make a good electrical connection a track bond (copper wire) is welded between each rail. If these become loose over time the electrical return is compromised and there is a rise in temperature. Many of these loose rail connections can cause poor return to the rectifiers. This causes the breakers to be set lower making less power available to the track equipment. This is also the potential for fire in dry locations. The IR picture below shows a temperature of 32.2°C (90°F) and a 20° delta T. Investigation showed that these bonds were loose, and they were later re-welded.

Figure 11 shows a 12KV plug with radiant heat coming from the inside of the plug. Normal high voltage plugs have the same temperature across the plug. The higher temperature ring at the connection of the plugs indicates emitted infrared radiation from inside the plugs, which are the same emissivity. The male to female connections were burnt inside the plugs. The plugs were replaced.

Figure 12 shows a 7.2KV plug on a rectifier with a temperature of 34.4°C (94°F).

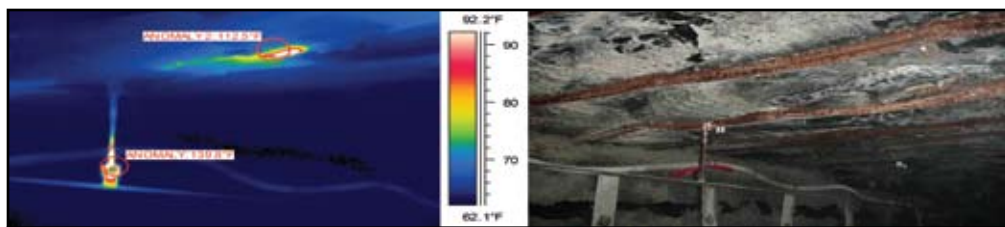


Figure 8. Thermogram/photo pair showing problem of a shorted trolley insulator attached to a metal roof strap.

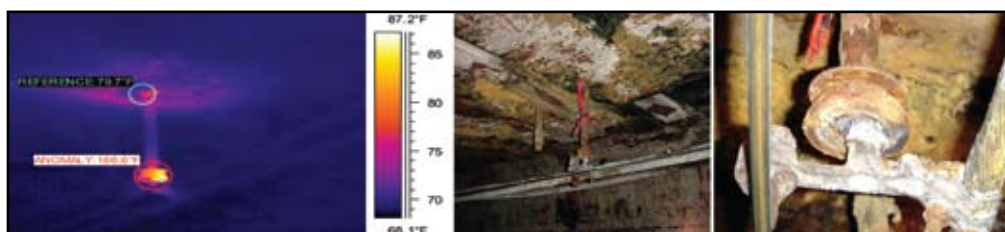





Figure 9. Thermogram/photo pair showing problem of a burnt trolley insulator.



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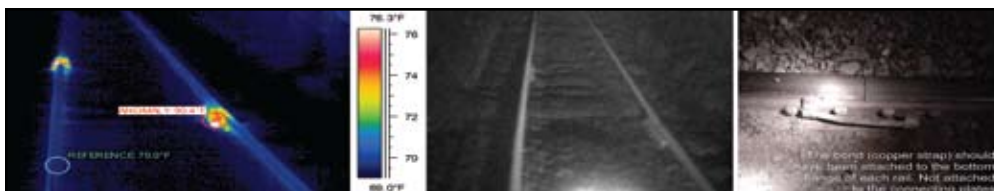


Figure 10. Thermogram/photo pair showing a problem on the rail connection which is the return for the DC power.

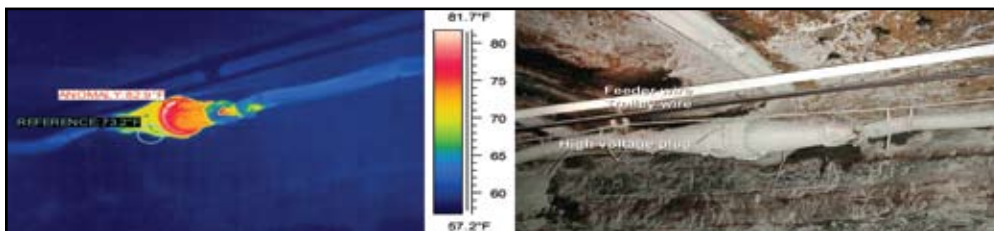


Figure 11. Thermogram/photo pair showing problem on a high voltage connector.

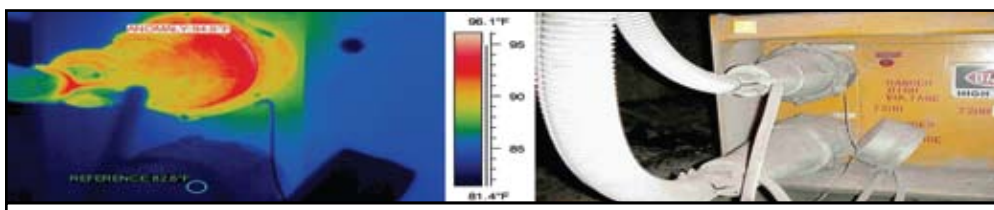


Figure 12. Thermogram/photo pair showing problem on an incoming high voltage plug on a rectifier box.

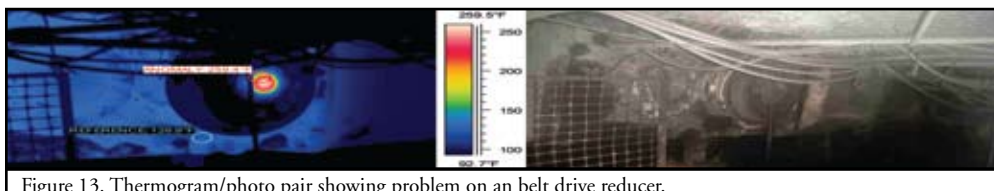


Figure 13. Thermogram/photo pair showing problem on an belt drive reducer.

The top plug has a delta T of -11.1°C (12°F) compared to the bottom plug. The plug and receptacle was replaced and loose connections were found inside the plug. These insulated plugs give the thermographer and indirect measurement due to their insulation. As such the internal temperature rise can be several times the surface temperature rise. There are many high voltage plugs underground. The power feed cables are each 1000' long with plugs on each end. Plugs are on every rectifier, belt starter, section power center through out the mine. This equates to hundreds of high voltage plugs underground and potential electrical problems.

Figure 13 shows a mechanical problem on a belt drive reducer. The cooling fan is rubbing the housing and causing a temperature of 126.1°C (259°F). This is also a temperature rise of 56.1°C (133°F) compared to the reducer case.

This temperature could cause a bearing failure on the gear case, a possible fire, a possible burn if a person touched the heated metal guard. The area was guarded and the drive was shut down between shifts and the fan was moved back on the shaft to its original location and the set screws tightened. The unit was safely ready to start for the next shift.

## SUMMARY

Coal Mining is a very safe industry when all safety guidelines are followed. The utilization of Infrared Testing on DC trolley wire systems, high voltage connections, low voltage connections and mechanical components provides a safer working environment for the workers. The utilization of Infrared programs underground also increases availability of the needed systems for production. **M**

*The author wishes to thank his customers for the knowledge and help received from the underground personnel at each mine. This knowledge increases our ability to help all our customers, new and old, with their PdM programs. And thanks to the Infrared Training Center at FLIR Systems for the training needed to help us provide a professional Infrared Inspection.*

*Larry Massey is the owner of Massey Technical Services and is a Level 1 thermographer with one other Level 1 thermographer working for him. He has 30 years of mining experience with 5 years of infrared experience and 14 years of vibration experience, along with multiple degrees.*



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# La Belle Province Mines Success

## A mining explosion in Québec puts the province on the radar. But, will it last?

According to The Fraser Institute's Survey of Mining Companies 2007/2008, prospectors and investors who are looking to strike it rich should turn to Québec. The reason, says the report, is that mining executives surveyed checked off the province as having the best policy environment in the entire world for investment.

Each year over 350 mining executives and managers from around the world are quizzed on their opinions on the policy and mineral endowment of 68 jurisdictions on all continents, except Antarctica. Québec, which held the seventh spot on the list on the 2006/2007 survey, bumped Manitoba off the top spot. Another Canadian mining big shot, Alberta, dropped from runner up down to number four.

"Québec has always been viewed in a good light by the mining industry, primarily due to its favourable geology," said Fred McMahon, coordinator of the survey and the Institute's Director of Trade and Globalization Studies. "But Québec's government also provides a favourable policy environment to go along with strong mineral potential. Mining companies feel Québec's stable policies provide them with the certainty that reduces risk for long-term projects. Year after year, the survey bears out that above all, mineral exploration companies value stability and certainty when it comes to government policy."

The overall rankings are based on the survey's Policy Potential Index, a composite index that measures government policies including uncertainty concerning the administration, interpretation, and enforcement of existing regulations; environmental regulations; regulatory duplication and inconsistencies; taxation; uncertainty concerning native land claims and protected areas;

### A Canadian snapshot

According to The Fraser Institute's annual survey, after placing 5 provinces in the top 10 last year, only Québec, Alberta and Manitoba made the grade this year with New Brunswick falling to Number 13 from number 6 and Saskatchewan dropping to 12 from 10. This is the third consecutive year that Saskatchewan has fallen in the mining survey. Ontario also showed signs of recovery, moving up slightly to 18th from 20th. Nova Scotia had no change, ranking 17th again while Newfoundland was the lowest ranked province at 22nd, the same ranking as it had last year. The Northwest Territories continued to improve, moving up to 37th from 41st, while the Yukon Territory fell to 16th from 11th and Nunavut dropped to 54th from 39th.

infrastructure; socioeconomic agreements; political stability; labour issues; geological database; and security.

### Looking back

According to the Government of Québec's mining website, the history of mining in province goes back almost to the discovery of North America, when Jacques Cartier thought he had found diamonds and gold on the slopes of Cap Diamant. However, when he returned to France, Pliny, the lapidary of François I, announced that what he had actually discovered was quartz and pyrite.

The first true mines did not open in Québec until the 1840s, when several major mineral deposits were identified, mainly in the south. Following the discovery of a famous gold nugget in the Beauce region by Clothilde Gilbert, completely by chance, Québec experienced its first gold rush, and by 1847 the first alluvial gold operation had opened. This was also the period when Québec declared its ownership of all underground mineral resources and, by introducing various legislative and administrative measures, acted to control and promote exploration and mining in Québec.

After World War II, growth was concentrated mainly in the asbestos sector, and later in copper and iron. From 1922 to 1945 and 1955 to 1965, several discoveries were made and several new mines opened. The first "mining boom" of the early 20th century resulted from the discovery of surface deposits by prospectors using traditional methods, while the second resulted from the discovery of hidden deposits using aerial detection methods. For example, this technique was used to discover deposits of zinc and copper sulphates in the Matagami and Joutel regions, around the same time the Chapais-Chibougamau sector was being developed.

The last decades of the 20th century have brought a better understanding of how mineral deposits form, and allowed exploration at greater depths. Major discoveries such as those made at the Ansil, Bousquet 1 and 2, Doyon and Louvicourt mines, and Zone 20 in the LaRonde mine, are all from this period.

### By the numbers

Québec's strength lies not only in its raw materials, but also in the excellence of its labour pool, training institutions and specialist research centres. The mining and metals industry provides nearly 50,000 jobs, 9,000 of which are directly related to mines, quarries, and sand and gravel pits. In addition, it is a world leader in the capture and processing of geoscientific data.





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"In Québec, we have solid foundations upon which we can build when the time comes."

### Québec's mining industry and the financial crisis

In December 2008 over 2,000 participants visited the Château Frontenac during Québec Exploration 2008. Organized by Ministère des Ressources naturelles et de la Faune and Association de l'exploration minière du Québec (AEMQ), this conference brought together mineral exploration representatives as well as many visitors from around the world.

A major theme heard throughout the event was that of the financial crisis and its potential impact on Québec. "The current economic situation is affecting the industry, but that can't prevent us from working today to plan for tomorrow," stated Deputy Minister of Natural Resources and Wildlife Normand Bergeron. "In Québec, we have solid foundations upon which we can build when the time comes. We have a powerful raw material potential, recognized expertise, innovative policies that promote investment, and for a commitment to sustainable development. All these factors continue to make Québec one of the best places for exploration."

Marco Gagnon, the President of Association de l'exploration minière du Québec agrees. He said, "this past year will be one of the most memorable in the entire history of the industry. After an unprecedented mining boom in 2007 and during the first half of 2008, the entire global economy has been hit by a financial crisis that is having and will continue to have major repercussions on funding for mineral exploration companies and on the demand for raw materials in the short term. However, our industry has been through tough times before and will take advantage of everything Québec has to offer to bounce back and make new discoveries."

Acting as honorary President of the conference, Virginia Mines President and CEO André Gaumond remained positive about the industry's future. "Québec offers the mineral exploration industry exceptional advantages. These include unique mineral exploration and development incentives, extensive mining expertise that is recognized well beyond its borders, exceptional mineral potential, and infrastructures that allow access at all times to an immense and most often unexplored territory."

Québec certainly is recognized beyond Canada's border, as is evident in The Fraser Institute's annual survey. Will it hold top spot for next year? Survey says...

Stay tuned to future issues of Canadian Mining Magazine for the results.

M



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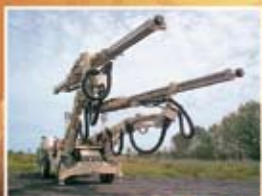


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### BHP deal dead?

In the fall edition of Canadian Mining Magazine we left you with a tale of mergers and making history... the story of a possible deal between BHP Billiton Plc and Rio Tinto. While poised to become the biggest coming-together of mega mining companies in Canada, this "fairy-tale" deal will not be happening as planned.

In November 2008 an article came through on the wires noting "Rio Tinto 'moving on' after BHP pulls takeover bid." According to the article, mining giant Rio Tinto planned on moving on after the world's biggest miner BHP Billiton dropped its 70 billion US dollar hostile takeover bid for the group.

The reason for walking away, according to BHP, was the deepening financial crisis and falling commodity prices. Had it happened, the proposed merger would have brought together the world's largest and third largest mining companies. Rio Tinto had repeatedly rejected offers, saying the all-stock deal drastically undervalued its assets.

Other entities were leery of the deal for other reasons. Concerns were that the proposed mega-deal would produce a mining Goliath that would have too much control. The proposal had still not been approved by the European Commission when BHP halted its bid.

The YahooNews.com article quoted Rio Tinto's Chairman Paul Skinner, as saying, "we didn't start this process, we didn't end this process. I can't predict what they may or may not do. I think the priority for Rio Tinto right now is to close a chapter, get on with our lives, and just continue our pursuit of shareholder value."



### Is it really over? Of course not!

On December 10th Rio Tinto announced that it would be slashing 14,000 staff, cut capital expenditure by \$US 5 billion and offload some assets not previously for sale to reduce debt by \$US 10 billion by the end of next year. The move is a result of Rio's share price falling on Australian and overseas markets after BHP walked away from the \$135 billion bid.

While investors reacted positively to Rio's rescue plan analysts criticised a lack of detail on the finer points of Rio's plan, which was labelled "drastic" by some. Analysts suggested the Chinese could be interested in Rio's aluminium refinery in Gove in the Northern Territory. Brazil's Vale was also named as a potential buyer. Because Chief Executive Tom Albanese said none of its assets were off limits, some analysts speculated that its iron ore operations in Western Australia's Pilbara region and its copper projects could also be on the market. According to a CBC.ca article, operations at the Northwest Territory's Diavik diamond mine will be scaled

back as part of the cost-cutting measures. Rio Tinto, which owns 60 per cent of Diavik, said it will try to keep layoffs to a minimum. The company will continue exploring for new deposits, but it will focus its efforts on one main area with high potential.

The Diavik mine is jointly owned by Rio Tinto subsidiary and the Harry Winston Diamond Corp. It employs about 700 people.

### Merger mishap

NEMI Northern Energy & Mining Inc. announced on December 10th, 2008 that further to the announcement on 22 October, 2008 errors in determining the partners' historical cash calls in the Peace River Coal Limited Partnership (PRC) had been made and hence their interest in the PRC had been affected.

The effect of this error was to reduce NEMI's PRC interest from an expected 16 to 17 per cent to approximately 12 per cent. Under the terms of the Merger Implementation Agreement, this constitutes a material adverse change in

respect of NEMI which allows Aviva to terminate the merger and also call for NEMI to pay Aviva the CAD\$1 million break fee as prescribed in the MIA. Aviva has issued a notice to NEMI to this effect. As a result, NEMI and Aviva will not be proceeding with the merger and all obligations under the MIA, other than payment of the break fee, have been terminated.

The Directors of both companies expressed disappointment the merger will not, at this time, proceed.

### Need to know? Check the web!

HudBay Minerals has launched a special section that details the proposed merger with Lundin Mining on its corporate web site. This section includes a webcast presentation by Allen J. Palmiere, CEO of HudBay, and offers information related to the proposed transaction. The site will be updated on a regular basis as new developments warrant.

To visit the special web site, go to [www.hudbayminerals.com/lundin/index.php](http://www.hudbayminerals.com/lundin/index.php). 



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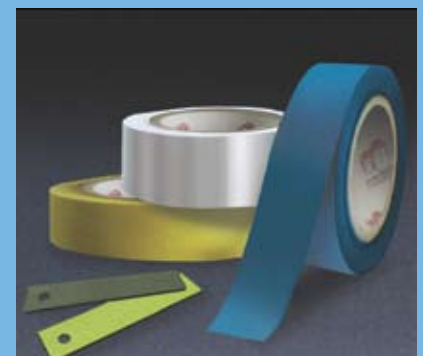
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### FLIR i50 offers numerous features

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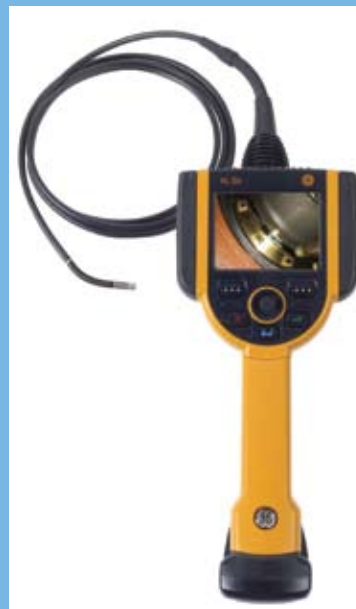
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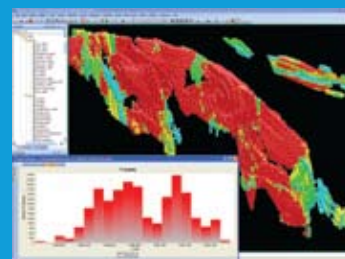
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# International Spotlight: Spain

Often known for its annual Running of the Bulls and its flashy Flamenco dancing, Spain also boasts an area of 504,030 km<sup>2</sup>, making it the second largest country in Western Europe, after France. Spain is located in Southwestern Europe on the Iberian Peninsula. Its mainland is bordered to the south and east by the Mediterranean Sea, except for a small land boundary with Gibraltar; to the north by France, Andorra and the Bay of Biscay; and to the west by the Atlantic Ocean and Portugal. Spanish territory also includes the Balaric Islands in the Mediterranean, the Canary Islands in the Atlantic Ocean off the African coast, and two autonomous cities in North Africa, Ceuta and Melilla, that border Morocco.

Spain has some of the most mineralized territory in Western Europe, including the volcanic-hosted massive sulfide (VMS) deposits of the Iberian Pyrite Belt (IPB), in southern Spain. The IPB alone is estimated to have yielded 1.7 billion tons of sulfides, and more than 80 VMS deposits have been recorded in which individual tonnages were in excess of 1 million tons. Spain also has the largest known reserves of celestite (Europe's sole producer, ranking second in

world production, behind Mexico); is home to the richest mercury deposit in the world and one of the biggest open-pit zinc mines in Europe; and remains the leading producer of sepiolite, with 70 per cent of world reserves (around Madrid). Spain is also the largest EU producer of mine lead and zinc, and is a major producer of pyrites, among other nonferrous and precious metals.

Ontario-based Kinbauri Gold Corp. is one company that is hoping to capitalize on Spain's mineral abundance. Kinbauri, which was been active in Spain since 2006, purchased assets lying within the Rio Narcea Gold Belt of northern Spain in 2007. The assets include the El Valle Mine and El Valle Plant (milling and smelting facility); the Carles Mine (15 km away) and two other properties within the Rio Narcea Gold Belt, Godán and La Brueva.

On January 16, 2007 Kinbauri signed an Option to Purchase Agreement for the Assets after an experienced mining/exploration team completed extensive due diligence. The team was encouraged with their findings. They indicated that the most credible plan to rejuvenate operations was to expand resources and confirm reserves through drilling and investigating the feasibility of various mining methods for Area 107 and Black Skarn North. Other prospective areas/zones with significant resources were confirmed.

Since purchasing the assets,

Kinbauri has completed over 30,000 m of underground drilling at El Valle and Carles, increasing resources in all categories substantially. "We picked up the properties in their early stages of development but they were mine-ready," explains Dr. Vern Rampton, President & CEO of Kinbauri Gold Corp. "We began exploration immediately and were encouraged by what we found."

The El Valle Mine and Carles Mine have gone through a basic environmental overview which have been approved. "We hope to have these mines back into production by 2011," says Dr. Rampton. "The Spanish government is eager to get them back up and running because when they are, there will be approximately 250 new jobs for local residents."

Dr. Rampton says that the federal government in Spain is very pro-mining, offering numerous subsidies for companies who want to explore the area. "The government is very interested in what you're doing but they're also very cooperative," he says. Dr. Rampton also points out that environmental regulations in Spain are comparable to Canada's regulations.

One of the biggest assets though, are the people. "They're very industrious and willing to work," says Dr. Rampton. "They're also eager to learn English. While most senior staff are bi-lingual, we have Spaniards who want to learn English and ex-pats who want to learn Spanish. We decided to be proactive and set up language classes for both. It has been extremely beneficial for our company and our employees."

**M**

**Editor's note:** The photos published along-side the international spotlight on South Africa in the Fall 2008 edition of Canadian Mining Magazine were printed in error. The correct pictures can be found in the online PDF, located at [www.canadianminingmagazine.com](http://www.canadianminingmagazine.com).



## The North

### YUKON

#### New certainty given to Yukon's mineral sector

The passing of amendments to the Quartz Mining Act and the Miners Lien Act in November 2008 gave new certainty to Yukon's mineral sector. "The amended Quartz Mining Act and Miners Lien Act provide valuable clarity and certainty to Yukon's mineral sector during this time of global economic uncertainty," Brad Cathers, Minister of Energy, Mines and Resources, said. "This legislation will encourage a mining industry that yields the most benefit to Yukoners, while remaining competitive with other jurisdictions." The Quartz Mining Act regulates hard rock mining in Yukon. The claims administration

and royalty sections of the Quartz Mining Act have been amended to lower exploration costs while ensuring Yukon has royalty rates for mine development that are competitive with other Canadian mining jurisdictions. The Miners Lien Act provides the opportunity for contractors and suppliers to lien mine and mineral assets in situations where they have not been paid for a good or service. Language and definitions in the Miners Lien Act have been amended to provide better clarity and certainty for suppliers, the mining industry and lenders that provide debt capital for mine development. Amendments to the Quartz Mining Act and the Miners Lien Act were prepared following public advertising campaigns and a

series of meetings, information sessions and workshops, beginning in early 2008. For more information about mining in Yukon visit [www.yukonmining.com](http://www.yukonmining.com).

### NORTHWEST TERRITORIES

#### GNWT, diamond mines to take collaborative approach to building northern mining workforce in the NWT

A Memorandum of Understanding (MOU) between the Government of the Northwest Territories (GNWT) and the Northwest Territories (NWT) three diamond mines was established in November 2008 to further the development and retention of a diamond mining workforce in the NWT.

The agreement was signed in Yellowknife

### One bite at a time

**The situation:** Recruit and train thousands of Aboriginals for employment in the North's diamond mines.

**The challenge:** Shift a land-based culture to the wage-based economy...overnight.

**The solution:** Make the changes one person at a time.

Therein lay the dichotomy: recruit and train as quickly as humanly possible, but do it one person at a time. But that's how it's done. And the NWT's Mine Training Society would know. Since 2004 it has successfully trained more than 500 Northerners for highly paid positions in the diamond mining industry. And most of them remain gainfully employed.

Of course, that wasn't always the case. In the early going, before MTS got on its feet, the turnover rate for Aboriginal recruits was, well, let's say unacceptable.

MTS has examined and tested all kinds of training models in the North; as have their partners in the mining industry. What they've determined is the need to deal first with the culture shift, and then with the trainee.

So the process starts right in the trainee's community, progresses to the classroom, then to a traineeship, and results in a guaranteed full time mining industry job.

A holistic approach—one that sees not just a student, but recognizes vast differences in language, history and culture—is the key to its success. Teaching must embody the mind, body and spirit, says Hilary Jones, general manager of MTS.

"We're trying to deal with the entire person, not just the brain that learns," says Jones, who recently spoke on the topic at the Aboriginal Skills and Employment Partnership National Conference in New Brunswick in November.

That means boosting employability skills such as literacy and numeracy, teaching trainees financial planning so they can manage their first pay check, and letting them know what to expect on their first day on the job.

It also means providing supports like childcare, counselling, accommodation during training and most importantly, learning what people need to succeed in a mining environment.

"We help take away all the barriers to the student's success so they can concentrate on the skills that they're attaining," says Jones.

As the saying goes, if you've got to eat an elephant you still have to eat it one bite at a time. For MTS the elephant is 6,000 new industry employees over the next five years. And they're eating away at it one person at a time.

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by the Minister of Industry, Tourism and Investment, the Hon. Bob McLeod, Minister of Education, Culture and Employment, the Hon. Jackson Lafferty; the President of BHP Billiton Diamonds Inc., Ricus Grimbeek, the President of Diavik Diamond Mines Inc. Kim Truter and the Senior Vice-President of Operations for De Beers Canada, Chantal Lavoie.

Under the MOU, the diamond mines together with the GNWT will work cooperatively to advance a Northwest Territories Mining Workforce Initiative to develop the necessary skills, training and travel initiatives to allow more NWT residents to be employed in the mines; and identify strategies to attract skilled workers and their families to become residents of the Northwest Territories.

"At EKATI Diamond Mine, we have just celebrated our 10-year Anniversary where 15 per cent of our employees and contractors have worked with us since opening day," said Ricus Grimbeek, President of BHP Billiton Diamonds Inc. "We'd like to expand our Northern talent and invest our collaborative efforts into developing an even stronger northern mining workforce to ensure the NWT has a great future."

Since the establishment of the GNWT's first Socio-economic Agreement (SEA) with BHP Billiton in 1996, the combined operations of Ekati, Diavik and Snap Lake Mines have provided in excess of 10,000 jobs for Northerners.

Approximately 60 per cent of operations jobs in NWT Diamond Mines are currently held by Northerners.

## NUNAVUT

### Harper urges continued investing in Nunavut

When Territorial premiers met with Prime Minister Stephen Harper in November 2008 they told him they want continued investment in the North, even during the economic downturn. According to CBC.ca, Nunavut Premier Paul Okalik, Northwest Territories Premier Floyd Roland and Yukon Premier Dennis Fentie said they discussed the economy with other provincial premiers and with Harper.

The article quotes Premier Okalik as saying, "the impact [of the economic downturn] hasn't fully hit Nunavut yet. But if it continues, our mining sector, which has been our driving force for the last few years, will

be impacted." He continued, "so we want to look at perhaps diversifying our economy a bit more, turning to the fisheries or utilizing the new agency that the prime minister announced during his [election] campaign and looking at new opportunities for our citizens."

During September's federal election campaign, Harper promised to create a stand-alone regional development agency for Northern Canada. It would be similar to agencies that exist in the western provinces,

northern Ontario, Quebec and Atlantic Canada. He also promised to set up a northern satellite office of the federal Major Projects Management Office, which deals with federal regulations governing major resource projects.

### Shear discovers nine new kimberlites at the Churchill Diamond Project

Shear Minerals Ltd. and Stornoway Diamond Corporation announced in September 2008 that a total of nine new kimberlites were discovered from prospect-

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ing and drilling in 2008 at the Churchill Diamond Project, Nunavut. Based on visual interpretation, two of these new kimberlites, referred to as the Killiq and Kahuna Breccia respectively, are interpreted to be similar in type to kimberlites on the property that have returned high diamond grades.

In 2008 the joint venture has:

- Successfully collected an aggregate of 26.1 wet tonnes of kimberlite from the Notch kimberlite which will be processed using dense media separation (DMS) to provide a preliminary assessment of commercial diamond content (stones >0.85 mm) and stone quality.
- Tested 40 targets with a reverse circulation (RC) drill resulting in the discovery of two kimberlites, including one (Killiq kimberlite) visually similar to kimberlites on the property that have returned high diamond grades.
- Completed 14 core drillholes, testing 10 targets that resulted in the discovery of one new highinterest kimberlite system within a brecciated zone adjacent to the Kahuna kimberlite referred to as the Kahuna Breccia.
- Performed extensive prospecting and structural interpretation over high priority geochemical areas that resulted in the discovery of 24 new kimberlite float occurrences plus seven new outcrop/subcrop occurrences including one that was also confirmed by RC drilling.
- Completed 455 till samples to infill known priority areas to help identify additional high interest sources.
- Completed ground gravity and ground penetrating radar test surveys over the Kahuna and Notch kimberlite trends.
- Completed geological and structural mapping at the Kahuna and Notch kimberlites.
- Completed high resolution ground magnetic surveys over priority areas.

"The Churchill Project continues to yield new kimberlite discoveries with a total of 88 known kimberlite occurrences on the property to date, several of which have now reached the minibulk sampling stage" says Shear President and CEO Pamela Strand. "Also, we have found our first evidence of explosive activity in close association with the highly diamondiferous Kahuna kimberlite dyke, which may represent a new pipe or blow along the Kahuna structure." **M**

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## British Columbia

### Grenville Gold Corporation retains Macam Investor Relations to act as investor relations consultants

Vancouver-based Grenville Gold Corporation announced in December 2008 that it has engaged Macam Investor Relations of Calgary, Alberta to provide strategic investor relations consulting services. Macam offers a fully integrated suite of products, focusing on strategic investor relations, public relations, mergers and acquisitions, road show marketing, corporate communications and new media solutions.

"Macam Investor Relations is Canada's premier investor relations consulting firm," said Paul Gill, President and CEO. "We are pleased to be working with them to expand our market presence and leverage their expertise and vast network of contacts to advance our business in the mining sector."

This agreement is subject to acceptance by the TSX Venture Exchange.

### November oil and gas rights sale results in millions

The November sale of oil and gas rights in British Columbia resulted in a total of over \$114 million in bonus bids. The November 12th sale brought the fiscal year-to-date total to over \$2.2 billion.

"As this record fiscal year continues, the oil and gas industry remains strong, and we're looking forward to the transition to the production stage," said Energy, Mines and Petroleum Resources Minister Richard Neufeld. "This has been a banner year for British Columbia, and we are all seeing the benefits of being a resource-rich province."

The sale offered 57 parcels covering 39,094 hectares, and sold 45 parcels covering 24,565 hectares. The average price per hectare was \$4,679.

The key parcels in the sale included:

- Five drilling licences with bids of between \$5,400 and \$14,870 per hectare for a total of over \$105 million located in the Farrell Creek and Altares fields, approximately 30 kilometres north of Hudson's Hope.
- Six lease bids of over \$3,200 per hectare for a total of over \$5.5 million located in the Town field area, 12 kilometres east of Pink Mountain and approximately 120 kilometres northwest of Fort St. John.

Complete results of the sale and additional statistics are posted on the Ministry of Energy, Mines and Petroleum Resources website [www.empr.gov.bc.ca/Titles/Pages/default.aspx](http://www.empr.gov.bc.ca/Titles/Pages/default.aspx).

### Province shares mining profits with First Nations

In October 2008 the province authorized its provincial negotiators to include revenue sharing with First Nations on new mining projects. British Columbia is the first province in Canada to share direct revenue generated from mining.

The process for development of revenue sharing will be decided on a project-by-project basis. Revenue sharing on new mining projects will place a strong focus on community development to assist First Nations in achieving their social and economic goals.

"Government is prepared to share the direct benefits of mining with First Nations," Minister of State for Mining, Gordon Hogg said. "Revenue sharing is one of the key elements of the New Relationship and will help to build a more inclusive and prosperous future for all British Columbians."

The revenue-sharing approach will be used where there is a proposed project that will result in a new stream of direct resource revenue to the province. This process will ensure that First Nations receive revenue throughout the life of those mining projects.

Aboriginal leaders have asked government to include revenue sharing on new mine developments and there will be further discussions with the First Nation Leadership Council on how revenue sharing will occur.

The mining industry has also been clear that First Nations need to be included in the revenue stream.

### Tagish negotiates merger with Yukon Shaanxi Mining Company Inc.


In late November 2008 Tagish Lake Gold Corp. (TLG) announced that the company is negotiating an offer to merge with Yukon-Shaanxi Mining Company Inc. (YSM), a private company, whereby YSM will assume all of the assets and liabilities of both YSM and TLG. The transaction will result in the formation, under the laws of British Columbia, of one corporate entity, proposed to be named Yukon-Shaanxi Mining Company Inc. which will have its shares listed on the TSX Venture Exchange.

Revenue sharing on new mining projects will place a strong focus on community development to assist First Nations in achieving their social and economic goals.


The transaction will involve an exchange of shares of both companies into the newly named entity. The details of such an exchange will be announced as soon as the appropriate ratios have been achieved.

TLG and YSM have thirty days to complete their due diligence. The transaction will require TSX Venture Exchange approval, as well as shareholder approval at a special meeting, followed by court approval under the Business Corporation Act of British Columbia.

Given the current market conditions, the company believes that the merger will provide the best opportunity to promote exploration and development of the Skukum property for the shareholders, while assuring that creditors will be treated fairly. **M**



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## Alberta

### Provincial Energy Strategy charts course for sustainable prosperity

A long-term action plan for Alberta to achieve clean energy production, wise energy use and sustained economic prosperity was outlined by the Government of Alberta with the release of the Provincial Energy Strategy in December 2008.

Specifically, the Provincial Energy Strategy includes actions to:

- Address the environmental footprint of energy and encourage the development of renewable energy;
- Explore ways in which value will be added to Alberta's energy industry, including supporting upgrading/refining/petrochemical clusters, and aggressively marketing Alberta's energy globally;
- Change energy consumption behaviour by industry and consumers through conservation measures and a review of emissions targets and carbon charges for large industrial facilities; and
- Improve innovation through increased investment in research, development, demonstration and deployment of energy technology; and
- Enhance the capability of our electricity system by planning for a comprehensive upgrade to strengthen the transmission system by identifying requirements, technical solutions, timing, and updating of the approval process.

As part of clean energy production and encouraging renewable energy the strategy also recommends Alberta adopt a Renewable Fuels Standard (RFS). This new standard of five-per-cent ethanol in gasoline and two-per-cent renewable content in diesel by 2010 will help Alberta meet its climate change targets by reducing CO<sub>2</sub> emissions by about one million tonnes annually, and will support Alberta's renewable fuels sector and the technology development of next generation biofuels.

For more information or a copy of the Provincial Energy Strategy visit [www.energy.gov.ab.ca](http://www.energy.gov.ab.ca).

### Alberta to offer transitional royalty rates to promote new drilling

In response to the global economic crisis and a slowdown in oil and gas drilling throughout the province, the Government of Alberta will provide companies drilling certain new wells after January 1, 2009 with a one-time option of selecting new transitional

royalty rates. By helping ensure companies have access to the cash flow they need to invest in new projects, this five-year program is aimed at encouraging the development of new drilling projects and keeping thousands of Albertans at work.

"In light of the current global financing crisis, governments around the world are taking action to stimulate their economies—Alberta is no different," said Premier Ed Stelmach. "We must act to provide stability, particularly for those junior oil and gas companies that are often fully Alberta-owned, and employ thousands of Albertans in areas of the province that are especially vulnerable right now."

The new program is not a royalty holiday. Industry will have the one-time option of selecting the transitional rates or New Royalty Framework rates when drilling a new natural gas or conventional oil well 1,000 to 3,500 metres in depth. All wells drilled between 2009 and 2013 that adopt the transitional rates will be required to shift to the New Royalty Framework on January 1, 2014. All current wells and all oil sands projects will move to the New Royalty Framework on January 1, 2009 as previously scheduled.

Offering the transitional rates is estimated to result in a potential reduction of projected royalties of approximately \$172 million in 2009, rising to \$512 million in 2013, depending on the number of new wells paying transitional royalty rates, actual production rates and commodity prices.

### Luff Industries Ltd. on the move

Luff Industries Ltd., a Calgary-based company that manufactures quality conveyor components including idlers with patented polymer endcaps with an industry-leading rim thickness, moved to a new state-of-the-art facility in December 2008.

Built from the ground up, the new 62,000 sq. ft. plant brings together three existing locations which previously consisted of welding, production and moulding operations. Bringing the three segments together was a key factor in the decision to build a new manufacturing facility.

"Combining the three areas of production to one location will enhance communication between departments and lead to an even higher quality of customer service," said Robert Fasoli, Luff Plant Manager. "We make the best and most durable product available

on the market and it's a standard we value and intend to continue."

### POLARIS Laboratories Expands into Canada with New Fluids Analysis Lab in Edmonton

POLARIS Laboratories, one of the three largest fluid analysis laboratories in the United States, has expanded business operations into Canada with the opening of its newest testing laboratory in Edmonton, Alberta. The 4,000 square foot facility is the company's fourth to open since its headquarters began operations in Indianapolis in 1999. It opened laboratories in Houston in 2003 and in Salt Lake City in 2006.

According to POLARIS Laboratories CEO Bryan Debshaw, Canada shares strength in several of the markets POLARIS has been successful in across the United States and Mexico.

"Establishing a global presence is definitely a part of POLARIS' plan for growth," Debshaw said. "The strength of Canada's oil and gas, mining, construction and transportation industries, as well as its close proximity to our US operations, were major factors in the decision to expand into Canadian markets first."

POLARIS Laboratories specializes in testing and analyzing oils, fuels, coolants and water-based industrial fluids for equipment reliability. The company currently supports more than 60 private label fluid analysis programs for customers that include Chevron, ConocoPhillips, Kendall, Ingersoll Rand, Terex, MTU and Cummins Filtration. It services more than 50,000 customers in 15 countries worldwide.

### APEGS provides applied multidisciplinary remote sensing course

The Association of Professional Engineers and Geoscientists of Saskatchewan (APEGS) will be offering a hands on, interactive, three-day applied remote sensing course. Participants will identify, describe and evaluate Canada's landforms, landscapes and Earth materials, conditions, environments, hazards, natural resources and infrastructures from interpreted 3D airphotos, 2D satellite images and multidiscipline maps. The course will run January 26 to 28, 2009, at the University of Alberta, Edmonton.

For a full course description, go to [www.apegs.sk.ca/Default.aspx?DN=2665&day=26&month=1&year=2009](http://www.apegs.sk.ca/Default.aspx?DN=2665&day=26&month=1&year=2009).



### Large crowd gathers for conference

More than 700 geologists and mining exploration company officials from across Canada and around the world converged in Saskatoon December 1 to 3, 2008 for Saskatchewan's top conference for mineral geoscience.

The annual Saskatchewan Geological Survey Open House showcased results of the province's mineral geoscience program and provided a forum for presentations by industry. Through technical sessions, poster displays and a trade show, delegates learned about uranium potential in the Athabasca Basin as well as exploration and development for potash, coal, diamonds and base metals.

"The open house grows in popularity with each passing year," Energy and Resources Minister Bill Boyd said. "It's a testament both to the mineral riches of our province and the favourable investment climate that our province affords to its mining industry."

To further encourage exploration activity and fulfill an election commitment, the government recently reintroduced the Saskatchewan Mineral Exploration Tax Credit program. The program offers a non-refundable 10 per cent tax credit to Saskatchewan taxpayers who invest in eligible flow-through shares issued by mining or exploration companies after April 1, 2008.

### UCR agrees to sell property claims in Northern Saskatchewan

Uranium City Resources Inc. (UCR), announced in November 2008 that it has entered into a letter agreement with Red Rock Energy Ltd. whereby Red Rock has agreed to purchase all of UCR's exploration property claims located in northern Saskatchewan.

Red Rock is a junior exploration corporation with property interests in northern Saskatchewan. The purchase price for the Claims of \$975,000 will be paid by Red Rock as follows:

- \$75,000 to be paid to UCR in cash upon completion of the transaction; and
- \$900,000 to be paid to UCR at the option of Red Rock in cash or by the issuance of 5 million common shares of Red Rock from treasury at a deemed price of \$0.18 per common share.

The claims are subject to an option agreement between UCR and GLR Resources Inc. (GLR), made as of November 22, 2004, under which GLR has a preemptive right to purchase the Claims on the same terms and conditions as those proposed by Red Rock. Completion of the transaction is conditional on the receipt from GLR of a written waiver of its preemptive right.

### Major potential for natural gas

In November 2008 the National Energy Board and the Saskatchewan Ministry of Energy and Resources issued a joint Energy Market Assessment revealing that Saskatchewan has more than enough conventional gas resources to maintain a high level of natural gas industry activity for many years.

The assessment, entitled Saskatchewan's Ultimate Potential for Conventional Natural Gas, shows that Saskatchewan's ultimate potential of marketable conventional natural gas resources is calculated to be 297.4 billion cubic metres or 10.6 trillion cubic feet. This data, taken as of year-end 2004, represents a 42 per cent increase from the last study made by the National Energy Board in 1998. About half of that volume has already been produced; the remaining volume is 150.6 billion cubic metres (109m3) or 5.3 trillion cubic feet.

Mining is Saskatchewan's third largest industry. Mineral production hit \$4.6 billion in 2007 and is on pace for a record year in 2008. Saskatchewan is also witnessing record mineral exploration expenditures this year—an estimated \$360 million.

"The partnership with the Ministry in Saskatchewan was a productive and valuable one as we were able to work together to better understand the gas resources in the province," National Energy board chair and CEO Gaétan Caron said. "With this model of partnership, we can strive to achieve greater regulatory efficiency through all parts of the industry."

This news release and a fact sheet are also available on the NEB's Internet site at [www.neb.gc.ca](http://www.neb.gc.ca) under What's New!

For a copy of this report visit Saskatchewan Ministry of Energy and Resources at [www.publications.gov.sk.ca](http://www.publications.gov.sk.ca).

### North American Gem Inc. exceeds 1 million acres of coal prospecting permits north of Hudson Bay, Saskatchewan

North American Gem Inc. announced in November 2008 that the company has received an additional 187 Coal Prospecting Permits from Saskatchewan Energy and Resources, near the most recent coal discovery by Goldsource Mines Inc. This now brings the total to 620 Coal Prospecting Permits covering an area of 1,176,617 acres (476,160 hectares) that have been approved by Saskatchewan Energy and Resources.

North American Gem would also like to announce that several second priority permits have been advanced to first priority status, increasing the total of first priority status to 498 confirmed coal prospecting permit applications (not including the 620 approved applications).

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## Manitoba

### Manitoba extends its program to encourage oil exploration

The provincial government extended the Manitoba Drilling Incentive Program for another five years, to January 2014. Science, Technology, Energy and Mines Minister Jim Rondeau made the announcement in December 2008. The program offers incentives to encourage investment in the exploration for and development of Manitoba's petroleum resources.

"We believe extending the incentive program will make it more attractive to the oil industry when considering investing in Manitoba's oil and gas resources," said Rondeau. "The package offers important incentives for exploration and development drilling, horizontal wells and enhanced oil recovery projects, and companies have indicated they are pleased to hear it is continuing."

During the past five years, the oil industry has spent \$1.5 billion while drilling over 1,000 new wells in the province and providing employment for more than 1,500 Manitobans. As well, oil production in the province has doubled since 2004 to more than 22,000 barrels a day.

"The package offers important incentives for exploration and development drilling, horizontal wells and enhanced oil recovery projects, and companies have indicated they are pleased to hear it is continuing."

Additional information regarding the Manitoba Drilling Incentive Program can be obtained from the Petroleum Branch at 204-945-6577 or at [www.gov.mb.ca/itt/petroleum](http://www.gov.mb.ca/itt/petroleum).

### \$5-Million oil project investigates use of carbon monoxide

A state-of-the-art, enhanced oil recovery pilot project that has the potential to increase oil production and simultaneously reduce greenhouse gas emissions is being tested in southwestern Manitoba.

According to Manitoba, Science, Technology, Energy and Mines Minister Jim Rondeau, "by encouraging carbon dioxide enhanced oil recovery, we may get the double benefit of preventing carbon dioxide (CO<sub>2</sub>) from being released into the air while getting more oil out of the ground. I am very pleased that Manitoba-based Tundra Oil & Gas is staying at home, investing in our province's petroleum resources and confirming that Manitoba is a good place to do business."

Rondeau congratulated Tundra for launching the first Manitoba CO<sub>2</sub> enhanced oil project which will determine the feasibility of recovering additional oil from the Sinclair Field west of Virden by injecting and storing CO<sub>2</sub> deep inside the earth. Manitoba has participated in this experiment by offering royalty relief to help offset initial startup costs. If the project is successful, this incentive will be more than recovered by royalties on the additional oil produced by the technique.

It is anticipated that this process will increase the amount of oil that may be recovered in the pilot project area while reducing the amount of CO<sub>2</sub> that would otherwise be released in the atmosphere.

Koch Fertilizer Canada's plant in Brandon is the source for the CO<sub>2</sub>, which is trucked to the Sinclair Field by Praxair and injected into the oil reservoir.

CO<sub>2</sub> enhanced oil recovery projects are operating commercially in other jurisdictions. The closest project is EnCana Corporation's Weyburn Project in southeastern Saskatchewan, which has been very successful.

If the project is successful and continues until 2045, it will result in 145,000 barrels of incremental oil while utilizing 200,000 tonnes of CO<sub>2</sub>. Assuming the CO<sub>2</sub> is captured, this would represent a CO<sub>2</sub> reduction of about 150,000 tonnes for the pilot area (assuming 336 kilograms of CO<sub>2</sub> from a barrel of oil).

### Deep drilling at Rice Lake Mine encounters new massive high grade zones

Dale Ginn, CEO of San Gold Corporation reported in December 2008 that exploration drilling has encountered numerous gold-bearing zones that have not previously been discovered, drilled or developed at higher levels of the Rice Lake Mine, which is located 230 road-kilometres Northeast of Winnipeg, Manitoba.

Ginn stated, "San Gold's recent and dramatic exploration successes at the Hinge Zone near surface, together with rapid incremental discoveries to known vein systems and now with these impressive and totally unmeasured high grade breccias systems will likely transform the perception of the Rice Lake mine from a typical Canadian Shield lode gold deposit to one with superior grade and tonnage development potential."

In addition to the new breccia zones discovery, recent drilling has outlined important extensions to the length and plunge of the "C" vein. Significant widths and grades were encountered in numerous holes as highlighted by drill hole #460-08-10 which cut 25.2 meters (82.7 feet) of 17.1 g/tonne (0.50 oz/ton) gold including 2.1 meters (6.9 feet) of 60.6 g/tonne (1.77 oz/ton) and 6.2m (20.3 feet) of 26.0 g/tonne.

During the course of drilling for the extension of the "C" vein, numerous new zones, mainly of the massive breccia or stockwork type were encountered. The average drilled width of the above intersections is 6.4 meters (21 feet) with an average grade of 14.1 g/tonne (0.41 oz/ton). The "C" vein is one of the primary zones currently being developed and mined in the lower levels of the Rice Lake mine along with the "A" and "96" veins. The "C" vein intersections above have extended this orebody significantly down plunge and along strike to the north towards the hanging wall contact of the host gabbro unit. The new zones are primarily of the breccia or "38 stockwork" ore type, again toward the north hangingwall side of the host unit and are open to depth. The superior widths and grades displayed, as well as proximity to current mine development dictate that mining of these zones will begin immediately.



## Manitoba

**Province provides new funding for geological mapping in Manitoba's far north**

Manitoba's northernmost region will gain some competitive advantages in the area of mineral exploration as a result of \$1.5 million in new funding for provincial geological mapping, Science, Technology, Energy and Mines Minister Jim Rondeau announced in November 2008.

"Up-to-date geological maps and information are recognized internationally as key competitive advantages so it is important that we profile our geological potential to attract mineral exploration and development investment," said Rondeau. "The new northern initiative by the Manitoba Geological Survey will provide \$1.5 million over three years for work in this logistically challenging region."

The main objective of the proposed program is to stimulate and support mineral exploration in a part of Manitoba where exploration activity is currently low and mining is the only viable industry.

The area being mapped is north of 58 degrees, 30 minutes latitude and has demonstrated potential for gold, base metal, uranium, platinum and group element deposits. As well, there is potential for diamond deposits which are known to occur in adjacent Nunavut and Ontario.

Manitoba's investment in geological mapping in the far north is being matched by coordinated studies funded by the federal government.

**Convention showcases province's second-largest primary resource industry**

Manitoba's \$3-billion minerals industry was showcased at the 2008 Manitoba Mining and Minerals Convention, which took place in November 2008.

The conference focused on how new geological findings can attract and assist exploration and also cover industry issues affecting people and the environment. Targeted courses and workshops include the annual Aboriginal mining workshop, a workshop on 3D modelling of the Flin Flon exploration camp and a short course on gold in Manitoba.


Industry presentations included:

- Crowflight Minerals' update on Manitoba's newest mine, the Bucko Lake nickel mine at Wabowden. The mine is poised to reach full commercial production in early 2009 and will employ up to 200.
- Updates on exploration projects currently ongoing for copper-zinc by Murgor Resources near Flin Flon, Kria Resources at the Ruttan mine near Leaf Rapids and

Halo Resources at Sherridon; for nickel by Mustang Minerals in southeastern Manitoba; and for platinum group metals by Marathon PGM Corporation also in southeastern Manitoba.

The mining industry makes a significant contribution to Manitoba's economy. In 2007, mineral production totalled \$2.5 billion for metals and industrials and \$600 million for petroleum, reaching a record \$3.1 billion and tripling its value since 2003.

For 2008, estimates by NRCAN indicate that more than \$135 million will be spent in Manitoba on mining, although the 2008 forecast will be impacted by current market conditions.

More information about the 40th Manitoba Mining and Minerals Convention is available at [www.minerals-convention.com](http://www.minerals-convention.com). 

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## Ontario

### Raytec Metals Corp. announces completion of drill program

In December 2008, Raytec Metals Corp. announced the completion of the 2008 fall drill program on its 100 per cent owned El Sol iron ore property near Red Lake, Ontario.

The company conducted a Phase 1 program of property wide ground magnetic surveying, followed by helicopter supported diamond drilling of 2,301 metres in 11 holes. The cesium vapour ground magnetic survey defined two linear trends of magnetite iron formation (A Zone and B Zone) which were the target of historical drilling during 1956-57.

The A Zone measures over 4 km in length while the B Zone, lying approximately 600 metres to the southwest, measures over 2 km in length. The 2008 drilling program tested a 3 km strike length of the historically defined "A Zone" of the El Sol iron ore trend. All 11 drill holes intersected steeply dipping magnetite iron formation over broad thicknesses ranging from 50 to 133 metres, representing approximate true widths of 35 to 68 metres. The results of this program successfully confirmed both the extent and range of thickness of iron mineralization which was encountered during historical drilling of the horizon.

In 1956-1957, El Sol Mines Ltd. conducted extensive diamond drilling of 10,363 m in 67 holes on both the A and B Zones, as well as initial metallurgical testing. This work outlined a historical "reserve" estimate of approximately 312 million tons with an average grade of 31.1 per cent iron for the A and B zones (H. Brodie Hicks, 1958).

### IV International Industry Summit on Mining Performance scheduled for Spring 2009

Penn State's Department of Energy and Mineral Engineering will be hosting this summit June 9 to 11, 2009, at the Delta Chelsea Hotel, downtown Toronto. Past summits have proven to be a gathering place to discuss performance improvement issues, opportunities, and challenges. The 2009 conference will include presentations from industry leaders in key mining sectors—coal, metals and nonmetallic minerals—as well as from customers, suppliers and others with a keen interest in mining industry performance. Organized mining-related field trips and workshops will be planned. Keynote speakers will include executive management from the world's largest and most successful mining companies and manufacturers. Issues to be addressed include:

- Cost containment;
- Organizational change management;
- Risk management and business process improvement;
- Sustainability of process improvement efforts; and
- Utilization of technology in process improvement.

For more information go to [www.outreach.psu.edu/programs/BPI/?cid=29](http://www.outreach.psu.edu/programs/BPI/?cid=29).

### Mining sector human resource needs remain strong despite downturn

A press release issued by the Ontario Mining Association says the mining industry's need for a large infusion of skilled workers over the next decade may be curbed by current economic circumstances but it will not be eliminated. In a presentation for the Mining

Association of Canada, Ryan Montpellier, Executive Director of the Mining Industry Human Resource Council (MiHR), laid out several scenarios on the sector's workforce needs looking out to 2016.

Local, provincial, national and international forces all impact projections of mining's human resource needs in Canada. When you look at the massive alterations which have been occurring in global financial systems and the downturn in commodity markets, it is all too apparent that the impact of changing macro economic variables influence the human resource requirements of the industry. In earlier studies, MiHR projected that the industry in Canada needed 80,000 new workers over the next 10 years. As the world demand for Canada's mineral products grew, the number of new employees needed in Canada's mining sector from 2007 to 2016 was increased to 92,000. That level still may be required.

However, in offering alternatives, MiHR presented a no-growth scenario for the future. In this case, the need for retirement and non-retirement replacement requirements still showed a need for more than 62,000 new mining employees out to 2016—or more than 6,200 per year. In a more negative projection of industry contraction over a four year period, there still was a demand for more than 46,000 new mining employees out to 2016—or more than 4,600 per year. Because of the demographics of the national mining workforce, which has a high portion of older workers, projections for the replacement of retiring workers and workers switching careers remains strong. Ontario represents about one-third of the national mining industry.

MiHR's labour market information indicates corporate, association and collective efforts to better inform young people about careers in the mining industry need to be strengthened. All facets of the sector need to do more to generate interest in the sector and to attract new skilled workers to mining. Employers, job seekers, training and educational institutions and governments formulating programs and policies all need to know that current economic factors will likely only slow the demand for new mine employees.

Leading economic forecasters are saying many conditions are in place already to provide a foundation for an upturn in commodity markets. After all, with the difficulty in raising capital, there is less exploration work going on and few new projects being developed to increase supply of a variety of minerals. Cutbacks and shutdowns will squeeze supply even more. Almost inevitably all economic prognostications resort back to supply and demand.

Demand for minerals is destined to increase. As of today, the global population is estimated at 6.72 billion. That makes for a lot of demand for future growth and development which cannot take place without mineral and metal products needed for telecommunications, power production and transmission, agriculture, transportation, health care and medicine and environmental improvement. As that transpires, the demand for human resources inside the mining sector will also expand.

### Premier Gold Mines Limited to acquire Barrick's interest in Geraldton District

In October 2008 Premier Gold Mines Limited announced that it has entered into a definitive purchase agreement with Lac Properties Inc., a wholly-owned subsidiary of Barrick Gold Corporation, to acquire, among other things, Lac's interest in all of the mining



## Ontario

claims commonly known as the Geraldton, Ozone Creek and Eva Summers properties located in the Geraldton district in the Province of Ontario, together with certain equipment and other assets related thereto.

The G-L Property is host to several past-producing mines which collectively produced more than 2 million ounces of gold from the same deposits to relatively shallow depths of approximately 2000 feet (600 metres) from 1938-1968. The mined zones remained wide open at depth at the time mining ceased.

"This acquisition represents the culmination of a decade's worth of effort to secure what I consider to be one of the most prospective exploration/development projects in Canada," stated Ewan Downie, President of Premier Gold Mines. "The Geraldton district is perhaps the most under-explored of the major greenstone belts in Ontario and we intend to implement a major exploration program immediately."

The Geraldton Joint Venture Project is located in the heart of the Beardmore-Geraldton greenstone belt, a highly prospective high-grade gold district that has seen relatively little exploration over the past several decades. The project area covers approximately 15 kilometres of some of the most prospective geology in the region and is host to several past-producing mines and numerous exploration targets in a district that has seen historic production of more than 4.1 million ounces of gold.

Slides of the project area can be viewed on the Premier Gold Mines Limited website, [www.premiergoldmines.com](http://www.premiergoldmines.com).

### Ontario mining companies head to Mexico

In October 2008 eight Ontario mining companies traveled to Mexico to promote Ontario's globally competitive mining equipment and services sector. The ministries of Northern Development and Mines and International Trade and Investment hosted an Ontario booth at the Expo-Minera Sonora 2008 trade show from October 21st to 24th.

"Mexico offers significant business opportunities for Ontario's leading-edge suppliers of mining industry services and products. This mission is another way in which our government is helping Ontario mining supply companies connect with important markets abroad."

"Mexico offers significant business opportunities for Ontario's leading-edge suppliers of mining industry services and products," said Michael Gravelle, Minister of Northern Development and

Mines. "This mission is another way in which our government is helping Ontario mining supply companies connect with important markets abroad."

The trade mission helped eight Ontario businesses establish key contacts with major Mexican mining companies and distributors. Sonora is one of the most active mining regions among Mexico's 31 states, with mineral production estimated at nearly \$32 billion in 2006. Ten new mines have gone into production in Sonora in the past four years.

"This is exactly the kind of opportunity my new ministry is focusing on, because Ontario companies can provide the resources and expertise that Mexico needs," said Sandra Pupatello, Minister of International Trade and Investment. "Mexico is a mineral-rich country and this is a win-win situation for both Ontario and Mexico."

### So, you think you know mining?

The Ontario Mining Association (OMA) recently launched a new video contest for Ontario high school students. So You Think You Know Mining is an opportunity for them to produce a video showcasing the benefits of mining. Young people are encouraged to be creative, to apply a variety of skills and to explore an unlimited range of topics. Along with being awarded substantial cash prizes, five winning videos will be featured on the OMA website and at the 2009 Canadian Institute of Mining, Metallurgy and Petroleum's conference in Toronto.

Full details can be found at [www.oma.on.ca/contest](http://www.oma.on.ca/contest).



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## Quebec

### **Diamond Discoveries International Corp. hires Knight Libertas LLC for M&A Advisory**

Diamond Discoveries International Corp., a U.S. company focusing on diamonds, precious and base metal exploration in Quebec, announced in December 2008 the hiring of Knight Libertas LLC as an exclusive mergers and acquisitions advisor. In this capacity, Knight Libertas will pursue strategic options for Diamond Discoveries Caribou Properties located near Thetford Mines in Quebec, including identifying and qualifying potential buyers.

"We are excited to have Knight Libertas assisting us as we consider options for the Caribou Properties," said Diamond Discoveries CEO Antonio Sciacca.

Diamond Discoveries is currently working with Knight Libertas on a detailed memorandum for potential buyers. For more information on Knight Libertas, please go to [www.knight.com/ourofferings/knightlibertas.asp](http://www.knight.com/ourofferings/knightlibertas.asp).

### **Osisko recognized for strong sustainability performance**

Osisko Mining Corporation reported in December 2008 that it was recently granted two awards recognizing the positive impacts of the Canadian Malartic Project. Osisko's flagship property, the 100 per cent owned Canadian Malartic gold property is located in the heart of Quebec's prolific Abitibi Gold Belt, immediately south of the town of Malartic, approximately 20 kilometres west of the town Val d'Or.

The awards are:

- The AEMQ 2008 e3 Award: The Association de l'exploration minière du Québec presented Osisko with the e3 Award (environmental excellence in exploration) which recognizes the Corporation's high level of environmental and social responsibilities as well as its conformity to the e3 best practices developed for exploration activities by the Prospectors and Developers Association of Canada.
- The 2008 Chamber of Commerce Rouyn-Noranda Extra Award: At its recent Annual Awards Banquet, the Chamber of Commerce of Rouyn-Noranda presented Osisko with its 2008 Extra Award for the economic impact of the Canadian Malartic Project in the Abitibi-Témiscamingue region.

Sean Roosen, President and CEO, commented, "we are extremely proud of these awards which recognize our positive approach to sustainability, and in particular to the residents of Malartic and surrounding communities. Osisko continues to ensure that Malartic and the Abitibi-Témiscamingue region gain significant benefits from the development of the world class Canadian Malartic Project. We share these awards with the residents and Town Council of Malartic."

### **Majescor and Strateco plan a winter exploration program and sign a definitive option agreement**

Majescor Resources Inc. and Strateco Resources Inc. reported in November 2008 that they have executed a definitive option agreement for Majescor's Mistassini uranium property in Otish Mountains. The property is host to the Lac Mantouchiche uranium showing where Majescor drilled an 18.5-metre intersection grading 0.215 per cent U3O8 near-surface in hole MIST-07-03 (see Majescor's press release dated May 29th, 2008).

Strateco is currently planning an exploration program for the property with the aim of outlining the strike and dip extensions of the Lac Mantouchiche uranium prospect by core drilling. As a precursor to the drilling campaign, Strateco plans to complete a 1,000 line-kilometre helicopter-borne geophysical survey over the property before the end of 2008. The objective of the survey is to collect horizontal gradient magnetic and frequency domain electromagnetic data which will be used to resolve any faults/fractures which may be controlling structures for uranium mineralization both in the area

of the Lac Mantouchiche showing and elsewhere on the property.

### **Marteau d'or awarded during Québec Exploration**

Ministère des Ressources naturelles et de la Faune announced in November 2008 that the Marteau d'or 2008 has been awarded to Daniel Lamothe of Géologie Québec. The Marteau d'or is awarded each year during Québec Exploration. This recognition award is conferred for a scientific product that has made a significant contribution to knowledge of Québec geology while providing mineral exploration stakeholders with information that can help them in their work.

Lamothe has been developing mineral potential maps at Géologie Québec since 1999. In 2000, he published a map on the volcanogenic massive sulfide deposit potential of the Joutel area in Abitibi-the first map published using the mineral potential map production system (SPCPM). Since then, he has published nearly a dozen maps primarily covering the Abitibi, Baie-James, and Côte-Nord regions. In 2007, he also produced the stratigraphic lexicon for the Ungava Orogen with a compilation map of the orogen (DV 2007-03). The mineral potential maps Lamothe has developed as part of SPCPM projects have promoted the granting of mineral titles and attracted significant investment by exploration companies in the targets he has updated.

Lastly, these maps have also become a decision-making tool for land management by helping to inform regional elected officials about the potential of the mineral resources in their area. **M**

"We are extremely proud of these awards which recognize our positive approach to sustainability, and in particular to the residents of Malartic and surrounding communities. Osisko continues to ensure that Malartic and the Abitibi-Témiscamingue region gain significant benefits from the development of the world class Canadian Malartic Project. We share these awards with the residents and Town Council of Malartic."



## NEWFOUNDLAND & LABRADOR

### Formal agreement on White Rose expansion

Newfoundland and Labrador has officially entered a new era of oil and gas development in the province by signing a formal agreement with Husky Energy, Petro-Canada and the province's energy corporation to develop the White Rose Expansion oil fields.

The final agreement was announced in St. John's in December 2008 by Premier Williams.

"We are very pleased to have reached this agreement with the province and we look forward to working with our new equity partner, the province's energy corporation. This agreement gives us clarity, stability and fiscal certainty, and will allow us to advance the tiebacks in a timely manner," said John Lau, President and Chief Executive Officer of Husky Energy. "Development of the satellite tie-ins is a positive step for the future of the White Rose development and will provide significant opportunities for the proponents, their shareholders, and the people of Newfoundland and Labrador."

The companies estimate the project will require 9.6 million person hours of work over its lifetime. Approximately 93 per cent or nine million of those hours will be completed in Newfoundland and Labrador. Some of the work has already begun. The companies estimate first oil from the project in the fourth quarter of 2009.

### Offshore land sale attracts new and existing players

The most recent land sale offered by the Canada-Newfoundland and Labrador Offshore Petroleum Board (C-NLOPB) has attracted a new global player to the province's offshore and continues to attract strong interest from existing players.

"These are serious bids by established exploration and producing companies interested in exploring the Jeanne d'Arc Basin and Central Ridge/Flemish Pass and it shows industry's continued interest in our offshore region," said the Honourable Kathy Dunderdale, Minister of Natural Resources in November 2008. "We are delighted with the results and we will continue our ongoing efforts to market Newfoundland and Labrador's offshore

in major oil and gas centres around the world."

The C-NLOPB recently announced the results of the 2008 Call for Bids in two offshore areas (NL08-1 and NL08-2). Successful bids were received on all five parcels—three in the Central Ridge/Flemish Pass and two in the Jeanne d'Arc Basin—with a total expenditure commitment of \$129.9 million. The bid on one of the parcels in the Jeanne d'Arc Basin represents a significant dollar per hectare (\$4,215)—a total of \$81.9 million for 19,430 hectares.

The new player in the Newfoundland and Labrador offshore area is Repsol Exploracion, S.A., a subsidiary of Repsol YPF S.A., an integrated international oil and gas company based in Spain.

## NEW BRUNSWICK

### Exploration, mining, petroleum conference held

The annual Exploration, Mining and Petroleum New Brunswick conference was held November 2 to 5, 2008 at the Delta Hotel in Fredericton.

"This conference gave us an opportunity to promote investment in the New Brunswick mineral and petroleum resource sector," said Donald Arseneault, Minister of Natural Resources. "While the mineral sector has faced some recent challenges due to a downturn in global markets, we continue to be optimistic about the future of the industry and will continue to promote New Brunswick as a location that is open for business."

More than 350 delegates from across Canada were registered for the event. Representatives from the mineral industry, including consultants, producers, service companies and prospectors, as well as from the oil and gas sector, universities and three levels of government attended.

The conference was a forum for the presentation of research and the review of mineral and petroleum exploration and mining projects carried out in New Brunswick in 2008. The value of mineral production in New Brunswick reached nearly \$1.6 billion in 2007 and the industry employs thousands of people. Other highlights from the sector include:

- Total royalties and metallic minerals taxes exceeded of \$150 million last year;
- Mineral exploration expenditures in

2008 are expected to reach \$46 million, up from \$34 million in 2007;

- PotashCorp has begun construction of a new 2-million-tonne per year potash mine near Sussex;
- 21 wells are producing natural gas from the McCully field in southern New Brunswick;
- Oil is being produced from the Stoney Creek field, and the productive potential for other wells in the field is being assessed;
- There are 37,700 mineral claims in good standing in New Brunswick; and
- Natural gas royalties exceed of \$7 million annually. This sector continues to grow.

The conference included industry presentations, displays and exhibits.

## NOVA SCOTIA

### Mining Matters Conference focused on mining in today's markets

Nova Scotians had an opportunity to learn more about the province's mining industry at the two-day Mining Matters 2008 conference at the Westin Nova Scotian Hotel in Halifax November 9 to 10, 2008.

"The government of Nova Scotia considers mining to be one of the foundation industries that is integral for the sustainability of our rural economy," said Natural Resources Minister David Morse. "The Mining Matters conference provided an excellent opportunity to learn about current developments and trends in the local, national and international mining industry." Mining Matters is an annual conference that is organized by the Department of Natural Resources and the Nova Scotia mining industry. This year's event had the theme Mining in Today's Markets, and focused on exploration and mining in Atlantic Canada and beyond.

"The mining industry in Nova Scotia continues to find ways to succeed in these rapidly changing economic times," said Peter Oram, President of the Mining Association of Nova Scotia. "Mining provides meaningful employment, royalties and substantial economic benefits to many rural areas of our province. The mining association is honoured to be part of an industry that plays a large role in keeping Nova Scotians employed in operations that are environmentally responsible."



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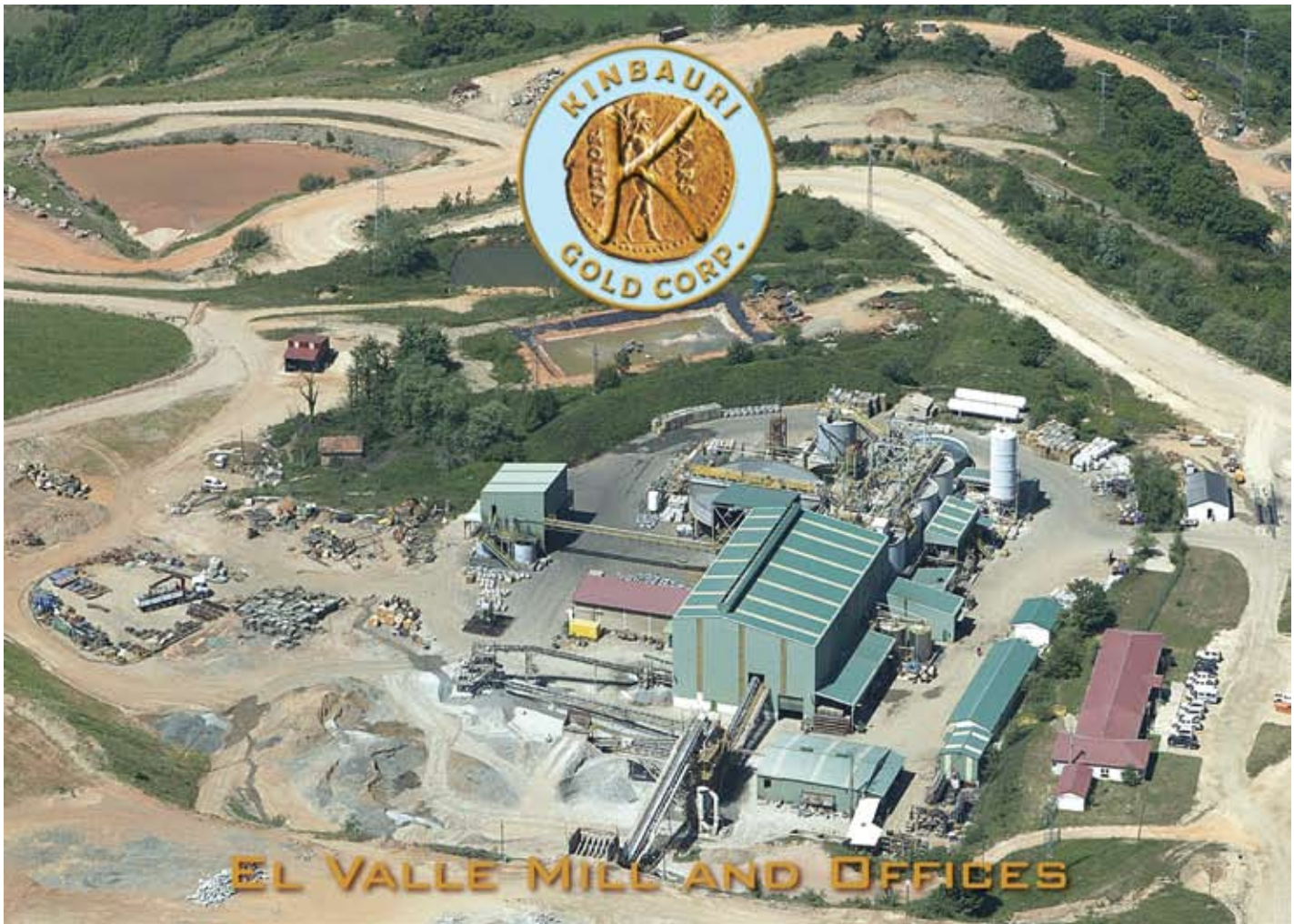


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N.I. 43-101, November 2008, Ore Reserves Engineering

### CORCOESTO RESOURCES

MEASURED & INDICATED (shallow)	264,000 Oz Au (4,664,000t @ 1.76g Au/t)
INFERRED (shallow)	184,600 Oz Au (3,133,000t @ 1.82g Au/t)
MEASURED, INDICATED & INFERRED (shallow)	448,600 Oz Au (7,797,000t @ 1.80g Au/t)
INFERRED (deep)	37,800 Oz Au (198,000t @ 5.92g Au/t)

N.I. 43-101 Compliant: Ore Reserves Engineering Technical Report (August, 2006) and Boixet Exploration Report (February, 2008).



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**RAHILL-BONANZA PROJECT**  
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Along the "Mine Trend" between the Red Lake Gold Mine and Bruce Channel Discovery

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#### **PQ-NOTH PROJECT**

Adjacent to Musslewhite Gold Mine



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 Gold Mines Limited

**PREMIER GOLD MINES LTD (TSX:PG)** is a Canadian-based mineral exploration company, focused on discovering and developing gold deposits within the Americas. Premier has a diverse portfolio of advanced-stage gold properties in Northwestern Ontario, Canada and one project in Mexico

Premier's Hardrock Project is located in the heart of the Beardmore-Geraldton Greenstone Belt, a highly prospective high-grade gold district that has seen relatively little exploration over the past several decades. The core area was recently acquired from Lac Properties Inc. ("Lac"), a wholly-owned subsidiary of Barrick Gold Corporation. This Property, considered to be the jewel of the district, is host to several past-producing mines which collectively produced more than 3.0 Million ounces of gold to relatively shallow depths of approximately 2000 feet (600 metres) from 1938-1968. The mined zones remained wide open at depth at the time mining ceased. Premier, operator of the Project, holds the option to earn up to a 70% interest.

Premier's Rahill-Bonanza project is located on the main Red Lake "Mine Trend" within the Red Lake Mining District which is world renowned for high-grade gold. Goldcorp's Red Lake Gold Mines (RLGM) is considered to be one of the highest grade producing gold mines in the world, with tens of millions of ounces of gold produced. The Rahill-Bonanza Property, a joint venture with Red Lake Gold Mines (49% PG), is located immediately adjacent to Goldcorp's RLGM, and host to the Bonanza Gold Deposit, with a (NI 43-101 inferred mineral resource estimate in excess of 900,000 ounces of gold) and the past producing Wilmar Gold Mine.

Premier is beginning to actively explore its 100% owned PQ North property, strategically located on the key iron formation that is host to Goldcorp's Musselwhite Gold Mine. Goldcorp has stated that gold mineralization has been extended to the north with intersections on structures trending in close proximity to Premier's PQ North Property. These results include a drill intercept of 15.5 grams per tonne (gpt) gold across a true width of 4.5 metres (m) in hole 07-NSD-005. Goldcorp also indicated that gold mineralization within the mine horizon is estimated to have increased from 1.0 million to 2.0 million ounces per kilometre and has been intersected as far as 6 kilometres north along strike of the main mine facilities.

Premier is also actively exploring the Santa Teresa mineral concession, located in the historic and very high grade El Alamo District of Baja California Norte, Mexico. No diamond drilling had been conducted on the concession prior to the current program which has returned drill intercepts up to 479.3 grams per tonne gold across 2.0 metres.

Premier's strong belief that "A World of Opportunity" lies before it and aggressive exploration in proven districts continues to reward its shareholders.

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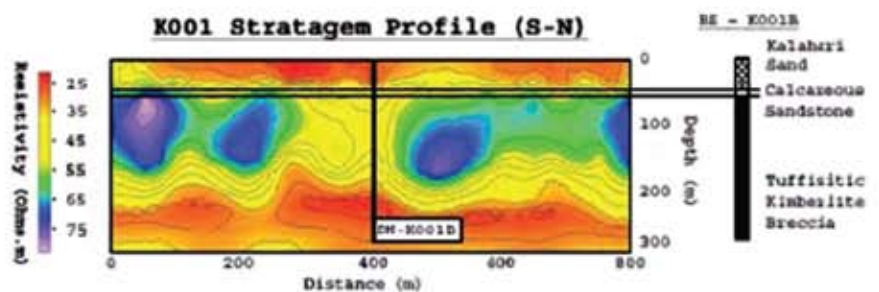
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Okwa Kimberlite Cluster in Western Botswana. This 800 meter long section comprises 33 soundings at 25 meter intervals.



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