

**Big Brains and Why Mining Needs Them**  
**An Address to the Vancouver Board of Trade**

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## **Introduction**

Good afternoon.

Before I begin, I would first like to thank the Vancouver Board of Trade for the opportunity to speak to you today. This is an annual address on the state of the mining industry by the Mining Association of British Columbia (MABC) and we appreciate the opportunity the board provides us to do this.

I would like to thank my colleagues on the executive committee and board of directors and the staff at the MABC who work tirelessly on behalf of the mining industry, along with friends and colleagues at AME BC and the Mining Suppliers Association of BC. I especially would like to thank all the members of the Mining Week Committee who have worked hard to plan and organize this week's events. In particular, I'd like to thank one of my staff, Claire Thomson, who has worked unstintingly but cheerfully pulling so much of this together.

Mining week, a venerable tradition for the past 102 years, celebrates the role this industry plays in making British Columbia a great place to live, work and play.

This week events take place in Vancouver, Kamloops, Elk Valley and in many other communities across the province.

Here in Vancouver, Mining Week celebrations started with a well-attended gala awards reception last evening at the Terminal City Club. The Mining & Sustainability Award 2008 – a tie this year – was presented to Absorbent Products and the Upper Similkameen Indian Band in recognition of their respective contributions to sustainability in the mining industry.

The Mining Person of the Year Award was presented to Doug Stokes, recently retired from Teck Coal. Doug has made an enormous contribution over his long mining career to the development and effective implementation of the BC Mining Code, a legislative instrument that has helped to enable one of our industry's greatest achievements – the best safety record of any heavy industry in the province.

This morning, PricewaterhouseCoopers released their annual mining survey of the performance of the industry. Though it may seem a bit distant at the moment, 2008 was a blockbuster year for mining, driven by our world class steel-making coal sector. And it was enabled by the favourable economic policies that have made BC one of the most tax competitive jurisdictions in Canada. The revitalization of northeastern BC is an excellent example of what sound economic policy does.

Thank you to PricewaterhouseCoopers for this annual report—I know it's a lot of work to get miners to fill out a survey. But it's critical to our understanding of the state of the industry in BC.

Tomorrow the BC Mining Week Community Fair takes place on the front lawn of the Vancouver Art Gallery. Hosted by the Association for Mineral Exploration BC and the Mineral Resources Education Program of BC, it's an event for people of all ages; I'm bringing my daughter and her friend to see it—I encourage you to bring your family and friends!

On Thursday, Teck will host their popular Annual Celebrity Pie Throw Fundraiser, part of the Mining for Miracles campaign in support of BC Children's Hospital; the BC mining industry's charity of choice for 22 years. This fun event takes place starting at 11:30 at the Art Galley Plaza.

That same day, the annual "Women in Mining Reception" will be held at the Sutton Place Hotel, Salon Pommard, starting at 5:00 pm. This 'Italian-themed' networking event is sponsored by Roca Mines and is open to both men and women for a small donation – proceeds donated to Mining for Miracles.

Since 1988 mining for miracles has raised \$12.8 million for the BC Children's Hospital Foundation. Last year we raised \$1.938 million for the hospital, a full two thirds of the way to achieving a new \$3 million goal, which will be used to construct a world class containment lab supporting research into the cause of infectious diseases. I am confident we will complete our goal this year!

I encourage you to join us at any or all of these events. Visit our website ([mining.bc.ca](http://mining.bc.ca)) for more details or speak to any of the MABC staff present here today.

### **Big Brains and Why Mining Needs Them**

Last year, MABC's Chairman, David Parker, spoke about how mining products are essential to sustainable living. Today, I will turn to another aspect of sustainability: our people.

I will begin by making two general but very important statements about the mining industry and then talk about them. The first is that for an activity seemingly as simple as digging something out of the ground, mining is a complex business that has to have a lot of sophisticated minds working for it. The second is that mining drives more public policy development and even debate than most sectors I can think of, largely because of the first statement.

#### **The Need for Big Brains**

The first thing that makes mining a complex business is the science of finding a mine. We have over 12000 mineral occurrences in BC and less than 20 major mines. It takes years just to locate, evaluate, permit and construct a mine. To succeed requires not only a certain temperament, but also use of the very best in technology and scientific analysis. All of this activity is highly

regulated, which requires an in-depth understanding of government, its laws, policies and regulations and thus the best legal minds and policy experts a country has to offer.

A mine is where you find it, and today this typically means that it'll be in the few remaining parts of the world that have not been exhaustively scoured and explored. This means you'll be interacting with communities that have had little to no prior experience with mining, and the task of earning one's social license becomes a complex business involving the best minds in sociology, anthropology, archeology and related disciplines. While training in theology may not seem like a core competency for a mining company, at times it proved invaluable for the former Placer Dome when engaging with faith-based NGOs critical of the company's projects. And sometimes, I guess, our sector needs all the help it can get, including a little divine intervention.

It can mean you'll be looking to build in a pristine, untouched ecosystem with high conservation values that have to be understood and safeguarded, demanding scholars in biology and ecology. It can be in a jurisdiction like British Columbia, with evolving Aboriginal law and policy that adds new complexities to our business that few sectors of the economy ever experience.

Building a mine is a huge capital investment, often in the hundreds of millions if not billions of dollars. Major capital of this kind is not raised easily, and again some of the best legal and financial thinkers are required. The construction of a mine is itself no small engineering feat that has to take into account site-specific geography and chemistry so that environmental impacts are managed and properly mitigated. Terrane Metal's 9000 page environmental assessment report for its Mt. Milligan project gives you a pretty good indication of the complexity of mine design and the seriousness of the undertaking, to say nothing of the additional need for skilled writers. If the mine is in a remote location, as is often the case, new infrastructure may have to be built, adding more engineering complexity to this massive undertaking.

The construction of a tailings facility must be built, managed and maintained to the highest engineering standards because it must not fail. Canada's mining industry has led the world in the design, construction and management of tailings facilities, our best brains working at major engineering firms like Wardrop, SNC Lavalin, Knight Piesold, Hatch, Golder and Jacques Whitford, to just name a few.

New mines are high tech operations, using the very latest in remote technology to maximize extraction at the lowest cost and risk to human safety. The capital equipment is expensive and not always easy to replace, so needs to be handled with expertise. Labour is thus highly skilled, demanding investments in training and in HR personnel. This is also one of the reasons why mining pays an average wage of over \$100,000/year, the highest of any industry in BC. It's also one of the reasons why we are very supportive of and applaud the BC government's efforts over the past number of years to make the Province the most tax competitive environment for skilled workers in Canada, and why the recent budget's protection – in difficult times – of education and training dollars is a wise decision.

Running a mine is no simple task. The years of experience and training behind your average mine manager is considerable. One former Teck Cominco mine manager, during a downturn, went on to run one of Vancouver's port terminals – no prior experience in ports or transportation, but he had the skills to run a complex operation where every minute of activity – indeed every second – has an impact on the bottom line.

And running a mining company – dealing with international markets, international politics and all the other brains you have to rely upon or interact with – requires smarts and intestinal fortitude, though maybe not in that order.

In short, we need a lot of talent to succeed.

Vancouver, as a global mining centre, benefits from this in more ways than we can think. Vancouver is home to some of the best and brightest minds in mining law, mine financing and exploration anywhere in the world. Supporting these minds are world class mining educational and training institutions at UBC, Simon Fraser and BCIT.

Let's think about what this does for our city. Billions of dollars in exploration capital is raised in Vancouver annually, most of it invested abroad but the expertise to raise it is here. In the downtown core, some 800 exploration and mining companies are headquartered. They are active all over the world, but choose Vancouver as their home in good measure because of the brain power you find in this city.

All this cerebral capacity is needed to enable the industry to operate in a highly complex work environment that thrusts us into multiple areas of public policy. We have a huge stake in the decisions our province and our country make, whether it has to do with infrastructure, environmental protection, climate change, health and safety, First Nations, tax policy or transportation. It's one of the reasons why, over the past two decades, mining has undertaken *on its own* two of the most far-reaching, multi-stakeholder public policy initiatives in the world – the Whitehorse Mining Initiative here in Canada and the Global Mining Initiative that was international in scope (though led by many Canadians). It's why you'll find miners involved with the UN, with UNEP, the OECD, the IUCN, with the World Bank and many other international bodies. It's why you'll find groups like ours active in all major mining jurisdictions in the world. It's why we have the dubious honour of attracting our very own critic, MiningWatch, to monitor and critique everything we do all over the world.

Another way to look at and comprehend the mining industry's complex nature, and our intersection with pretty much every aspect of human activity, was touched on last year by MABC's Chairman, David Parker, when he made the observation that mining uses, relies on and significantly influences every form of capital: natural, financial, manufactured, social and, the most important element of all, human capital.

When you touch on or are exposed to so many aspects of capital, you care deeply about the decisions others may make that impact capital. It is not uncommon to hear the term “whining miners”, partly because it’s an easy rebuke, but also because there are few things we don’t care about. As an aside, it was with some irony that a former colleague of mine at the Mining Association of Canada left to become President and CEO of the Canadian Vintners Association. And it’s perhaps no coincidence that when you invert the “m” in mining you get “wining”.

But we are not whiners. We are immensely practical. We have to be. In our business, as complex as it is, we have to be problem solvers, doers, pragmatic and not at all dogmatic. If a new idea will help us build and operate a mine, it doesn’t matter how novel or far-fetched, we will consider it, we may champion it, we will find a way to make it happen.

### **Practical Approaches to Big Ideas**

To illustrate, I will touch on two recent examples here in BC.

The first is the proposed electrification of Highway 37.

This is a big project. It’s the kind of project we don’t see so often in a modern, developed country like Canada, because a lot of the major infrastructure has already been built. It’s a project that has been talked about, dreamed about, for decades but remains undone.

We’re now on the cusp of building it, opening up the possibility of new economic activity in the north, new opportunities for northerners, new capacity for First Nations to seize and pursue their economic future.

The mining industry has stood out as a major proponent of this infrastructure project. But as we’ve pursued this vision for the province, we’ve done it in a way that’s creative and inclusive. We’ve formed a broad-based coalition that includes First Nations, municipalities, power producers, suppliers and contractors and northern development agencies. As a sector that intersects with so many aspects of human society, we have a knack for seeking broad-based support for an idea, whether it’s a power line or, simply, a new mine. Today, the coalition is increasingly led by First Nations, with us playing a supporting role, because we understand that for this line to be built, the affected First Nations will want to make sure it is done in a manner that is respectful of their interests and beneficial to their communities.

In September, the MABC released a study on the potential benefits that would stem from the electrification of Highway 37. This potential is staggering:

- It found that the power line has the potential to attract more than \$15 billion in investment, create 10,700 jobs and generate \$300 million in annual tax revenues to governments.
- It would provide access to green power for up to ten known mining projects.

- The northwest possesses the greatest new potential in hydro power development in the province, the study identifying 700MW of small hydro and up to 1,500MW of wind projects.

We recently completed an analysis of some of the environmental benefits associated with this project. The immediate greenhouse gas emission reduction from the shutdown of current diesel generation combined with the estimated avoided emissions from the generation of green energy of approved and licensed run-of-river projects, is almost 100,000 tonnes of CO<sub>2</sub>e or the equivalent of taking over 17,000 cars off the road. If you add run-of-river projects in the application stage from Terrace just to Bob Quinn, you'd double these numbers. If you factor in the potential new mines that would have access to the grid and avoid diesel generation, the numbers are much greater still.

The coalition was able to persuade Premier Campbell to restart the environmental assessment and First Nations consultation for the power line. At our urging, the Province is now pursuing federal government infrastructure funding to help finance the line. Our dream is getting closer to reality. A dream that will open up new opportunities for mining, green power and tourism in BC. But more importantly, it will help secure a long term sustainable economic future for northern British Columbia, with major spin-offs for Vancouver – including an investment in our present and future brain power.

The second example of our intense interest in public policy was demonstrated by our response to the Province's proposed First Nations Recognition and Reconciliation Act.

Mining is the largest employer of Aboriginal people in Canada. According to Kelly Lendsay, President and CEO of the Aboriginal Human Resource Council, the mining sector is in the vanguard with its work with First Nations. We are on the front lines, pioneering new relationships and doing what governments, for generations – indeed, Canadian society – have failed to do.

In partnership with First Nations and governments, we have worked out agreements with First Nations on jobs, training and business outsourcing, offering opportunities for greater economic participation and wealth creation for their communities. We have partnered in the development of tool kits for Aboriginal people to build capacity for interacting with and benefitting from our sector. Last month, a new guide was published that addresses job and training opportunities for First Nations in mining and how to get them. Here in BC we have pioneered innovative programs like the Northwest Community College's Reclamation and Prospecting First Nations Workforce Training Program, which provides hands-on, practical, outdoor training in mining and exploration, with almost 90 percent of graduates finding employment or pursuing further education within one year of completing the program. We have partnered on traditional knowledge projects and supported investments in Aboriginal community well-being and literacy.

We are now working, in partnership with the Aboriginal Human Resource Development Agreement Holders, the provincial government, BCIT and others on an innovative Aboriginal Skills and Education Partnership program proposal, which we hope will be approved by the federal government in the next few weeks. This initiative could go a long way towards further enhancing First Nations participation in mining in BC, while also helping our industry to meet its challenging human resource needs.

We are committed to working and partnering with First Nations communities be they in British Columbia or elsewhere across the country. We know that First Nations can and will have a big role to play in our economic future.

So we welcome practical initiatives that make it easier for First Nations to participate in the mining industry.

This is why we have been paying such close attention to the proposed *Recognition and Reconciliation Act*. When we were first made aware of the proposed legislation, we had many questions.

We understand the government's rationale for pursuing this legislation in the context of fulfilling the goals of the New Relationship.

However, in the pursuit of that objective, we have been clear in making sure that both government and First Nations understand and appreciate that as an industry we have a vested interest in ensuring that the legislation provides us and other industries with a practical solution to the ongoing uncertainty that is far too pervasive on the BC land base.

We know that the root cause of this uncertainty is the painfully slow settling of claims and recognition of rights.

We need to address this uncertainty and its causes. But as we go forward, we need clarity regarding *how* the proposed legislation will address Crown versus First Nations title and avoid conflicting or duplicative requirements for industry, about the practical implementation of shared decision-making, about the implications for BC's highly-respected environmental assessment process.

I believe that all of us – industry, First Nations and government – support the goal of formally recognizing that First Nations existed before Europeans showed up and creating an economy that is more inclusive of Aboriginal peoples.

Practically speaking, our industry has implemented policies and programs that create economic opportunities based on inclusiveness. We have long been proponents of resource revenue sharing with First Nations, since we believe local communities should be the primary beneficiaries of our activities.

Simply put, we have no issue about whom we pay taxes and royalties to, or who regulates us. We do care how it's done, that there is a clear, predictable process for project approval and permitting and that tenure, once granted, is secure. The Crown needs to adequately resource its consultation and accommodation obligations; we want assurances before embarking down a new path that the government is fully committed to resourcing its obligations under a new regime. Because only this way can we truly achieve, in real terms, the goals that have been set out.

We welcome the fact that we are now engaged with the First Nations Leadership Council to begin to answer many of the questions we have.

While other industries are involved, this process was established initially by the First Nations and the mining industry, because we, as miners, are used to sitting down and working out problems. Because finding solutions is an essential part of our business. Working together, I am hopeful that we can make progress on one of the most important public policy issues of our times, creating opportunities for the social and economic growth and inclusion of First Nations communities, a sadly deficiently tapped resource of brain power in our country, while also improving the operating environment for mining and other industries. We look forward to building on our dialogue with the First Nations Leadership Council and to meaningful consultation with the Province on this major initiative after the election.

### **What Brains Can Do**

With all these brains putting all this capital to work, there must be a dividend that makes it all worthwhile.

As Robert Prescott-Allen wrote in "The Well-being of Nations", mining provides the highest and best use of land on the basis of the prosperity that can be created and the social utility and wellness that can be generated as a result.

Mining is a good use of the land. Sure, the land you use is altered, but the value derived relative to the amount of land affected is enormous. When done right – and we now know much better how to do it right – the land, once used, returns to useful, productive land – different, but productive. A mine is very unlike a shopping mall, condo, parking lot or some other urban development that a) takes place without an EA and b) remains a permanent, ecologically sterile part of the planet – but I digress.

To make it more real, I'd like to turn to some very current examples: the Mt. Milligan and Prosperity projects.

Both have been projects for a long time. They're complex projects. They're big projects. They have both demanded a lot of brain power to get to the stage they are at.

Mt. Milligan was found over 20 years ago. It's got a current estimated life of 15 years but good exploration potential to extend well beyond. It's a nearly \$1 billion investment that would create 700 construction jobs and 400 permanent jobs, with about 60 percent of construction spending taking place in our province. Once built, total operational expenditures are estimated to be almost \$100 million. This project, now in possession of its provincial EA certificate, awaiting federal approval and resource revenue sharing negotiations between the Province and First Nations, would bring a huge economic boost to north central BC.

Early exploration on the Prosperity project began in the 1930s. Near Williams Lake, Prosperity, like Mt. Milligan, is not your average mine. It's a cut above, both for its duration and its size. Let's consider the following:

- Including direct, indirect and induced elements, Prosperity will generate an estimated \$9 billion or 5 percent of current GDP over the life of mine. The first full year the mine is in operation will add 0.3 % to BC's economic growth. Think about that a moment. Just one mine. Wouldn't it be nice to have that mine right about now?
- It will create 50,000 person years of employment and the need for 5,000 additional workers in British Columbia.
- It will add over \$2 billion to provincial coffers and another \$1 billion to the federal government.

To put it into perspective, this one mine is three times the entire output of the fishing industry (\$100 million). If you add seafood processing (\$160 million), it's still larger. It's larger than the annual GDP of the film and television industry (\$300 million). We all value the economic contribution of the upcoming Olympics, particularly during this difficult time. But again, the economic stimulus of the 4-6 week period during which BC will be proudly hosting the games is about the same that Prosperity will provide each year for 20 years and maybe more.

Once in operation, it is expected that 100 % of labour will be homegrown using local brain power. The mine would be built in the economically depressed, pine beetle devastated region near Williams Lake. Total employment in the Cariboo Development Region is 83,000. Prosperity will create a total of 1,500 jobs in the region. Just one project and an almost 2 percent increase in local employment, those highly paid miners, some of them First Nations, spending their wages in the local economy.

## **Conclusion**

Mines are big business: a good business and a responsible business. The fact that there are under 20 major mines operating in BC right now underscores the fact that mines are scarce. They don't come along every day. But when they do, their contribution is substantial, as is all the work along the way to get you there. And you need a lot of brains, both in number and quality, to bring one from discovery to operation and then to closure and reclamation. Mining produces much more than copper, gold, coal or zinc: it produces people.

Scarce though mines may be, here in BC we are blessed with, among other attributes, a rich geology and the brains to be a globally-significant mining jurisdiction. Vancouver is, as I've said, already a mining centre, but we can be bigger and better than we are. A few more mines, like Prosperity and Mt. Milligan, and we will take our rightful place in Canada and the world as a global centre of the best and brightest.

Thank you.