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Les enjeux de la filière uranifère au Québec





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BRIEF FILLING: Uranium industry issues in Québec

Pacific Bay Minerals Ltd. Experience in and Contributions to Quebec

Introduction

Over a 6 year period (2006-2012), Pacific Bay injected \$2.1 million into the economy of northern Quebec's Otish region, with an additional \$3 million injected by partners. Attracted by Quebec's uranium potential, excellent reputation and highly skilled workforce, Pacific Bay was welcomed by the local communities and in particular First Nations contractors and workers with whom we worked hand in hand. We were looking forward at a bright future together

Naturally, our disappointment when the moratorium was announced was profound. This memorandum summarized our company's involvement in uranium exploration in Quebec.

The reasons for lifting the moratorium include:

- 1. to provide employment and other opportunities for Quebec and especially Northern Quebec
- 2. to enhance investment in Quebec;
- 3. to dissipate the unwarranted cycle of fear;

4. to allow Quebec to contribute to the fight against climate change.

Background

Pacific Bay Minerals Ltd. ("PBM") is a junior mining exploration company based in Canada with its principal Canadian properties in Quebec and British Columbia. Besides Strateco Resources, to our knowledge, that Pacific Bay may in fact be the only junior mining exploration company to make a submission to BAPE in this matter.

Pacific Bay is like many other junior exploration companies that were attracted to Quebec by its uranium potential and excellent reputation as a mining-friendly province. Overall, our experience in Quebec was excellent, as arising from:

- Large pool of talented and hard-working earth science professionals such as Geologists and Geophysicists in Quebec.
- Capable and well equipped First Nations camp construction contractors.
- Excellent fleet of bush aircraft and helicopters
- Experienced and resourceful expediters to support field operations with groceries and camp supplies in Quebec
- First rate labour force required for surveying, prospecting and sampling in remote and challenging terrain in Quebec
- Excellent safety culture across all personnel and management in Quebec
- Friendly, accommodating and supportive First Nations interaction that made
 Pacific Bay to feel welcome in Quebec.

Over our 7 years of uranium exploration in Quebec, uranium exploration and mining was always fully accepted by the regions' local communities. We worked along-side local people, venturing hand-in-hand towards a prosperous and exciting future for uranium in the Otish region.

We were delighted to hear Quebec Premier Philippe Couillard recently reaffirm the government's commitment to Plan Nord and speak of the tremendous importance of mining to the economy of Quebec. These are the same optimistic sentiments that encouraged Pacific Bay to devote a very large percentage of its limited resources to investments in Quebec.

In light of the positive outlook in 2006-2012 and the current positive attitude toward mining expressed by the government today, Pacific Bay's management look forward to the lifting of the prohibition of uranium exploration and mining activities in Quebec.

The uranium moratorium damages local communities, the Quebec economy, and the mining companies who have invested in the province. The moratorium simply does not make sense.

<u>Uranium Exploration versus Development and Mining</u>

Much of the attention in public discourse surrounding uranium in Quebec relates to the mining stage of a project. However, uncertainty around mining has also completely shut down uranium exploration.

The exploration phase of a project has a unique economic profile in terms of employment and resulting community benefits. Quebecers hired in the exploration phase are not necessarily the same set of people who will find economic opportunity during the mining phase.

During exploration, field work in rugged terrain requires human resources with experience in the wilderness, survival skills and knowledge of local culture and customs. First Nations workers often find great opportunity during the exploration phase because of their capabilities. Large numbers of personnel are required to traverse and survey broad land areas for prospecting, sampling, surveying and camp construction.

This occurred during Pacific Bay's exploration work in northern Quebec over the years.

During the mining phase, highly skilled and specialized trades become in demand and typically no province in Canada can supply the talent needed. This skill shortage creates opportunities for local communities, but often very long timeframes are needed to train a workforce, and "on the job" experience only occurs once construction and mining is underway.

Without employment opportunities in mineral exploration, workers may need to wait for long periods for jobs to open up. Exploration work engages local communities quickly at a grassroots level and is typically less formal and structured. Exploration provides students and younger workers have excellent opportunities to earn well-paying year-round work in a healthy, outdoor environment.

Brief History of Pacific Bay ("PBM") in Quebec

- In December of 2005, PBM acquired uranium claims in the Mont Laurier area of Quebec.
- Following this acquisition, other uranium opportunities in Quebec were then looked at.
- One of PBM's senior advisors, Dr. Bernhard Free, Ph.D., a leading authority in uranium exploration, was recruited to provide PBM with needed expertise.
- Dr. Free had previously worked for Uranerz, a company that during the late
 1970s had discovered and explored the Matoush deposit in the Otish Mountains of northern Quebec.
- Upon investigation, it was discovered that a Montreal company, Strateco Resources Ltd., had already acquired the Matoush deposit.
- In mid-2006, PBM decided to acquire a very large block of claims surrounding Strateco based on favourable geology, possible extensions of the "Matoush Fault" that hosted the Matoush Deposit, and as close as possible to Strateco.

- The claims were acquire mainly by the labour intensive effort of staking but also through an option agreement with a prospector originally from Quebec, M. Pierre Angers.
- Over the next several months, PBM added significantly to its Quebec uranium claims in the Otish region, including the "Otish South" and the "Papaskwasati" areas.
- During 2006, PBM spent approximately \$290,000 exploring the Otish and Mount Laurier exploring its Otish properties
- PBM's 2007 spending accelerated significantly by over 500% to \$1.6 million on the Otish and Mount Laurier properties.
- PBM also spend \$348,000 exploring Papaskwasati.
- In total, PBM's exploration expenditures in the Otish uranium region during 2006-2007 totaled approximately \$2.1 million.
- This figure of \$2.1 million is made up of direct expenditures for exploration work in the Province of Quebec and does not include office overhead, financing cost or administration.
- PBM's work included:
 - Construction of a 30 man Camp Alfred, named Alfred in honour of Chief
 Alfred Coon at a cost of approx. \$350,000
 - Camp construction was carried out primarily by local Cree contractors
 - Ground crews and geological personnel were sourced almost 100% locally with some technical staff coming from southern Quebec.
 - Early stage exploration is one of the best times for local communities to benefit through employment, training and education:
 - Expediting: supplying a large camp requires huge investments in procurement, air travel and labor to shop for and load gear;
 - Line Cutting: establishing bush grids is very labour intensive, and o ur policy was to hire local as much as possible;
 - Geological and technical staff: PBM did not fly in experts from outside Quebec to complete projects. We hired Quebecers exclusively for top dollar.

- The above work led to the identification of numerous uranium targets requiring follow-up exploration through drilling or other techniques.
- In 2008, PBM spent an addition \$445,000 exploring for uranium in the Otish region of Quebec on its various properties.

Prior to the Pacific Bay/ Strateco Joint Venture, Pacific Bay's direct uranium exploration activity in the Otish involved the hiring of many Quebec contractors and local community employees and work with significant numbers of vendors, including:

- Réjean Girard, President of IOS Services Géoscientifiques, of Chicoutimi, who's firm hired many local workers to:
 - Cut survey lines
 - Conduct ground-based geophysical surveys
 - Construct camps
- Gilles Tremblay, exploration services contactor
- Etienne Forbes, President of Geoforbes, exploration contractor, supplied personnel for camp and field work
- MacLeod Exploration Services of Mistissini, a mineral exploration contracting company whose workforce is predominantly Cree, provided:
 - Camp construction services
 - Oversaw and carried out construction of Camp Alfred, a \$300,000 facility built to accommodate up to 30 personnel in summer and winter conditions.
 - Acquired and sold to Pacific Bay equipment and furnishings required for the camp
 - Expediting
 - o Line cutting services
- John Otteriyen, line cutter
- Ernest Petanabond, line cutter
- Phil Boudrias, Manager, Exploration Esbec, exploration services contractor
- Serge Cheve, Geologist, Project Manager

- Hector Blake, Geologist
- Les Enterprises M.B, geological services
- Michelle Lebel, field worker
- Villeneuve Venne, field worker
- Howard Stubbert, Camp Manager
- Hèlicoptères Panorama Ltèe, helicopter services
- Gérard Lambert Géosciences, Geological consulting services
- Geophysique Sigma Inc, Geophysical surveying
- · Air Roberval Ltèe, Fixed-wing air support for Camp Alfred
- Air Saguenay, fixed-wing air support for Camp Alfred.

The above partial list of Quebecers who worked for Pacific Bay illustrates the significant direct, local benefits in terms of high paying jobs, training opportunities and infrastructure development.

Pacific Bay Strateco Joint Venture

Pacific Bay's exploration success attracted the interest of Strateco Resources.

In late 2007, the Quebec Company Strateco approached PBM with a proposal to earn an interest in PBM's Otish claims that surrounded them. After a period of negotiations, the parties agreed on a joint venture deal that would see Strateco earn a 60% interest.

Building on PBM's exploration efforts in 2006 & 2007, over the next 4 years, Strateco completed the required \$3 million in work, including 10,000 metres of labor intensive diamond drilling, and made all the required payments. This work was completely done in Northern Quebec, providing jobs to Quebecers.

Strateco's work resulted in numerous high-potential areas being further identified and understood. Significant further work is recomended to fully evaluate the claims.

In 2012, Strateco having completed all the requirements under the option agreement, the parties automatically formed a Joint Venture whereby the parties participate on a pro-rata basis, with PBM holding 40% and Strateco holding 60%, which is the status at present.

Strateco's nearby Matoush Deposit is considered to be of sufficient size and grade have strong potential to become a producing mine.

Effects of the Moratorium on Pacific Bay

Since the moratorium was disclosed, Pacific Bay was forced to realize on its balance sheet a 100% impairment of its Quebec mineral assets owing to the regulatory uncertainty in the region. As no further work could plausibly be completed by Pacific Bay on any of its uranium holdings in Quebec, the only other alternative was to try to pay the escalating cash-in-lieu-of-work payments to the Province of Quebec. As Pacific Bay's uranium assets became surrounded in uncertainty, investors were unwilling to see the company expend funds of cash claim maintenance payments. The result was that Pacific Bay was forced to sit by and watch its claim expire.

Pacific Bay is no longer an employer in the Otish region or anywhere in Quebec.

Environmental Considerations

Reduction of greenhouse gases has become one of the world's most urgent priorities. Global government policy is increasingly oriented toward clean alternatives to energy derived from fossil fuels. Annually, uranium accounts for the reduction of 2.5 billion tonnes of CO₂ emissions.

Nuclear power has increasingly been seen by environmentalists and economists, aside from hydroelectricity, as the only viable green alternative energy source that can reliably, economically and safely provide the earth's increased needs for electricity at a

time when fossil fuel emissions must be substantially reduced. Energy poverty in developing countries is still a huge problem, and the burning of fossil fuels to reduce the devastating impacts of having no electricity is feeding the threat of accelerated global warming.

While the "nuclear renaissance" of the last 10 years has abated in the wake of the natural disaster in Japan, analysts see the construction of nuclear power plants growing significantly in the coming decades. Low uranium exploration during the 1980s and 1990s was a key reason for the uranium price surge in 2004-2008 and resulting boom in exploration, including Quebec. Curtailing uranium exploration through unnecessary and restrictive regulation will have the effect of reducing the supply of the fuel needed to produce green energy.

Education

There is no need for Quebec to participate in the current cycle of fear an unscientific opinions relating to uranium. Nuclear power has proven to be safe and responsible uranium exploration and mining is not a risk to public health. The threat of uranium exploration to the environment is not even measurable, and mining uranium shares the same risks as all mining.

For reasons that are not well understood, certain segments of the general public have heightened fear about uranium exploration and mining. It should be the role of the government of Quebec to reduce these fears through education and communication.

Unfortunately, Quebec's actions in restricting uranium exploration have served to validate and amplify false sense of pervasive "contamination" from uranium mining. As we all know, the uranium in question is already there, in the ground, on the surface, with streams of water running over it.

A key exploration technique for uranium is to measure radioactivity via airborne surveys. The Otish Mountains region, for example, has countless "hot spots" where radioactive spikes indicate the presence of uranium. Once a radioactive hot-spot is identified from the air, ground crews traverse the area looking for radioactive boulders. These highly radioactive boulders have been dispersed often for tens of kilometers by glaciers scraping across uranium deposits on the surface of the earth.

Tracing these radioactive "boulder trains" with scintillometers is how the Matoush Deposit was found. Uranium and the radioactivity associated with it is already present in the region and government could be working actively to *reduce* fear, not the reverse.

Uranium Mining is Proven to Be Safe and a Driver of Economic Activity

Most of the world's uranium supply comes for very low grade deposits mined on surface through open-pit methods. Examples included large open-pit operations in Namibia and Kazakhstan. Open-pit mining of uranium is extremely safe, but the disturbance to the surface can be large and unsightly.

On the other hand, underground mining of high grade uranium deposits, such as the operation proposed at Matoush, are to be low impact, low disturbance mining activities. Underground mining of high-grade uranium deposits has been successfully and safely occurring in the province of Saskatchewan for decades.

Attached is a detailed document outlining the safe, environmentally responsible and highly successful underground uranium mining legacy in Saskatchewan, where excellent relationships with local communities have been forged and sustained. In 2012 alone, \$377 million in wages and \$255 million in contractor compensation was paid out locally.

In 2012, \$166.9 million in taxes and royalties were collected by the Saskatchewan government from uranium mining.

These are benefits that could accrue to Quebec when the moratorium is lifted.

Conclusion

Pacific Bay is a responsible explorer who was attracted to Quebec by its uranium potential and the government's well-advertised commitment to support mining in the province. Exploration for uranium was strongly encouraged by the government, backed by promised support as deposits were discovered. That promise has been broken. Pacific Bay's shareholders, some of the largest of whom reside in Quebec, are now left with huge losses and worthless properties.

Thousands of other Quebecers are also left with empty hands, as job seekers find dwindling opportunities.

Financing for all mineral exploration has become extremely difficult since 2008, and especially the last few years. It is unwise to expect that other metals such a gold will "pick up the slack" from the lamination of uranium activity.

Quebec faces a domino effect of capital fleeing to jurisdictions where the risk of devastating and unpredictable regulation is low.

The moratorium also prevents Quebec from providing uranium for nuclear energy to combat global warming from fossil fuel emissions.

No one wins if uranium projects in Quebec are killed. The losses to shareholders and local communities are already staggering.

The only sensible way to proceed is to resume to the good and wise course Quebec was on before, encouraging uranium exploration and mining because of its obvious and significant benefits to Quebec.