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Quebec's mining policy performance:

Greater uncertainty and lost advantage



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Executive summary

Mining has been a major contributor to the growth and development of Canada and Quebec. In 2012, nearly 330,000 people were employed in the mining and processing of minerals in Canada, with 85,568 of these workers employed in the Province of Quebec in 2011 at its 32 producing mines and processing plants (Canada, 2013d). In 2011, the mining and processing sector contributed \$10.2 billion to Quebec's economy and comprised 3.4 percent of its GDP (Québec, 2013). The sector also supports many additional jobs indirectly, and provides government revenues used to provide health, education, and social services.

Global trends, such as the growth in emerging economies, suggest strong long-term demand for the minerals and metals produced in Quebec, yet the mining industry is currently challenged by poor economic conditions, high input costs, and difficulty securing financing for exploration as investors are increasingly risk averse. In addition to these market-related challenges, Quebec's mining industry is also being hampered by changing and uncertain policies that are deterring exploration investment in the province.

This study will examine how Quebec has performed, relative to jurisdictions around the world, in terms of attracting mining investment. The performance of Quebec's mining industry in terms of attracting exploration investment is reviewed, noting parallels between the Quebec industry and investment in Canadian mining overall. Current challenges in raising capital, and their impact on the junior exploration sector in particular, are discussed.

The decline of Quebec's performance in the Fraser Institute Survey of Mining Companies is also reviewed. From 2007/08 to 2009/10, Quebec was ranked as the most attractive jurisdiction for mining exploration in the world. However, by 2012/13 it had fallen to the 11th place, with ongoing policy uncertainty continuing to deter mining exploration investment.

The policy changes that have contributed to the decline in the relative attractiveness of Quebec for mining exploration investment are analyzed. This analysis is based on mining survey respondents' opinions of what policy factors have been most dissuasive to mining investment in the province over the last five years. Survey data has been complemented by government and industry reports, in order to link policy changes with survey findings. An

overview of recent policy changes, including amendments to the mining act and taxation regime, are included as Appendix 1. The role of recent policy changes in creating uncertainty and deterring investment is attributed to four main investment barriers.

Investment Barrier 1

Uncertainty concerning which areas will be protected as wilderness, parks, or archaeological sites

Uncertainty concerning which areas will be protected deters investment by removing land from exploration and mining activities, effectively preventing the land and the mineral wealth that it may contain from being able to create jobs and economic benefits in the future. It can also discourage exploration investment in and around potentially protected areas, since it increases the risks and decreases the likelihood that any viable deposits discovered could be mined. In 2012/13, 39 percent of respondents were mildly deterred, 12 percent strongly deterred, and 2 percent would not pursue investment due to this factor.

A number of policy changes have increased the uncertainty concerning which areas will be protected. These include commitments to protect 12 percent of Quebec's Northern Territory (which covers nearly 1.2 million square kilometres), and intentions to eventually exclude up to half of the territory from industrial uses. The introduction of Bill 14 also withdrew all areas within the urbanization perimeter, as well as areas dedicated to vacationing, from mining and exploration activities. Bill 43, recently defeated by the National Assembly, would have expanded the power of the Minister of Natural Resources to remove land from mining activities in order to avoid conflict with other uses, and would have permitted municipalities to identify areas in their land use plans that would be incompatible for mining.¹ The retroactive nature of some of these changes could have resulted in mining companies that have already invested millions of dollars in exploration losing legally acquired rights to develop minerals. Meanwhile, the power to create mining policy would have shifted from a single, unified provincial system to thousands of municipalities.

Recommendations to reduce investment deterred due to uncertainty concerning protected areas in Quebec

- ◆ The Province should reconsider giving municipalities the ability to exclude areas from mining, and seek to restore a single, stable, and transparent policy framework for Quebec.

¹ At the time of writing, Bill 43 was before the Quebec National Assembly. However, it was rejected on October 30, 2013 (see Appendix 1 for additional details).

- ◆ A fair, transparent, and market-based compensation mechanism should be identified for mineral claims affected retroactively by increased restrictions.
- ◆ The province should assess and publish the potential economic and social impacts of lost mineral exploration and development prior to removing land from mining and exploration.

Investment Barrier 2

Taxation regime

Until recently, Quebec provided a generous system of incentives and a competitive taxation regime that was attractive to mineral exploration investment. However, since 2010, Quebec has introduced two major changes to the taxation regime in the province, creating significant uncertainty and thereby increasing the risk of investment in Quebec. The percentage of survey respondents strongly deterred due to Quebec's taxation regime has increased from only 1 percent of respondents in 2008/09 to 13 percent in 2012/13, with an additional quarter of respondents mildly deterred.

In 2010, the taxation regime was changed in order to make profit calculations based on individual mines, rather than across operations held by a single owner. The mining duty paid was also increased from 12 to 16 percent of annual profits. Subsequent amendments to the Mining Act have also restricted how credits for exploration work can be used. Furthermore, in 2013, a new mining regime introduced a minimum royalty to be calculated—based on the value of minerals extracted at the mineshaft head, rather than on profits that will be paid whether or not a mine is profitable. This new regime also introduced a three-tiered tax on profits that will limit the ability of operators to recoup losses in times of high commodity prices. The new royalty regime has not yet been approved by the National Assembly.

Recommendations to reduce investment deterred due to mining taxes in Quebec

- ◆ Quebec should move away from distortionary tax incentives towards a single lower rate for corporate taxes.
- ◆ Restrictions that limit credit for exploration costs incurred should be reconsidered.
- ◆ Minimum royalty rates and super-profit taxes based on the value of ore at shaft head should be reconsidered, in light of their dissuasive effect on exploration investment.

Investment Barrier 3

Uncertainty concerning environmental regulations

A third key investment barrier identified through this study was uncertainty concerning environmental regulations, which have increased steadily since 2010/11 to mildly deter 24 percent of respondents, strongly deter 10 percent, and cause 1 percent not to pursue investment in Quebec as a result in 2012/13. Uncertainty in environmental regulations deters investment by negatively affecting the timeliness and predictability of the regulatory process, threatening project viability through new restrictions and prohibitions, and creating the perception that special interests—rather than sound science—are guiding policy decisions.

A number of policy changes have increased this uncertainty. Three amendments to the Mining Act have been introduced since 2009, none of which have yet been adopted. The amendments have proposed to increase the scope of financial guarantees made by mining companies to cover the full costs of restoration and rehabilitation, yet have reduced the payment schedule for this guarantee to the very early years of a mine's operation, when capital needs are high yet operating income is very low. Bill 43 will also require all mining and processing projects to undergo an Environmental Impact Assessment and to hold public consultations, regardless of their scope or the materials mined. A temporary moratorium on the exploration and discovery of deposits containing uranium was also introduced in March 2013, making the future of claims already held uncertain.

Recommendations to reduce investment deterred due to uncertainty concerning environmental regulations in Quebec

- ◆ The payment schedule for the guarantee of restoration and rehabilitation should be expanded to better reflect the expected life of the mine.
- ◆ The requirement for an environmental impact assessment and public consultation process should be reviewed to be more reflective of social and environmental risk, and to ensure that the consultation process does not become politicized or manipulated by special interest groups.
- ◆ The moratorium and study of the uranium sector should be reconsidered in light of existing federal regulations and safety procedures, or the study should be completed in a timely manner to minimize uncertainty for existing claim holders.

Investment Barrier 4

Regulatory duplication and inconsistencies

Investment strongly deterred as a result of regulatory duplication and inconsistencies has increased steadily over the last five years, reaching (in 2012/13) 24 percent mildly deterred, 13 percent strongly deterred, and 1 percent who would not pursue investment. Regulatory overlap, duplication, and inconsistencies are dissuasive to mining investment, as they can make it more difficult, costly, and time-consuming to comply, and increase the risk of missing windows of economic opportunity for mining.

Uncertainty has increased for mineral claim holders as their access to claims has been restricted through proposed amendments to the Mining Act contained in Bill 43. Had it passed, it would have required claim holders to notify surface right holders of their claims, and to obtain written permission to access them, yet their ability to use expropriation mechanisms would also have been limited, leaving exploration claim holders with limited recourse if they were unable to obtain permission. Bill 43 would have also required all applications for mining leases to include an ore processing feasibility study, as well as possibly to enter into an agreement with Quebec to maximize economic spinoffs from mining activities. These plans would have been costly, time consuming, and intrusive for business strategies, while increasing uncertainty considerably, thereby dissuading mining investment in Quebec.

Recommendations to reduce investment deterred due to regulatory duplication and inconsistency in Quebec

- ◆ Mechanisms to permit access and compensation should be put in place for exploration rights holders unable to access claims due to the new regulations on surface rights ownership.
- ◆ The requirement for an ore processing study and an economic spinoff study and agreement should be reconsidered, and/or greater clarity provided on what criteria will be used to assess the requirement for an economic agreement.
- ◆ The Province should refrain from retroactively changing the requirements for obtaining and renewing mining leases.
- ◆ Initiatives and policy changes should be completed in a timely and efficient manner.

Quebec was once the most attractive jurisdiction in the world for mining investment, but it has since seen its advantage plummet due to years of policy uncertainty and a deteriorating policy framework for mining and exploration investment. As mining companies shift investment to more attractive and stable policy jurisdictions, skilled workers, employment opportunities, wealth creation, and government revenues will be lost. Changes must be made in order to prevent further decline and help Quebec regain its status as a top global and Canadian mining jurisdiction.

Introduction: Mining and economic development

Mining has long been, and continues to be, a major contributor to Canada's growth and development. The mining sector played a key part in Canada's settlement and development, with metals and minerals contributing economic growth and prosperity throughout Canada's history (Canada, 2013d). Today, Canada is one of the largest mining nations in the world, with more than 200 active mines in Canada and operations in over 100 countries (Canada, 2013a). Canada's minerals and metals sectors contributed \$62.5 billion to Canada's nominal GDP in 2011 (3.9 percent of total GDP), and employed nearly 330,000 workers in 2012 (Canada, 2013d). Mining supports many additional jobs indirectly in transport, accounting, financing, and providing other goods and services to the sector, thereby contributing to a more skilled workforce and better quality of life for many Canadians.

Mining also plays a key role in Canada's foreign trade. In 2012, 9.2 percent (or \$58.5 billion) of all foreign direct investment in Canada was in the mining sector, and the total exported value in merchandise was \$89.5 billion—20.9 percent of the total value of exports (Canada, 2013d). In addition, mining and mineral processing firms contributed \$7.1 billion in corporate taxes and royalties in 2011 (Canada, 2013a). These revenues support provision of public services such as health care, education, and social services.

Mining plays an important role in provincial economies as well. Quebec has historically had a particularly robust mining sector. Mining exploration and extraction, as well as mineral manufacturing, contributed \$10.2 billion, or 3.4 percent of Quebec's GDP, in 2011 (Québec, 2013). There were 85,568 workers in Quebec's minerals and metals sector in 2011, employed at 32 producing mines and 22 processing plants (Canada, 2013d). Further, jobs in the mining sector pay higher than average wages and provide employment in rural and remote regions (Canada, 2012). Quebec's mineral production was valued at \$8.2 billion, and 29 percent of domestic exports (valued at over \$18 billion) were derived from minerals (Canada, 2013c, 2013d).

Global trends, such as the transformation of developing countries and growing middle classes in emerging markets, are expected to intensify

demand for metals and minerals in the coming decades (Canada, 2013d). However mining companies are challenged by current difficulties in securing financing, the cyclical nature of the industry, unfavorable policies that deter mining investment, and increased public awareness and pressure to make mining more environmentally and socially responsible. These challenges require mining jurisdictions to remain competitive in their strategies or risk losing mining investment to jurisdictions with more favorable policies.

This study will examine how Quebec has performed relative to jurisdictions around the world in terms of attracting mining investment. It will analyze where the policy attractiveness of Quebec has declined over the last five years and provide policy recommendations that could restore Quebec's position as a leading jurisdiction for mining investment.

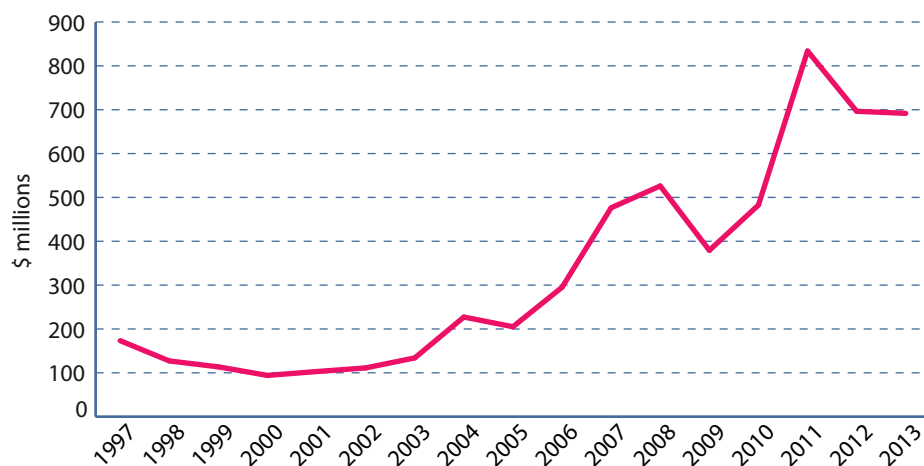
Measuring Quebec's attractiveness to mining investment

Performance of Quebec's mining industry

The mining industry is cyclical and subject to fluctuations in global demand, commodity prices, currency exchange, and prices of inputs such as labour and construction materials. Quebec's mining industry is no exception and has been subject to fluctuations in mining exploration and investment in recent years.

Figure 1 illustrates the exploration and deposit appraisal expenditures in Quebec since 1997. Exploration is considered the lifeblood of the mining industry, since new orebodies must be discovered and developed to replace depleting ore reserves. Without ongoing exploration, mineral production would outstrip mineral reserves, thereby putting the mineral processing and

Figure 1: Quebec exploration and deposit appraisal expenditures, 1997–2013



Notes: Includes on- and off-mine-site activities, field work, overhead, engineering, economic and pre- or post-production feasibility studies, environmental, and land access expenditures.

2012 data from preliminary estimates at February 2013; 2013 data from spending intentions at February 2013.

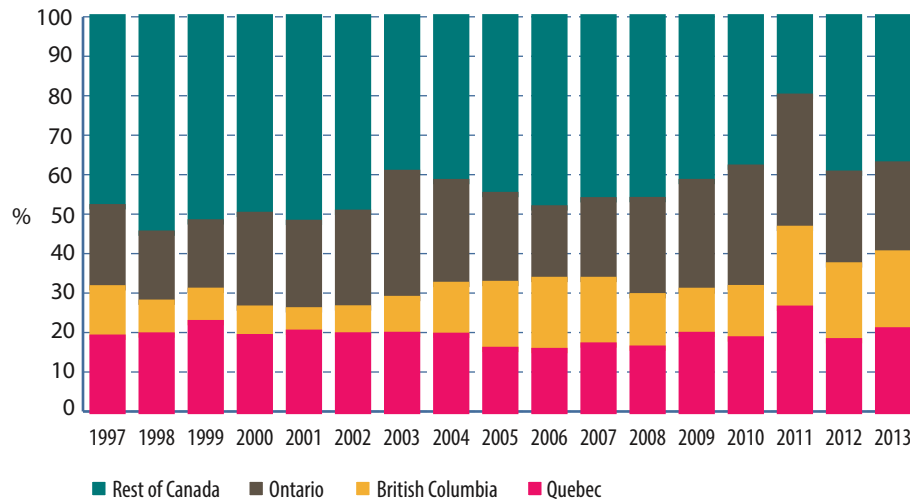
Source: Natural Resources Canada, from the federal-provincial-territorial Survey of Mineral Exploration, Deposit Appraisal and Mine Complex Development Expenditures.

domestic mining industry at risk both competitively and strategically (The Mining Association of Canada, 2011).

Since the early 2000's, Quebec has seen a large and rapid increase in exploration expenditures. This parallels the overall growth in Canada, which saw a large increase in exploration investment between 2004 and 2008, much of it driven by junior mining companies (Canada, 2013b). These expenditures were driven to a large extent by strong metal prices, which increased over this period before dropping sharply in 2008 (Canada, 2013b). Deteriorating economic and financial conditions during the financial crisis led to a sharp drop in 2009; however, investment recovered quickly in both Canada and Quebec, driven by metal price increases and more optimistic conditions (Canada, 2013b).

Exploration investment in Quebec peaked in 2011 and declined in 2012, with further declines expected in 2013 (Canada, 2013b). Quebec's share of Canadian exploration investment also peaked in 2011 (**figure 2**). However, Quebec was not alone in this downturn, as most Canadian jurisdictions experienced a drop in their exploration expenditures in 2012. Finance available for mining has decreased over the past two years, in part due to lower metal prices and increased costs, and this is affecting exploration companies severely (Martell and Rocha, 2013). Access to funding was the top constraint faced by international miners surveyed recently by Grant Thornton (an

Figure 2: Quebec's share of Canadian exploration spending, 1997–2013



Notes: Includes on- and off-mine-site activities, field work, overhead, engineering, economic and pre- or post-production feasibility studies, environmental, and land access expenditures. 2012 data from preliminary estimates at February 2013; 2013 data from spending intentions at February 2013.

Source: Natural Resources Canada, from the federal-provincial-territorial Survey of Mineral Exploration, Deposit Appraisal and Mine Complex Development Expenditures.

accounting and business advisory firm), with over half (55 percent) of junior miners rating access to funding as a constraint, more than half of Canadian companies (54 percent) reporting balances of less than US\$2 million, and, in Quebec, 31 percent of miners surveyed indicating that they need to raise funds within the next three months (Grant Thornton, 2013). Other challenges hampering the industry globally include risk-adverse investors, rising input costs for producing companies, and sluggish economies (Grant Thornton, 2013).

Fraser Institute Survey of Mining Companies

The decline of Quebec's attractiveness for mining investment can be seen through its performance in the Fraser Institute's Survey of Mining Companies. Since 1997, this survey has measured the effects of public policy on the investment decisions of exploration and mining producing companies. While it is perhaps self-evident that the policy environment affects investment decisions, it is difficult to measure such effects directly due to the lack of data and difficulty isolating policy factors from market, geological, and other investment considerations.² The links between policy factors and investment decisions are also obscured by the long time frames in mineral exploration and development, which, as noted earlier, can be decades.

To measure the impact of public policy on investment attractiveness, the Fraser Institute began using an anonymous survey of senior executives in the mining sector. The survey can be completed online, and is circulated through direct invitation to over 4,100 senior managers and executives involved in mining exploration, development, and related activities. The survey is also shared through mining associations, mining media, and other supporters. The 2012/13 survey received 742 responses from individuals representing companies with reported exploration spending of over US\$6.2 billion in 2012 (Wilson, McMahan, and Cervantes, 2013). Just over half (54 percent) of survey respondents were from exploration companies, 20 percent represented producer companies with more than US\$50 million in revenues, 6 percent were producer companies with less than US\$50 million in revenue, and the remainder were from consultants and other suppliers to the industry (Wilson, McMahan, and Cervantes, 2013). The positions held by survey respondents were mostly senior management, with 58 percent of respondents holding the position of company president or vice-president and a further 25 percent either management or senior management (Wilson, McMahan, and Cervantes, 2013).

2. Mining Survey respondents are asked each year how they weigh policy versus mineral potential in determining investment decisions. The weighting by respondents has consistently shown that policy considerations are weighted at nearly 40 percent, whereas mineral potential is weighed at 60 percent.

Survey of Mining Companies: Methodology

The Survey of Mining Companies asks respondents to evaluate the degree to which certain policy factors, such as the taxation regime or labour and skills availability, attract or dissuade investment, using a scale of 1 to 5 as follows:

- 1 Encourages exploration investment.
- 2 Is not a deterrent to exploration investment.
- 3 Is a mild deterrent to exploration investment.
- 4 Is a strong deterrent to exploration investment.
- 5 Would not pursue exploration investment due to this factor.

Survey respondents were asked to score only jurisdictions they are familiar with, and only on policy factors with which they are familiar.³ The 2012/13 Survey of Mining Companies included 96 jurisdictions around the world, with Canada being evaluated at the provincial and territorial level. Policy factors included in the 2012/13 Survey of Mining Companies are shown in [table 1](#).

The responses to policy questions are normalized and averaged into a single index, called the Policy Potential Index. This index allows the policy environment of different jurisdictions around the world, as well as policy performance within a jurisdiction over time, to be compared.

Declining policy attractiveness in Quebec

The maximum score possible on the Policy Potential Index (PPI) is 100. In 2012/13, Quebec had a score of 81.9 (Wilson, McMahon, and Cervantes, 2013). While this is a relatively good score in a global survey, it represents a sharp decline for Quebec, which in 2011/12 had a PPI of 89.0 and in 2009/10 had a PPI of 96.7. The decline of Quebec's PPI scores since 2008/09 can be seen in [figure 3](#).

Quebec has not only declined in its attractiveness relative to its previous survey performance, but also relative to other global jurisdictions in the mining survey ([figure 4](#)). From 2007/08 to 2009/10 Quebec was ranked as the most attractive jurisdiction for mining investment in the world, based on its PPI score (McMahon and Cervantes, 2009, 2010; McMahon and Vidler, 2008). In 2010/11, it fell to 4th (of 79 ranked jurisdictions), in 2011/12 it was

3. The 2012/2013 survey questionnaire contained the following instructions: "Please go through the following jurisdictions and select the ones that you are familiar with. Your selections need not be limited to first-hand experiences. Where you are knowledgeable, your informed opinion of a jurisdiction's policy is valuable as well. Please select as many as possible."

5th (of 93), and in the most recent 2012/13 survey it had dropped to a ranking of 11th out of 96 (McMahon and Cervantes, 2011, 2012; Wilson, McMahon, and Cervantes, 2013). The next section will consider in greater detail what particular policy factors were responsible for this decline and for Quebec's declining attractiveness for mining investment.

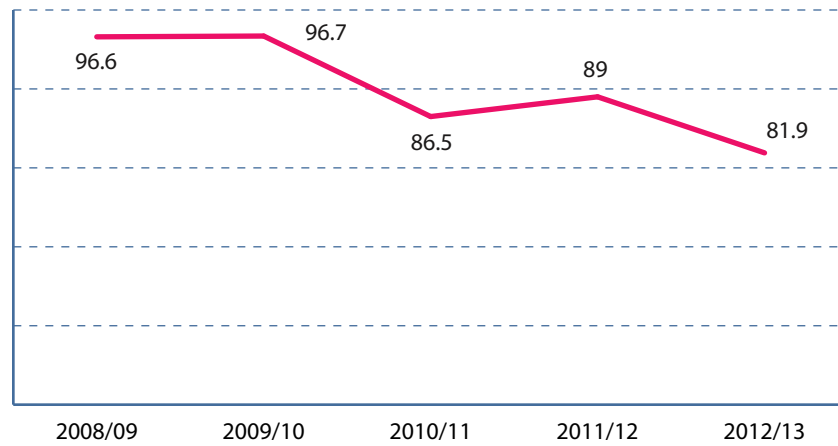
Methodology for policy factor analysis

The methodology used in this analysis is modelled closely on the methodology used by Wilson, McMahon, and Minardi (2013) to analyze British Columbia. A time-series analysis was carried out using policy factor data from the survey years 2008/09 to 2012/13. The analysis entailed combining participant responses for 4. *'Is a strong deterrent to exploration investment'* and 5. *'Would not pursue exploration investment due to this factor'* to identify the extent to which specific policy factors were most strongly dissuading investment. The results of this analysis are explained in the following section.

Table 1: Policy factors in the Fraser Institute Survey of Mining Companies

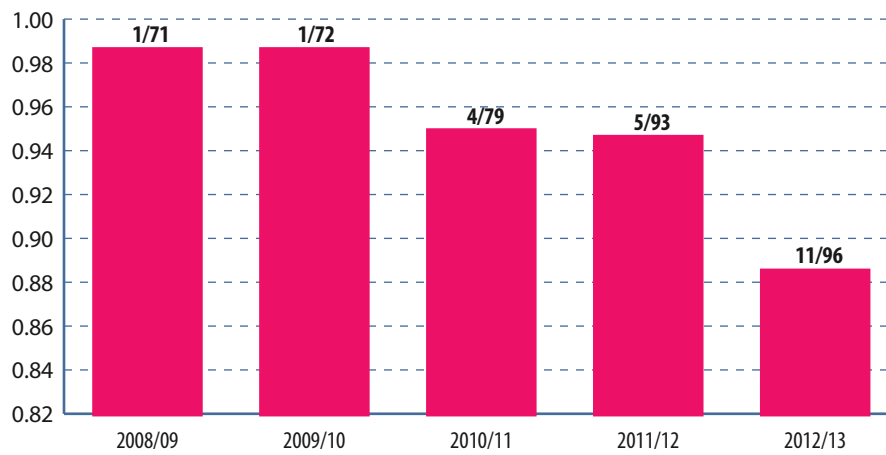
1. Uncertainty concerning the administration, interpretation, or enforcement of existing regulations.
2. Uncertainty concerning environmental regulations (stability of regulations, consistency and timeliness of regulatory process, regulations not based on science).
3. Regulatory duplication and inconsistencies (includes federal/provincial, federal/state, inter-departmental overlap, etc.).
4. Legal system (legal processes that are fair, transparent, non-corrupt, timely, efficiently administered, etc.).
5. Taxation regime (includes personal, corporate, payroll, capital, and other taxes, and complexity of tax compliance).
6. Uncertainty concerning disputed land claims.
7. Uncertainty concerning what areas will be protected as wilderness, parks, or archaeological sites, etc.
8. Infrastructure (includes access to roads, power availability, etc.).
9. Socioeconomic agreements/community development conditions (includes local purchasing, processing requirements, or supplying social infrastructure such as schools or hospitals, etc.).
10. Trade barriers (tariff and non-tariff barriers, restrictions on profit repatriation, currency restrictions, etc.).
11. Political stability.
12. Labor regulations/employment agreements and labour militancy/work disruptions.
13. Quality of the geological database (includes quality and scale of maps, ease of access to information, etc.).
14. Level of security (includes physical security due to the threat of attack by terrorists, criminals, guerrilla groups, etc.).
15. Availability of labour/skills.

Figure 3: Quebec Policy Potential Index score



Source: Fraser Institute Survey of Mining Companies (various years).

Figure 4: Quebec Policy Potential Index rank and percentile

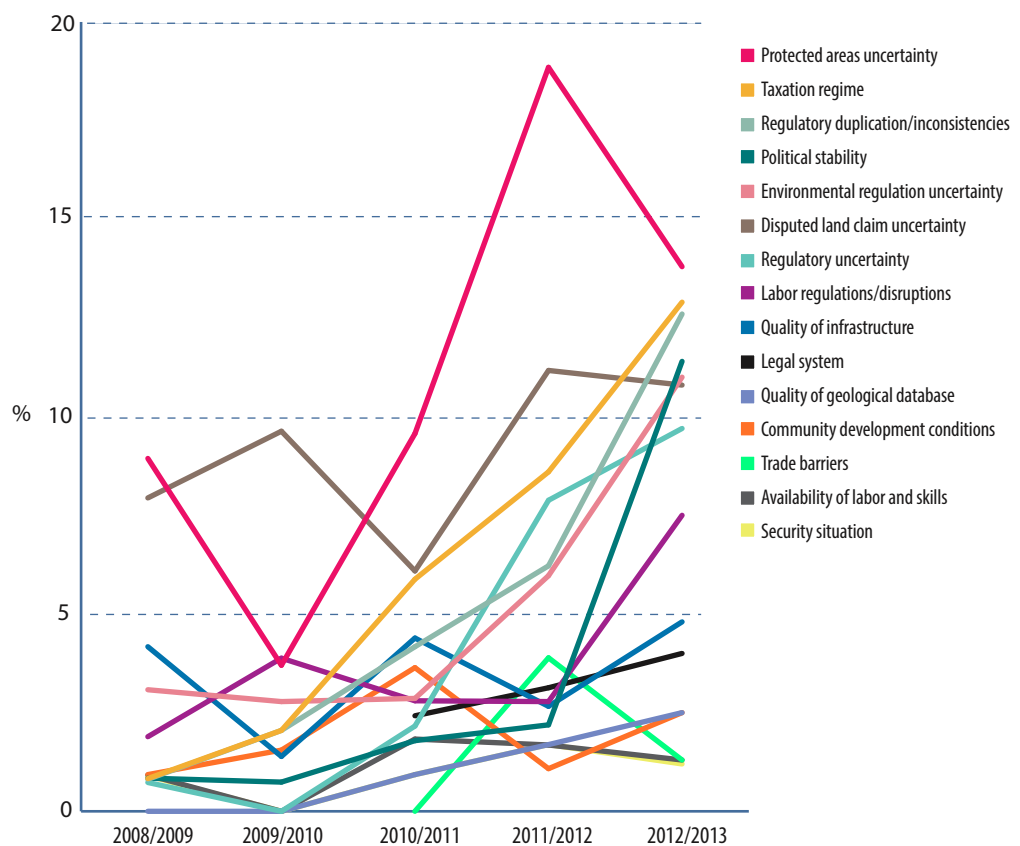


Source: Fraser Institute Survey of Mining Companies (various years).

Policy barriers to mining investment in Quebec

The results of the time series analysis exploring the effect of each policy factor on deterring investment in Quebec can be seen in **figure 5**, which charts the combined percentage of responses that identified each policy factor as either strongly or decisively deterring investment from the 2008/09 to 2012/13 Fraser Institute surveys of mining companies.

Figure 5: Percentage of investment strongly deterred by policy factor, 2008/09–2012/13



Source: Fraser Institute Survey of Mining Companies (various years).

Overall, there has been an increase in investment deterred across this time period for every policy factor measured in the survey. However, the increase in investment deterred has not been uniform across policy areas. We have highlighted the following four indicators for further analysis as they showed the most prominent increase in investment deterred, listed in order of greatest to least significance:

- ◆ Uncertainty concerning which areas will be protected as wilderness, parks or archaeological sites, etc.;
- ◆ Taxation regime;
- ◆ Uncertainty concerning environmental regulations (stability of regulations, consistency and timeliness of regulatory process, regulations not based on science);
- ◆ Regulatory duplication and inconsistencies (includes federal/provincial, federal/state, inter-departmental overlap, etc.).

These four factors and their effect on deterring exploration investment in Quebec over the past five surveys is shown in **figure 6**. Together, they were responsible for deterring nearly half (47 percent) of total exploration investment strongly deterred in Quebec in 2012/13. The next section of the report will look at each of these policy factors in greater detail, and consider how each factor may have been affected by recent policy changes. We have also included some sample comments taken directly from comments received with the mining survey, in order to help illustrate the concerns of mining survey respondents. While factors are discussed separately in survey questions and in the section below, factors are often linked and may overlap.

Investment Barrier 1

Uncertainty concerning which areas will be protected as wilderness, parks, or archaeological sites

Based on the survey findings, uncertainty concerning which areas would be protected as wilderness, parks, or archaeological sites was the single greatest factor in deterring mining investment in Quebec over the last five years. As seen in **figure 7**, investment strongly deterred almost doubled between 2010/11 (10 percent) and 2011/12 (19 percent). Investment strongly deterred by this factor declined in 2012/13, with 12 percent reporting that they were strongly deterred, and 2 percent indicating that they would not pursue investment due this factor. An additional 39 percent of respondents also reported being mildly deterred from investing due this factor.

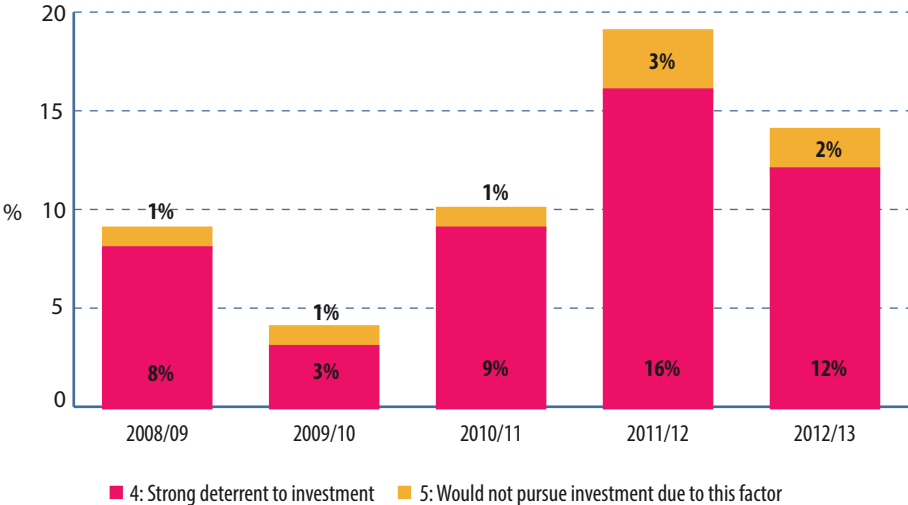
Uncertainty over which areas will be protected deters investment in two different ways. First, it can remove areas of land from exploration and mining activities. Due to the relatively low incidence of viable mineral

Figure 6: Percentage of investment strongly deterred by most deterrent policy factor, 2008/09–2012/13



Source: Fraser Institute Survey of Mining Companies (various years).

Figure 7: Investment deterred, 2008/09–2012/13
Uncertainty over which areas will be protected



Source: Fraser Institute Survey of Mining Companies (various years).

deposits, mineral exploration relies on access to large tracts of land. By excluding areas from mineral activities, the potential benefits of mining in terms of employment, wealth creation, and government revenues are foregone. Uncertainty concerning protected areas can also discourage exploration investment in and around the areas that could be protected. Exploration is costly and time consuming, and investors are reluctant to invest in the discovery of new deposits in areas where they may not be able to develop any deposits discovered, or could be severely restricted in doing so. A number of policy changes in Quebec in recent years have likely contributed to this uncertainty and to the observed increase in investment deterred.

The Plan Nord (see Appendix 1 for additional detail), introduced in 2011, made a number of commitments to expand protected areas in the region. The government committed to have a network of protected areas covering 12 percent of the land covered by the Plan (equivalent to about 28,000 km square of new space) by 2015 (Québec Mining Association, 2011b). It also committed to set aside 5 percent of the territory covered by the plan for biodiversity conservation and protection from industrial uses by 2020, as well as to increase this percentage to 50 percent (representing nearly 600,000 square kilometers) by 2035 (Québec Mining Association, 2011b). While Le Nord Pour Tous has now replaced the Plan Nord, 12 percent of the land is still targeted to be protected by 2020 and Premier Marois has indicated that she remains committed to the 50 percent protection goal (Dougherty, 2013).

The Quebec Mining Association has urged caution in removing such large parts of the territory from mining, especially as the potential mineral resources in Northern Quebec are still unknown (Québec Mining Association, 2012). While they remain in favour of the protection of certain areas, they argue that measures should not simply protect the land but must also allow the development of a sustainable economy, and that the current approach would deprive future generations by closing such a large territory permanently to development without first recognizing the full geological potential (Québec Mining Association, 2011b, 2012).⁴ They further argue that changing scientific and technical knowledge, the diversity of metals produced in the territory, ignorance of the geologic potential of the territory, and the challenges in predicting the nature of new mineral substances that will be demanded in the future all merit a more dynamic approach to conservation where decisions are reviewable and possibly reversible (Québec Mining Association, 2011b).

In addition, a number of policy changes regarding protected areas were introduced through Bill 14 (see Appendix 1 for additional detail). As of its

4. Both Plan Nord and Le Nord Pour Tous are founded in a sustainable development approach that seeks to balance the economic objectives (i.e. wealth creation, economic development, employment) with social development and environmental protections, to ensure that future generations are also able to benefit from the territory.

introduction, Bill 14 withdrew areas within the urbanization perimeter and areas dedicated to vacationing from mining and exploration activities (Gagné and Kazaz, 2011). The retroactive nature of the bill is expected to weaken mining activity already occurring within the urban perimeter, and will also create uncertainty for mining investment in urban peripheries as they could eventually be expected to be included in areas where work will be prohibited due to the evolving nature of urban sprawl (Québec Mining Association, 2011a). Concern has also been noted with the varying approaches used by regional county municipalities to delineate territories assigned to resorts (Québec Mining Association, 2011a). Furthermore, some of the urban areas that could be excluded have relied on mining employment for their development, and mining rights were granted before the issuance of the first land titles and the creation of municipalities (Quebec Mining Exploration Association, 2010). The power of the Minister of Natural Resources to remove land from mining to avoid conflicts with other uses of the territories was also expanded in Bill 14, and this change was retained in Bill 43.

Amendments to the *Act Respecting Land Use Planning and Development* will allow regional county municipalities to identify in their land use plans certain territories that would be incompatible with mining, or compatible only with certain conditions set by the Minister of Natural Resources (Gagné, M.R., 2013). Mining and exploration activities would be prohibited or reserved to the state in territories identified and made public as incompatible (Gagné, M.R., 2013). This could eventually apply to approximately 300,000 square kilometers in Northern Quebec under the jurisdiction of the Cree Nation Government and Eeyou Istchee James Bay Regional Government (Bénay et al., 2013).

With the introduction of Bill 14, mining claim holders must obtain the consent of the municipality concerned in order to work on claims; however, no compensation would have to be paid by any level of government for the consequences of the new rule (Minardi, 2012). This change means that mining claim holders who have already invested millions of dollars in exploration may retroactively lose, without compensation, their legally acquired right to explore and develop minerals (Minardi, 2012).

This change has met with concern in the mining industry, which argues that by giving municipalities the option to reject exploration activities, the government of Quebec is creating an environment of unprecedented instability as well as abandoning its primary responsibility to manage natural resources in the territory in an integrated and uniform manner (Québec Mineral Exploration Association, 2011). Both levels of government (municipal and provincial) will have the power to change mining policy, and future decisions regarding mining development in municipalities will run the risk of being politicized due to the veto power of municipalities, as well as because changing administrations may have different opinions regarding the same

mining project (Minardi, 2012). There is also a risk of this becoming a judicial issue and for the province, municipalities, and mining companies to come into ongoing conflict (Québec Mineral Exploration Association, 2011). These changes to expand areas protected from mining and other industrial activities in Quebec could help explain the large increase in uncertainty concerning protected areas observed in 2011/12—such a change would retroactively affect the security of claims already granted in these areas.

Investment Barrier 2

Taxation regime

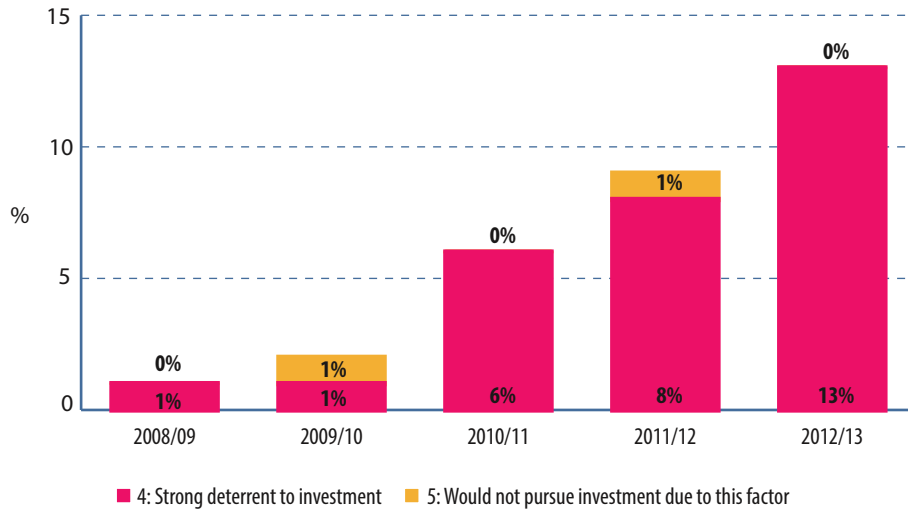
Investment deterred due to the taxation regime is another key area that survey participants have noted as having increased over the past five surveys. **Figure 8** charts its steady increase from only 1 percent of investment strongly deterred in 2008/09 to 13 percent by 2012/13. A further 25 percent were mildly deterred in that year.

While this increase in investment deterred is notable, Quebec's previous use of generous tax incentives may have contributed to this decline. Quebec offered some incentives to encourage exploration investment not provided under the federal regime, such as a generous tax exemption for the donations of flow-through shares to charity (Jodoin, 2013). The Quebec taxation regime was scored as encouraging investment by 64 percent of respondents in 2008/09. However, this percentage decreased steadily to only 26 percent of respondents in 2012/13. Participants who identified Quebec as the jurisdiction with the most favourable policies towards mining were asked to provide their reasons for choosing Quebec. **Figure 9** illustrates their comments sorted by factor cited. The top reason was tax incentives, at 21 percent, while government support for mining was a factor in a further 19 per cent.

Changing taxation regimes and the uncertainty created can deter investment through a number of channels. Investor interest is likely to decline in proportion to the taxation regime (e.g., levies, royalties, other costs of compliance) as additional taxation will lower company valuations and increase investor risk (Grant Thornton, 2011). In fact, investors and companies may eventually get to a tipping point where the tax burden reduces their potential returns to the point that they leave a jurisdiction to seek out more competitive jurisdictions (Grant Thornton, 2011). Quebec mining investors have also faced a lot of uncertainty in the taxation regime, as well as politicization of the tax regime changes that has damaged the image of Quebec (Gagné, J.-P., 2013).

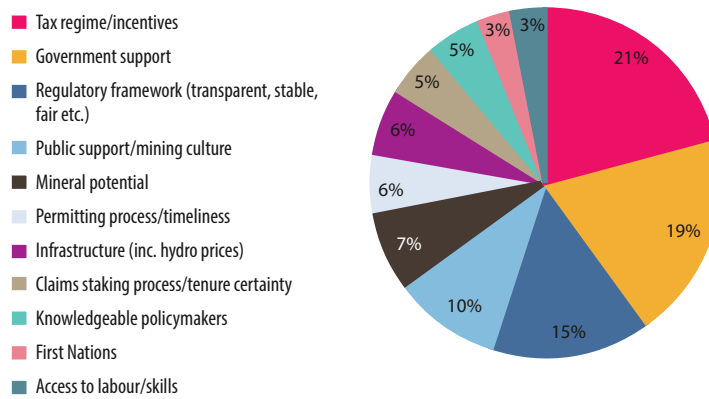
The Quebec Mineral Strategy (see Appendix 1 for additional detail), released June 29, 2009, committed to reassessing the mining royalties regime. However, the details of these changes were not introduced until the March 2010 budget (Gagnon and Sala, 2010; Québec, 2009). The changes to the taxation regime introduced in 2010 increased the mining duty paid on the

Figure 8: Investment deterred, 2008/09–2012/13
Taxation regime



Source: Fraser Institute Survey of Mining Companies (various years).

Figure 9: Why Quebec has most favourable policies towards mining:
Reasons cited, 2008/09–2012/13



Source: Fraser Institute Survey of Mining Companies (various years).

annual profit of mines from 12 percent to 16 percent in 2012 (Gagnon and Sala, 2010). More significantly, it also required an operator's annual profit to be determined on a mine-by-mine basis so that losses incurred at one mine could no longer be used to reduce annual profits at another (Sala, 2013). This change was particularly harmful for marginal operations that operate at a loss. Companies were previously able to continue to operate such mines as an option on potential price increases, but the change to mine-by-mine profit calculations could result in their closure. Perhaps as a result of these

changes, the percentage of survey respondents reporting that they were strongly deterred due to the taxation regime tripled between the 2009/10 survey (which took place prior to their introduction), and the 2010/11 survey (conducted after revised mining duties regime were introduced).

Changes to the credits available to mining companies for exploration work on claims were also introduced through amendments to the mining act, creating further uncertainty for mining investors. For example, Bill 79 prohibited companies from making payment in lieu of carrying on mining exploration on claims, although Bills 14 and 43 permitted payments to be made at a rate of twice the prescribed minimum costs (see Appendix 1 for additional details) (Gagné and Kazaz, 2009, 2011; Gagné, M.R., 2013). The area of land for which any credit for exploration work may be used to renew other claims was also reduced through these bills, and the period during which excess amounts credited to any claim may be carried over was limited (Gagné and Kazaz, 2009, 2011; Gagné, M.R., 2013).

These new limits were of concern to industry, and there was fear that the value of exploration work could be lost if it could no longer be used as a result of the new restrictions (Dagenais and Vézina, 2010). It isn't uncommon for major exploration work to be carried out on claims while mining of the deposit is deferred due to economic factors such as low prices. Imposing time limits on the use of excess credits could cause the value of this work to be lost, or introduce incentives to carry out work earlier at the expense of more important investment priorities (Dagenais and Vézina, 2010). Likewise, mine operators will also often hold claims surrounding the main site, since these claims may be part of future extension plans. However, reducing the area for which credits can be used to renew other claims could add pressure to carry out work on the peripherals solely to preserve title, and reduce possible investments in work conducted on the main site (Dagenais and Vézina, 2010). All this illustrates not only the uncertainty created for the mining industry by changing incentives, but also the potential for incentives to distort the economic activity of mining companies. Such distortions and complexity result in less-than-optimal profitability for mining companies as it can lead to excessive investment in certain tax-favored assets (Vaillancourt and Clemens, 2008).

The new mining tax regime, revealed on May 6, 2013, also added to uncertainty as it was debated vociferously leading up to its introduction (Fleche, 2013). Prior to its introduction, the Quebec Mining Association made public a petition asking the government to review its plans to change the tax regime, based on fears that it risked mining investment and that damage caused to the economy could outweigh benefits derived from increased royalties collected (Québec Mining Association, 2013a). The royalty regime introduced was criticized by nearly all interested parties, and was also met with some relief by industry as it appeared tempered by compromise, and the

supertax on profits and minimum mining tax were lower than those campaigned on by Premier Marois (Cousineau, 2013; Fleche, 2013).

The introduction of a minimum royalty will result in companies paying royalties regardless of whether or not they are profitable. Such a change will compound problems during economic downturns and periods of low commodity prices, and will increase the risks for mining development in Quebec. The minimum royalty could result in mine closures for less profitable mines and during periods of lower prices (Turcotte and Brunet, 2012). It could also discourage investment or encourage mining companies to idle their Quebec mines first (Cousineau, 2013). The three-tiered tax on profits will also make Quebec less attractive to mining investment, as mining companies will be limited in their ability to benefit from periods of higher prices—the increased taxes take away the high rewards needed to compensate for the high risk in mining investment.

The mining tax reforms proposed would make Quebec one of the costliest jurisdictions in Canada, at a time when mine financing is already difficult to access and costs are rising (Cousineau, 2013). Quebec mining companies are already at a disadvantage for attracting investment due to the higher costs that result from Quebec's distance from emerging markets in Asia, variable climate, and mineral deposits that are generally less concentrated (Turcotte and Brunet, 2012). While the new regime does offer incentives for companies processing ore in Quebec, many observers would prefer an improved macro-environment to increase processing activities, rather than distortionary incentives (Fleche, 2013). The uncertainty for mining companies and investors continues in Quebec, however, as the new mining tax regime has not yet been accepted through the Quebec National Assembly.

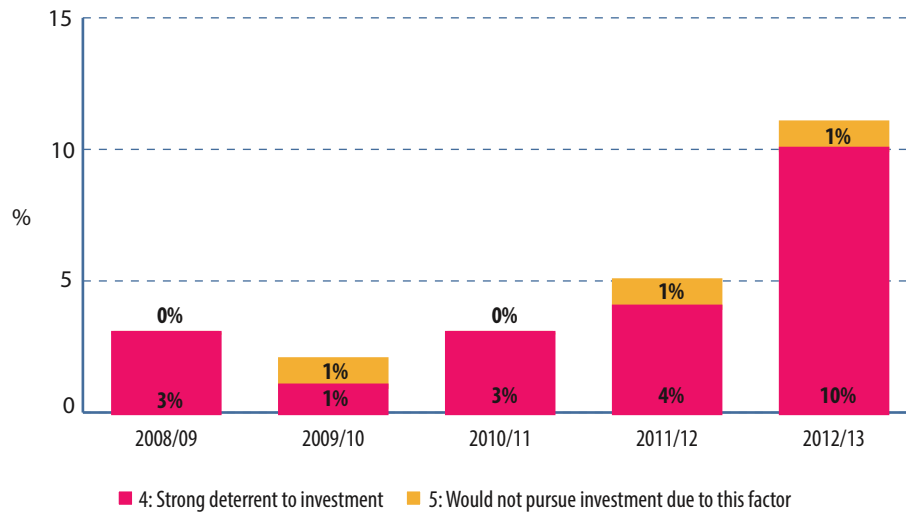
Investment Barrier 3

Uncertainty concerning environmental regulations

A third policy factor dissuading an increasing amount of mining investment in Quebec is uncertainty concerning environmental regulations (e.g., stability of regulations, consistency and timeliness of regulatory process, and regulations not based on science). **Figure 10** shows the amount of investment strongly deterred in Quebec over the last five years, with a steady increase in the percentage of investment deterred observed since 2010. In 2010/11, 3 percent of respondents noted that uncertainty concerning environmental regulation was strongly deterring investment. However, by 2012/13 this had jumped to 10 per cent strongly deterred and 1 per cent who would not pursue investment due to this factor. An additional 24 percent of respondents reported this type of uncertainty as a mild deterrent to investment in 2012/13.

Uncertainty concerning environmental regulations can increase investment risk and deter mining exploration investment through a number of

Figure 10: Investment deterred, 2008/09–2012/13
Environmental regulations



Source: Fraser Institute Survey of Mining Companies (various years).

channels. First, a perceived lack of stability in regulations can threaten project viability—or, in the case of the moratorium on uranium, halt projects completely—due to changing and uncertain policies. Mining investment can also be affected by uncertainty in the timeliness and consistency of the regulatory process. Where the process is unclear or subject to change, miners may be reluctant to invest due to the additional costs, regulatory requirements, or new processes that can add significant costs and delays to projects. A third and related issue for miners is the perception that regulations are not based on science. Based on survey comments, we have observed that where regulations are opaque and unpredictable, the perception can arise that the process has become politicized, allowing special interest groups or politicians, rather than scientific evidence, to guide policy decisions.

There have been a number of notable changes to the environmental regulations in Quebec in recent years that have likely contributed to uncertainty in the stability and predictability of these regulations. In 2009, the Quebec Auditor General report noted concerns with a sample of mining rehabilitation plans, and also recommended reassessing the sufficiency of the guarantee payments for rehabilitation costs (see Appendix 1 for additional details). Beginning with Bill 79 (2009), and most recently with Bill 43 (2013), a number of changes to the mining rehabilitation plan have been proposed. Mining companies must currently provide a financial guarantee equivalent to 70 percent of the anticipated cost of rehabilitating accumulation areas, and the schedule of payment for this guarantee is based on the life of the mine (Gagné and Kazaz, 2009). With Bill 43, the financial guarantee for rehabilitation and restoration of a mining site has increased to 100 percent

of the anticipated costs and the payment of the financial guarantee has been reduced to only three years (50 percent within first 90 days, 25 percent in each of two subsequent years) (Gagné, M.R., 2013). The rehabilitation and restoration plan must also be available prior to public consultations as part of the review process, and be approved prior to obtaining a mining lease and starting mining activities (Gagné, M.R., 2013).

While the mining industry is supportive of raising the guarantee to fully cover costs, there are concerns that, if issuing a mining lease is conditional on the approval of a rehabilitation plan, then the granting of the lease will be delayed for several years and possibly result in missing the window of economic opportunity for developing a project (Québec Mining Association, 2013b). Reducing the timeline for paying the total amounts may also prove problematic, as it could put pressure on the operator's ability to invest in development-related work (Dagenais and Vézina, 2010). The early years of a mine operation is a critical period during which there is an intensive need for capital while operating income is low, and reducing the time-frame for payment adds further pressure (Dagenais and Vézina, 2010). It is also not reflective of the varying life of operations, which in some cases last decades.

The threshold for projects to require an Environmental Impact Assessment has also been lowered in recent years.⁵ The Quebec Mineral Strategy (2009) noted that regulations would be amended to lower the threshold for requiring an environmental impact study—from 7,000 tons of metal ore produced per day to 3,000 tons per day—with the lower threshold introduced through Bill 79 (see Appendix for additional details) (Gagné and Kazaz, 2009; Québec, 2009). Bill 43 proposed to take this a step further, requiring all mineral processing plants and mining projects to undergo an environmental assessment—regardless of the mineral substance or the production capacity of the project (Bénay et al., 2013). By requiring all projects to undergo an environmental impact assessment, the regulations do not appear proportionate to the level of environmental risk, and will likely result in additional costs and delays for project approval for smaller projects that do not currently require an environmental impact assessment.

Beginning with Bill 79, amendments to the Mining Act have proposed requiring all projects to undergo public consultations. Currently, public consultations are required only for projects meeting the threshold for an environmental impact assessment, although Bills 79 and 14 propose to require a public consultation process for all new mines, regardless of size, to be held in the region concerned (Gagné and Kazaz, 2009, 2011). Under Bill 43, all mining

5. The environmental impact assessment process is different for projects in the James Bay Territory and in Northern Quebec, which are covered by an agreement between the Government of Canada, the Government of Quebec, the James Bay Crees, and the Inuit of Northern Quebec (the James Bay and Northern Quebec Agreement (JBNQA)).

or processing projects regardless of the mine output or mineral substance would be subject to the review process set out in the Environmental Quality Act, which requires holding public consultation sessions before the Bureau d'audiences publiques sur l'environnement (BAPE) (Gagné, M.R., 2013; Kazaz, 2012). The Minister of Natural Resources will also have the power to attach conditions to the mining lease to avoid conflicts with other use of the territory (Ouellet, 2013). Public consultations will also be required in order to grant leases for surface mineral substances for peat, industrial activity, or commercial export, and the Minister could refuse or even revoke a mining lease for these substances on public interest considerations (Bénay et al., 2013).

The requirement for public consultation for all mining projects appears to set a unique precedent in Quebec when compared with other sectors (Dagenais and Vézina, 2010). While the mining industry recognizes the need to obtain social acceptance and the value of public input to improve a mining project or its social integration, there remain concerns that consultations could lose sight of their objective and become subject to the control of well-organized groups seeking to use projects as part of broader strategies to oppose industrial development or mining (Dagenais and Vézina, 2010).

A third area of uncertainty in environmental regulations concerns the discovery and development of deposits containing uranium. For several years, opponents to uranium exploration had sought a moratorium on uranium development in Quebec based on health and safety concerns that the mining industry argued were exaggerated and distorted to manipulate public opinion against the sector (Marotte, 2010). However, in 2010, the Minister of Natural Resources refused a moratorium (Québec Mining Association, 2010). The recent bills to amend the mining act have all included special requirements for the discovery of uranium. Bill 43 proposed to require mine claim holders to submit annual planning reports and submit hydrogeological studies before drilling for uranium, to notify the Minister of Natural Resources and the Minister of Sustainable Development, Environment, Wildlife and Parks of any discovery containing more than 0.05 percent triuranium octaoxide, and to take safety measures (Bénay et al., 2013; Gagné, M.R., 2013). Yet despite these additional requirements, on March 28, 2013 the Environment Minister announced that no authorization certificates for uranium exploration or mining projects in Quebec will be issued until BAPE has completed a study on the uranium sector and issued a report (Clark Wilson LLP, 2013). While the moratorium is currently temporary, certain groups in Quebec have called for a permanent moratorium on uranium development, despite the strict regulation of the uranium industry in Canada by the federal government. This moratorium is creating uncertainty for mining companies in Quebec, including for the Matoush project where Strateco has already invested \$120 million, and seen its shares drop in value significantly following the announcement of the moratorium (The Globe and Mail, 2013). The project had already

undergone a four year review and been granted approval from the federal and provincial review committees, the federal Minister of the Environment, and the Canadian Nuclear Safety Commission before being affected by the moratorium, which was implemented without prior notice by Quebec (Canadian Mining Journal, 2013). The moratorium is also viewed as unnecessary by the industry, since all activities related to the uranium industry in Canada are already strictly regulated by the federal government (Quebec Mining Exploration Association, 2013).

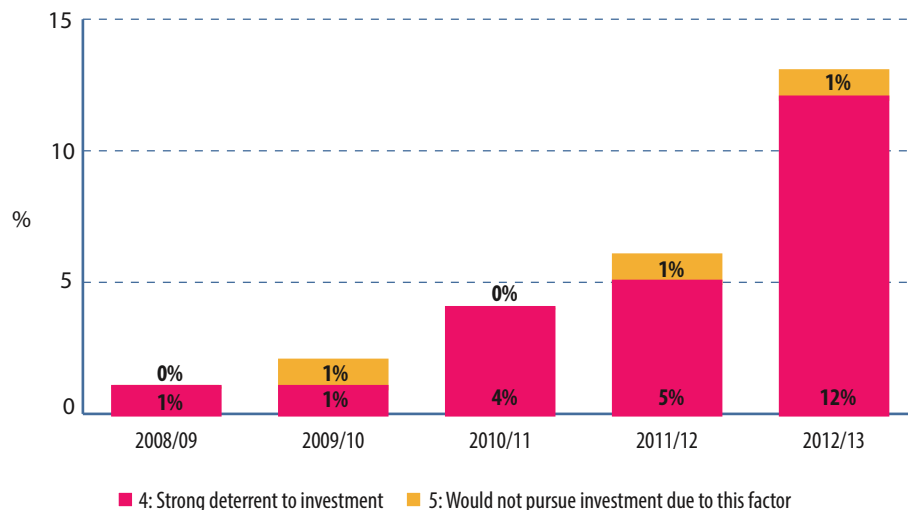
Investment Barrier 4

Regulatory duplication and inconsistencies

The fourth key deterrent to mining exploration investment in Quebec, based on the last five surveys of mining companies, is regulatory duplication and inconsistencies. As shown in **figure 11**, investment strongly deterred due to regulatory duplication and inconsistencies has steadily increased over the last five years, from 1 percent of investment strongly deterred in 2008/09 to thirteen percent strongly deterred in 2012/13. Almost a further quarter of respondents (24 percent) reported being mildly deterred from investment due to this factor in 2012/13.

Regulatory overlap, duplication, and inconsistencies are dissuasive to mining investment because they can create uncertainty and make it more costly and time consuming for mining companies to comply. Clearer expectations in terms of the regulatory perspective allow companies to better manage their operations, plan future investments, and develop new projects (BC

Figure 11: Investment deterred, 2008/09–2012/13
Regulatory duplication and inconsistencies



Source: Fraser Institute Survey of Mining Companies (various years).

Chamber of Commerce, 2013). Duplication can also be very time consuming, which can limit the ability of mining companies to take advantage of the upswings in the market or to have sufficient opportunity to mine during favourable conditions. Losing such windows of opportunity can have a significant effect on the mines' viability and profitability, due to the cyclical nature of commodity markets. Comments have been received through the mining survey suggesting that the process in Quebec is already very time consuming (Appendix 2). Finally, changing or inconsistent regulations increase the financial risks for projects, since they reduce the likelihood that mining leases will be approved and increase the costs of financing a project.

A number of policy changes that increased regulatory overlap and duplications have already been discussed, such as allowing municipalities to determine areas that will be excluded from mining within their jurisdictions. The Quebec Mineral Strategy (2009) and subsequent amendments to the mining act have also added new requirements for surface ownership that affect holders of mineral claims. With few exceptions, the subsurface and mineral substances that they contain belong to government, even when the surface rights are privately owned (Québec, 2009). Where the state has sold or otherwise alienated its surface rights, the existing legal provisions do not require a mining claim holder to inform the surface owner or tenant about a claim; however, claim holders are unable to access private property without the owner or tenant's permission (Québec, 2009). Bill 43 would have required mining right holders to obtain written authorization in order to access the site to conduct exploration work or mining operations (see Appendix 1 for additional details) (Ouellet, 2013). This is a major departure from both European and North American law that allows free entry for miners. If an agreement cannot be reached, the holder of the mining right may purchase the property through expropriation.

However, Bill 43 also introduced provisions that would have restricted the recourse for expropriation, such as only permitting it for extraction and not exploration purposes, and requiring a mining title holder to provide compensation during expropriation negotiations to the owner of a family residence (Bénay et al., 2013). These changes may cause practical problems for claims holders, as claims do not correspond with surface rights; comments received through the mining survey have noted difficulty in accessing mining claims, or monetary demands from land holders to permit exploration (Appendix 2). Also, while claim holders have the obligation to notify surface owners, there is no reciprocal requirement towards claim holders, which could create difficulties should surface rights be transferred (Dagenais and Vézina, 2010).

A final key piece of regulatory inconsistency and duplication is the requirement proposed in Bill 43 that all applications for a mining lease would have required not only a project feasibility study but also an ore processing

feasibility study, in addition to other requirements. Furthermore, the requirement for an ore processing feasibility study would have applied not only to new mines, but also to the renewal of mining leases already approved—and the Minister could have required the mining operator to process the mineral in Quebec in exchange for issuing a mining lease (Bénay et al., 2013). Holders of mining concessions would not only have been required to submit an ore processing feasibility study before beginning mining operations, and every 20 years thereafter, but may also have been required to enter an agreement to maximize the economic spinoffs of Quebec's mineral resources (Fleche, 2013). This would require the establishment of an economic spinoff and maximization committee consisting of representatives from the region where the mining lease would be granted, including at least one representative from each of the municipal and economic sectors and one member of the public (Bénay et al., 2013). The committee would remain in place until the mine completes all rehabilitation and restoration work, and during this time would monitor work performed under the mining lease in order to maximize economic spinoffs for the local communities (Bénay et al., 2013). Bill 43 would also have allowed the Minister of Natural Resources to revoke a mining lease or mining concession for non-compliance by the holder with the terms of its agreement on economic spinoffs (Bénay et al., 2013).

The requirement of an ore processing study would have increased the risks and costs of financing a project in Quebec in a number of ways. Creating the studies could cost companies tens of millions of dollars, and would mean that no company could have any certainty of being permitted to work a profitable deposit if their project doesn't plan to include the processing of ore (Gagné, J.-P., 2013). The requirements of the ore processing feasibility study and the objective conditions that will be considered by the Minister for requiring an agreement were also not included in Bill 43, creating further uncertainty for the mining industry (Fleche, 2013). Mineral extraction and ore processing are two different sectors of activity, each requiring specialized expertise and serving different markets. Requiring mining companies to do both would amount to significant interference in their business strategy, thereby increasing the level of risk for investors (Québec Mining Association, 2013b). Requiring the new studies as part of a renewal of a lease would not only add additional costs, regulatory burden, and time, but also effectively changes the rules of the game after investment decisions have been made (Québec Mining Association, 2013c). The effect of these changes would have been to increase uncertainty and risk for mining and exploration companies, likely deterring investment in Quebec further.

Conclusion and recommendations

The mining sector has played a significant part in the growth and development of Canada and the Province of Quebec. Mining exploration and extraction contributes to Quebec's economy and creates high paying employment in remote and rural areas. It also supports jobs in ore processing and contributes significantly to Quebec's domestic exports.

Yet this sector is currently facing numerous challenges that are threatening future exploration and mine development in the province. Economic challenges include rising input prices, difficulty securing investment financing for exploration, sluggish economies, and increasingly risk-averse investors.

In addition to these cyclical and economic challenges, Quebec is also facing deterioration in the attractiveness of its policy environment for mining. Since 2009, the Province of Quebec has introduced a number of policy changes and initiatives: (1) a mineral strategy; (2) two plans for the economic and social development of Quebec's northern territory; (3) two significant changes to the mine taxation regime; (4) a temporary ban on uranium exploration and mining projects; and (5) three major amendments to the Mining Act through Bills 14, 79, and 43. The effects of such continually changing policies for mining has been to increase uncertainty for mining and exploration companies in Quebec, with the result being an increase in the percentage of companies deterred from investing in the province.

Mining exploration is already a high-risk activity with thousands of deposits explored for every mine developed. It is also time consuming, with years or even decades between discovering a deposit and a mine being able to enter production and generate revenues. Given the timeframes and risk involved, mining companies must have confidence that profitable deposits discovered will be able to be mined. Yet significant changes to the policy environment for miners in recent years have decreased such confidence; as a result, mining exploration investment is being deterred. Quebec is already a higher-cost jurisdiction relative to others, due to its distance from emerging markets, high labour costs, and variable climate.

Quebec has changed the policy environment that made it a top-ranked jurisdiction for mining investment, and the results of the Fraser Institute Survey of Mining Companies clearly show its declining attractiveness to

mining investment since 2009/10. From 2007/08 to 2009/10 Quebec was ranked as the most attractive jurisdiction for mining investment in the world. In the most recent 2012/13 survey it had fallen to the 11th most attractive jurisdiction.

An analysis of the individual policy factors evaluated in the survey showed that recent policy changes have had varying effects on deterring mining investment, with four policy factors responsible for nearly half of the investment strongly deterred in the 2012/13 survey. A review of these factors showed how recent policy changes may have contributed to the observed increase in investment deterred. These factors will now be reviewed, and recommendations made for each policy factor.

Investment Barrier 1

Uncertainty concerning which areas will be protected as wilderness, parks, or archaeological sites

Based on the survey findings, uncertainty concerning which areas would be protected as wilderness, parks, or archeological sites was the most significant factor deterring mining investment in Quebec in recent years. In 2012/13, 39 percent of respondents were mildly deterred, 12 percent strongly deterred, and 2 percent would not pursue investment due to this factor. Uncertainty concerning which areas will be protected deters investment by removing land from exploration and mining activities, effectively removing the land and the mineral wealth that it may contain from being able to create jobs and economic benefits in the future. It can also discourage exploration investment in and around potentially protected areas, since it increases the risks and decreases the likelihood that any viable deposits discovered could be mined.

A number of policy changes have increased the uncertainty concerning which areas will be protected. Plans for the development of Quebec's Northern territory, covering nearly 1.2 million square kilometers, have included commitments for protecting 12 percent of the land covered by the plan within the next decade; Premier Marois has signalled intentions to eventually protect up to half of this territory. Since Bill 14, areas within the urbanization perimeter and areas dedicated to vacationing have been withdrawn from mining and exploration activities. Bill 43 also proposed to expand the power of the Minister of Natural Resources to remove land from mining to avoid conflict with other uses. Bill 43 also included provisions to permit regional county municipalities to identify in their land use plans territories that would be incompatible with mining, or where mining would be permitted with additional restrictions.

These changes have caused concern for mining companies and investors and created great uncertainty in terms of which areas will eventually be excluded from mining activities. The retroactive nature of some of these changes may also result in mining companies that have already invested millions

of dollars in exploration losing legally acquired rights to develop minerals. While compensation is possible, it is also problematic. Shifting the power to create mining policy from the provincial government to thousands of municipalities will also create unprecedented policy uncertainty for miners, as well as increase the potential for judicial conflict.

Recommendations to reduce investment deterred due to uncertainty concerning protected areas in Quebec

- ◆ The Province should reconsider allowing municipalities the ability to exclude areas from mining and seek to restore a single, stable, and transparent policy framework for Quebec.
- ◆ A fair, transparent, and market-based compensation mechanism should be identified for mineral claims affected retroactively by increased restrictions.
- ◆ The province should assess and publish the potential economic and social impacts of lost mineral exploration and development prior to removing land from mining and exploration.

Investment Barrier 2

Taxation regime

The taxation regime is the second key factor found to be deterring exploration investment in Quebec over the last five surveys. The percentage of survey respondents strongly deterred due to Quebec's taxation regime has increased from only 1 percent of respondents in 2008/09 to 13 percent in 2012/13, with an additional quarter of respondents mildly deterred. Quebec previously provided generous incentives to encourage exploration investment, and a review of mining survey comments over the last five years showed that the tax regime and incentives were a factor in 21 percent of the reasons cited for why Quebec had the most favourable policy environment for mining.

However two changes to the taxation regime have been introduced since 2010 that have created uncertainty for miners. The taxation regime in Quebec has also become politicized, resulting in additional uncertainty and at times hostile debate. Changing taxation regimes can decrease investor interest, since additional taxation lowers company valuations and increases investor risk.

In 2010, changes to the taxation regime were introduced that increased the mining duty paid on the annual profit of a mine from 12 percent to 16 percent. They also changed the way in which an operator's annual profit is calculated. Previously, mine operators were able to use losses incurred at one mine to offset profits at another mine in calculating annual profit. However,

the mining royalty regime was changed to determine profit on a mine-by-mine basis. Amendments to the Mining Act have also created uncertainty for miners by making changes to the credits available to companies for exploration work. These include doubling the rate that payments could be made in lieu of carrying on mining exploration, restricting the length of time for which excess payments could be used, and restricting the area of land for which credits for exploration work could be used to renew other claims.

Changes to the mining royalty regime were also debated in the 2012 Quebec provincial election, leading to debate and uncertainty until the amendments were revealed in May 2013. The new mining tax regime introduced a minimum royalty that will be paid whether or not a mine is profitable. It also introduced a three-tiered tax on profits that will limit the ability of operators to recoup losses in times of high commodity prices. The new taxes will also be based on the value of minerals extracted at the mine shaft head rather than on profits. The new royalty regime has not yet been approved by the National Assembly.

Recommendations to reduce investment deterred due to mining taxes in Quebec

- ◆ Quebec should move away from distortionary tax incentives towards a single lower rate for corporate taxes.
- ◆ Restrictions that limit credit for exploration work incurred should be reconsidered.
- ◆ Minimum royalty rates and super-profit taxes based on the value of ore at shaft head should be reconsidered in light of their dissuasive effect on exploration investment.

Investment Barrier 3

Uncertainty concerning environmental regulations

Uncertainty concerning environmental regulations is the third key deterrent to investment in Quebec in recent surveys, and a steady increase in the percentage of investment deterred has occurred since 2010/11. In 2012/13, 24 percent of respondents reported this type of uncertainty as a mild deterrent to investment, 10 percent as a strong deterrent, and 1 percent would not invest in Quebec due to this uncertainty.

Uncertainty concerning environmental regulations can threaten project viability. For example, mining companies holding claims containing uranium in Quebec have seen a sharp drop in their share prices since a moratorium on uranium was announced, with companies and investors facing

tremendous uncertainty in whether these projects will be able to proceed despite legally obtaining rights for these claims. Changing and inconsistent regulations can also create the perception that mining regulations have been politicized—or that special interest groups or politicians, rather than scientific evidence, are guiding policy decisions. For example, the moratorium on uranium followed years of campaigning by opponents to uranium development, presenting biased information against the industry and its health and environmental impacts. Uncertainty in the environmental regulations can also affect the timeliness and predictability of the regulatory process.

There have been a number of changes to the policy environment in Quebec that have increased uncertainty concerning environmental regulations. Amendments to the mining act, including Bill 43, proposed to increase the guarantee payment for mine restoration and rehabilitation to 100 percent of anticipated costs and reduce the time over which these payments can be made to only three years. Currently, payments are based on the anticipated life of the mine, and shortening the payment time will put tremendous financial pressure on mine operators during the critical early years when mine operating income is low and there is an intensive need for capital. There are also concerns that requiring a rehabilitation and restoration plan to be approved and subject to public consultation prior to being granted a mining lease will delay projects for several years, possibly resulting in a missed window of economic opportunity for the mine.

Another proposed change in Quebec is to require all mining projects and processing plants to undergo an Environmental Impact Assessment, regardless of the production size or mineral substance. All projects will also be subject to public consultation, and the Minister will have increased power to attach conditions on the mining lease to avoid conflicts with other users of the territory. These requirements will set a unique precedent in Quebec and do not appear reflective of actual environmental risk, as all projects of all sizes and materials would undergo these new requirements. They will also add additional costs and delays to the permitting process and the public consultation process, and additional powers given to the Minister create greater uncertainty for miners.

A third area of uncertainty for miners was the introduction of a temporary uranium moratorium in March 2013. Additional regulations regarding the exploration and discovery of deposits containing uranium have also been introduced through amendments to the Mining Act including Bill 43. The moratorium follows several years of public campaigns and lobbying efforts against uranium exploration and extraction, and this has created great uncertainty for mining companies in Quebec. Its influence may also extend beyond Quebec, as its implementation could influence other provinces to consider similar action—potentially dissuading sustainable uranium exploration and mining in Canada and its significant economic and environmental benefits.

Recommendations to reduce investment deterred due to uncertainty concerning environmental regulations in Quebec

- ◆ The payment schedule for the guarantee of restoration and rehabilitation should be expanded to be more reflective of the expected life of the mine.
- ◆ The requirement for an environmental impact assessment and public consultation process should be reviewed to be more reflective of social and environmental risk and ensure that the consultation process does not become politicized or manipulated by special interest groups.
- ◆ The moratorium and study of the uranium sector should be reconsidered in light of existing federal regulations and safety procedures, or completed in a timely manner to minimize uncertainty for existing claim holders.

Investment Barrier 4

Regulatory duplication and inconsistencies

A fourth key deterrent to investment in Quebec in recent years has been regulatory duplication and inconsistencies. The investment reported strongly deterred as a result of regulatory duplication and inconsistencies has increased steadily over the last five years, reaching 24 percent mildly deterred, 13 percent of investment strongly deterred, and 1 percent who would not pursue investment as a result in 2012/13. Regulatory overlap, duplication, and inconsistencies are dissuasive to mining investment, as they can make it more difficult, costly, and time consuming to comply, and increase the risk of missing windows of economic opportunity for mining.

The requirement for claim holders to notify surface owners of such claims included in Bill 43, and to obtain written authorization to access their claims, has increased uncertainty for miners. Bill 43 would also have limited the expropriation mechanisms for claim holders unable to obtain permission to extraction only, leaving exploration claim holders without recourse for access to claims where the surface owners refuse access or demand compensation.

Bill 43 would also have required applicants for mining leases to include an ore processing feasibility study and to possibly enter into an agreement with Quebec to maximize the economic spinoffs including jobs and contracts. This would significantly increase uncertainty for miners who do not plan to process ore in Quebec. What's more, this change would have retroactively affected mines already operating in the province, as these additional studies would have been required as part of a mine renewal. These studies would be costly, time consuming, and cause significant uncertainty and risk for business strategies as the skills and expertise needed for mining operations is

different than for mineral processing. All of this is likely to dissuade mining investment further from Quebec.

Recommendations to reduce investment deterred due to regulatory duplication and inconsistency in Quebec

- ◆ Mechanisms to permit access and compensation should be put in place for exploration rights holders unable to access claims due to the new regulations on surface rights ownership.
- ◆ The requirement for an ore processing study and economic spinoff study and agreement should be reconsidered, and/or greater clarity provided on what criteria will be used to assess the requirement for an economic agreement.
- ◆ The Province should refrain from retroactively changing the requirements for obtaining and renewing mining leases.
- ◆ Initiatives and policy changes should be completed in a timely and efficient manner.

Conclusion

Mining has played an important role in the development of Quebec, and continues to provide significant opportunities for jobs and wealth creation, especially in remote and rural areas. Until recently, the policy environment in Quebec was regarded as the best in the world for attracting exploration and mining investment from Canada and abroad. Yet several years of policy uncertainty and politicization of the mining industry have created great uncertainty for mining companies, and raised the costs and risks for this industry considerably. Ongoing amendments to the Mining Act and changing taxation regimes have undermined the confidence of mining companies in the stability and predictability of Quebec for investment, and hampered the ability of mining companies to attract investors. The result has been a rapid decline in the attractiveness of Quebec to mining investment. Changes must be made if Quebec wishes to regain its status as a top global and Canadian mining jurisdiction.

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Appendix 1

Quebec's changing policy environment

While Quebec is not alone in facing deteriorating financial conditions for mining, these challenges have been compounded by policy uncertainty in Quebec. Quebec has introduced a number of new policies and regulations over the past five years and this section will highlight some of the most notable changes.

Quebec Audit General Report (2009)

On April 1, 2009, the Quebec Auditor General (QAG) filed a report that was strongly critical of the government of Quebec's interventions in the mining sector. Objectives of the QAG report included verifying how the Quebec Ministry of Natural Resources and Wildlife (MNR) integrates economic, social, and environmental criteria in planning intervention in the mining sector so as to optimize the long-term benefits for Quebec society (Kazaz, 2009). It also assessed whether control mechanisms implemented by MRN allow the environmental consequences of mining to be minimized (Kazaz, 2009).

The report made several recommendations that were expected to lead to legislative and administrative changes, such as that Quebec develop a formal mineral strategy, re-evaluate royalty rates, and develop tools to allow for the collection and dissemination of information to encourage public participation in decision-making (Kazaz, 2009). An audit of a sample of mining rehabilitation plans also noted some concerns, and recommended reassessing the sufficiency of guarantee payments for rehabilitation costs (Kazaz, 2009).

Quebec Mineral Strategy (2009)

On June 29, 2009, the Province of Quebec released its first mineral development strategy, *Preparing the Future of Québec's Mineral Sector*. The strategy was based on three policy directions: 1) creating wealth and preparing the future of the mineral sector; 2) ensuring environment-friendly mineral development; 3) fostering integrated, community-related mineral development (Québec, 2009). Each policy direction was supported by a number of chapters and measures to achieve them.

Some of the measures addressed concerns raised by the Quebec Auditor General. For example, the government committed to reassess the mining royalties regime while taking into account company competitiveness, maximization of benefits, and a fair share of returns on resource mining (Québec, 2009). The strategy also suggested that the scope of security deposits paid by mining companies for rehabilitation be increased, that coverage for estimated costs be increased from 70 to 100 percent of costs in the rehabilitation plan, and that the schedule of payments be accelerated in the early years.

Other changes suggested in the mineral strategy included lowering the threshold for requiring an environmental assessment, holding community public consultations, and allowing regional authorities to play a greater role in development. The mineral strategy also announced that the Mining Act would be amended to require claim holders to inform land owners and tenants about the issue of a claim on private lands, to strengthen the possibility of making certain areas off limits to mining activities, and to grant the Minister of Natural Resources greater power to refuse to grant leases or terminate mining titles for reasons of public interest (Québec, 2009).

Mining Duties Act (2010)

Quebec's March 2010 budget introduced significant changes to the mining duties regime. At the time, mine operators paid a 12 percent mining duty on the annual profit from their mines in Quebec. The new regime increased the duty rates in stages, from 12 percent in 2010 to 16 percent in 2012 (Gagnon and Sala, 2010).

The new regime also made a significant change in how profits were calculated. Under the previous regime, Annual Consolidated Profit was calculated by subtracting certain eligible expenses and allowances from the gross value of consolidated annual output, whether or not they were incurred at the same mine (Gagnon and Sala, 2010). This allowed operators with more than one mine to pay very low mining duties, since a loss at one mine could be used to reduce the annual profit at another mine (Gagnon and Sala, 2010; Sala, 2013). Under the new system, the operator's annual profit is calculated on a mine-by-mine basis.

Other changes were also introduced, such as changes to the treatment applicable to expenses that could be claimed, and adjustments were made to credit on duties fundable for loss.

Mining Act: Bill 79 (2009)

On December 2, 2009, Bill 79 was introduced to amend Quebec's Mining Act. The principal objectives of the bill, according to Mr. Serge Simard, the Minister of Natural Resources and Wildlife (MNR), was to increase the scope of the financial guarantee of mine restoration costs, stimulate mining exploration, and clarify the rights of ownership of surface minerals on private lands (Gagné

and Kazaz, 2011). Bill 79 was structured around three main points: 1) generating wealth (economic dimension); 2) ensuring environmentally friendly mineral development (environmental dimension); 3) fostering integrated, community-related mineral development (social dimension) (Dagenais and Vézina, 2010).

Along the economic dimension, a number of changes were introduced to mining titles. Under the new act, owners of private land were granted ownership of surface minerals on the land (Gagné and Kazaz, 2009). In addition, claim holders would need to notify the surface owners of their claim as well as report to the MNR on all exploration work performed and for which an exploration allowance was granted (Dagenais and Vézina, 2010; Gagné and Kazaz, 2009). Significant changes were also made to the terms for exploration work on claims, including eliminating payment in lieu of minimum work required, reducing the radius for which peripheral areas can benefit from surplus work, and restricting the credit for excess work and imposing a time limit on its use (Dagenais and Vézina, 2010).

Changes to the environmental dimension suggested in the Mineral Strategy were also introduced, including lowering the threshold to require an environmental impact assessment process and imposing new rules for the discovery of deposits containing uranium (Gagné and Kazaz, 2009). Mine rehabilitation requirements were also expanded in scope and the financial guarantee increased to 100 percent of anticipated rehabilitation costs. The schedule for payment of financial guarantees was also shortened, and it would be more difficult to obtain a government release for mine rehabilitation (Gagné and Kazaz, 2009).

Bill 79 also included a number of significant changes along the social dimension. Public consultation would now be required prior to applying for a mining or peat leases, and rehabilitation and restoration plans are required to be publicly available at least 30 days prior to the consultation (Gagné and Kazaz, 2009). The MNR was also granted additional power to exclude or refuse mining rights, impose conditions on mining, or exclude land from mining activities to avoid conflicts or address concerns raised during the public consultation process (Gagné and Kazaz, 2009).

Bill 79 also noted that changes to the mining royalties regime would be presented during the spring of 2010. While the mining industry response to Bill 79 raised several concerns, the industry was generally supportive and the Quebec Mining Association expressed disappointment that it was not renewed in the next parliamentary session after it died on the order paper (Dagenais and Vézina, 2010; Québec Mining Association, no date).

Plan Nord (2011)

The Plan Nord was announced by Premier Jean Charest in May 2011. It was an ambitious sustainable development project, to be carried out over 25 years on a territory covering nearly 1.2 million square kilometers, and was expected to lead to \$80 billion in investments, creating or consolidating 20,000 jobs per year (Québec, 2011). The objective of the Plan was to develop the economic potential of the territory in question in energy, mineral resources, forestry and wildlife, and tourism and bio-food production. It was based on a sustainable development approach that reconciles social and economic development with environmental protection (Québec, 2011).

Although the area covered by the Plan embraced 72 percent of Quebec's geographic area, only 2 percent of the population lived in the territory, just over a quarter of which was from aboriginal communities (Québec, 2011). A large part of the territory covered by the Plan Nord is governed under treaties and modern agreements. From the time of its inception, the First Nations and Inuit of Northern Quebec were considered important stakeholders and the government intended to adapt programs to reflect the demographic reality of the region through prioritizing access to housing, education, and employee training, as well as social, cultural, and health services (Masson, 2011).

The mining industry is a key driver of economic development in Northern Quebec, and the plan identified 11 mine development projects in the territory as well as plans to develop new energy sources and infrastructure to support the industry and its development (Masson, 2011; Québec, 2011). The government established, through legislation, the Société du Plan Nord, a public coordinating body to coordinate public investment in infrastructure, coordinate project implementation, and negotiate financing packages for projects (Québec, 2011). The government also planned to establish a special purpose fund with tax revenues from new mining and hydro projects to invest in infrastructure, and to negotiate equity participation in projects (Québec, 2011).

Environmental protection was at the forefront of decision-making for the Plan. Plan Nord committed to ultimately devoting 50 percent of the territory covered to non-industrial activities, and to complete a network of protected areas by 2015 that would account for at least 12 percent of the territory covered under the Plan (Québec, 2011).

Within weeks of the announcement of the Plan, a number of steps had been taken, including announcing legislation to provide for its implementation (Bill 27); however Bill 27 has not passed the committee stage in the Quebec National Assembly (Masson, 2011; Quebec National Assembly, 2012).

Mining Act: Bill 14 (2011)

A second attempt to amend the Mining Act was through Bill 14, An Act respecting the development of mineral resources in keeping with the principles of sustainable development, introduced on May 12, 2011. Bill 14 apparently took into consideration comments made during the public consultation on Bill 79, as well as retaining changes introduced in Bill 79 (Gagné and Kazaz, 2011). Bill 14 provided for lowering the threshold for projects to require public consultations and an environmental impact assessment, requiring notification and special rules for the discovery of uranium containing deposits, and granting owners of private land ownership of surface minerals (Gagné and Kazaz, 2011). The expanded rights of the MNR—to exclude certain zones from mining, or refuse to grant certain lease to avoid conflict—was retained, and the minister would also now have the power to refuse or terminate a lease if it were in the public interest (Gagné and Kazaz, 2011).

The more onerous requirements to increase mine rehabilitation guarantee payments to 100 percent from 70 percent were retained, but the schedule for payment of this guarantee was shortened further to three years from the five years introduced in Bill 79 (Gagné and Kazaz, 2009, 2011). In addition, rehabilitation and restoration plans must still be available prior to public consultation, but Bill 14 will also require that the holder of mining rights set up a monitoring committee to ensure compliance with commitments made during the public consultation (Gagné and Kazaz, 2011).

Other changes in Bill 14 are to allow payment in lieu of work, but to require payments to be double the cost of the work applicable (Gagné and Kazaz, 2011). Bill 14 would also reduce to 4 km from its current 4.5 km the radius of land for which credit for exploration work could be used to renew other claims; however, this is an increase from Bill 79 which would have restricted this radius to 3 km (Gagné and Kazaz, 2009, 2011). The useful life of work credits, which had been limited to 10 years under Bill 79, would now be 20 years under Bill 14 (Gagné and Kazaz, 2009, 2011).

As of its introduction, Bill 14 withdrew areas within the urbanization perimeter and areas dedicated to vacationing from mining and exploration activities, but the Minister will have the power to terminate such withdrawal at the request of the municipality concerned (Gagné and Kazaz, 2011). Bill 14 will also require a notice of staking or of a map designation of a claim to be accompanied by a plan of work to be performed in the coming year, and a report on the work performed in the previous year to be submitted (Gagné and Kazaz, 2011). Finally, Bill 14 proposes that the Act must be construed to be consistent with the obligations to consult First Nations (Gagné and Kazaz, 2011).

Bill 14 also died on the order paper after the Party Quebecois formed a minority government in September 2012.

Royalty regime changes (2013)

On May 6, 2013, the Quebec government unveiled the new mining tax regime which introduced several significant changes. The first difference is in how the royalty is calculated. The current system taxes profits, whereas under the new royalty regime the royalty will be calculated based on the value of ore produced. The mining tax would be calculated based on the value of output at the mine shaft head, with the royalty set at 1 percent for the first \$80 million in output and 4 per cent for excess amounts (Québec, 2013).

A new three-tiered tax on profits would also be introduced, with rates based on the profit margin: 16 per cent for up to 35 per cent profit, 22 per cent for profit between 35 and 50 per cent, and 28 per cent for profit above 50 per cent (Québec, 2013). The new royalty regime also introduces a minimum mining tax, with mining corporations required to pay the greater of either the minimum mining tax or the mining tax on profits (Portail Québec, 2013). Additional incentives were also proposed to encourage increased processing of ore in Quebec (Portail Québec, 2013).

The new tax regime was introduced through an information bulletin rather than through tabling a bill. As of the time of publishing, consultations were still underway and these changes are planned to be in effect in January 2014.

Le Nord Pour Tous (The North for Everybody) (2013)

On May 7, 2013, Quebec Premier Pauline Marois and Minister of Natural Resources Martine Ouillet announced their plan to guide the development of Northern Quebec, called Le Nord Pour Tous (The North for Everybody). Similar to the Plan Nord, their development strategy is focused on balancing three elements: social development, respect for the environment and biodiversity, and economic development (Ressources naturelles Québec, 2013a). Also similar to the Plan Nord, investment in infrastructure is a key priority in the next five years and a framework was proposed to finance infrastructure in Northern Projects. Along with infrastructure support, investment is also planned in social and community development such as for housing and vocational training centers. Despite these similarities, Premier Pauline Marois has insisted that the government's plan is not the same as the Plan Nord (Dougherty, 2013).

Funding of \$867.7 million was also announced, mainly for the construction of road infrastructures, social housing, national parks, and multi-function vocation training centers (Ressources naturelles Québec, 2013b). Funding over the next five years for infrastructure and social housing is similar to that proposed in the Plan Nord, with one notable change being that private developers will have to assume a bigger share of the risk when they are the sole users of roads and railways (Cousineau, 2013). While there was no overall figure given for the plan, Le Nord Pour Tous has reduced the total planned investment from \$2.1 billion (proposed under Plan Nord from 2011

to 2016) to \$1.368 billion from 2013 to 2018, and has cancelled the plan for building a new railway to the Labrador Trench outlined in Plan Nord (Dougherty, 2013). As with the Plan Nord, Le Nord Pour Tous sets a 12 per cent target for identifying protected areas by 2020. When questioned in the assembly, Premier Marois has said that she remains committed to the 50 per cent protection goal (Dougherty, 2013).

Mining Act: Bill 43 (2013)

On May 29, 2013, a third attempt to amend the Mining Act was introduced through Bill 43. Bill 43 retains several provisions of the current Act as well as retaining some of the amendments proposed through Bill 14 (Gagné, M.R., 2013). A few of the changes and similarities are highlighted below; however this list is by no means complete.

Bill 43 will now require that all mining projects and mineral processing plants, regardless of production capacity or substance, be subject to an environmental assessment (Bénay et al., 2013). It will also add the approval of a mine rehabilitation and restoration plan to the requirements needed prior to obtaining a mining lease, and such plans would be made public and subject to public consultation (Gagné, M. R., 2013). As in previous amendments, mining companies will have to provide financial guarantees for the full costs of restoration and rehabilitation (currently only 70 percent is required) and, as in Bill 14, payment of this guarantee will be reduced to three years (Gagné, M. R., 2013). Additional provisions and regulations regarding the discovery of uranium are also included in Bill 43.

Bill 43 will extend the role of municipal authorities and will also let them identify in their land use plans certain territories where mining would be incompatible, or compatible only subject to certain conditions (Gagné, M. R., 2013). Claim holders also will now have to notify both the private landowner and concerned municipality that rights have been obtained prior to carrying out work (Gagné, M. R., 2013).

As in Bill 14, Bill 43 provides that it must be construed in manner compatible with the government obligation to consult aboriginal communities. However, it adds a requirement that holders of a mining lease or concession must notify the MNR of any agreement with a “community” and that such agreements would be made public (Gagné, M. R., 2013). Bill 43 also prohibits the expropriation of land used for burial grounds by aboriginals and the Minister could also exclude exceptional geological sites from mining based on consultation with aboriginals (Bénay et al., 2013).

Changes to the claim procedure are also included in Bill 43. As in Bill 14, filing of a staked claim or map designation notice will require a plan of work that will be performed in the following year, and a report must be submitted each year for work performed in the previous year, including any work for which an allowance would be claimed under the Mining Tax Act (Gagné, M. R., 2013). Payment will be permitted instead of work performed at a rate

of twice the prescribed minimum cost, and excess amounts spent by a claim holder will be allowed to be applied to the renewal of claims of up to twelve years (Gagné, M. R., 2013). Excess amounts will also be applicable for the renewal of claims held by the same holder within a 3.5 km radius of the claim, a reduction from 4 km in Bill 14 (Gagné and Kazaz, 2011; Gagné, M. R., 2013).

A new addition to Bill 43 is the requirement that applications for mining leases include an ore processing feasibility study. Lessees will also be required to establish an economic spinoff monitoring and maximization committee, and may be required by the MNR to execute an agreement for the purposes of maximizing economic spinoffs (Gagné, M. R., 2013). Renewal conditions for current mining leases will also require a feasibility report on processing minerals (Bénay et al., 2013). Other notable changes include allowing the Minister to auction claims (instead of all claims being granted based on a first-to-register basis), new restrictions on expropriation by a mining title holder, and requiring more and sometimes more specific information to be provided and made publicly available by the MNR (Bénay et al., 2013; Gagné, M. R., 2013).

At the time of writing, Bill 43 was before the Quebec National Assembly and had been adopted in principle (Quebec National Assembly, 2013). On October 30, 2013, Bill 43 was defeated with 57 votes against versus 51 in support (Radio-Canada, 2013).

Appendix 2

Relevant comments from open-ended survey questions, 2008/09–2012/13¹

General comments on changes to the policy environment

- *Can you provide an example of a regulatory horror story?*

Bill 14 in Quebec. (2011/2012)

- *What is the least favourable jurisdiction for mining policy, and why?*

Quebec: Historical precedent and increasing volatility and changes in mining acts. (2009/10)

Quebec: Bill 79 will make it impossible to have unfettered access to exploration claims. Section 26 which gives us access rights is to be eliminated and we will now need the permission of surface rights owners in order to enter upon claims with no mechanism in place to settle disputes. (2010/11)

Quebec: They don't know the effect of their policies, only the amount of money seems important. (2011/12)

Quebec: Because of the adoption of Bill 14. (2011/12)

Quebec: Drop Bill 14 and the 50 percent land withdrawal in Plan Nord. (2011/12)

¹ Comments have been edited for length, grammar, and spelling, to retain confidentiality, to remove offensive language, and/or to clarify meanings.

Quebec has dropped significantly over the last 18 months with First Nations concerns, political risk, uncertain tax treatment, and uncertain policies. Negative on mining and negative changes to mining legislation. Ontario and Quebec are negative with First Nations risks increasing and with no clear Government approach or control = \$\$, royalties, delays. (2012/13)

- ***If there could be one policy change in this jurisdiction, what should it be?***

Bill 14, article 91 [areas within an urbanization perimeter and any area dedicated to vacationing are withdrawn from staking, map designation, mining exploration and mining operations and that, in order to perform work, the holders of claims in an area that has been so withdrawn must obtain the consent of the local municipality concerned]. (2011/12)

Encourage mining investment through implementation of Quebec's policies governing mining and mineral rights. (2011/12)

Become proactive toward oil, gas and mining activities. (2012/13)

Quebec: entirely remove the proposed amendment #14 to Quebec mining law which has changed the Province from one of the best (in the world) to a very mediocre place in the world to carry out mineral exploration & development. (2012/13)

Quebec: return to what they had which was very positive. (2012/13)

- ***Additional comments***

Unfortunately Quebec is destroying what was a well-functioning exploration and mining system for base political reasons. Very sad for our industry and the residents of Quebec. (2010/11)

Quebec is still one of the best place to explore, the government has to maintain as accommodating policies as possible in order to be a serious metal producer. (2010/11)

Amendments to the Quebec mining law significantly lowers its status as a top jurisdiction for mining investment. (2011/12)

Quebec's exploration climate is going down the drain. (2011/12)

Quebec is going from one of the best places to work to one of the worst. Not due to corruption or violence but due to an ineffective government which

listens to senior bureaucrats that in turn develop policies based on the government's need to advance in the polls. The bureaucrats lack the ability to see beyond the actual proposed legislation (Bill 14 and Plan Nord). They don't seem to understand the implications of their actions and the government is so focused on being seen as standing up for the 'peoples rights' that they are prepared to destroy the exploration and mining industry and the jobs and revenue it creates. They have become detached from social and economic reality. Efforts to have an effective exchange of ideas are impossible. Knowledgeable persons within the industry and the government are frozen out as polls and special interest groups rule the day. The saddest part is the opposition parties are just as bad or worse. I fear that there may be no future for our industry. (2011/12)

Investment Barrier 1: Uncertainty concerning what areas will be protected as wilderness, parks, or archaeological sites, etc.

- ***Can you provide an example of a regulatory horror story?***

Government is giving to municipalities the right to stop any mining within their jurisdiction, even in Abitibi Belt where towns were built over and around mines! (2011/12)

The interference with the exploration process by municipalities which have suddenly been given authority over the entire mineral sector without a clue as to how it operates or why indeed it is even there. 'Sustainability' and the nanny state run amok. (2011/12)

In Quebec, the planned new mining law which will authorize 1200 municipalities to administrate mineral exploration and development. (2011/12)

Quebec government wants to give a veto on mining to municipalities, even those that grew over mines in historically recognized mining camps! This opens up great opportunities for 'brown envelopes' and corruption to local mayors!!! (2012/13)

- ***If there could be one policy change in this jurisdiction, what should it be?***

Quebec land access vs. municipality. (2011/12)

Re-affirm that the Province has real ownership and control of its land and mineral resources. Mining companies are not sure who really owns the resources, therefore mineral claims or titles are becoming meaningless. (2012/13)

- ***Additional comments***

Quebec changes to Mining Law are detrimental to their long stated approach - many small areas restricted or withdrawn (Ecology); and new involvement of Municipal Government in allowing exploration/mining - will decrease investment interest. (2011/12)

Investment Barrier 2: Taxation regime

- ***Can you provide an example of a regulatory horror story?***

A change in the mining taxes in Quebec. (2012/13)

Bolivia and Venezuela: Developed mines and resources being either expropriated, or overtaxed in a regime change, or a combination of both. The temptation for other jurisdictions (Australia, Quebec) to follow suit will cause realignment of areas for investment. (2012/13)

Quebec's uncertainty with mining taxes for the long-term and protected areas from industrial use. (2012/13)

- ***What is the least favourable jurisdiction for mining policy, and why?***

Quebec: Unfortunate myopia for long-term value of mineral resource development. Embedded bias favoring burdensome taxation to fund government fiscal mismanagement. (2011/12)

Quebec: The quickly changing government attitude towards increased fiscal control, taxation and social regulation upon exploration & mining companies. (2012/13)

Taxation for both Quebec and Nova Scotia. (2012/13)

- ***If there could be one policy change in this jurisdiction, what should it be?***

More financial assistance should be provided to autonomous prospectors. [Translated] (2010/11)

A policy to secure your mining rights and provide tax stability. (2010/11)

Exploration and Development (pre-production) tax incentives to ensure a fair return to shareholders and security of employment. (2011/12)

The newly-elected government of Quebec campaigned on the premise that mining royalties could be increased to eliminate the provincial deficit and eliminate the provincial debt. This political direction should be emphatically rejected and the status quo confirmed. (2012/13)

- ***Additional comments***

The exploration credits given by the governments are very difficult and long to collect (The ministry is still arguing and asking for additional documentations regarding the 2007 credits today!). So this is hard to use in financial planning. (2009/10)

Quebec policies 1985–2008 provided exploration incentives as well as a transparent regulatory environment and reasonable levels of taxation for producers. (2012/13)

Investment Barrier 3: Uncertainty concerning environmental regulations (stability of regulations, consistency and timeliness of regulatory process, regulations not based on science)

- ***Can you provide an example of a regulatory horror story?***

Duplication of environmental rules and programme between Canada and Quebec environment ministry. Provincial jurisdiction. (2009/10)

- ***What is the least favourable jurisdiction for mining policy, and why?***

Quebec: They are constraining the mining activity and privileging environmental aspects or their political environment. (2009/10)

Quebec: Due to environmental and social communities' restrictions. (2010/11)

Quebec: Environmental questions and not proactive. (2012/13)

Quebec: Should apply the mining law instead of giving power to the ecologists. (2012/13)

- ***If there could be one policy change in this jurisdiction, what should it be?***

To decide the permits according to the cost-benefit factor. (2009/10)

Simplified and faster environmental process. (2010/11)

A lessening of regulation, particularly in the language and environment sector. (2011/12)

- ***Additional comments***

No message from the government regarding the Uranium exploration & Production [moratorium] that is being asked by the opponents (including the official opposition). (2009/10)

Investment Barrier 4: Regulatory duplication and inconsistencies (includes federal/provincial, federal/state, inter-departmental overlap, etc.)

- ***Can you provide an example of a regulatory horror story?***

Inability to access a property because the surface rights owner wants \$3 million in stock and cash in order to let us prospect. The local municipality wants us to work but the Quebec provincial government refuses to get involved and solve the problem. The new provisions of Bill 79 will only compound access problems. (2010/11)

Acquiring mineral titles and then optioning them to another company and then being denied access by the surface rights owner. Government will do nothing and is making access even more difficult by Bill 14. (2010/11)

In Quebec, both provincial and federal government hold separate 'public hearings' on the same subject. For a rather small mining project, over 35 various different permits have to be obtained, supplying every time the same information on a slightly different format. (2011/12)

Permitting in Quebec is very lengthy and difficult. (2011/12)

12 months + just to get a small bulk sampling permit in Quebec and that was before the arrival of the new government... (2012/13)

Quebec. The government has given municipalities and surface rights owners absolute control over mineral development. One may own the mineral rights but not be able to explore or mine without paying what amounts to pay-offs. A great system destroyed in order to garner votes. (2012/13)

Quebec: 4 months to get a trenching permit. Permit was received 1 week after the end of fieldwork on the property. Waste of money and time for us and clearly shows the direction Quebec is heading. (2012/13)

The system for claim appeal in the Province of Quebec. It can take up to 4 years to conclude a decision over a single, simple issue. (2012/13)

- ***What is the least favourable jurisdiction for mining policy, and why?***

Quebec: Too many regulations and/or government interference. (2011/11)

Quebec: Too much responsibility for too many municipalities and individual land owners. (2011/12)

Quebec: Uncertainty on rules. (2012/13)

- ***If there could be one policy change in this jurisdiction, what should it be?***

Participation of the local governments in the projects. (2009/10)

That Quebec is able to make decisions autonomously for its territory, without federal interference. [Translated] (2010/11)

Less red tape and government interference. (2011/12)

Concentrate the management of land in the provincial government instead of the municipality. (2011/12)

- ***Additional comments***

The legal climate in Quebec has been dramatically modified in recent years due to unclear new coming laws, risks of increased royalties, unclear First Nations rights, involvement of both provincial and federal levels in permitting (doubling work, costs and time). Government will have to clarify what are the rules. (2011/12)

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