Searching for the Silver Lining

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Submitted by the Canadian Mineral Industry Federation (CMIF)

National Associations:

The Mining Association of Canada
Prospectors & Developers Association of Canada
Mining Industry Human Resources Council
Canadian Institute for Mining, Metallurgy and Petroleum
Canadian Association of Mining Equipment and Services for Export
Coal Association of Canada
Canadian Fertilizer Institute
Canada Mining Innovation Council (CMIC)

Provincial and Territorial Associations:

Ontario Mining Association
Ontario Prospectors Association
Mining Association of British Columbia
Association for Mineral Exploration British Columbia
Association minière du Québec
Saskatchewan Mining Association
Saskatchewan Potash Producers Association
Mining Industry NL
The Alberta Chamber of Resources
The Mining Association of Manitoba
Yukon Chamber of Mines
NWT & Nunavut Chamber of Mines

CMIF members represent the majority of companies engaged in mineral exploration, mining and processing in Canada, and the supply sector that supports these industrial activities. Members account for most of Canada's production of base and precious metals, uranium, diamonds, metallurgical and thermal coal, potash and mined oil sands. We appreciate this opportunity to provide federal, provincial and territorial mines ministers with views and recommendations regarding policy issues of importance to our industry.

TABLE OF CONTENTS

SUMMARY

At present, the minerals industry is enduring a period of protracted and significant market volatility. As some commodity prices decline in the short term and global economic uncertainty persists, majors are facing challenges forecasting future demand patterns and juniors are struggling to access financing, particularly for early-stage grassroots exploration. Uncertainty is pushing some companies to defer projects in the short term, yet global medium and long-term demand is likely to increase dramatically. To regain investor confidence, the industry is focused on cost-control, improving operational performance and enhancing balance sheets.

Despite anticipated periodic volatility, healthy demand for mined materials is likely to persist over the long term driven by growth in the emerging markets. For Canada to seize the significant economic opportunities that the next upswing will present, the industry requires focused support from governments now to provide the right domestic investment, regulatory and operational environments to enable that future growth. Government support is essential in the following areas:

- **Support capital raising efforts,** particularly for grassroots mineral exploration to enable that segment of the industry to endure the current capital crisis and to access the capital required to address declining domestic base-metal reserves, sustain Canadian mineral production, and contribute to the sustainability of global minerals and metals supply chains.

- **Address regulatory uncertainty** and inefficiencies by ensuring that changes to the regulatory environment are accompanied by clearly defined and well-resourced transition plans which, to the extent possible, minimize the regulatory burden on the mining industry. Specifically, uncertainty should be addressed by:

    - Engaging in Metal Mining Effluent Regulations (MMER) review and explore opportunities with Environment Canada to use the new provisions of the *Fisheries Act* for s4.2 equivalency and for s36(5.2) Ministerial Regulations based on provincial/territorial authorizations.

    - Facilitating better coordination so federal approvals are integrated into the *Canadian Environmental Assessment Act* (CEAA) or Northern Board Environmental Assessments (EAs) to ensure robust assessments, meaningful consultation and timely permitting.

    - Clarifying the interaction of the *Species At Risk Act* and the CEAA processes to create a more predictable and consistent project development and operational environment.

- **Maximize the land base available for mineral exploration and development** by ensuring that land withdrawal decisions are made following a reliable assessment of mineral potential and after careful consideration of economic, social and environmental factors.

- **Strengthen workforce capacity** by addressing the industry's human resources challenges to ensure a sustainable workforce for the future. Governments must work with industry, academic institutions, vocational schools, Aboriginal groups and other communities to address the sector's skills training, mobility and immigration needs.

- **Strategically invest in infrastructure** to facilitate new mining development in Canada's remote and northern regions where economic and social development is highlighted as a core priority in both Canada's Arctic Foreign Policy and Canada's Northern Strategy. As one of the only private sector actors that invests to such a large extent in remote and northern areas, the mineral industry is a logical partner to promote sustainable economic growth. However, the costs of operating in these areas can be prohibitive. Strategic investments in infrastructure would help unlock the resource potential of these regions, facilitating grassroots exploration and enhancing the economic viability of a host of mining projects.

- **Address declining reserves** and identify new opportunities by renewing the Targeted Geoscience Initiative (TGI). Programs like TGI promote geoscience innovation to enhance mineral production in more developed areas, which is critical to closing the discovery gap and ensuring the continued contributions of mining to the Canadian economy. CMIF also recommends that governments create incentives for technological and process innovations that reduce the risks and costs associated with mineral exploration and development.

- **Enhance Canadian mineral innovation capabilities** by supporting crucial innovation activities of the Canada Mining Innovation Council (CMIC) through a direct five-year contribution enabling the industry to collectively address innovation priorities and support additional investments in business innovation.

- **Improve Aboriginal relations** by working collaboratively, and in consultation with industry across jurisdictions and in consultation with industry and Aboriginal communities to ensure the Crown's duty to consult and accommodate is carried out consistently, respectfully, efficiently and effectively.

- **Increase Energy Cost Competitiveness** at the provincial level, across Canada.

OVERVIEW OF THE MINERALS INDUSTRY

Global Mining Industry in Transition

Over the course of 2013, the 40 largest mining companies globally booked record impairments of $57 billion – these in addition to the $40 billion in impairments recorded in 2012 – drove aggregate net profits down 72 percent to their lowest level in a decade, and lowered their collective market capitalization by 23 percent, or $280 billion. While net profits from emerging market companies were $24 billion in aggregate in 2013, companies headquartered in developed countries operated at an aggregate net loss of $4 billion. Simultaneously, the expectations of both shareholders and host jurisdictions have increased, with greater focus placed on returns to shareholders and value extraction from mineral development for host jurisdictions. Further, nearly half of the top 40 companies have replaced their CEOs in the last two years, seeking substantive directional changes. Of the top 40 companies globally, it is notable that eight are Canadian-listed companies, and 11 are members of the Mining Association of Canada.

Mineral Exploration Financing Continues to Decline

2013 was a grim year for mineral exploration financing in Canada and around the world, with exploration budgets dropping globally by 30 percent (SNL-MEG, 2013). PDAC research[1] indicates that the limited amount of financing that did take place on the TSX Venture Exchange (TSX-V) in 2013 was primarily for very small amounts; over 50 percent of all financings in 2013 were for $500,000 or less (compared to 13 percent in 2010). A significant portion of all financings were barely enough to keep the lights on; 12 percent of financings in 2013 were for $100,000 or less, compared to only 0.5 percent in 2010. According to PwC, the total cash generated from junior financing activities in Canada fell by 34 percent in 2013, after a 52 percent drop in 2012. Almost 60 percent of Canadian-listed juniors had working capital balances under $200,000 as of May 6, 2014 (Kaiser Research Online, 2014).

Global Economic Outlook Remains Uncertain

Global economic growth has declined for the past four years, falling from 5.2 percent in 2010 to 3.0 percent growth in 2013. In April 2014, however, the International Monetary Fund (IMF) projected 3.6 percent growth for 2014, followed by 3.9 percent growth in 2015, with much of the impetus coming from advanced economies.

On the other hand, overall emerging market demand has continued to slide, despite the performance of certain key countries. Over the same four-year span, GDP growth from the IMF's Emerging Market and Developing Economies has fallen significantly from 7.6 percent to 4.7 percent. Looking forward through 2014, Brazilian and Russian GDP growth are forecast to shrink to 1.8 percent and 1.3 percent, respectively. China's growth, forecast to shrink consecutively through 2015 from 7.7 to 7.3 percent, remains strong despite settling, while India is forecast to grow from 4.4 to 6.4 percent over the same period.

Notwithstanding mixed economic growth from economies in transition, mineral prices and the corresponding demand for many mining products have demonstrated staying power, despite volatility and downward pressure in some areas. This is largely due to the strength of China's growth and that country's accounting for approximately 45 percent of global base metal demand and comparable percentages for a host of other commodities.

Recent Commodity Price Performance

Price performance in base metals has been mixed recently, with copper prices dropping to US$2.92 in mid-March, but rallying back to US$3.20 in mid-July. On the plus side, zinc and nickel are trending upward, the latter of which soared to a two year high of US$9.50 per pound in late April, which is largely attributed to Indonesia's ban on the export of all unprocessed nickel-containing ores. Nickel continues to fluctuate in the high $8 range. More recently, zinc has risen to a 35-month high due to declining supply and amid speculation that increasing auto sales in China and the US will boost metal use. From January to May 2014, iron ore is down US$35 per tonne to US$100 flat, and metallurgical coal is down 31 percent on the Chinese coking coal spot market year-over-year through April 2014. Potash and uranium have also dipped further in 2014, the former still suffering from the impact of Uralkali's – the world's largest potash producer – exit from its marketing partnership with the Belarusian Potash Company, and uranium

[1] http://www.pdac.ca/public-affairs/finance-taxation/public-affairs/2013/03/22/capital-crisis

enduring the legacy of fallout from the Fukushima incident. Meanwhile, gold – the hardest hit of all commodity prices in the last 18 months – has ranged between monthly averages of US$1,224 and US$1,336 over the last six months.

The Long View

The prevailing view is that the Canadian mining industry's economic prospects will be strong over the medium and long term, even if demand persists through periods of economic volatility and transition. This view is based on long-term growth projections in China and India, and on the assumption of a positive and efficient domestic investment, development and operational environment. As the middle classes of the world's most populous countries continue to emerge, and as their consumption patterns more closely resemble those of western industrialized countries, demand for mineral and metal products, even if at a moderately-reduced pace, is likely to remain strong. For mineral exploration properties, the strength of medium-term demand will benefit advanced stage properties close to production. For early-stage properties, however, ongoing economic uncertainty continues to result in a significant reduction in financing levels.

The Mining Association of Canada's research found that proposed, planned and in place mining project investment in Canada amounts to upwards of $160 billion over the next five to ten years. This includes major projects in mined oil sands, coal, copper, gold, iron ore, potash, uranium and diamonds, among other sectors, with large investments also occurring in environmental and processing areas. However, major projects (e.g. Cliff's project in the 'Ring of Fire') will be deferred if the return on investment is uncertain. In light of the current global financial challenges and demand outlook, industry needs support from F/P/T governments to navigate the current instability, prepare to capitalize on future growth prospects, and become an even stronger contributor to Canadian prosperity.

Economic Contributions of the Canadian Minerals Industry

Despite a period of challenging transition, mining contributed $53.6 billion to Canada's GDP in 2013, accounting for 3.4 percent of the Canadian economy, and the value of Canada's mineral production is projected at nearly $44 billion. In the same year, the industry employed approximately 388,000 workers in mineral extraction, processing and manufacturing.

Canada is a world leader in mineral exploration, with an estimated 800 Canadian exploration companies active in more than 100 countries, according to Natural Resources Canada. These companies discover the mines of the future around the world, and generate jobs and wealth for host countries as well as for Canadians.

Other major contributions:

- Over 3,200 companies support the industry by providing capability ranging from drilling equipment to engineering services, expanding the industry's economic reach even further.
- Over the decade through 2012, the mineral industry paid an estimated $71 billion in taxes and royalties to federal, provincial and territorial governments – a number that, due to data restrictions, excludes contributions made by the mining supply sector.

- Mineral production values decreased in eight of Canada's 13 provinces and territories in 2013. Ontario mineral production generated $9.8 billion, Quebec $8.2 billion, Saskatchewan $7.2 billion, British Columbia $7.0 billion, and Newfoundland and Labrador $4.0 billion, with significant values amassed in other provinces as well. In each of these jurisdictions, the mineral industry generates economic activity near remote, northern and Aboriginal communities, creating opportunities where few others exist.

The industry's trade value was virtually the same year-over-year, with a 1.2 percent decrease in 2013 at $88.4 billion in exports, remaining well above the historical average. A consequence of this global reach is that over half of the freight revenues of Canada's railroads are generated by the mining industry, as well as the largest minority of freight shipped by vessel.

Steady and Significant Social and Environmental Progress

The Canadian exploration and mining industry places a high priority on corporate social responsibility (CSR) in the areas of community engagement, the environment, and health and safety. MAC's award-winning Towards Sustainable Mining (TSM) initiative – also adopted by the Mining Association of British Columbia, and most recently, the Quebec Mining Association – and the PDAC's e3 Plus: A Framework for Responsible Exploration help companies to continuously improve their CSR practices domestically and internationally.

As a major employer of Aboriginal Canadians, the mining industry has a largely positive relationship with the Aboriginal community. At the company level, business agreements with Aboriginal groups facilitate progress on extractive projects while providing investment in education, training and jobs. Including Memorandum of Understanding (MoU) type agreements guiding projects at earlier stages, there are nearly 260 active bilateral agreements in Canada between companies and Aboriginal groups relating to mineral projects. The potential for stronger collaboration is great.

Transparency and accountability continue to be top priorities for the mining industry. In January, MAC, the PDAC, the Revenue Watch Institute (now the Natural Resource Governance Institute) and Publish What You Pay-Canada released their recommendation framework for the reporting of payments made by Canadian exploration and mining companies to host governments. The goal of the framework is to aid investor analysis and provide citizens in resource-rich countries with the tools they need to hold their governments accountable for the use of natural resources. The recommendations provide a roadmap for Canadian implementation of mandatory reporting of payments made to governments through provincial securities regulators, which the mining industry and civil society jointly believe to be the most appropriate venue. Progress towards implementation took a major step forward in June when the Quebec Finance Minister announced, as part of the provincial budget, that Quebec would work with its provincial securities regulator to implement mandatory reporting. With Quebec the first province to publicly support and commit to mandatory reporting, the mining industry calls on other provinces to follow Quebec's leadership.

PROGRESS TO DATE

Support by Governments

In some important respects, governments have contributed positively to the Canadian mining industry's competitiveness in recent years. The federal government has made significant improvements to the *Canadian Environmental Assessment Act* (CEAA), increasing process clarity and efficiency. The CEA Agency is to be commended for providing a smooth transition to the new regulatory framework governing environmental assessments. However, other federal reforms, most notably changes to the *Fisheries Act*, have not been well-executed, and new projects face considerable uncertainty regarding requirements and the process for obtaining Section 35 authorizations. The Mining Association of Canada is working closely with Fisheries and Oceans Canada to overcome these challenges. More on this below.

During 2013-14 the federal government took major steps to advance the northern regulatory improvement initiatives that began in 2008. The enactment of Bill C-15, incorporating the devolution of resource management responsibilities to the Government of the Northwest Territories and amendments to the *Mackenzie Valley Resource Management Act* (MVRMA), combined with the NWT's new Mineral Development Strategy, all bode well for a more efficient and predictable operating environment for industry. The addition of timelines, life of mine water licences and new ministerial authority for policy direction to Boards are firsts for the North and key components for an improved MVRMA.

On June 3, the federal government introduced Bill S-6, the *Yukon and Nunavut Regulatory Improvement Act*, which includes amendments to the *Yukon Environmental and Socio-economic Assessment Act*, and the *Nunavut Waters and Nunavut Surface Rights Tribunal Act*. The addition of amendments to these statutes, similar to those just completed in the NWT, has the potential of unifying the regulatory framework across all three territories. For Nunavut, empowering the Minister to enter into Security Management Agreements with Inuit organizations, and compelling the Nunavut Water Board to consider these agreements when setting financial security, are positive steps toward addressing the issue of "double bonding".

These particular measures are appreciated and welcome responses to previous industry recommendations. As a modern regulatory system is critical to attracting investment and jobs in Canada, these positive changes will help reduce delays in initiating environmental assessments. However, more work needs to be done to improve Canada's regulatory system.

Recent human resources actions undertaken in Federal Budgets 2013 and 2014 are aligned with industry priorities. Human resources programs such as the creation of the Canada Jobs Grant, support for 8,000 paid internships, reallocation of funding to support apprentice opportunities and the promotion of education in high employer demand fields are positive. Other measures, including the creation of the Canada Apprentice Loan, the renewal of the Targeted Initiative for Older Workers program, and funding to support the implementation of an Expression of Interest economic immigration system are also positive.

Geoscience investment is critical to the continued success of the mineral exploration and development industry. Industry appreciated the government's extension of the GEM program in August 2013, with an investment of $100 million over the next seven years. Every dollar invested in geoscience by the

government triggers five dollars in exploration spending by the private sector and boosts the likelihood of discovering commercial-scale deposits, rendering economic dividends into the future.

On the tax front, a reduction of the federal corporate tax rate to 15 percent as of January 1, 2012 is also positive. Additionally, the Mineral Exploration Tax Credit (METC) associated with Canada's flow-through shares mechanism, and often enhanced at the provincial level, has also contributed to greater levels of mineral exploration and discovery in Canada. The extension of this measure for another year in Budget 2014 is welcomed by the industry, especially in light of the unprecedented financing challenges currently faced by the junior sector. The federal government's $5 million investment in a CMIC-led exploration innovation project, the largest collaborative in the history of the Natural Science and Engineering Research Council (NSERC), is the first step towards re-defining how mineral exploration is accomplished in Canada.

CMIF members also note with appreciation the actions taken by several jurisdictions to enhance the fiscal incentives available for mineral exploration, including innovative measures such as Manitoba's doubling of work assessment credits. Industry also recognizes the unique investments made by the Government of Quebec to support the financing of mineral exploration and development through institutions like Resources Québec and SIDEX.

KEY CHALLENGES AND RECOMMENDATIONS TO MINISTERS

1. CHALLENGE: Sustaining Mineral Production requires Grassroots Exploration

The capital crisis is hitting grassroots exploration particularly hard, reducing the probability of new discoveries that could turn into producing mines. In 2013, expenditures on grassroots exploration in Canada dropped 50 percent (to $1.2 billion) from $2.4 billion in 2012 (Natural Resources Canada). Sustaining capital flows to juniors becomes even more important to reverse this trend, as juniors undertake the vast majority of grassroots, greenfields exploration. In the last five years, 80 percent of the significant discoveries that have been made in Canada were made by juniors (Schodde, 2013).

Canadian jurisdictions cannot remain complacent. While Canada continued to attract the largest percentage of global exploration budgets of any individual country, at 13 percent it is now barely ahead of Australia, with a 41 percent decrease in allocations over 2012. This was the largest decrease experienced by any of the regions tracked by SNL-MEG for the second year in a row. In fact, if iron ore exploration budgets are included, Australia has already taken over the top spot, with 16.5 percent of worldwide exploration budgets as opposed to Canada's 12.5 percent. Australia's attractiveness as a destination for investment has increased recently with its introduction of a flow-through share mechanism to bolster investment in early stage exploration in Australia.

RECOMMENDATION: Support Capital-Raising Efforts of the Mineral Exploration Industry

The federal government should:

- Extend the Mineral Exploration Tax Credit for three years, as opposed to one year, so that industry will have long-term certainty to plan crucial investments in exploration.

- Temporarily enhance the METC for projects in remote and northern locations from its current level of 15% to 25%
- Modify the rules governing the Mineral Exploration Tax Credit to allow a company to claim an "operator allowance" of up to 10% of direct exploration costs as eligible Canadian Exploration Expenses (CEE), in recognition of the costs related to managing the program[2]
- Allow exploration companies to claim all community consultation costs as Canadian Exploration Expenses, regardless of what point in time they are incurred prior to production in reasonable commercial quantities (not just those that are incurred after a permit has been secured). This would help bring the CEE guidelines in line with recent changes to several provincial mining acts that encourage/require companies to conduct community consultations prior to applying for plans and permits.

Provincial/territorial jurisdictions should consider the following actions that could be taken to support mineral exploration, particularly at the grassroots stage:

- Put in place, or enhance, METC-type incentives that complement the federal METC.
- Increase the total budgets allocated to mineral exploration grant programs.
- Increase the amounts that individual prospectors/companies can ask for from those programs.
- Increase the percentage of total exploration expenditures that can be claimed (e.g. from 50% of eligible costs to 66%).
- Establish mineral exploration focused venture capital funds, as has been done in Quebec, to support grassroots exploration.
- Allow junior companies to get double-value for their assessment credits, as has been done in Manitoba, and previously in Saskatchewan.
- Push for ongoing reforms to harmonize regulatory regimes across Canada in a manner that:
  - Reduces the regulatory burden associated with capital raising, and related compliance costs, so that junior mining companies can raise capital more efficiently
  - Facilitates capital-raising from a broader base of investors by lowering accredited investor thresholds and standardizing key prospectus exemptions across Canada.
- Participate in the Cooperative Capital Markets Regulator (CCMR), and ensure that the cooperative regulatory regime facilitates capital raising and reduces the regulatory burden on small and medium-sized enterprises. Jurisdictions thinking of joining the CCMR should make their participation contingent upon the cooperative regulatory regime prioritizing capital-raising for junior issuers.

2. CHALLENGE: Navigating through Regulatory Uncertainty and Transition

Since the last Mines Ministers' meeting, all of the 2012 federal legislative changes have come into force, with *Fisheries Act* amendments and the *Navigation Protection Act* coming into force in November 2013 and April 2014 respectively. The changes in federal legislation did not reduce federal approvals required by mining projects, but have created transition challenges to a new interpretation of the amended

[2] A precedent for this is the "operator allowance" of 3% that was part of the Canadian Exploration Incentive Program, from 1989-1991

legislation and policies, hampered by simultaneous reductions in departmental capacity. Some of these challenges have been overcome, but many remain. Mining projects are subject to federal environmental assessment and to other significant federal approval processes administered by several departments. In all these processes, mining projects account for 70-100% of the total approval workload for all industries requiring such approvals.

Engagement by Transport Canada with MAC's Navigable Waters Task Force throughout 2013 led to greatly improved understanding of the Act by our industry, and improved understanding of the industry by Transport Canada. As a result, improved guidance, grounded in jurisprudence, was published at the same time as coming into force, and has been applied already to several mining projects. Engagement with Fisheries and Oceans Canada is in early stages. MAC is working to understand the implications of the expanding application of the Act to more inland waters and engaging with DFO to develop reasonable methods for calculating offset requirements and developing offsets. Most unfortunately, mining projects part way through review and approvals have been obliged to redo their plans, leading to delays and unnecessary costs. Implementation of CEAA 2012 has created fewer transition problems, but it is too early to judge the effectiveness of some features of the Act, including the effectiveness of substitution and enforceable decision statements.

RECOMMENDATION: Continue to Address Regulatory Uncertainty by:

- **Engaging in the Metal Mining Effluent Regulations (MMER) Review and Explore New Equivalency Provisions –** Mines Ministers should encourage their colleagues to engage in the MMER Review, and understand the implications of the review on mining in their jurisdiction, including the potentially prohibitive costs related to an unknown environmental benefit. They are also encouraged to explore opportunities with Environment Canada to use the new provisions of the *Fisheries Act* for s4.2 equivalency and for s36(5.2) Ministerial Regulations based on provincial/territorial authorizations.
- **Pressing for Better Integration –** It is essential that consideration of federal approvals be integrated into CEAA or Northern Board Environmental Assessments to ensure robust assessments, meaningful consultation and timely permitting. Further, these processes should be coordinated to the maximum extent possible with provincial regulatory processes.
- **Fisheries Act** – Press Fisheries and Oceans Canada to work with industry to bring clarity and workability to the amended *Fisheries Act*, and ensure sufficient departmental capacity to manage the transition, work with mining projects affected by the transition, and support timely authorizations for mining projects.
- **Clarifying Species At Risk Act (SARA) Processes –** Industry requires clarity on the interaction between the SARA and CEAA processes. Under SARA, when critical habitat is identified for a federally-listed species at risk, an automatic prohibition comes into force on federal land and areas of federal jurisdiction, such as aquatic habitats and migratory birds. These prohibitions do not apply to provincial land unless provincial action is seen to fail to protect the species in question and the federal government decides to step in and provide effective protection through an emergency order under SARA. Despite this, it has become routine for federal reviewers to require companies to establish protection plans and commitments for federally-listed species as part of the environmental assessment process for individual projects. For most species with small concentrated ranges, this is relatively easy to

address by a project proponent. However, for more landscape-level species, such as Boreal Caribou, proponents are currently being asked to develop plans for actions well beyond the footprint of the mine. Unfortunately, little to no guidance exists nor are mechanisms provided by the federal government to enable proponents to understand how to meet these obligations or where proponents' responsibilities begin and end.

Provincial and federal governments should work to establish a toolbox of mechanisms to enable proponents to undertake stewardship actions that will benefit species at risk. Biodiversity offsets are one example of the kinds of stewardship actions that could be included in such a toolbox. Industry believes that the provinces are well positioned to develop recovery strategies for SARA-listed species that can be built with the involvement of industry, NGOs and First Nations and calls on the Government of Canada to support strategies that come forward with broad support. A good example of this is BC's plan to recover the Southern Mountain population of the Woodland Caribou, which has been developed with the involvement of industry, NGOs and First Nations. CMIF members also encourage provincial and territorial ministries to ensure their jurisdictions are appropriately engaged and represented on the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) that recommends designation of species at risk to Environment Canada

3. CHALLENGE: Land Access for Exploration

Large tracts of land for typically low-impact exploration are foundational to the success of the Canadian mineral industry. Additionally, the extent to which the land base is available for exploration directly influences how often new mine-worthy deposits are found. The mineral industry continues to face land access challenges due to a constellation of factors, including uncertainty around land tenure (e.g. due to unresolved issues related to Aboriginal rights and title), lengthy and incomplete land use planning processes and the lack of clear decision-making criteria for protected area designations. In some case, they lead to large interim and planned withdrawals of land for prolonged periods of time, thereby reducing the overall land quantum available for mineral exploration.

RECOMMENDATION: Improve Land Access and Permitting Processes

Governments can address existing land access challenges through the resolution of unsettled land claims and completion of outstanding land use plans.

Future access issues can be minimized by government adherence to the following land use planning and management principles, adapted from the 2011 PDAC Position Statement on Land Use Planning and Land Access:

- Transparent and balanced processes that strive for clarity, certainty, efficiency and timeliness.
- No alienation without evaluation, ensuring that withdrawal decisions are made with regard to a reliable assessment of mineral potential.
- Use of integrated and adaptive approaches that take into account social, environmental and economic factors and provide opportunities for periodic reviews and adjustments.
- Participatory and collaborative land-use planning processes that bring all affected stakeholders to the table.

- Sufficient resources available for informed decisions and effective implementation of land use plans.

4. CHALLENGE: Skills Issues Require Strategic Support

According to the Mining Industry Human Resources Council (MiHR), the Canadian mining industry will need to hire 121,000 workers (not including oil sands) over the coming decade to meet baseline production targets. This forecast is approximately 16 percent lower than the 2013 forecast, reflecting decelerated progress on several new projects in Canada as well as lower than anticipated commodity prices. Much of the pressure is felt in the trades, front-line production and supervisory occupations, for which there is simply not enough available talent. This challenge is compounded by the need to replace highly skilled and experienced workers with new entrants who do not have the depth of experience of those they are replacing. This places additional emphasis on the need to communicate industry's needs for knowledge and skills to job-seekers and training organizations, which will support better matching of available talent with jobs in the industry.

RECOMMENDATION: Strengthen Workforce Capacity

Government must continue to collaborate with industry, educators and Aboriginal groups to address the real and ongoing skills shortage in the mining sector. Recent media has called into question the accuracy of labour market information (LMI), the dissemination of that information and whether or not we do face a skills shortage in Canada. We assure you that, despite current economic conditions, many of our members continue to struggle to attract, recruit and retain the workers needed to operate our mines in Canada.

With regards to Aboriginal specific skills development and training we recommend continuing ongoing investments in the Aboriginal Skills and Employment Training program. Aboriginal essential skills training and work readiness is critical to the sector's ability to recruit and retain Aboriginal workers.

Finally, we welcome and value the support that MiHR has received through the Sectoral Initiatives Program to enhance the LMI model and the provision of this information to job seekers. Additional efforts to improve employment data, including continued support for BuildForce Canada, the Petroleum Sector Council as well as MiHr, would be valuable for the industry and governments.

5. CHALLENGE: Lack of Critical Infrastructure

Given the infrastructure challenges in remote and northern regions, and the corresponding increase in development and operational costs, remote and northern projects are not on a level playing field with other industries that typically operate in more central, less cost-intensive regions. To achieve the federal government's policy objectives in the Canadian Northern Strategy, the Arctic Foreign Policy and the focus of Canada's Chairing of the Arctic Council, investment in critical transportation and energy infrastructure is needed. This includes government support for all-weather roads, sea ports, rail and inter-modal links, as well as power grids. Further, investment is required for ports affected by the International Maritime Organization's MARPOL Annex V amendments to ensure they have adequate port reception facilities. Consultation on the domestic implementation of these measures is occurring this summer.

RECOMMENDATION: Make Strategic Investments in Infrastructure

It is recommended that governments facilitate increased investments in infrastructure (by both public and private entities) in remote and northern regions to enhance the viability of exploration for, and the development of, mineral and energy resources.

To assist the government with such planning, MAC, the PDAC, the NWT & Nunavut Chamber of Mines and the Association of Consulting Engineers of Canada have partnered on a project to quantify the cost differential between exploring and developing comparable deposits in remote and northern Canada versus more centrally-located jurisdictions.

There may be opportunities for public-private partnerships in this area, which is especially important in light of consecutive tax reforms stemming from Budgets 2012 and 2013 that make already expensive mineral projects and operations in remote and northern regions even more costly, hindering the ability of the federal government to achieve its policy objectives.

6. CHALLENGE: Declining Domestic Reserves

Canada's mineral sector continues to experience a marked decline in proven and probable Canadian mineral reserves in all major base metals. Since 1980, the most dramatic decline has been in lead (97%), zinc (82%), nickel (82%) and silver (80%) reserves, while copper (36%) has fallen significantly as well. While there have been year-over-year increases in some metals, including gold (39%), molybdenum (31%) and copper (20.5%), ensuring these gains continue in the future, and those trending downward are reversed, is essential. Without sustained and effective exploration, Canadian mineral production will outstrip reserve additions, with profound implications for the communities and individuals who benefit from the economic opportunities generated by industry.

RECOMMENDATION: Continue Government Investments in Geosciences

Meeting future global demands for raw materials and sustaining mining's contribution to communities will require explorers to increasingly search for mineral deposits in more challenging environments, including at depth and under covered terrain. Without the Targeted Geosciences Initiative (TGI) or a similar program established to integrate and analyze geoscience data in more developed areas or near established mining camps, mineral exploration activities in southern Canada would be costlier and less efficient.

Closing the discovery gap and replenishing domestic reserves would be much more challenging with consequent negative effects on the Canadian economy, which is heavily dependent on the mineral industry. To avoid this, CMIF supports an additional $25 million investment over five years into the federal government's TGI Program. Where possible, we support complementary or matching geoscience investments by provincial and territorial governments.

7. CHALLENGE: Insufficient Support for Mining Innovation

The 2013 Conference Board of Canada's Innovation Index rates Canada 13th out of 15 of its peers. The industry believes that government research funding mechanisms are not aligned and do not provide support commensurate with the industry's innovation needs, priorities and contributions.

The challenges industry faces are two-fold. First, the mechanisms currently employed primarily fund research at academic institutions that do not necessarily have bearing on industry-generated innovation

needs and priorities. This push versus pull scenario can lead to good science, but not always relevant innovation and commercialization. Second, Canada's minerals sector innovation continuum is fragmented due to a lack of national scale coordination of government and industry research, development and innovation (RDI) funding; the inability to effectively network and focus Canada's minerals RDI community; and the lack of integration of mineral industry service providers into the sector's innovation continuum. CMIC, created to address these challenges, instigates and facilitates innovation through coordination of industry-led RDI to address common, major concerns.

CMIC develops consortia to better focus and deliver the techniques and technologies required for the minerals industry to increase its global competitiveness. The CMIC Life of Mine Roadmap provides a structure through which all aspects of the sector's primary industries, from mineral exploration through extraction and processing to environmental stewardship, are linked together for increased industry effectiveness and efficiency. Through this approach, CMIC is closing the commercialization gap and covers the complete innovation continuum through incorporation of pure and applied research, start-up companies, small and medium enterprises, foundations and institutional funding organizations. Similar business ecosystems in other sectors of the economy have been met with significant success. Establishing a national mining innovation ecosystem is no small task, thus support from governments to the CMIC is essential for its success. This is especially true when other countries are significantly augmenting their mining sector RDI initiatives.

> **RECOMMENDATION: Invest in CMIC to Enhance Canadian Mining Innovation**
> CMIC's early success required that the focus of its financial capabilities be on the exploration component of the Life of Mine roadmap. CMIC is making progress in the remaining elements of its portfolio, albeit slowly, and has produced technical roadmaps for environment and energy. In order to repeat the success of the exploration component and accelerate the remaining segments of the chain, the organization requires additional funding to directly support the industry technical working groups critical to project generation and implementation. Once a critical mass of projects is achieved, CMIC will become self-sustaining through income from membership and managing the portfolio of projects.

8. CHALLENGE: Increasingly Complex Aboriginal Relations

Mineral companies operating in Canada face a range of challenges due to the level of complexity, and the degree of uncertainty, associated with the Crown's duty to consult. This complexity is reflected in the different policy responses put in place by provincial and territorial governments with respect to what the actual "trigger" is for the duty, how the consultation process will unfold, who leads the consultation process, what procedural aspects are delegated to companies, and what incentives or capacity support exist for the parties involved in the consultation process. More importantly, there continues to be complexity and ambiguity with respect to the point at which the Crown will deem consultation efforts to be "adequate", and the process used by governments to determine adequacy. Added to this is the duplication and lack of coordination of effort by both levels of government on consultation activities for the same project.

> **RECOMMENDATION: Clarify Scope of the Crown's Duty to Consult**
> Governments must work collaboratively, and in consultation with industry and Aboriginal communities, to provide more clarity on the scope of the Crown's duty to consult and, where

appropriate, to accommodate when the Crown contemplates conduct that might adversely impact potential or established Aboriginal or Treaty rights. A coordinated, streamlined approach to consultation across jurisdictions would help to reduce ambiguity, uncertainty, timelines and costs. We encourage different jurisdictions to share their learnings with each other to facilitate the diffusion and adoption of best practices.

Additionally, the resolution of outstanding land claims is critical as it would bring increased certainty to communities and the mineral industry, and help to create the conditions that are needed for communities to foster long-term, sustainable economic development.

9. CHALLENGE: Ineffective Transportation Policy for Canada's Largest Shipping Group

Two developments have dominated federal transportation policy over the last year: the Lac Mégantic Disaster and poor rail service. The federal government's response to these two events has been far-reaching. Post Lac Mégantic, regulatory developments to respond to Transportation Safety Board edicts have occurred, and a series of consultations to address issues such as dangerous goods, liability, and rail safety are currently underway. The government's measured approach in developing policy in these important areas is to be commended. On the rail service front, however, exclusive grain sector-specific legislative measures were enacted, without any consultation or due process, that are liable to transfer rail capacity from mining and other sectors to the grain industry. This could further exacerbate our sector's long-standing service issues. As the largest single customer group of Canada's Class I railways, and accounting for over 20 percent of Canada's export value, miners require a reliable logistics supply chain.

RECOMMENDATION: Increase Rail Data Transparency

As the government begins the 2015 Statutory Review of the *Canada Transportation Act*, it would be wise to ensure those conducting the review have the information required to make informed public policy decisions. If sector and company-specific data were available to the government and shippers, they could more easily determine the cause of service disruptions and other failures. Various performance measures could provide evidence of capacity displacement from one shipper to another or, conversely, prove that railways are acting responsibly. Moreover, transparency will likely lead to less of an adversarial relationship between railways and shippers, as both parties, being aware of the strength of each other's position, will be motivated to negotiate to avoid a legal proceeding and arrive at mutually beneficial results. Data transparency would provide the government a clear understanding of how the logistics supply chain is performing, where challenges exist, and what policies are needed to properly address them to the benefit of shippers and the Canadian economy as a whole.

10. CHALLENGE: Increasing Energy Costs are Reducing Competitiveness

Mineral extraction and processing operations are energy-intensive and the competitiveness of Canadian facilities is affected by the availability of energy infrastructure, especially transmission and distribution networks, and the cost of electricity and related fuel inputs. In 2011, energy was the third-highest operational expense for industry, costing $2.2 billion – a bill that continues to rise in some jurisdictions (for example, Ontario has the highest priced electricity in North America). The electricity rate is key to maximizing the value of our mineral resources, processing imported feed and positioning our processors for the recycling market.

In some important respects, energy competitiveness from an operational standpoint and the extraction of power generating commodities are directly related. Canada has abundant thermal coal, oil, gas and uranium deposits, the development of which provides employment, and social and economic development to hosts of communities, and pays significant taxes and royalties to governments. In an effort to reduce greenhouse gas emissions, jurisdictions that are more reliant on coal for baseload power generation (such as Alberta and Saskatchewan) have undertaken measured approaches to reducing their province's carbon footprints, while optimizing available resources, including significant investments in carbon capture and storage (CCS). In Alberta, a $4 billion CCS fund has been established, $1 billion of which has been deployed on two oil sands upgrader projects, and in Saskatchewan, the $1.35 billion Boundary Dam Integrated CCS project is set to come online later this year. The government of Canada has contributed to, and industry has been engaged in, all three of these projects. Such measures have been undertaken without aggressively phasing out thermal coal power generation at potentially significant economic cost. Without picking winners and losers in fuel types, governments should focus on enhancing the economic and environmental viability of all the fuel types available at our disposal.

> **RECOMMENDATION:** To ensure the long-term competitiveness and viability of existing and future mining projects, governments need to take steps to mitigate the rising price of industrial energy. Governments must take into account the economic implications for mines and plants that rely on competitively priced electricity for operations, as well as the impacts for industries that extract power generating commodities, and the communities that both support.

CONCLUSION

Minerals and metals help build the products and infrastructure essential to modern life. The mineral exploration and mining industry makes a significant annual contribution to the Canadian economy and its output is fundamental to the emergence of clean energy and other environmental technologies. The Canadian mining industry faces competitiveness challenges, both at the raw materials stage and value-added processing stage. As detailed in this paper, there are 10 priority areas that will enable Canada to transition through the current period of market volatility, and capitalize on the opportunity that lies ahead. Enhanced effort and investment on the part of Canada's Mines Ministers would contribute significantly to this end.