This is the 48th edition outlining the financial results and major trends in BC's mining industry.

Looking forward
The mining industry in British Columbia 2015

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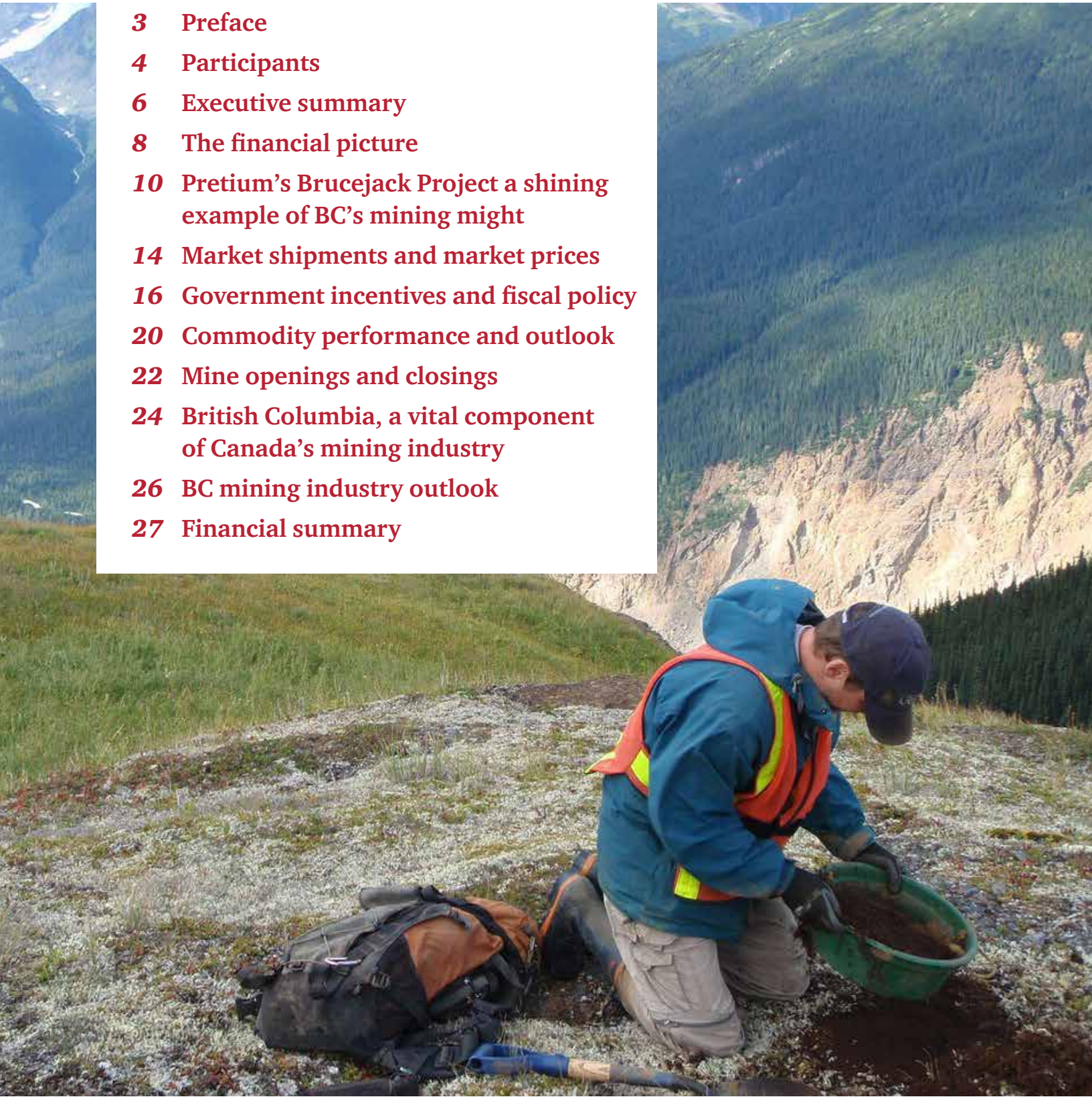


Photo courtesy of Seabridge

Cover photo, left, courtesy of Seabridge

Cover photo, right, courtesy of Pretium

Preface

PricewaterhouseCoopers LLP (PwC) is pleased to present our 48th annual British Columbia Mining Report.

The annual report outlines the financial results of BC's mining industry in 2015. It also highlights the challenges and opportunities for the sector, which is a key contributor to the BC economy as well as Canada's GDP. BC is Canada's largest exporter of metallurgical coal (used in steelmaking), one of its largest copper producers and its only producer of molybdenum. BC also produces significant amounts of gold, silver, lead, and zinc, and more than 30 industrial minerals including gypsum and limestone.

The province is known across Canada and internationally as an attractive place to invest due to its stable political climate, world-class infrastructure, highly skilled workforce and access to Asian markets through a sophisticated port system.

2015 was another difficult year for the industry, given the continued downturn in global metal and mineral prices. Commodity prices have been on a downward trend for the past five years, which has led to decreased investment in the industry worldwide. That has put pressure on the budgets and operations of mineral exploration, development and operating mining companies. A number of mines, including some in BC, have been put into care and maintenance until prices recover. Exploration and development spending has also been curtailed.

Even with the difficult market conditions, some mining companies in BC have forged ahead with new projects. In this report, you will see examples of companies that have continued to raise money and advance projects, which demonstrates the stamina of the industry in difficult times and the confidence investors have in the experienced management teams behind these operations. It also reflects the optimism that the industry will bounce back.

Despite the challenging market conditions, mining companies in BC continue to develop and maintain strong relationships with First Nations and other communities, and work closely and collaboratively with governments to ensure that their operations meet the highest environmental standards and operate with a strong social license.

BC's mining industry is also positioned to play a key role in the transition to a low-carbon economy. Metals such as copper, steelmaking coal, silver, lead and zinc are all needed to build renewable infrastructure, such as wind turbines, solar panels and electric vehicles and stations. BC is considered a global leader in climate change policy, and the mining industry is an active part of the solution.

This report represents a collection of economic indicators from BC mining companies including revenues, capital investment, expenditures, employment and total payments to government, all of which help to outline the positive impact the sector has on the provincial economy.

The results of this report are based on an in-depth survey independently prepared by PwC with the cooperation and assistance of mining companies with operations and activities across the province. This year's survey included 27 participants. They include 14 operating mines, 12 projects in the exploration or development stage and 1 smelter operation.

PwC would like to extend a special thanks to the mining companies who took part in this year's survey, and to the Mining Association of British Columbia (MABC) and the Association for Mineral Exploration BC (AME BC) for their support and insight in compiling the report.

We hope you find the information and insights in this report to be useful in demonstrating the industry's importance to BC and the rest of Canada.

Mark Platt
BC Mining Leader and Partner at PwC

Participants

Operating

Coal Mountain
Teck Resources Limited

Copper Mountain
Copper Mountain Mining Corp.

Elkview
Teck Resources Limited

Endako
Thompson Creek Metals Company

Fording River
Teck Resources Limited

Gibraltar
Taseko Mines Limited

Greenhills
Teck Resources Limited

Highland Valley Copper
Teck Resources Limited – Highland Valley Copper

Huckleberry
Huckleberry Mines Ltd.

Line Creek
Teck Resources Limited

Mount Milligan
Thompson Creek Metals Company

Mount Polley
Imperial Metals Corporation

New Afton
New Gold Inc.

Red Chris
Imperial Metals Corporation

Trail Metal Smelter Operations
Teck Resources Limited

Exploration or Development stage

Ajax
KGHM Ajax International Ltd.

Head Office – BC Exploration
Teck Resources Limited

Berg
Thompson Creek Metals Company

Blackwater
New Gold Inc.[1]

Brucejack
Pretium Resources Inc.

Galore Creek
NovaGold Resources Inc.

Kitsault
Alloycorp Mining Inc.

KSM
Seabridge Gold [1]

New Prosperity
Taseko Mines Limited

Ruddock Creek
Imperial Metals Corporation

Tulsequah Chief
Chieftan Metals Inc.

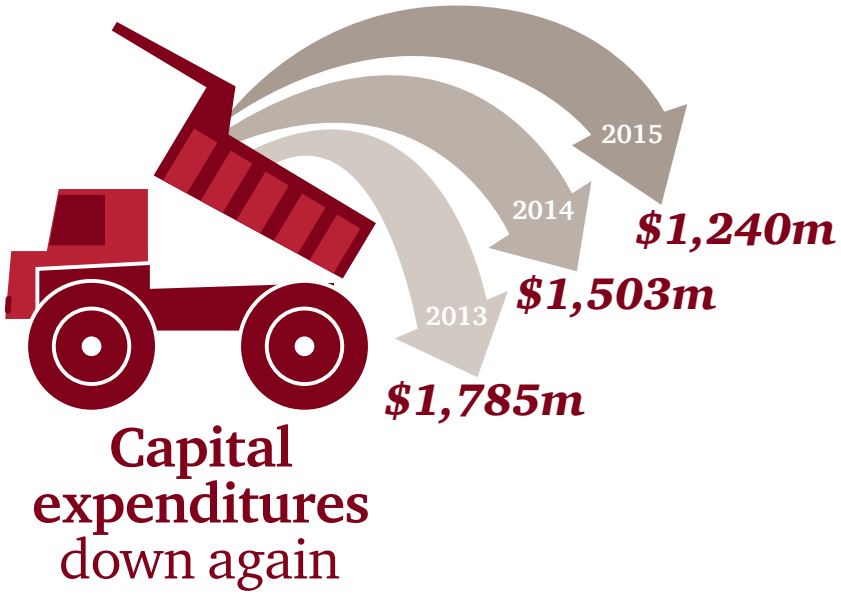
Turnagain
Hard Creek Nickel Corporation [1]

Notes

1. New participant for 2015

Participant locations in 2015

Executive summary



The current mining industry downturn is now in its fifth year. Prices of commodities produced in BC such as metallurgical coal, copper, zinc, lead, gold and silver, have dropped significantly since reaching record or near-record highs in 2011.

Still, BC's mining industry continues to prove resilient. While most mining companies have been cutting spending and curtailing operations to help withstand the current price environment, others continue to raise money and advance projects. Examples include the Brucejack Project being built by Pretium Resources and JDS Silver's Silvertip Project. There are also a handful of projects in BC working their way through the permitting process. These projects are able to move ahead thanks to the conviction shown by the companies and their investors about their strong potential. Each has also established an unwavering commitment to sustainability and stakeholder engagement with First Nations and other communities around their operations.

Low commodity prices remain the biggest threat to the industry's profitability today. Depressed prices of many metals and minerals have led to reduced revenues and margins, which in turn has meant lower overall spending and investment across the sector.

Statistical summary

($CAD millions, except where otherwise noted)

	2015	2014	2013
Gross mining revenues	7,724	8,238	8,537
Net mining revenues [1]	6,289	6,760	7,008
Net income (pre-tax)	715	288	1,387
Cash flow from operations	1,660	1,685	2,568
Payments to governments [2]	476	467	511
Exploration and development expenditures	320	234	185
Capital expenditures	1,240	1,503	1,785
Pre-tax return on shareholders' investment (%)	6	2	13
Direct employment (number of employees)	8,726	9,954	10,720
New capital raised [3]	705	1,207	221

Notes

1. Net mining revenues are reported after deduction of smelting and refining charges, freight costs, and marketing.
2. Includes direct taxes, other levies and payments related to employment.
3. Excludes capital raised by parent companies not directly related to projects in BC.

This reduction in prices and resultant drop in activity is evident in the financial results of companies in our 2015 survey of BC mining companies. Gross revenues decreased to $7.7 billion, compared to $8.2 billion in 2014. Net income before taxes came in at $715 million, compared to $288 million in 2014, in spite of a drop in prices for key metals produced in the province, particularly copper and metallurgical coal. Spending was also down in 2015, as companies continued to cut costs to wait out the market uncertainty. Capital expenditures fell to $1.2 billion, compared to $1.5 billion in 2014.

"2015 was definitely a difficult year for the industry," said Mining Association of BC president Karina Briño. "It was a year with a big focus on cost containment at every one of our BC operations."

A total of seven mines were put on care and maintenance by the end of 2015, and one more in early 2016. Briño said those mine suspensions impacted about 20% of the BC mining industry's direct workforce, not including suppliers.

"We talk about the cyclical nature of the industry. However, what I think we are seeing now is an actual correction. Prices aren't coming up the way they did in 2009," Briño said. "There is no significant rebound in sight."

Briño said that means the cost containment measures are likely to continue for the next 12 to 18 months.

"We are a resilient industry so we know we are going to get through this," she said. "Everyone is adapting to the new reality and doing everything they can to keep operations running. What has really impressed me about this industry is the ability to come together and work towards a common goal. We aren't talking about companies struggling on their own."

It was a particularly difficult year for the junior side of the industry, which relies heavily on investment to explore and develop mines of the future.

"2015 was one of the most challenging years mineral explorers have faced — not just in BC but around the world — because of the difficulty in raising capital," said AME BC president and CEO Gavin C. Dirom. "The downturn has been longer and deeper than most anyone predicted."

He said reduced expenditures hurt the future of the industry, if it means less exploration for future mine projects. While exploration expenditures in BC fell to $272 million in 2015, from about $338 million in 2014, Dirom said BC is attracting its share of investment. He said exploration investment in BC still represents about 19% of all expenditures across Canada, according to Natural Resources Canada data.

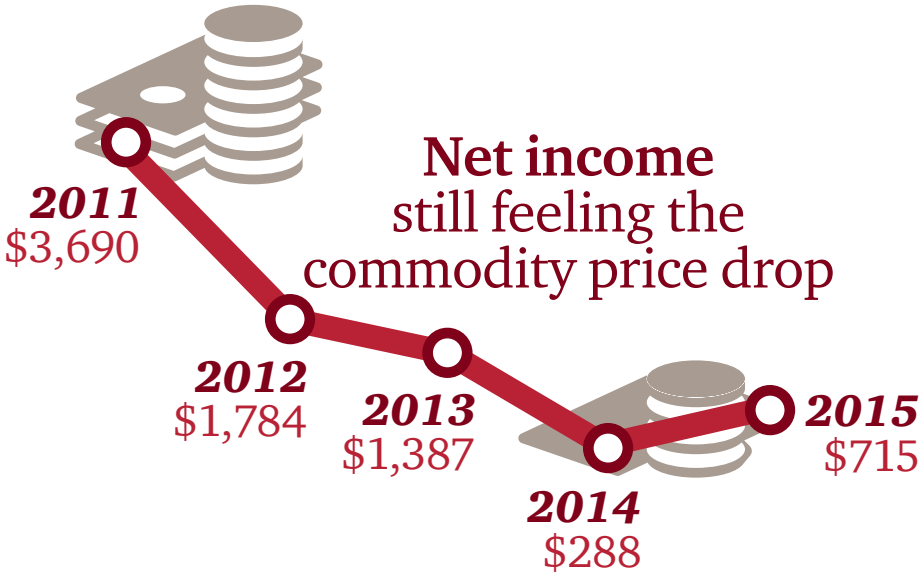
"That's good news because, even in a downturn, we are attracting proportionally more investment compared to other jurisdictions," Dirom said. "If the worst is truly behind us, and we're staying ahead of that ability to attract investment as a jurisdiction, in the future we should be better positioned to catch the next wave of investment."

The financial picture

Earnings summary

($CAD millions)

	2015	2014	2013
Gross mining revenues	7,724	8,238	8,537
Less: Deductions	1,435	1,478	1,529
Net mining revenues	6,289	6,760	7,008
Less: Operating costs and other expenses	5,693	6,513	5,643
Other income	119	41	22
Net income (pre-tax)	715	288	1,387



Below is a summary of the financial picture, based on the results of BC mining companies surveyed for 2015.

Gross mining revenue from survey participants was reported as $7.7 billion compared to $8.2 billion in 2014 and $8.5 billion in 2013. This is due to a combination of the drop in price of metallurgical coal and copper, BC's two largest revenue-generating commodities, and the closure of a number of mines in 2014 and 2015. The Brule, Wolverine and Trend mines closed in 2014 but contributed revenues during a part of that year. Additionally, Endako closed late in 2014 and Myra Falls closed in the second quarter of 2015.

Net income before taxes somewhat surprisingly increased to $715 million compared to $288 million in 2014. Both years are down significantly from $1.4 billion in 2013. The increase in 2015 reflects a combination of cost cutting measures at BC operations and the fact that the operations that have closed or gone into care and maintenance were less profitable operations.

Cash flows from operations in 2015 were consistent with 2014 at $1.7 billion and well down from $2.6 billion in 2013. Mining companies continue to struggle with cash flow due to lower prices for commodities, but cost cutting measures have clearly been effective at the continuing operations and the closure of loss making operations would also have had a positive impact on this result.

Total expenses were $5.7 billion compared to $6.5 billion in 2014 and $5.6 billion in 2013. Expenses are down due to an overall decrease in shipments, most markedly for coal shipments, a decrease in one-off costs related to mine closures and severance costs, and overall cost cutting measures at producing mines.

Capital expenditures totaled $1.2 billion compared to $1.5 billion in 2014 and $1.8 billion in 2013. The continued decline reflects the general reluctance to invest in growth projects as operations focus on necessary sustaining capital expenditures. The 2015 number was buoyed considerably by the expenditures relating to the Brucejack mine.

Exploration and development expenditures by participants rose to $320 million compared to $234 million in 2014. That compares to $185 million in 2013. Pretium's Brucejack mine was a significant driver of exploration and development expenditures in 2015.

Total payments to government at $476 million was consistent with $467 million in 2014 and a slight reduction from $511 million in 2013. Lower commodity prices lead to lower revenues for miners, which in turn impact the amount of money paid to governments through taxes and royalties. Although more mines have been closing than opening in 2014 and 2015, and revenues have fallen 6% year on year, net income before taxes increased significantly in 2015 from 2014 as shown above. The net impact of the closures of loss making mines on total payments to government has not been significant in 2015.

The amount of **new capital** raised by survey participants of $705 million was a significant reduction from the $1.2 billion raised in 2014. Funding in 2015 related largely to Brucejack, Alloycorp's Avanti Kitsault project, KGHM's Ajax project and Seabridge's KSM project, while 2014 funding related primarily to the Red Chris mine and Brucejack. In 2013, new capital raised came in at $211 million.

Return on shareholder investment improved to 6.3% compared to 2.4% in 2014. That compared with 12.7% in 2013 and 22.8% in 2012. The lower returns are the result of the continued downturn in the sector, which has led to a tough investment climate for mining companies. However, 2015 shows a somewhat unexpected increase from 2014 which is partly driven by the closure of loss making operations in 2014 and 2015.

Labour overview: The number of people working in direct jobs in BC's mining industry totaled 8,726 in 2015. That compared to 9,954 in 2014, which was down from 10,720 in 2013. Mines continued to reduce headcount in 2015 to help manage costs. The decline is also the result of a handful of mines either closing or going into care and maintenance during 2014 and 2015.

Direct employment

Number of mining employees in BC

Pretium's Brucejack Project a shining example of BC's mining might

It's not all doom and gloom in the mining industry today. While many companies are appropriately scaling back production and costs to sustain their businesses during the downturn, some are raising money and forging ahead with projects, preparing for the future when metal prices recover.

Robert Quartermain
Chairman and CEO
Pretium Resources Inc.

An example is Vancouver-based Pretium Resources, which is building the US$700 million Brucejack Gold Project located in northwestern BC. The project is fully permitted and fully funded. Construction started last fall and remains on-schedule and on-budget for commissioning of the underground mine in mid-2017.

"2015 was a transformational year for Pretium and the Brucejack Project," said Robert Quartermain, Pretium's Chairman and CEO. "We went from being an exploration company to going to construction and by the middle of 2017 will be in production … That's pretty incredible."

The primary focus of the Brucejack Project is the Valley of the Kings deposit, which is comprised of high-grade visible gold within a lower grade gold quartz stockwork system. A feasibility study completed in June 2014 outlined Proven and Probable mineral reserves in the Valley of the Kings of 6.9 million ounces of gold (13.6 million tonnes grading 15.7 grams per tonne gold).

A number of factors helped to propel the Brucejack Project forward, including Pretium's strong relationships with local First Nations, ongoing consultation with Federal and Provincial governments and the ability to attract key investors to back the company and its high-grade gold project.

Fully funded project

Funding came through two main financings: In September 2015, Pretium raised US$540 million with the Orion Mine Finance Group and Blackstone Tactical Opportunities. The financing included a credit facility for US$350 million, a US$150 million prepayment under a callable gold and silver stream agreement and a private placement of Pretium common shares for US$40 million. Early in 2016, Pretium was able to raise another US$146 million in equity to fund most of the rest of the project.

It's an impressive result given the difficulties miners have had raising money during the ongoing market downturn.

"This market has been challenging for many in the business, but I think it speaks to the quality of the project and the fact that you can get things permitted here in BC, which enabled us to go out and, in a six-month period, access more than US$700 million to build the project," Quartermain said.

Pretium's largest shareholder is Silver Standard Resources, with nearly a 10 per cent stake in the company. Pretium purchased the Brucejack Project from Vancouver-based Silver Standard. Other major investors include China's Zijin Mining Group, which made a strategic investment in the company in 2014, as well as a number of large investment funds.

Quartermain said Pretium's work getting the project permitted, both federally and provincially, helped to increase investor confidence. They were assured by the company's well-established relationships with local First Nations and buy-in from the local community.

Photo courtesy of Pretium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Community development

Brucejack, which is located approximately 65 kilometers north of Stewart, will benefit communities of northern British Columbia during the construction phase of the mine, as well as during its estimated 18-year-mine life.

During the construction phase, Brucejack will employ more than 900 workers. When the mine starts production in 2017, it will employ about 500 people, with an emphasis on hiring from the surrounding area.

In April 2015, Pretium and the Nisga'a Nation announced a comprehensive Cooperation and Benefits Agreement that provides the First Nation with employment and contract opportunities.

Under the terms of the agreement, the Nisga'a Nation will provide ongoing support for the development and operation of Brucejack as a safe, environmentally sound mine with participation in its economic benefits, and Pretium will honour commitments to the Nisga'a Nation regarding jobs and contracting opportunities at the project, as well as providing education and training and making certain financial payments.

The company has signed commercial agreements with Tsetsaut Ventures Ltd. of the Tsetsaut Skii km Lax Ha, who have asserted rights in the area. Tsetsaut Ventures offers mine construction and production services, supplying everything from trucks, excavators and earthmovers to cooks and geotechnicians.

Quartermain said the company is also working with other area First Nations to build capacity to participate.

While some companies may view working with First Nations as a challenge, Quartermain views these relationships as mutually beneficial. He believes First Nations communities are important partners in successfully advancing project development, and that mining companies can always learn from their local knowledge and expertise.

"We are very pleased with the relationships we've been able to establish with the First Nations in and around the area," Quartermain said. "We look forward to that continuing for the long term."

Photo courtesy of Pretium

Market shipments and market prices

Net mining revenue was $6.3 billion, compared to $6.8 billion in 2014. Lower metallurgical coal and copper prices adversely impacted total revenues as did a number of mines closing or going into care and maintenance in 2014 and 2015.

Below is a breakdown by commodity:

Metallurgical coal revenue fell to $2.0 billion compared to $2.2 billion in 2014 and $3.1 billion in 2013. The price of coal averaged US$101/tonne in 2015 compared to US$126/tonne in 2014 and US$160/tonne in 2013. Shipments for metallurgical coal fell to 24.4 million tonnes compared to 26.3 million tonnes in 2014 and 28.1 million tonnes in 2013. The decrease is largely due to the closures of the Brule, Wolverine and Trend mines in 2014.

Copper concentrates revenue totaled $2.0 billion in 2015, down 10% from $2.2 billion in 2014 and compared to $1.7 billion in 2013. Shipments of concentrate increased to 1,025,000 tonnes from 997,000 tonnes in 2014. That compared to 844,000 tonnes in 2013. The price of copper averaged US$2.50/lb in 2015, compared to US$3.12/lb in 2014 and US$3.32/ lb in 2013.

Zinc revenue rose to $818 million in 2015 from $711 million in 2014. In 2013, revenues were $628 million. Shipments increased to 308,000 tonnes compared to 304,000 tonnes in 2014 and 322,000 tonnes in 2013, with the increase attributable to production from the Trail smelter, offset by the closure of the Myra Falls mine in 2015. Zinc prices averaged US$0.87/lb in 2015, down from US$0.98/lb in 2014 and consistent with $0.87/lb in 2013.

Lead revenue was $141 million in 2015, compared to $162 million in 2014. That compared to $189 million in 2013. Lead shipments in 2015 were consistent with 2014 at 82,000 tonnes compared to 88,000 tonnes in 2013. The average price of lead in 2015 was US$0.81/lb, down from US$0.95/ lb in 2014 and US$0.97/lb in 2013.

Molybdenum revenue dropped significantly to $51 million in 2015. That compared to $256 million in 2014 and $150 million in 2013. The reduction in revenue in 2015 was significantly impacted by the Endako mine entering care and maintenance in late 2014. The price of molybdenum averaged US$6.56/lb in 2015, a sharp drop from $11.35/lb in 2014. In 2013, the average price was $10.42/lb.

Photo courtesy of Seabridge

Gold revenues increased to $519 million in 2015. That's compared to $461 million in 2014 and $304 million in 2013. The increased revenues are in spite of a lower average price for the year and are largely driven by the gold production from the Red Chris mine, which came on stream during early 2015, and ramp up of production at Mount Milligan in 2015, as commercial production commenced in mid-2014. The lower Canadian dollar, in comparison to the US currency, was also a factor given that gold is priced in US dollars. For BC mines, gold is a by-product that is primarily derived from copper mining activities. The price of gold averaged US$1,160/oz in 2015, down from US$1,266/oz in 2014 and US$1,411/oz in 2013.

Silver revenue also performed relatively strongly, coming in at $535 million compared to $487 million in 2014 and $626 million in 2013. The Trail smelter accounts for almost all of the increase in revenues in 2015 compared to 2014. The average price of silver was US$15.71/oz in 2015, down from US$19.07/oz in 2014 and US$23.79 in 2013. In BC, silver is generally produced as a by-product of metals such as copper, gold, lead, and zinc.

Market prices

Photo courtesy of Pretium

Government incentives and fiscal policy

A stable and supportive federal and provincial tax regime is key for BC's mining industry, to help encourage long term investment especially given the current downturn in the sector and the challenge faced by many companies in raising capital.

There are both federal and provincial tax incentives in place to attract and retain investors to the sector across BC and Canada. As a further commitment of government support, the federal government and BC government have recently extended some of these tax incentive programs. In the 2016 Federal Budget the government committed $87.2 million for Natural Resources Canada initiatives across Canada, a portion of which will be used to support mining and metals research.

In March 2016, the federal government extended the Mineral Exploration Tax Credit (METC) through March 2017. The METC is a measure designed to encourage junior mining companies to raise new equity through flow-through shares to finance early stage grassroots exploration.

Diane Nicolson, Chair of AME BC, says that this vital credit provides direct and immediate assistance to the development and exploration sector.

"Given the protracted downturn and challenges to raising venture capital, the METC is an especially important incentive to attract investors to participate in the financing of mineral exploration activities," Nicolson said. "Its renewal will encourage more grassroots exploration work, which is critical to the search for new deposits and the development of new mines in the province. This tax credit benefits both the companies and the regions where exploration dollars are spent."

A taxpayer claiming the METC can also claim the 100% Canadian Exploration Expenses (CEE) deduction, which applies for both federal and provincial/ territorial income tax purposes. After February 2015, the federal government has also extended the eligibility of CEE to include environmental studies and community consultation expenses incurred as a pre-condition to obtaining an exploration license or permit. This is another positive development.

Gavin C. Dirom, President and CEO of AME BC said engagement with project stakeholders and environmental planning and management are "key components of mineral exploration and development programs, so expenses related to these important activities should be considered CEE-eligible."

The BC government also said in its 2016 BC Budget that is will extend its BC mining flow-through share tax credit through December 31, 2016. In BC, when the federal 15 per cent METC for investors is harmonized with the 20 per cent mining flow-through share tax credit, investors can receive a combined effective 32 per cent tax credit.

In addition, taxpayers who conduct grassroots exploration in BC continue to be eligible for a refundable income tax credit of 20% (30% in pine beetle-affected areas) for qualifying expenditures.

Miners developing new projects or expanding existing ones in BC are also getting some encouragement through tax breaks extended until the end of the decade. In its 2015 budget, the BC government extended the new mine allowance for BC mining tax purposes for four years, until December 31, 2019. It allows companies to claim an additional allowance equal to one-third of the capital cost incurred during development of the new mine or eligible expansion project.

In February 2016, the BC Government announced a five-year electricity power rate deferral program for BC mines in recognition of the difficult times the industry is facing. This deferral program, which was put in place to help the province's mining industry during the weak economic environment, allows qualifying mines to defer up to 75% of their electricity costs based on a sliding scale of metal prices. Interest charges are applied to the deferred amounts, starting at 8% p.a. At today's copper price, the maximum deferral of 75% will apply. Recently both Copper Mountain Mining and Taseko Mines announced that agreements had been reached with the provincial government in this regard.

Another positive aspect of government policy related to taxation involves how government works to support innovation in the industry. One such example involves the Scientific Research and Experimental Development (SR&ED) tax incentive program. The mining industry is not always thought of as a source of innovation funding because mining is not always seen as advancing technology. However, the SR&ED program supports all types of industries equally, including the mining industry, so long as you are working towards achieving advancements in technology in a systematic way when you are attempting those advancements in the absence of existing knowledge on whatever the topic at hand might be. And there are a lot of topics that matter.

"The SR&ED program contains an exclusion for 'mineral exploration' which sometimes causes some miners to discount the potential benefits of the program, when in actual fact, many activities involving the development of processes and product quality can qualify since they have the purpose of technological advancement," said Ted Bell, Partner and PwC's National Leader for Scientific Research and Experimental Development and other Tax Incentives.

"For example, a mining company could be working on ways to improve the efficiency of fragmentation during blasting in an open-pit mining situation. Such situations typically give rise to eligible work under the SR&ED program. There are also advances in remote sensing that are better defining ore bodies and increasing the efficiency of the overall mining effort as a result, as well as advances in the visualization and logistics of moving ore and overburden in more efficient ways. There are even advances in technology that are making mining safer for those who have to go underground. All of these areas where mining companies are breaking new ground and pushing technology forward can have aspects of eligible SR&ED associated with them."

The benefits can be substantial. For Canadian Controlled Private Corporations (CCPCs) up to a certain size in BC, the federal government provides a 35% refundable credit against eligible expenditures. The province kicks in an additional refundable 10% for a total potential benefit of 42.5% of every eligible dollar spent. For larger CCPCs and non-CCPCs, the Federal credit is a non-refundable 15% and the province adds a non-refundable 10% for a total effective income tax credit (ITC) of 23.5%. These ITCs can be carried back 3 years or forward 20 years, which gives rise to useful tax-planning opportunities.

When it comes to areas where the mining industry is less enthused about government policy, the repeal of the harmonized sales tax (HST), the reimplementation of provincial sales tax (PST) and Carbon tax in BC continues to be issues for BC mining companies from a cost perspective.

The return to a separate PST and goods and services tax (GST) system has increased both administrative costs and operating costs due to the application of non-recoverable PST on purchases of taxable tangible property (including electricity and natural gas consumed in mining operations), taxable services and software. When the HST regime was in place, mining companies were eligible to recover HST paid on most purchases of property and services relating to their mining

operations. With the current GST and PST regime, mining companies remain eligible to recover the 5% GST portion while any PST payable remains a cost of doing business in BC (subject to various exemptions available for the mining industry). This added cost has made BC less competitive than other provinces where HST exists and where costs can be recovered via input tax credits. In addition to the increased cost associated with the repeal of HST, some taxpayers have had additional PST imposed as a result of PST tax audit activity in the province.

BC continues to be a leader in climate action by having a carbon tax. The carbon tax was implemented on July 1, 2008, and the final scheduled increase took effect on July 1, 2012 and continues to date. At the current price of $30/tonne of CO2 emissions, BC's carbon tax puts the BC mining industry at a distinct competitive disadvantage to other jurisdictions that do not have similar policies in place.

"While the carbon tax is promoted in BC as being revenue-neutral, it is not revenue neutral for the mining industry," said Mining Association of BC president Karina Briño. "Mining companies pay millions of dollars in carbon tax, with none of this revenue currently being reinvested in technologies and programs to help them reduce emissions at their BC operations. As such, the carbon tax has effectively become an additional tax cost on their production."

Briño added: "While the mining industry is generally supportive of effective government measures to achieve emissions reductions, mechanisms to facilitate growth and mitigate international competitiveness disadvantages are needed to ensure that while BC is a leader in climate change policy, it also remains an attractive and competitive jurisdiction for mining."

BC is known across Canada and internationally as an attractive place to do business, due in part to the government policies put in place to help support the industry. Still, there are some policies the industry believes need to be amended or adjusted to help improve BC's status.

The industry sees this as more important than ever before as it struggles through the prolonged downturn in commodity prices. Overall, the industry is trying to position itself as a good place to invest, particularly as metal prices begin to recover and more money is expected to flow back into the industry. BC is also in a good position to capitalize on the anticipated increase in demand for metals to help the world transition to a low-carbon economy.

Photo courtesy of Pretium

Gavin Dirom
President and CEO
Association for Mineral
Exploration in BC

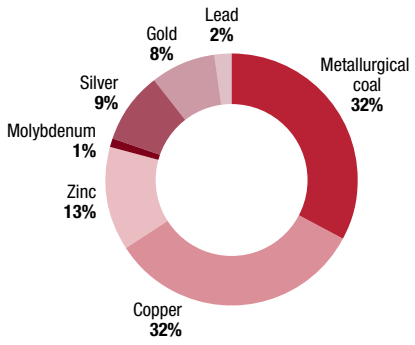
Commodity performance and outlook

The average prices of the key mining commodities produced in BC fell in 2015 compared to a year earlier, and are down significantly from record or near-record highs five years ago. The previous record highs aligned with a time when China's demand for metals was stronger, which drove double-digit growth in its rapidly expanding economy. Since then, China's economy has slowed to 6.7% as of the first quarter of 2016 and its government is forecasting full-year growth of 6.5-to-7% in 2016. The country is shifting its focus away from a reliance on building new infrastructure and towards consumption and services.

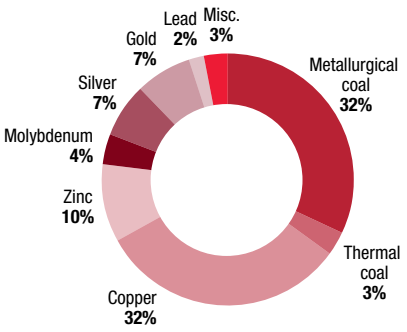
Copper, BC's second-largest commodity by revenues, saw the biggest slide in 2015. The price of copper averaged US$2.50/lb in 2015, compared to US$3.12/lb in 2014. That compares to early 2011, when copper traded at a record of just over US$4.60 per pound. CIBC World Markets is forecasting the price of copper to average US$2.15/lb in 2017, US$2.30 in 2017 and US$2.53 in 2018. A return to copper prices above US$3.00/lb is not in the long-term forecast.

Metal	Spot price at March 31, 2016	2016 Analyst consensus estimate at April 4, 2016
Gold ($/oz)	1,233	1,163
Silver ($/oz)	15.44	15.40
Zinc ($/lb)	0.82	0.80
Lead ($/lb)	0.77	0.79
Copper ($/lb)	2.21	2.16

Net revenue by product **2015**



Net revenue by product **2014**



Metallurgical coal prices were hovering around US$84 per tonne as of the spring of 2016. The price of metallurgical coal has been on a downward slide since reaching a record of around US$330 per tonne in 2011, which is when major flooding in Australia created supply shortages. Since then, a slowdown in Chinese steel production has decreased demand for the steelmaking ingredient. The quarterly contract price for premium hard coking coal (FOB Vancouver), which is key for companies such as Vancouver-based Teck Resources, increased to US$84/tonne in the second quarter of 2016, compared to US$81/tonne in the first quarter, according to the Scotiabank Commodity Price Index released in late March 2016. It said stronger spot prices in Asia were behind the small increase. The spot price has risen as of late April 2016 to about US$100/tonne.

Gold was trading around US$1,270/oz in the spring of 2016, above its average price of US$1,159/oz in 2015. That price remains well below its average of US$1,668/oz in 2012, and the record price of US$1,900/oz reached in 2011. CIBC World Markets is forecasting the price of gold to average US$1,163/oz in 2016, then increase slightly to US$1,192/oz in 2017 and US$1,205/oz in 2018. The metal, considered a safe haven for investors in times of uncertainty, continues to be weak in the face of a strengthening US dollar. Some investors are becoming more bullish on the price of gold given concerns about the pace of economic growth in the U.S. and concerns about the fragile economies in a number of countries across Europe.

The price of silver reached over US$17/oz in the April 2016. The average price of silver was US$15.71/oz in 2015 and has fallen steadily from its average of US$19.07/oz in 2014 and US$23.79 in 2013. The price isn't expected to rebound significantly in the years ahead, according to CIBC World Markets. It forecasts silver to average US$15.40/oz in 2016, US$15.99/oz in 2017 and US$16.42oz/ in 2018. Those prices are still about half of where silver was trading in 2011, when it averaged US$35.12/oz, a record high.

Zinc is the one bright spot in the future metals picture, in relative terms. Zinc prices averaged US$0.87/lb in 2015, down from US$0.98/lb. CIBC World Markets is forecasting zinc to average US$0.80/lb in 2016, but then increase steadily to US$0.92 in 2017 and US$1.02 in 2018. Scotiabank is forecasting global zinc demand to climb by about 3.6% in 2016, up from only 1.5% in 2015, citing a drop in supply and increased demand. For example, Scotiabank said strong world auto sales and production, strength in infrastructure spending in China and India and a recovery in European construction activity will boost demand. At the same time, mine production is expected to drop by 3% in 2016 due to production cuts in countries such as Australia, Peru and Kazakhstan, which are expected to offset expansion in other countries. Scotiabank is forecasting much stronger average zinc prices of US$1.25/lb in 2017 and US$1.55/lb in 2018.

In fact, Scotiabank is expecting 2016 to be a "transition year," for many commodities and notes investors are starting to pay attention to the sector more closely. Still, 2016 is expected to be another volatile year for mining and for metal prices.

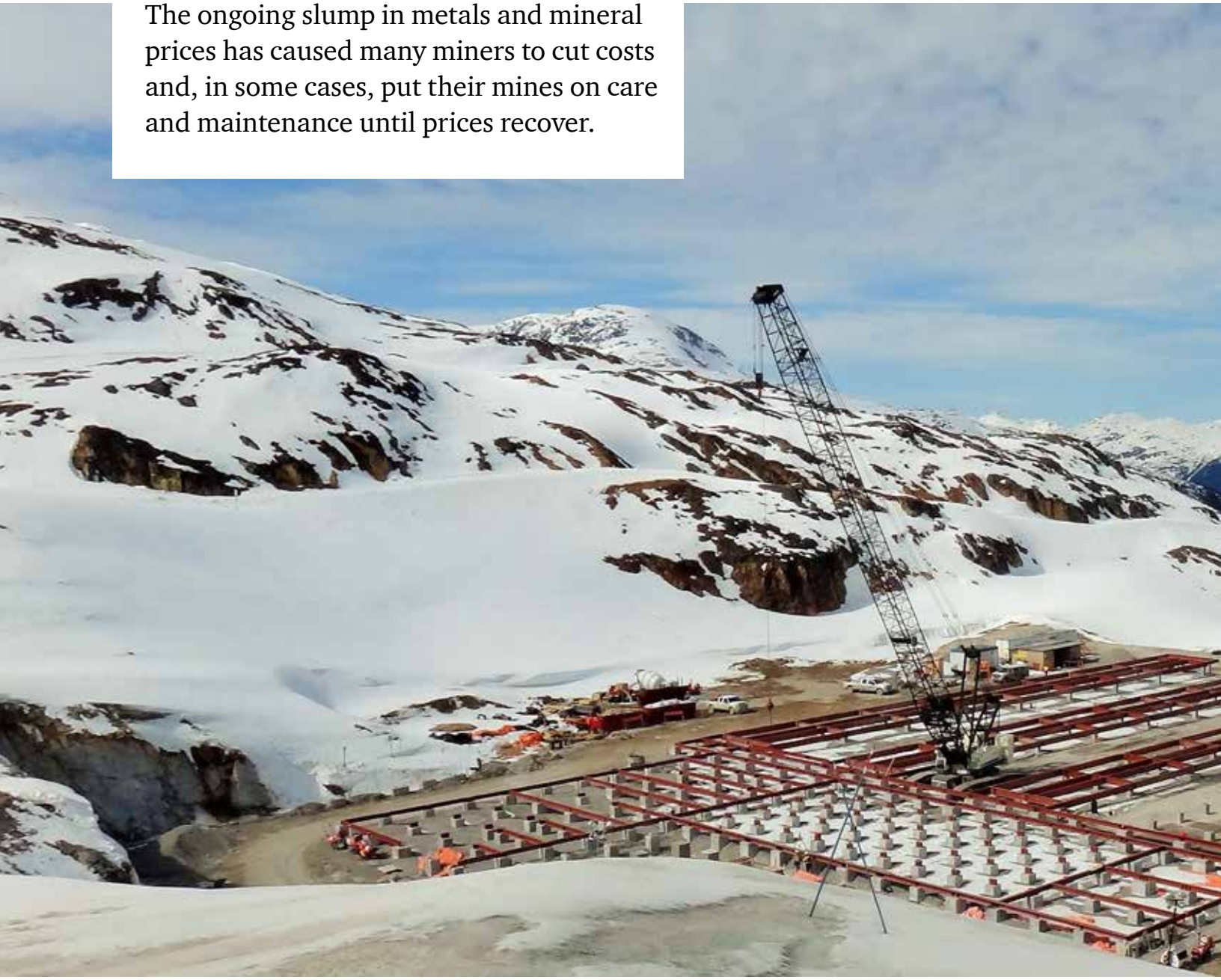
AME BC president and CEO Gavin C. Dirom said 2016 could be a "year of opportunity," for mineral exploration, development and mining companies.

"We are hopeful that the worst is behind us and the year ahead will be a lot more successful," Dirom.

Photo courtesy of Pretium

Mine openings and closings

The ongoing slump in metals and mineral prices has caused many miners to cut costs and, in some cases, put their mines on care and maintenance until prices recover.



In 2015, 11 metal mines operated during at least part of the year and coal was produced at five large open pit operations in south-eastern BC, as well as one underground mine on Vancouver Island, according to the BC Ministry of Energy and Mines. It said about 30 industrial mineral mines and more than 1,000 aggregate mines/quarries were in operation. At the start of 2016, mine closures reduced the number of operating metal mines to seven and operating coal mines to five.

In August 2015, the Mount Polley mine, owned by Imperial Metals, resumed operations after a one-year shutdown due to a tailings pond dam breach in 2014.

In June, Nystar N.V.'s Myra Falls base metal mine suspended operations as did Barkerville Gold Mines's Bonanza Ledge mine. In July, Banks Island Gold Ltd.'s, Yellow Giant gold mine was shut down due to regulatory compliance issues.

In January 2016, the Huckleberry Mine, which is 50%-owned by Imperial Metals, said it was suspending operations by the end of August 2016, citing low copper prices and despite some success in reducing operating costs at the mine.

In January 2016, Hillsborough Resources said it was suspending operations indefinitely at its Quinsam coal mine on Vancouver Island, citing a "prolonged and steep decline in thermal coal prices, changes in market demand and policy disincentives". Quinsam is Hillborough's only operating mine.

Still, a number of new mines have opened in recent years, even in the face of the challenging market conditions. They include Copper Mountain in 2011, New Gold's New Afton copper and gold mine in 2012, and the Mt. Milligan copper and gold mine, owned by Thompson Creek Metals, in 2013. Additionally, Imperial Metal's Red Chris copper-gold mine began production in early 2015. Red Chris shipped its first load of concentrate to Asia in April 2015.

There are also two mines that are fully permitted and now entering the construction phase; Pretium Resources' Brucejack Project and JDS Silver's Silvertip Project.

There are also a handful of mines that are moving closer to the construction phase including Seabridge Gold's KSM project, New Gold's Blackwater Project, KGHM International's Ajax Project and HD Mining's Murray River Project, to name a few. AuRico Metals announced in April 2016 that the Environmental Assessment Certificate application for its Kemess Underground Project has been screened and formally accepted for review by the B.C. Environmental Assessment Office.

Market pricing will help to determine how quickly these projects are advanced, but they are evidence of how the BC industry is working through the current economic volatility and preparing for the future.

Photo courtesy of Pretium

British Columbia, a vital component of Canada's mining industry

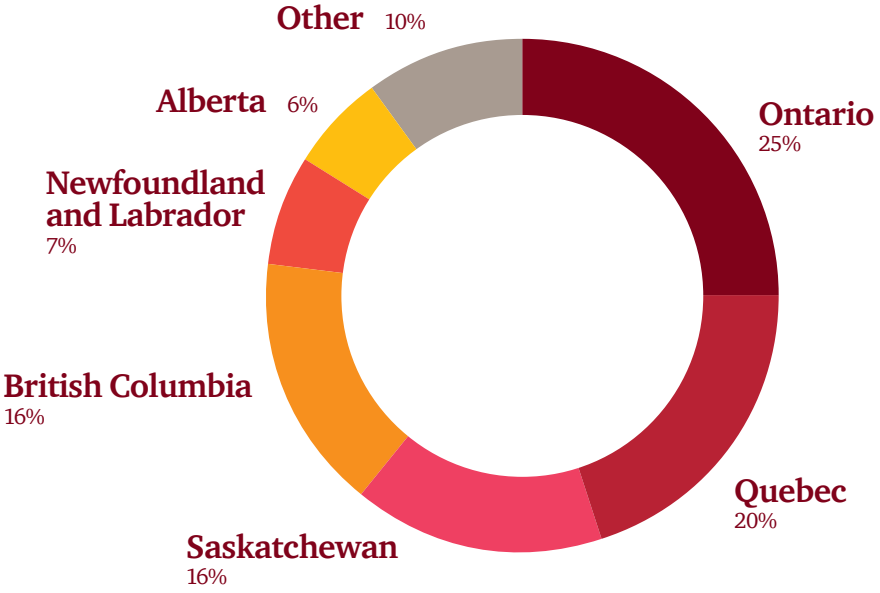
As we reflect on the performance of the BC mining industry, it is worthwhile considering how significant BC's contribution is to the Canadian mining industry.

By far the largest mining producers of all of the provinces and territories are Ontario, Quebec, Saskatchewan and BC, in that order of magnitude. In 2014, the Mining Association of Canada calculated that these four provinces made up 75% of Canadian mineral production. This is based on a total value of mineral production of almost $45 billion in 2014.

Saskatchewan is known as a producer of potash and uranium while BC is the largest Canadian producer of metallurgical coal and copper. Quebec is famous for its gold mines and is also an important producer of zinc and iron ore. Ontario is also a gold powerhouse and a billion dollar plus per annum producer of nickel and copper.

As you can see from the table below, Ontario topped the table in 2014 at 25% of Canadian mineral production by value, followed by Quebec at 20% and then Saskatchewan and BC with both around 16% of the total.

Value of Canadian mineral production



Source: The Mining Association of Canada – Facts and Figures 2015

In terms of mining industry expenditures, BC ranked fourth in mine complex development in 2014 ($927 million) behind Saskatchewan ($4.2 billion), Quebec ($2.2 billion) and Ontario ($1.3 billion). BC represented approximately 10% of Canadian expenditures in this area for 2014.

For exploration and evaluation expenditures, BC was second ($410 million) behind Ontario ($506 million). Quebec and Saskatchewan contributed $272 million and $230 million respectively. BC accounted for a healthy 21% of total Canadian expenditures on exploration and evaluation in 2014.

As far as being an attractive location from an investment perspective, Saskatchewan topped the Canadian investment attractiveness ratings in the Fraser Institute 2015 mining industry study. It came in second out of 109 locations, with Quebec 8th, Ontario 15th and BC a respectable 18th. In 2014, BC ranked 29th out of 122 mining jurisdictions.

As can be seen from the significant amounts of mine complex development and exploration and evaluation expenditures being incurred, and from the Fraser Institute rankings, BC still has lots to offer in the way of mining investment opportunities.

It is clear from the above that BC is a vital cog in the mechanism of the Canadian mining industry. With a healthy pipeline of potential mines waiting in the wings for the right moment to move forward, or already moving forward in the case of Pretium's Brucejack project, BC looks sure to continue to be a major contributor to the Canadian mining industry in the years to come.

Photo courtesy of Pretium

BC mining industry outlook

BC's mining industry continues to struggle through the prolonged downturn in metals and mineral prices. There is some optimism that the worst is over, spurred by a recent uplift in gold and silver prices, but BC miners remain hunkered down, hoping for the best, but planning for challenging times to continue.

While investment and output are down, the sector has been working on initiatives to help ease the pressure on the industry overall. For example, a program was announced by the BC government in early 2016 to allow 13 operating mines to defer up to 75% of their power bills for two years.

This and other initiatives underscore the importance of collaboration with a goal to protect jobs in communities across the province.

"The commitment of the operators to come together and come up with a broad industry approach to deal with the economic situation that is affecting every community has been great to see," said Mining Association of BC president Karina Briño.

She said the focus for the future would be maintaining BC competitiveness compared to other jurisdictions not just across Canada, but also around the world. Briño said all stakeholders in the province need to work together to ensure BC remains an attractive place to invest.

"BC is a great mining jurisdiction today, and we don't want to lose that position, or risk being in a position where it's not economically viable for others to do business here," Briño said.

"We need to be able to provide the necessary tools for proponents and investors to be excited about BC. Our competitiveness is paramount for the sustainability of the sector long-term."

From our perspective, BC's industry has done an admirable job of withstanding the prolonged downturn in the mining cycle. While a number of tough decisions have been made to weather the storm, BC miners continue to prove resilient. At the same time, the industry remains committed to working closely with stakeholders, including First Nations and other communities, governments and investors, to meet society's needs for minerals and metals in a socially, economically and environmentally responsible way.

Karina Briño
President and CEO
Mining Association of British Columbia

Financial summary

Five-year financial summary

($CAD millions, except where otherwise noted)

	2015	2014	2013	2012	2011
Gross mining revenues	$ 7,724	$ 8,238	$ 8,537	$ 9,157	$ 9,886
Net mining revenues [1]	6,289	6,760	7,008	7,844	8,747
Net income (pre-tax)	715	288	1,387	1,784	3,690
Cash flow from operations	1,660	1,685	2,568	2,230	4,013
Total assets	17,826	18,200	17,568	13,933	13,059
Pre-tax return on shareholders' investment (%)	6.3	2.4	13.0	22.8	46.0
Direct employment (number of employees)	8,726	9,954	10,720	10,419	9,310
Payments to governments [2]	476	467	511	504	674
Exploration and development expenditures	320	234	185	305	463
Capital expenditures	1,240	1,503	1,785	2,746	2,943

Notes

1. Net mining revenues are reported after deduction of smelting and refining charges, freight costs, and marketing.
2. Includes direct taxes, other levies and payments related to employment.

Photo courtesy of Pretium

In recognition of the contribution of the Britannia Mine Museum

Since 1904 Britannia has been known as a Mining Town

Now, it is an award-winning Museum and National Historic Site

NATIONAL HISTORIC SITE

BRITANNIA MINE MUSEUM

In 1904 the Britannia Mine was initiated after the area was discovered to be rich in copper. Even with no road or train access, the mine grew to be one of the largest copper mines in the British Empire and an economic backbone of BC.

In 2005 the EPCOR Water Treatment Plant came into operation to manage Britannia mine's acid rock drainage and ensure clean water. This was the starting point for the Museum to expand and transform the site to an international tourist destination.

Revitalized in 2010 with a $14.7 million redevelopment, the Museum commemorates the accomplishments and ingenuity of Canada's mining pioneers and showcases the evolution of the mining industry, its advances and achievements. It highlights Canadian innovation and leadership in sustainable mining and resource development and environmental stewardship.

The Museum's engaging exhibits, special events and tours of the impressive 1921 Mill Building plus a mine tunnel gives 70,000 visitors a glimpse into what it takes to mine copper ore. Visitors leave with an increased appreciation in how modern mining contributes to our daily lives.

Junior Mine 2015

The junior mining sector remains caught in the midst of an unparalleled downturn. Equity and debt markets have dried up and cash reserves are reaching new lows. Waiting is no longer a viable strategy: junior miners need to take urgent action now, before crisis hits, and do whatever it takes to find the cash to keep their businesses and projects moving forward.

www.pwc.com/ca/juniormine

Mine 2015

PwC's 12th annual review of global trends in the mining industry. This analysis is based on the financial performance and position of the global mining industry as represented by the Top 40 mining companies by market capitalization.

www.pwc.com/mine

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The annual PwC BC Mining Industry Survey for 2015 is available at **www.pwc.com/ca/bcminingsurvey** and on the MABC website at **www.mining.bc.ca**

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www.pwc.com/ca/mining