



# ESG: Resilience and opportunity in uncertain times

The mining industry  
in British Columbia 2019





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# Preface

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**Mark Patterson**  
BC Mining Leader,  
PwC Canada

In our annual [CEO Survey](#) this year, we surveyed business leaders on sustainability, one of the key aspects of environmental, social and governance (ESG) factors. The survey offered clear evidence of the extent to which executives are prioritizing ESG factors.

This includes global mining and metals executives, 57% of whom are concerned about climate change and environmental damage. And while they're aware of the risks and challenges climate change presents, a very large majority (88%) agreed their stakeholders have reasonable expectations about their approach to climate change. They also recognize the opportunities addressing climate change can present, with 72% saying their responses will give them a reputational advantage with key stakeholders.

Environmental sustainability is but one aspect of ESG factors, which are the key theme of this year's British Columbia mining report. The issue is even more relevant in light of the COVID-19 pandemic, which has brought attention to issues—such as health and safety, community engagement and environmental impacts—that will only rise in importance in the future. The crisis has led to particularly strong interest in social factors, such as business ethics and labour treatment, as a key aspect of ESG integration.

As we work through the crisis towards an eventual recovery, companies and industries with a strong ESG commitment and track record stand to perform better and have an advantage in attracting capital. As ESG metrics become leading guideposts for investment, BC mining companies are in a good position to build on their successes so far by further embedding resilience into

their business models. Fortunately, we already have the tools to increase trust and provide markets and investors with greater confidence that BC mining companies are delivering on ESG commitments. Reporting on the areas that really matter to stakeholders, whether they be investors, customers, employees, governments or the community at large, is critical to telling the industry's ESG story.

This report offers four different perspectives on ESG and the mining sector<sup>1</sup>: Michael Goehring, President and CEO of the Mining Association of British Columbia (MABC), talks about the state of the BC mining industry; Kevin D'Souza, Vice President of Sustainability and Environment at Centerra Gold Inc., offers a BC mining operator perspective; Robert (RJ) Johnston, Managing Director, Energy, Climate and Resources at Eurasia Group, provides a global geopolitical view; and Dan O'Brien, a partner with PwC Canada who leads the sustainable business solutions practice in Western Canada, brings a unique perspective on ESG standards and reporting. Each industry expert discusses how British Columbia has performed to date and where the industry can make improvements in the future.

It has certainly been an interesting period for the BC mining industry. Last year started strong, as prices of key commodities produced in the province, such as coal and copper, held relatively steady, while gold continued its upward trajectory. Prices of industrial metals and minerals started to fall towards the end of the year due to expectations of slowing global economic growth. The economic impact of COVID-19 led to further price declines in the first part

of 2020, while gold continued to climb amid global market uncertainty.

There were a handful of positive developments in the BC industry in 2019, such as the closing of Newcrest Mining Ltd.'s deal to acquire 70% of Imperial Metals Corp.'s Red Chris copper and gold mine. New Gold Inc. also received an environmental assessment certificate for its Blackwater gold mine.

Also in 2019, the BC government made permanent the mining flow-through share tax credit and the BC mining exploration tax credit—changes the industry had been requesting for several years. The BC government also increased investments in the Ministry of Energy, Mines and Petroleum Resources, as well as the Regional Mining Alliance, to help promote mining in the province. Having these

commitments in place will be critical in 2020 and beyond as the industry works through the challenges brought on by COVID-19. British Columbia's foundational ESG work, including its high environmental standards, strong relationship with Indigenous peoples, as well as an unwavering commitment to health and safety, will help it through the tough times ahead.

This report also includes our annual overview of economic indicators from BC mining companies, including revenues, capital expenditures, employment and total payments to governments. The results are based on an in-depth survey independently prepared by PwC Canada with the co-operation and assistance of mining companies with operations and activities across the province. This year's survey includes 30 participants:

18 operating mines and 12 projects in the exploration or development stage.

A special thanks to the mining companies and others who contributed to this year's report and to MABC for offering its assistance and its perspective on mining's vital role in, and contributions to, the BC economy.

<sup>1</sup> *The views and opinions expressed by third parties are those of the authors for which PwC Canada takes no responsibility and disclaims all liability, and the above disclaimer applies to any such third-party comments.*



# Participants



- Operating
- Exploration or development
- Highway 37

## Exploration or development stage

Premier  
Red Mountain  
*Ascot Resources Ltd.*

Endako  
Kerness  
*Centerra Gold Inc.*

Galore Creek  
*Galore Creek Partnership*

Blackwater  
*New Gold Inc.*

KSM  
*Seabridge Gold Inc.*

Yellowhead  
Aley  
New Prosperity  
Harmony  
*Taseko Mines Ltd.*

Head office - BC exploration  
*Teck Resources Ltd.*

## Operating

Mount Milligan  
*Centerra Gold Inc.*

Silvertip  
*Coeur Mining*

Brule  
Willow Creek  
Wolverine  
*Conuma Coal Resources Ltd.*

Copper Mountain  
*Copper Mountain Mining Corp.*

Mount Polley  
Red Chris (joint venture with  
*Newcrest Mining Ltd.*)  
*Imperial Metals Corp.*

New Afton  
*New Gold Inc.*

Brucejack  
*Pretium Resources Inc.*

Gibraltar  
*Taseko Mines Ltd.*

Coal Mountain  
Elkview  
Fording River  
Greenhills  
Line Creek  
Highland Valley Copper  
Trail Metal Smelter  
*Teck Resources Ltd.*

# Executive summary

British Columbia's mining industry started strong in 2019, buoyed by prices of many key commodities such as coal, copper and gold. But as the year progressed, the price of coal, copper and other industrial metals produced in the province began to retreat amid a weaker outlook for global economic growth (even before the impact from the 2020 COVID-19 crisis). Meantime, gold continued to climb as the metal benefited from its status as a haven for investors in volatile times.

The price of metallurgical coal, one of British Columbia's most important commodities, averaged US\$164/tonne in 2019, down from US\$182/tonne in 2018. The lower price led to a decrease in 2019 metallurgical coal revenue to \$4.9 billion among survey participants in 2019, compared to \$5.8 billion in 2018.

Lower shipments year-over-year were also a factor in the revenue drop.

The price of copper averaged US\$2.72/lb in 2019, compared to US\$2.96/lb in 2018. Copper concentrates revenue totalled \$2.1 billion in 2019, which was up slightly from \$2 billion in 2018, due to higher shipments year-over-year.

The average gold price in 2019 was US\$1,394/oz, compared to US\$1,269/oz the year before. Gold revenues in the province rose significantly to \$1.2 billion from \$843 million in 2018 as a result of the higher gold price and increased gold production.

The mining sector's price volatility led to a decrease in overall revenue and net income at BC mining companies in 2019: Gross mining revenue fell to \$11.4 billion in 2019 from \$12.4 billion

## Gross mining revenues (\$CAD millions)

2017	11,718
2018	12,404
2019	11,443

## Cash flow from operations (\$CAD millions)

2017	4,537
2018	5,058
2019	3,600

### Statistical summary

(\$CAD millions, except where otherwise noted)

	2019	2018	2017
Gross mining revenues	11,443	12,404	11,718
Net mining revenues <sup>1</sup>	9,909	10,742	10,145
Net income (pre-tax)	1,795	3,581	3,545
Cash flow from operations	3,600	5,058	4,537
Direct employment (number of employees)	11,784	11,930	10,221
Payments to governments <sup>2</sup>	1,057	953	884
Exploration and development expenditures	277	248	92
Capital expenditures	1,489	1,125	1,484

### 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.

in 2018. Net mining revenue—which is after cost deductions for treatment and refining, freight and transportation and sales and marketing—was \$9.9 billion in 2019, a decrease from \$10.7 billion the year before. Net income before taxes decreased to \$1.8 billion from \$3.6 billion in 2018.

Capital expenditures were \$1.5 billion in 2019, compared to \$1.1 billion in 2018. The increase was mainly due to higher spending at Teck Resources' coal operations. Exploration and development expenditures were \$277 million in 2019, reflecting an increase from \$248 million the year before driven mostly by greater exploration and development activity at gold projects in the province.

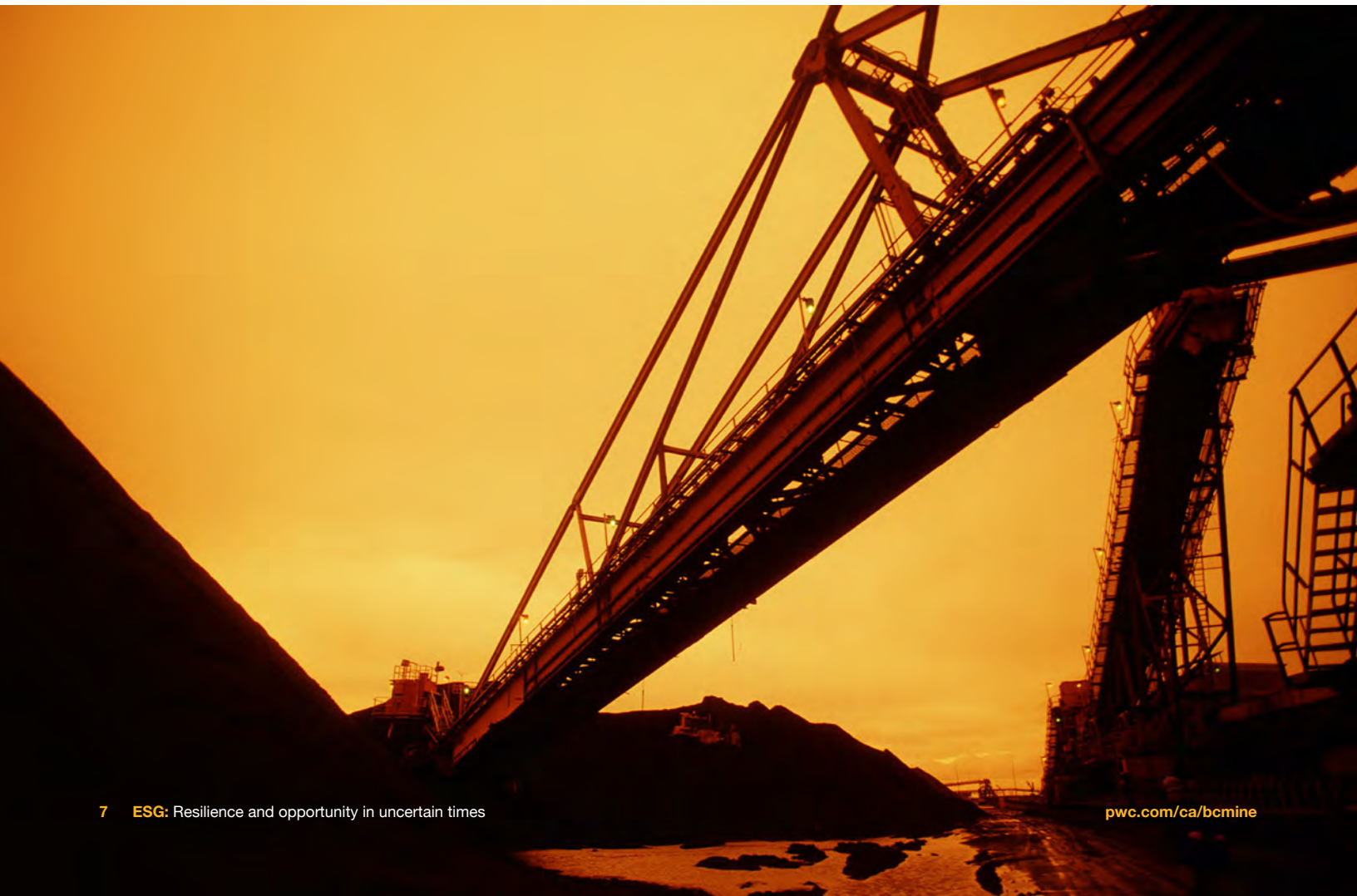
There were 11,784 people working in direct jobs at mining companies surveyed in the province in 2019,

which was down slightly from 11,930 in 2018. Total payments to governments increased to \$1.1 billion from \$953 million in 2018, driven in part by higher taxes such as mineral taxes and other levies and payments related to employment. These payments have increased significantly in the last five years and, it's important to note, don't include the income taxes paid by employees of the industry or the corporate income taxes paid by the companies that run these mines. These additional payments would also amount to hundreds of millions of dollars paid to governments from the BC mining industry.

While many of the numbers were down in 2019 versus 2018, they reflected a solid performance overall for the province's mining industry. In the near term, there will continue to be challenges as the COVID-19 pandemic

dampens the outlook for the prices of many of the key metals and minerals produced in the province.

But as we explore in this report, by building on the industry's strengths and successes to date—including continuous improvements in ESG performance—mining companies are in a good position to earn and maintain the social licence needed to operate and attract capital to move their projects forward. With the mining industry playing a pivotal role in providing the resources needed for the transition to a low-carbon economy, BC miners are well-positioned given the challenges ahead.





# Financial results

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**Below is a summary of the financial picture, based on the results of BC mining companies surveyed for 2019:**

**Gross mining revenue** from survey participants totalled \$11.4 billion, compared to \$12.4 billion in 2018 and \$11.7 billion in 2017. The decrease reflects lower prices for key metals and minerals produced in British Columbia, primarily metallurgical coal and, to a lesser extent, copper. Metallurgical coal operations in the province saw overall revenues decrease to \$6 billion in 2019 from \$7 billion in 2018. Teck Resources Ltd., which is by far the largest producer of metallurgical coal in the province, saw a 12% decline in realized coal prices along with a decrease in coal sales of 1 million tonnes. Teck's Trail operations

also saw reduced sales tonnage from the prior year. Imperial Metals Corp.'s Mount Polley mine went on care and maintenance in May of 2019, resulting in decreased gross mining revenue. Finally, Centerra Gold Inc.'s Mount Milligan mine had an improved year with gold sales up by 12% and copper sales rising 57%, which added more than \$125 million in 2019 over 2018.

**Net mining revenue**, which is made up of gross mining revenue less treatment and refining charges, freight and transport and sales and marketing, was \$9.9 billion, a decrease from \$10.7 billion in 2018 driven primarily by the decline in gross mining revenue. The average realized prices of metallurgical coal and copper decreased by 10% and

8%, respectively, and were below 2018 and 2017 price levels. Gold and silver increased by 10% and 3%, respectively, from 2018.

**Net income** before taxes decreased from previous years to \$1.8 billion from \$3.6 billion for 2018 and \$3.5 billion for 2017. The decline primarily reflects decreased revenues but is also due to changes in underlying costs, notably increased per-unit production costs noted by operators and impairment charges recorded by some of the mines surveyed.

**Cash flow from operations** came in at \$3.6 billion, compared to \$5.1 billion in 2018 and \$4.5 billion in 2017. The cash flow results were substantially driven by the decreased metallurgical coal revenue



performance, with additional reductions coming from Teck's Trail smelter and Taseko Mines Ltd.'s Gibraltar mine and the impacts of lower revenues and higher costs. This was offset to some extent by the positive impact coming from Teck's Highland Valley operations due to higher ore grades and improved recoveries during the year.

**Capital expenditures** were \$1.5 billion, compared to \$1.1 billion in 2018 and \$1.5 billion in 2017. There was an increase in capital spending at Teck's coal operations on major capital enhancements to maintain and increase long-term production capacity and on terminal upgrade projects. This was offset by a decrease in capital spending at Teck's Trail smelter due to the completion of a new acid plant.

**Exploration and development expenditures** were \$277 million, compared to \$248 million in 2018 and \$92 million in 2017. The 2019 expenditures were largely driven by gold exploration and development activities for exploration-stage projects throughout the province and continued exploration for operating mine sites.

**Total payments to governments** increased to \$1.1 billion from \$953 million in 2018 and \$884 million in 2017. The increase was likely due to steady increases to employment taxes, as well as a rise in the carbon tax, taxes on fuel and mining-related taxes paid to provincial and municipal governments. There was also likely some delayed impact of higher revenues in the prior year resulting in increased tax payments in the current period.

**Labour overview:** The number of people working in direct jobs at survey participants was 11,784, which was down from 11,930 in 2018 but up from 10,221 in 2017. The decrease is partly a result of Imperial Metals' Mount Polley mine being put on care and maintenance during the year.

**Net income**  
(\$CAD millions)



**Direct employment**  
(Number of mining employees)



**Earnings summary**  
(\$CAD millions, except where otherwise noted)

	2019	2018	2017	2016
Gross mining revenues	11,443	12,404	11,718	8,709
Less: deductions	1,534	1,662	1,573	1,368
Net mining revenues	9,909	10,742	10,145	7,341
Less: operating costs and other expenses	8,272	7,472	6,510	6,011
Other income	(158)	(311)	90	(88)
Net income (pre-tax)	1,795	3,581	3,545	1,418



# The role of ESG in helping miners build resilience for the long run

## An interview with Eurasia Group's Robert (RJ) Johnston<sup>1</sup>

Environmental, social and governance (ESG) considerations have moved from the sidelines to the mainstream, especially among investors looking at where to put their funds. Mining is one of a few sectors where ESG performance is under an intense spotlight, given that it's a global, extractive industry with a broad range of stakeholders.

ESG performance helps investors gauge the economic health of an organization, as well as its risk profile. A poor ESG record can expose a company to higher costs and possible reputational damage. On the flip side, a strong and improving ESG performance, through measures such as reducing emissions and engaging the community more meaningfully, can make a company more attractive to investors. Consider the announcement earlier this year from

BlackRock Inc., the world's largest asset manager, which said sustainability would become central to its investment approach.

A growing body of research shows companies with strong ESG performance tend to outperform financially and in the market. A new study from RBC Capital Markets shows that, since mid-2017, S&P 500 companies with strong ESG profiles performed better than those that are weaker in that area. The strong ESG companies also outperformed in the six-week period from mid-February to late March 2020, when the market went from a peak to a severe correction due to the COVID-19 crisis.

The results underscore what experts like Robert (RJ) Johnston, Managing Director, Energy, Climate and Resources at Eurasia Group, already know: ESG

isn't just the right move for people, the planet and making a profit, but it also helps companies build resiliency, especially during challenging times.

"Coming out of this public health crisis, we'll probably see ESG investors more motivated than ever. Resilience will be more visible than ever," Johnston says. "It will be even more critical for industry to focus on ESG."

While governments will be focusing on stimulus and recovery and strengthening the health-care system, Johnston believes industries such as mining will still face campaigns from major financial institutions and shareholders to strengthen ESG performance and make continuous improvements.

By taking appropriate actions, Johnston believes ESG-leading companies and

industries could also be first in line to receive capital when funds start to flow more freely as the COVID-19 economic crisis starts to subside.

“Having strong ESG practices leaves you open to more pools of capital,” Johnston says. “Mining companies with a long-term view will be rewarded because shorter-term capital targeting swings in the commodity cycle won’t be there in the same way.”

Johnston believes miners, generally speaking, may have an advantage in working with ESG investors given their long history of dealing with community issues and environmental impacts from their operations amid growing pressure from stakeholders over the years. The mining industry is also seen as a key player in the global transition to a low-carbon economy given that it produces critical metals and minerals such as metallurgical coal used in steelmaking and key to the construction of wind turbines and copper used in electric vehicles.

Johnston believes Canada, and British Columbia, in particular, are in a good position to make meaningful ESG improvements due in part to their history of working with Indigenous peoples.

“We’ve been impressed at how constructive it has been in BC versus other parts of the world,” Johnston says.

He also views the BC government as “an enabler of climate policy,” with its carbon tax. “It’s putting its money where its mouth is,” he says, by vowing to curb emissions and make companies more accountable.

Johnston says these ESG moves could provide an opportunity for British Columbia and Canadian mining companies to build relationships with institutional investors, potentially becoming partners in developing resources in a sustainable way.

For institutional investors in particular, the draw could be to influence change around issues such as reducing emissions or improving diversity at mining companies. For example, Johnston says partnerships could include sustainable finance options, such as loans for the lowest carbon-emitting producers.

“There is patient capital out there,” he says. “Canada could be an incubator for that type of lending because the geopolitical environment and rule of law is more stable than in other countries.”

While British Columbia is in a good position to attract capital based on its long history of working with Indigenous peoples and strong ESG performance, the province and the industry can’t let up on efforts if they want to attract financing and become an essential player in the low-carbon economy.

“The direction that BC wants to go—which is that we are definitely open for business, we aren’t asking people to pay a premium but are investing in ESG-friendly projects—is a very compelling story,” Johnston says. “I think if you nationalize that, it would be great for the whole country.”

<sup>1</sup> *The views and opinions expressed by third parties are those of the authors for which PwC Canada takes no responsibility and disclaims all liability, and the above disclaimer applies to any such third-party comments.*



“Coming out of this public health crisis, we’ll probably see ESG investors more motivated than ever.”

**Robert (RJ) Johnston,**  
Managing Director, Energy, Climate  
and Resources, Eurasia Group





# How miners can best engage on ESG issues

Credible and verified reporting is key to building and maintaining social licence

By Daniel O'Brien

Long before ESG became a buzzword, miners in British Columbia have been working to build social licence with stakeholders by focusing on improving their environmental, social and governance performance.

To move forward with plans to explore, develop and produce their metals and minerals, many BC mining companies realize they must move beyond regulatory compliance and build trust by demonstrating good governance and transparency. However, changing investor expectations and customer demands for supply chain transparency are putting an increased focus on ESG performance, meaning it's even more

important for miners to put these issues at the top of their agendas.

## The many facets of ESG

BC mining companies have significant experience with the environmental and social aspects of ESG. Many have adopted robust environmental, health and safety management systems and work to continuously reduce their impact on the environment and maintain a safe workplace. This involves identifying and managing risks at all phases of operation, from exploration through to reclamation, and tracking performance. This is a high-risk business and a perfect track record is not always possible, but

there is recognition that the overall trend is positive when it comes to avoiding and reducing environmental impacts and safety incidents.

Environmental stewardship is not only the right thing to do for society and the planet, but it's also becoming increasingly important as miners look to position themselves as providers of key materials needed for a transition to a low-carbon economy. According to our recent [CEO Survey](#), 57% of chief executives in mining and metals agreed that climate change initiatives will lead to significant new product and service opportunities for their organization. We are seeing mining companies



## Daniel O'Brien

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Daniel O'Brien is the Western Canada Leader for Sustainable Business Solutions at PwC Canada, where he works with government and industry on issues related to sustainability and climate change. Daniel works with businesses to understand and manage operational risks related to environmental, social and climate change impacts.

increasingly recognize the opportunities that are emerging by aligning with market demands for credible information about source materials.

BC mining companies have made significant strides on social factors as well, including through active engagement and benefit sharing with Indigenous peoples and other communities. As most mining takes place in small towns and rural communities, projects have a major impact on local economies through direct and indirect employment, housing and general business activity. However, this increased economic activity can also lead to negative impacts on the community. The COVID-19 pandemic has put a spotlight on this issue, and it will be increasingly important for miners to work with and respect the communities they depend on.

Looking at governance, mining companies are improving their practices through increased diversity on boards and management teams. For example, our [2019 report](#) on the world's 40 largest miners found Canadian organizations outpaced their global peers when it came to appointing women to boards and senior management positions. While they've been heading in the right direction when it comes to improving gender diversity, the actual pace of change has been slow overall, suggesting there's more work to be done and further opportunities to grow in this area.

Good governance includes transparency and disclosure of ESG performance, which has become increasingly complex over the years. Regulators around the world, including in Canada and British Columbia, are calling on companies across all industries to improve ESG and climate risk disclosures. With financial

decisions increasingly being based on ESG information, we're also seeing board members and shareholders beginning to expect the same level of assurance over this information as with financial disclosures.

## A growing number of standards

But the additional disclosures are also complicated by the growing number of ESG reporting frameworks and certification standards companies can follow. Examples include the Global Reporting Initiative and Sustainability Accounting Standards Board, as well as industry-specific standards like the Responsible Gold Mining Principles, the Responsible Minerals Initiative (which looks at mineral sourcing) and the Mining Association of Canada's set of tools and indicators known as Towards Sustainable Mining.

Miners need to determine which standards best suit their operations with the understanding that the measures are being more closely followed by stakeholders, including investors, government and affected communities. These stakeholders want to know about an organization's sustainability performance, which means accurately reporting on areas such as air emissions, water management and waste reduction, diversity and inclusion, executive compensation, product sourcing and community engagement. Leading companies are demonstrating they have effective management systems in place and are driving for continuous improvement. Investors, in particular, want evidence that the companies they're investing in are assessing and identifying material risks and opportunities and aligning these with their corporate strategy.

What gets measured gets managed, and we know mining executives understand the importance of setting bold yet realistic targets for both managing risk and driving company performance. Yet our [2020 global mining report](#) found only 11 of the top 40 companies (28%) are setting public ESG commitments and targets, reporting consistently against them and linking executive and management performance to achieving them. Strong ESG performance and credible reporting are driving value for mining companies, not only by helping to maintain social licence and providing access to capital but also by allowing them to differentiate their products and access customers focused on improving the sustainability of their supply chains.

Given the potential financial impacts of decisions based on these targets, companies should be seeking third-party assurance over these metrics to

ensure accurate and credible reporting. Initiatives such as the Responsible Gold Mining Principles and regulations such as the Dodd-Frank Act in the United States are also driving the need for third-party assurance over reporting on mining practices.

## Building resiliency

We've also seen how strong ESG practices can put companies in a better position to withstand market turmoil. A recent example is the disruption from the COVID-19 public health crisis. Miners with strong health and safety management systems and protocols were better prepared to deal with their COVID-19 response, which for most companies in British Columbia meant operating under very rigorous guidelines and procedures to prevent the spread of the virus in order to gain the trust and respect of employees, communities, and

government. Evidence is mounting that companies with a strong ESG record are outperforming their peers, suggesting markets are recognizing the link between ESG performance and business resiliency.

This makes it more important than ever for BC mining companies to build on their ESG successes to date. By demonstrating a strong ESG ethos and transparent and credible reporting, our mining industry can increase stakeholder confidence in British Columbia as a strong and competitive jurisdiction in which to do business. Earning that trust is good for BC miners and their investors and beneficial for the province as a whole.



**57%** of global mining and metals CEOs believe climate change will lead to significant new product and service opportunities for their organization

—PwC's Global CEO Survey



Image courtesy of Centerra Gold Inc.

# Centerra Gold's proactive and measured approach to sustainability

When it comes to the rising focus on sustainability, Centerra Gold Inc. aims to keep its activities and reporting simple, focused and impactful.

Kevin D'Souza, Centerra Gold's Vice President of Security, Sustainability and Environment<sup>1</sup>, says companies like his are making progress as investors and lenders put a greater emphasis on environmental, social and governance (ESG) factors as an indicator of how a company manages risk. "Investor pressure is growing," D'Souza says. "Investors are looking for a longer-term strategy embedded into the companies' plans, and miners understand this is

where we have to go. Also, there is a demand for companies to have a social purpose, to define how we're going to make a positive difference."

Strong ESG performance also helps organizations gain their social licence to operate, which is critical for a mining company's long-term success.

"If we want to secure the long-term viability of the industry, we need to embrace sustainability and be at the forefront of it," says D'Souza, a mining engineer who has worked in sustainability for nearly three decades for a variety of mining companies in

over 50 countries in Africa, Asia, North America and Latin America. He was once a consulting mining advisor to the UK Department for International Development and the World Bank in several countries before joining Barrick Gold Corp. and then Centerra Gold six years ago in Toronto.

Centerra Gold is actively working on several ESG initiatives and has dedicated more resources to this important area, he says. For instance, the company is working on a study to review climate risks across all its sites and is conducting an ESG issues assessment to identify, prioritize and

validate key considerations for its operations and stakeholders. It has also formed a company-wide tailings storage facility steering committee to ensure these sites are aligned to best practices from an environmental and safety perspective.

## Choosing a standard

When it comes to the standard for its ESG activities, the company is in the process of adopting the World Gold Council's Responsible Gold Mining Principles (RGMP).

D'Souza admits he's somewhat biased, having helped craft the RGMP as a member of the council's ESG task force, but he believes the standard is the best fit for Centerra Gold's domestic and international operations.

"There is a plethora of standards for our industry, and it's growing," he says. "Every single one is well-intentioned, but we can't adopt them all."

He describes the RGMP as an "aspirational, overarching, holistic framework the industry and supply chain can embrace" to make meaningful ESG commitments.

"It's not overly prescriptive. The standards are realistic about what's practical on site ... and can be scaled to all sizes of companies. I believe the RGMPs also helps our industry proactively manage risk and provide that consistent and accurate view of our ESG approach and site-based performance," he says.

## Challenging perceptions

Besides the Mount Milligan mine in British Columbia, Centerra Gold operates the Kumtor mine in the Kyrgyz Republic and the Öksüt mine in Turkey.

Each has its own ESG strengths and weaknesses, D'Souza says.

"For instance, Canada and BC are also strong on the environmental side, or at least on par with most other jurisdictions, but on the social and some of the governance, there are many examples of much higher standards elsewhere," he says.

This has created some challenges for British Columbia's mining industry. While the industry has strong relations with some Indigenous communities, it's also grappling with negative perceptions both at home and abroad. Over the past year, there has been increasing anti-Canadian sentiment around the world in regard to mining companies' human rights and environmental performance.

The negative image is due in part to national and international media coverage of Indigenous protests over resource projects, in particular when it comes to building pipelines for the oil and gas industry. While it's a different sector, the unrest raises questions about whether Canadian companies are doing enough to engage with Indigenous communities.

"As an industry, we need to find ways to operationalize ESG principles and overcome the perceived challenges," D'Souza says. "Canada and our brand, we have to take stock. We need to understand the perception of our industry and, whether it's true or not, we have to address this perception."

How can BC mining companies do that? For Centerra Gold, key methods for tackling these community perceptions at a local level include proper grievance management coupled with proactive stakeholder engagement. "Centerra Gold is committed to collaborating

**“ If we want to secure the long-term viability of the industry, we need to embrace sustainability and be at the forefront of it”**

**Kevin D'Souza,**  
Vice President of Security, Sustainability and Environment, Centerra Gold Inc.



and forming partnerships with local stakeholders and Indigenous groups to ensure that these groups have the opportunity for meaningful input and participation in our decision-making process,” says D’Souza.

“On a broader level, we need to ensure that our public disclosure is transparent, relevant, reliable, timely and accessible, which helps build our trust and credibility among our stakeholders and local communities.”

## Building ESG credibility

But D’Souza says investors and civil society can see through greenwashing of ESG efforts, which makes it important for miners to focus on robust site-based ESG processes and performance and work with experienced, third-party professionals to provide external assurance.

“We need third-party assurance. It’s vital for our credibility with stakeholders and shareholders alike,” says D’Souza, who has worked on both the assurance and corporate side of the sustainability reporting process. “But it’s really important that assurance companies properly understand what happens in the corporate office and how this translates to practical implementation on operational sites.”

To report credible, trustworthy ESG metrics, D’Souza believes miners need to focus their methodology and measurements on a limited number of key factors, such as energy and water use and community engagement, instead of trying to address everything.

“The problem arises when companies try to cover too much in their reporting, which can really water it down,” he says. “As companies, we can’t do everything and please everyone at the same time.”

It’s why Centerra Gold is currently working on an ESG assessment that looks specifically at the company’s internal operations and the communities where it operates. The work is being done through a risk and opportunity lens, including quantitative and qualitative measurements and goals. D’Souza says the initiative will help the company shape its priorities in the short, medium and longer term.

“We are going to make sure we are focusing, disclosing and reporting on key issues that are material to the company and its stakeholders,” he says.

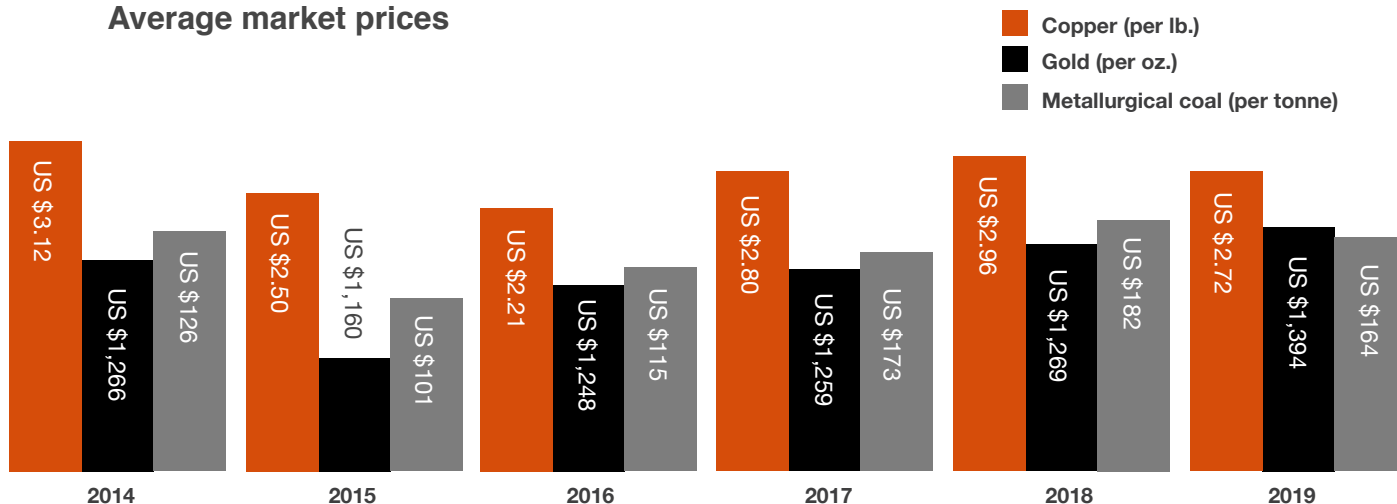
<sup>1</sup> The views and opinions expressed by third parties are those of the authors for which PwC Canada takes no responsibility and disclaims all liability, and the above disclaimer applies to any such third-party comments.

Image courtesy of Centerra Gold Inc.



# Market shipments and market price

## Average market prices



Source: S&P Global Market Intelligence, TMX website and PwC analysis

Net mining revenue was \$9.9 billion, compared to \$10.7 billion in 2018 and \$10.1 billion in 2017. Below is a breakdown by commodity:

**Metallurgical coal** revenue was \$4.9 billion, compared to \$5.8 billion in 2018 and \$5.2 billion in 2017, with the decrease driven by a decline in the commodity's price. Overall, shipments for metallurgical coal were 29.8 million tonnes in 2019, down from 30.1 million tonnes in 2018 and 28.6 million tonnes in 2017. Metallurgical coal prices for participants averaged US\$164/tonne in 2019, compared to US\$182/tonne in 2018 and US\$173/tonne in 2017.

**Copper** concentrates revenue totalled \$2.1 billion, which was up slightly from \$2 billion in 2018 and 2017. Shipments of copper in concentrate came in at 311,000 tonnes in 2019, compared to 284,000 tonnes in 2018 and 233,000

tonnes in 2017. The price of copper averaged US\$2.72/lb in 2019, compared to US\$2.96/lb in 2018 and US\$2.80/lb in 2017.

**Zinc** revenue was \$995 million, which was down from 2018 and 2017 revenues of \$1.2 billion. Shipments were 292,000 tonnes, compared to 306,000 tonnes in 2018 and 309,000 tonnes in 2017. Zinc prices averaged US\$1.16/lb in 2019, compared to US\$1.32/lb in 2018 and US\$1.31/lb in 2017.

**Lead** revenue was \$166 million, compared to \$146 million in 2018 and \$224 million in 2017. Lead shipments were 75,000 tonnes, up from 59,000 tonnes in 2018 and down from 86,000 tonnes in 2017. The average price of lead was US\$0.96/lb in 2019, compared to US\$1.02/lb in 2018 and US\$1.05/lb in 2017.

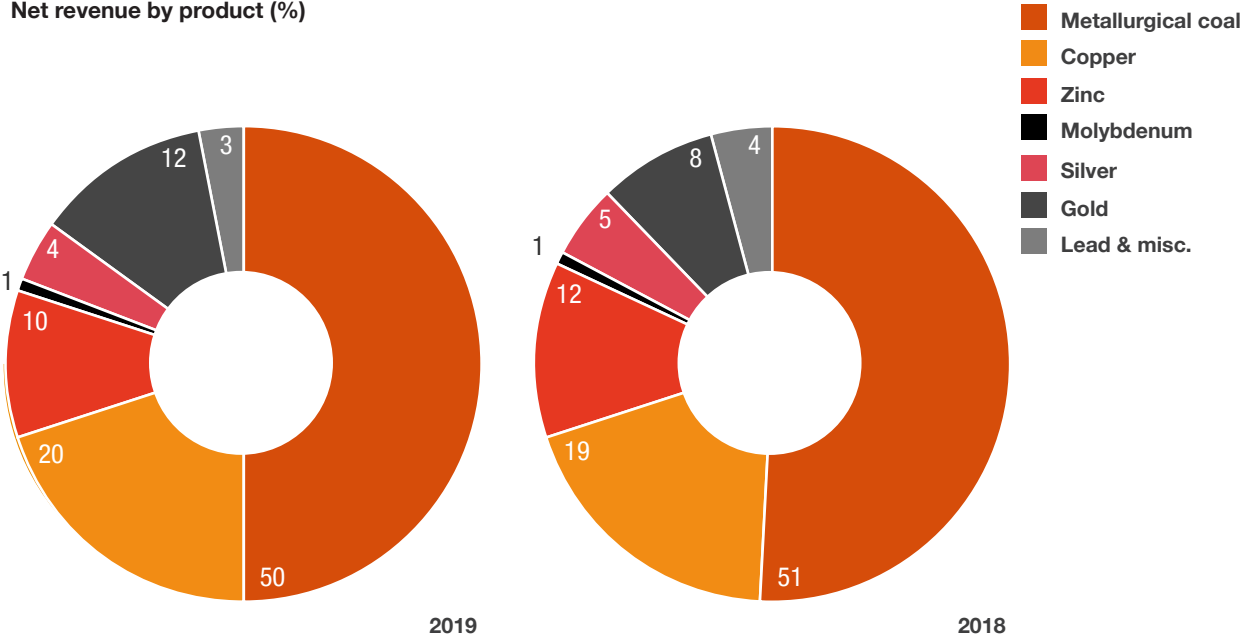
**Gold** revenues rose significantly to \$1.2 billion from \$843 million in 2018 and \$829 million in 2017. The price of gold averaged US\$1,394/oz, compared to US\$1,269/oz in 2018 and US\$1,259/oz in 2017. The increase is due to improved gold prices and higher gold production at both Pretium Resources Inc.'s Brucejack mine and Centerra Gold's Mount Milligan mine. Gold shipments were 708,000 ounces, up from 680,000 ounces in 2018.

**Silver** revenue was \$365 million, compared to \$309 million in 2018 and \$509 million in 2017. The average price of silver was US\$16.21/oz in 2019, compared to US\$15.70/oz in 2018 and US\$17.08/oz in 2017. In British Columbia, silver is generally produced as a byproduct of mining metals such as copper, gold, lead and zinc.

# Commodity performance and outlook

Average prices for British Columbia’s key mining commodities showed a mixed result compared to a year earlier. Metallurgical coal and copper saw year-over-year decreases in 2019, falling 10% and 8%, respectively. Gold and silver saw increases of 10% and 3%, respectively, compared to 2018. Here’s a summary of the performance of the main metals and minerals produced in the province:

Net revenue by product (%)



Source: S&P Global Market Intelligence and PwC analysis

**Metallurgical coal** prices averaged US\$164/tonne in 2019, compared to US\$182/tonne in 2018 and US\$173/tonne in 2017. The spot price was US\$131/tonne as of March 31, 2020, and the consensus forecast for 2020 is US\$153/tonne.

**Copper** prices decreased to an average of US\$2.72/lb in 2019 from US\$2.96/lb in 2018 and US\$2.80/lb in 2017. The spot price was US\$2.24/lb as of March 31, 2020, and the consensus forecast for 2020 is US\$2.76/lb.

**Gold** averaged US\$1,394/oz in 2019, which was a slight increase from US\$1,269/oz in 2018 and US\$1,259/oz in 2017. Gold’s record price reached more than US\$1,900/oz in 2011. The spot price for gold was US\$1,577/oz as of March 31, 2020, and the consensus forecast for 2020 is US\$1,547/oz.

The price of **silver** averaged US\$16.21/oz in 2019, which was up slightly from US\$15.70/oz in 2018 but still remains lower than US\$17.08/oz in 2017. The spot price was US\$13.97/oz as of March 31, 2020, and the consensus forecast for 2020 is US\$17.74/oz.

The price of **zinc** averaged US\$1.16/lb in 2019, compared to US\$1.32/lb in 2018 and US\$1.31/lb in 2017. The spot price was US\$0.86/lb as of March 31, 2020, and the consensus forecast for 2020 is US\$1.03/lb.

<b>Metal</b>	<b>Spot price at March 31, 2020</b>	<b>2020 analyst consensus estimate at March 31, 2020</b>	<b>Spot price at March 31, 2019</b>	<b>2019 analyst consensus estimate at March 31, 2019</b>
Gold (US\$/oz)	1,577	1,547	1,292	1,298
Silver (US\$/oz)	13.97	17.74	15.12	15.99
Zinc (US\$/lb)	0.86	1.03	1.36	1.23
Metallurgical coal (US\$/tonne)	131	153	186	178
Copper (US\$/lb)	2.24	2.76	2.94	2.92





## Mining Association of British Columbia perspective

# Working together to navigate unprecedented times

By Michael Goehring

President and CEO of the Mining Association of British Columbia (MABC)<sup>1</sup>

2019 seems like long ago given COVID-19 and the ensuing global health and economic crisis. Yet, looking back at the year allows us to reflect on the elements that helped prepare British Columbia's mining sector to withstand the impacts from the pandemic we face today.

The mining industry saw the continued price stabilization of some key commodities in 2019, including two important metals produced in British Columbia: copper and gold. Metallurgical coal, another essential BC commodity, started the year strong before prices fell precipitously in the second half of the year due to deteriorating global market conditions. BC miners have dealt with commodity

price volatility before and quickly focused on identifying efficiencies and reducing costs to work through the downturn.

The year did bring some positive developments for British Columbia's mining industry. These included the closing of Newcrest Mining's acquisition of 70% of Imperial Metals' Red Chris copper and gold mine and the approval of the environmental assessment certificate for New Gold's Blackwater gold project.

### Responding to ongoing policy change

Notable in 2019, the BC government passed Bill 41, the *Declaration on*

*the Rights of Indigenous Peoples Act*, to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). British Columbia's mining sector has been a leader in economic reconciliation with Indigenous peoples over the years through numerous agreements and partnerships that reflect UNDRIP principles. MABC remains optimistic the Act will lead to meaningful reconciliation and greater certainty in decision making.

Another change to navigate was the introduction of the revitalized *Environmental Assessment Act*, which came into force in December. The revised Act includes significant changes to the environmental assessment process for resource projects, including

Indigenous input into decision making, rules for project notifications, public participation and early engagement. As the sector most impacted by environmental assessments, our industry gave significant input into the legislation and regulations to shape a process that we hope will provide a clear path to approval for responsible, community-supporting projects.

## Improving our ability to compete and succeed in global markets

With these and other policy changes in 2019, MABC increased its government advocacy, making the case to policy makers to reduce the complexity, timelines and cost structure of British Columbia's regulatory regime, without compromising the high health, safety and environmental standards the

province is known for. Improvements to the province's fiscal and regulatory conditions would help our industry compete and succeed in global markets. With our mines struggling to remain competitive, action on this front is critical as we emerge from the COVID-19 economic crisis, particularly if the global recession becomes protracted and commodity prices fall further.

Our advocacy in 2019 resulted in encouraging signals. Shortly after his appointment in February 2020 as the new Minister of Energy, Mines and Petroleum Resources, Bruce Ralston announced that his new mandate included overseeing a new regulatory performance project for our sector. Work is now underway in his and other ministries to increase the efficiency and effectiveness of mine-related permitting. With oversight from senior government

officials, the regulatory review is scheduled to wrap up in late 2020.

## Building on a strong ESG foundation

Our sector continues to improve its environmental, social and governance (ESG) performance.

Our mines and smelters place a significant emphasis on the E in ESG. Innovation and technology are increasingly important in this regard. Miners are using artificial intelligence, big data and electrification—in collaboration with British Columbia's clean technology and digital sectors—to conserve more, waste less and reduce our environmental footprint. We are continuously improving our environmental performance while operating to some of the world's toughest regulatory standards.



Further, with some of the lowest greenhouse gas-intensive mines and smelting operations in the world, British Columbia is a leading exporter of metals and minerals essential to the low-carbon economy. Our products are increasingly sought after for the production of electric vehicles, renewable energy infrastructure and consumer technologies like smartphones.

On the social and community front, BC mining companies have long been leaders, with very strong Indigenous and community engagement. Our members collectively contribute millions of dollars each year to their local communities. Mines continue to enter into innovative impact benefit agreements with Indigenous nations and remain leaders in advancing economic reconciliation. Working with the province and Indigenous nations, we were the first sector to enter into resource revenue-sharing agreements. To date, 46 nations have received \$98 million. We're also one of the few sectors supporting Indigenous nations to undertake their own environmental assessments on major projects.

On governance matters, our members are steadily improving their efforts to increase diversity and inclusion on mine sites, as well as in executive management and board positions. There is more to do but progress is being made and companies are already seeing the benefits that diversity brings to the workplace and boardroom. Our members' ESG profile is an important part of an emerging BC brand of responsibly produced minerals and

metals that can help us access the growing rise in ESG investing.

## Navigating the challenges ahead

Mining's strong health and safety culture and ongoing focus on community engagement have served our industry well. Mines have risen to the COVID-19 challenge, taking extensive measures to prevent transmission and protect the health and safety of our employees and nearby communities, while maintaining operations essential to our economy. All the while, the industry has stepped in to contribute personal protective equipment and cleaning and hygiene supplies to help local frontline health-care workers and our Indigenous partners.

COVID-19 has been nothing less than an unprecedented public health and economic shock for our industry, our province, Canada and the world. The underlying fundamentals of our key commodities will remain solid over the longer term, but the outlook for the global economy and commodity markets is uncertain and the potential duration of the pandemic is unknown. In the meantime, MABC will continue to work with the government and consult widely with members to identify policy actions that will help them maintain liquidity and better weather the challenges.

With the right policy measures in place, mining offers British Columbians a real opportunity to help our economy grow and recover from the pandemic. Our

industry has been through tough times before. People came together back then as we are today. If anything, COVID-19 has demonstrated the resilience of our industry, the commitment of our employees and the vital connections that keep us moving forward and contributing to a rising standard of living. With our industry well positioned to meet the inevitable uptick in demand for products that are essential to modern life and the transition to a low-carbon economy, the long-term outlook will once again be bright.

<sup>1</sup> *The views and opinions expressed by third parties are those of the authors for which PwC Canada takes no responsibility and disclaims all liability, and the above disclaimer applies to any such third-party comments.*





# Conclusion and outlook

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The first few months of 2020 have been challenging with the COVID-19 pandemic putting much of the global economy on hold as governments work to stop the spread of the virus. Prices of industrial commodities such as coal, copper, lead and zinc dropped sharply due to the resulting decline in demand. Gold, considered a haven for investors, has experienced a price surge.

The price volatility will mean mixed results for British Columbia's mining industry this year, given that the province is Canada's largest exporter of metallurgical coal and one of its biggest copper producers but also produces significant amounts of gold.

While the future remains uncertain, British Columbia's mining industry is in a good position to withstand volatility. First, the industry has been prudent with its spending and expansion plans over the years after surviving

the 2008-09 global financial crisis and the prolonged period of lower commodity prices took hold afterward. In recent years, a more stable pricing environment has given the industry some cushion going into the current crisis.

The BC mining industry is also in a good position from an ESG perspective. The industry's excellent health and safety track record and solid relationships with stakeholders, including local communities Indigenous groups and governments, have helped it work through the volatility so far this year. Unlike some other mining jurisdictions across Canada and globally, British Columbia's industry continued to operate during the first wave of the pandemic. The continued operation was in large part due to the industry's collaboration with governments, public health officials and employees to ensure its mines were operating safely,

with workers' health being the top priority.

Beyond the COVID-19 crisis, British Columbia's mining industry has steadily improved its performance in areas such as environmental protection, as well as diversity and inclusion at its mine sites and in boardrooms. While more improvements are needed, the industry's progress has helped build the province's reputation as a progressive and stable mining jurisdiction.

British Columbia's carbon tax, while an added expense for miners, has also worked to spur innovation and boost the industry's reputation as an active participant in the transition to a low-carbon economy. Our most recent [CEO Survey](#) shows global mining executives increasingly recognize the opportunities climate change initiatives can bring.



So as the importance of ESG continues to grow and become increasingly critical during the pandemic, British Columbia's mining industry has a chance to build on its strong performance to date and capitalize on it for the future by more closely aligning itself with its ESG credentials. This could one day give the industry an edge in branding its products as coming from British Columbia.

But to make the most of these opportunities, BC mining companies need to place ESG matters at the core of their business strategies while aligning them to the purpose of the organization. How can they do this?

## Put ESG at the heart

Take another look at the pressures you're most likely to face and adjust your goals accordingly. Prioritize them from both a commercial and sustainability standpoint to help you better manage risk, improve efficiencies and target opportunities. Link your goals to appropriate metrics

and management pay. It's particularly important to embed ESG matters into the way you think about, plan and conduct business, including when it comes to your culture, values, relationships and employee engagement. Leadership from the CEO will be key to showing investors, employees, customers, communities and other stakeholders that your organization has gone beyond looking at ESG matters as a compliance concern to embracing them in truly a transformational sense.

## Measure and disclose

Determine which ESG frameworks and standards work best for your organization and assess your options for proper assurance over your metrics to ensure accurate and credible reporting. With rising pressure to act on ESG concerns, it's more important than ever to build credibility and engage with investors by establishing best practices around ESG risk management and communications.

## Collaborate

To raise the industry's ESG credentials, miners need to lift their game both individually and collectively. Explore opportunities to work with government, industry groups, academics, local communities and other sectors to accelerate ESG performance. Creating partnerships and alliances with others can amplify and extend your impact. Now may also be the time to work towards a common standard for responsible mining and how companies will report their performance against it.

The good news is the building blocks for the next stage of ESG progress are already in place. And with BC miners having already demonstrated their resiliency even before the pandemic, we can expect them to successfully adapt to the challenges ahead and help evolve the "Product of BC" label into a significant ESG advantage for their products.

### Six-year financial summary

(\$CAD millions, except where otherwise noted)

	2019	2018	2017	2016	2015	2014
Gross mining revenues	11,443	12,404	11,718	8,709	7,724	8,238
Net mining revenues <sup>1</sup>	9,909	10,742	10,145	7,341	6,289	6,760
Net income (pre-tax)	1,795	3,581	3,545	1,418	715	288
Cash flow from operations	3,600	5,058	4,537	2,575	1,660	1,685
Direct employment (number of employees)	11,784	11,930	10,221	9,329	9,221	9,954
Payments to governments <sup>2</sup>	1,057	953	884	650	476	467
Exploration and development expenditures	277	248	92	102	320	234
Capital expenditures	1,489	1,125	1,484	1,370	1,240	1,503

#### 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.

# Our BC mining team

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Please reach out to us to learn more about how we can help you with your business challenges.

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