

Beyond

2018 Annual Report

Teck



Our Business

Teck is a diversified resource company committed to responsible mining and mineral development with business units focused on steelmaking coal, copper, zinc and energy. Headquartered in Vancouver, British Columbia (B.C.), Canada, we own or have interests in 13 operating mines, a large metallurgical complex, and several major development projects in the Americas. We have expertise across a wide range of activities related to exploration, development, mining and minerals processing, including smelting and refining, health and safety, environmental protection, materials stewardship, recycling and research.

Our corporate strategy is focused on exploring for, developing, acquiring and operating world-class, long-life assets in stable jurisdictions that operate through multiple price cycles. We maximize productivity and efficiency at our existing operations, maintain a strong balance sheet, and are nimble in recognizing and acting on opportunities. The pursuit of sustainability guides our approach to business, and we recognize that our success depends on our ability to establish safe workplaces for our people and collaborative relationships with communities.

Mineral reserve and resource estimates for our properties are disclosed in our most recent Annual Information Form, which is available on our website at www.teck.com, under Teck's profile at www.sedar.com (SEDAR), and on the EDGAR section of the United States Securities and Exchange Commission (SEC) website at www.sec.gov.

Forward-Looking Statements

This annual report contains forward-looking statements. Please refer to the "Cautionary Statement on Forward-Looking Statements" on page 69.

All dollar amounts expressed throughout this report are in Canadian dollars unless otherwise noted.

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Steelmaking Coal

We are the world's second-largest seaborne exporter of steelmaking coal, with six operations in Western Canada that have significant high-quality steelmaking coal reserves.

Copper

We are a significant copper producer in the Americas, with four operating mines in Canada, Chile and Peru, and copper development projects in North and South America.

Zinc

We are one of the world's largest producers of mined zinc, with three operating mines in the United States and Peru, and we own one of the world's largest fully integrated zinc and lead smelting and refining facilities located in Canada.

Energy

We have an interest in a large producing oil sands mine in Alberta, as well as oil sands development assets.

Operations and Major Projects:

Steelmaking Coal

- ① Cardinal River
- ② Steelmaking coal sites in B.C.
 - Fording River
 - Greenhills
 - Line Creek
 - Elkview
 - Coal Mountain

Copper

- ① Highland Valley Copper
- ② Antamina
- ③ Quebrada Blanca
- ④ Carmen de Andacollo

Zinc

- ① Red Dog
- ② Trail Operations
- ③ Pend Oreille

Energy

- ① Fort Hills
- ② Frontier

Corporate Head Office

- * Vancouver

● Operation ■ Project

2018 Highlights

Safety

- Reduced High-Potential Incident Frequency by 28%
- Reduced Lost-Time Injury Frequency by 21%
- Completed implementation of Courageous Safety Leadership, in which 97% of employees participated

Financial

- Record revenues of \$12.6 billion
- Record gross profit before depreciation and amortization^{1, 2} of \$6.1 billion, record profit attributable to shareholders of \$3.1 billion (\$5.41 per share) and record EBITDA^{1, 2} of \$6.2 billion
- Cash flow from operations of \$4.4 billion
- Reduced our outstanding debt by \$1.4 billion
- Completed the sale of our two-thirds interest in the Waneta Dam for proceeds of \$1.2 billion
- Acquired an additional 13.5% indirect interest in the subsidiary that owns the Quebrada Blanca Phase 2 project, and subsequently announced that Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation will subscribe for a 30% indirect interest in the subsidiary that owns the Quebrada Blanca Phase 2 project by contributing US\$1.2 billion to the project
- Increased our main revolving credit facility by US\$1.0 billion to US\$4.0 billion and extended the maturity date to November 2023
- Returned \$172 million in cash to shareholders through dividends and completed \$189 million in share buybacks
- Ended the year with \$1.7 billion of cash and \$7.2 billion of liquidity

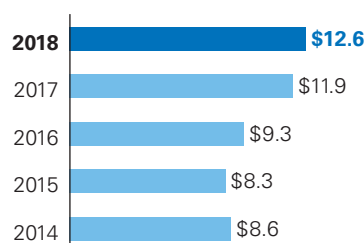
Operating and Development

- Our Board approved the construction of the Quebrada Blanca Phase 2 project, with first production targeted for the second half of 2021
- Our steelmaking coal operations achieved an all-time quarterly production record of 7.3 million tonnes in the fourth quarter and set an annual record for total material moved in 2018
- Antamina achieved record annual combined copper and zinc concentrate production of 2.4 million tonnes in 2018

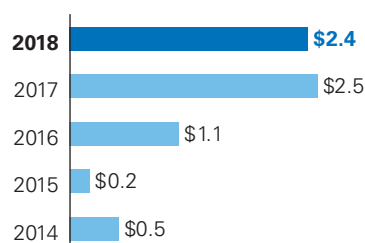
Sustainability

- Named to Dow Jones Sustainability World Index (DJSI) for the ninth consecutive year, named to Canada's Top 100 Employers by Mediacorp., and recognized as one of the Global 100 Most Sustainable Corporations and one of the Best 50 Corporate Citizens in Canada by media and investment company Corporate Knights
- On track towards meeting our sustainability strategy short-term goals to 2020, and long-term goals stretching out to 2030

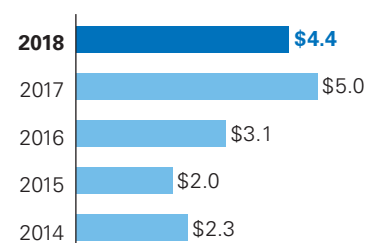
Revenue⁽³⁾
(\$ in billions)



Adjusted Profit Attributable to Shareholders⁽¹⁾⁽²⁾⁽³⁾
(\$ in billions)



Cash Flow from Operations⁽³⁾
(\$ in billions)



Notes:

(1) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

(2) See "Use of Non-GAAP Financial Measures" section for reconciliation.

(3) Certain 2017 comparatives have been restated, while 2016 and prior years have not been restated.

¹ Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

² See "Use of Non-GAAP Financial Measures" section for reconciliation.



Letter from the Chairman Emeritus

Dr. Norman B. Keevil
Chairman Emeritus

To the Shareholders

For each of us there comes a time to vacate the saddle, leaving it to the next rider on the journey. For me, it came in October 2018 when I was pleased to pass on the chairmanship of Teck Resources to one of our great Canadians, and a true world leader, in Dominic Barton. His career advising business, academia and governments extending from Canada to China, South Korea and elsewhere in Asia, as well as to the United Kingdom, the Far East and points between, culminated in an unprecedented three terms as Global Managing Director of McKinsey & Company, a position from which he retired in July 2018.

Many readers of this letter have said they appreciated the simple truths about the business that we have laid out over the years. While one must adapt to the times, and there are always ephemeral issues which must be dealt with, the fundamentals for building a lasting, successful mining company don't change all that much.

One of these truths lies in the saying: "A mining company without ore reserves is an oxymoron." The reality is that all mines are depleting assets, in which every ounce or tonne of metal or mineral mined must be replaced by the discovery of another ounce or tonne just to stand still, let alone grow. This applies to individual mines and companies alike.

Successful exploration and development is essential to the sustainability of a mining company, else decline is inevitable. Historic discoveries like Teck-Hughes at Kirkland Lake, the Sullivan at Kimberley and Temagami in Ontario were key stepping stones that led, each in their own way, to the modern Teck Resources, as did more recent new mines such as Afton, Hemlo, Red Dog, Quebrada Blanca, Elkview and Antamina.

We have said for years that the three keys to the future of any mining company are, in no particular order, its ore reserves, the people to discover and mine them, and a strong balance sheet to be able to finance a growing reserves base effectively. To these, we add the importance of dealing fairly and with the highest of professional standards with our partners in exploration, mining, refining and the communities in which we operate.

Our recent book, *Never Rest on Your Ores, Building a Mining Company One Stone at a Time*, was published by McGill Queen's University Press in 2017. It tells the stories of some of the people and events that came together over a hundred year period to build Teck Resources from modest beginnings into a major Canadian mining company.

The subtitle is a play on the words of China's iconic Deng Xiaoping who, when asked in 1981 how he would accomplish his plan to quadruple China's GDP in 20 years, said: "We will cross the stream by feeling the stones." It was and is a good strategy, combining a specific target with adaptability to opportunities, and one to which Teck subscribes.

The book describes how this company and the people leading it managed to step from stone to stone, sometimes going backward but generally forward, alert to opportunity but not without the odd mistake, and in the process added significant shareholder value and created a very good company. Ours was not the only way, but it worked well in its times, through the ups and downs of a number of different eras.

Building one step at a time does not mean plodding along but, rather, reacting prudently to good opportunities as they arise. CEO Don Lindsay and I have urged our colleagues to be able to "recognize, analyze and act" expeditiously when

such opportunities do occur, and to wait patiently during those times between. Patient opportunism is the key, because in our experience the stepping stones that truly matter don't come every quarter, but usually several years apart.

Size itself, rather than value, must never be the objective, nor should it be to produce the most ounces or tonnes of any particular commodity. Being the biggest miner does not necessarily equate with being the best. It has been said, wisely: "Size can be the result of success, but is seldom the reason for it."

Finally, it seems that the critical decisions which will eventually create a sustainable, successful company are seldom obvious at the time; if they were, everyone would be chasing the same tales, pricing them beyond value. The decisions that will eventually serve as new cornerstones, as company-makers, may often be unclear or unpopular in the short term, perhaps considered too risky or with the anticipated payoff some time away. We saw this with the decision to build the Antamina mine in uncertain times. Yet the great companies will make them, and carry them off well.

There is a question we like to ask ourselves when faced with such difficult decisions: "Will it make us a better company?" If not, we should be prepared to stand and wait for the one that will.

The author Michael Tobert wrote: "Creation is a struggle. It takes imagination. It takes energy. It takes years. Destruction is the breathless work of moments." To this, we might add, it takes a combination of enthusiasm leavened by patience, and good fortune along with wisdom. Perhaps the owl, pictured in my book, had it right.

In closing, I'd like to say thanks to a number of long-time Teck hands that retired from active service in 2018. This includes Linda Rowe, my assistant for almost 40 years, Karen Dunfee, also a 40-year veteran who has served the board as secretary for years, and Maryan McMaster who was with us for 44 years. On behalf of the board I would like to express our appreciation for all that each did for so long to help make Teck a better company.

In addition, my special thanks to Warren Seyffert, who retired as vice chairman at the same time as I passed the pick to Dominic Barton. Warren began with us long ago as a young lawyer, working on most of the series of new mines Teck built or acquired that truly did make us a better company. The geologists and engineers get much of the credit when a new one starts successfully, but Warren was part of the unsung glue that at times held it all together, and he has served Teck as vice chairman and lead director now for ten years. The board and management wish him well in his retirement.

I'm confident that, in leaving you now in the capable hands of Dominic Barton, Norman Keevil III, our diverse board of directors and strong management team, and with a strong group of operating mines and pipeline of development prospects, Teck will continue to be among the world's best companies in this exciting industry.

Thank you all for your support in what has been a great ride over the years. I will continue to watch and help where I can.



Dr. Norman B. Keevil, O.C.
Chairman Emeritus
Vancouver, B.C., Canada
December 2018



The painting *Owl Under Moon* by artist David Lee, courtesy Lahaina Galleries, hangs behind my desk and has three meanings. Firstly, it represents a wise old owl looking over my shoulder; we all need one of these. Secondly, even a wise old owl goes out on a limb sometimes. Thirdly, if the limb breaks, the wise old owl has wings enabling it to fly away safely.



Letter from the Chair

Dominic Barton
Chair of the Board

To the Shareholders

It is a rare opportunity to be asked to help lead a company that is both so rich in history and so well positioned for future growth.

I would like to start by thanking Teck's Chairman Emeritus, Dr. Norman B. Keevil — truly a legendary figure in the global mining industry and in Canada's business community. His leadership over close to five decades has built Teck into a leading Canadian-based mining company and a key international player in the resource sector. His book, *Never Rest on Your Ores*, outlining his experiences building Teck, provides timeless guidance for us and other organizations — emphasizing ore reserves, a strong balance sheet and a focus on talent. I strongly recommend it to anyone interested in mining or in building a successful business.

I am fortunate to join Teck at a pivotal time in the company's history. Dr. Keevil's legacy of mine-building and Don Lindsay's leadership as CEO have placed Teck in a strong position as we look to the future.

First, we have an enviable portfolio of world-class assets in stable jurisdictions and a solid pipeline of projects for growth, particularly our recently sanctioned Quebrada Blanca Phase 2 project (QB2). QB2 is a very large copper resource that has the potential to fuel decades of copper production growth for Teck. This comes at a time when the increasing use of electric vehicles, alternative energy and electrification are driving global copper demand ever higher, outpacing historical supply sources.

Second, Teck has further strengthened its balance sheet, lowering debt levels, while at the same time prudently investing in growth opportunities that will generate even greater value in the years ahead.

Third, Teck has a deep commitment to sustainability. We are investing significantly to maintain and improve water quality, reduce fresh water use and decrease our carbon emissions. Across our operations our employees are focused on responsibly producing materials while being good neighbours to the communities in which we operate.

Fourth, Teck has built a culture that attracts top talent and gives people a platform to succeed. Our employees are generating ideas that are reshaping how we mine. Ideas like smart shovels that scan each load to separate valuable ore from waste rock, or using machine learning to anticipate equipment maintenance issues before they actually happen. Across the company, our people are putting innovation and technology to work to strengthen safety, enhance sustainability, improve productivity and grow our business.

Foundational to all of this are Teck's strong values of safety, integrity, excellence, sustainability, respect and courage. These values guide every decision we make as a company and set the standard for everything we do. The strength of Teck's values shines through in our work to build relationships with Indigenous Peoples, support thriving communities and advocate for important environmental initiatives. These values will ensure we continue to do the right thing for communities and the environment while working to raise the bar for responsible development across our industry.

I first got to know Teck when I was invited to participate in strategic meetings a decade ago. While the company was taking the steps necessary to manage critical issues at hand — namely, the recovery from the global financial crisis — it was also firmly focused on building for the long term. I have learned that the most successful companies need this type

of dual vision, which I liken to having a microscope in one eye and a telescope in the other. It is the essential combination of making certain that short-term performance is consistently strong while also setting up for, and not losing sight of, the long-term goals that go into making a great company.

Today, I am energized by the opportunities ahead of us. While we know we will continue to experience fluctuations in the global economy, there are unwavering positive forces driving changes that will have the potential to benefit the company and its shareholders for years to come.

Take the growing middle class as an example. In the next 15–20 years, there will be two billion new middle-class consumers in the world. At the same time, the world is becoming more urbanized, with 1.2 million people moving each week from rural areas to cities. The scale of this demographic shift is unmatched in human history. The world is very short on infrastructure, not only in Asia and Africa but also North America. It is estimated that we will need over \$50 trillion in new and improved infrastructure over the next 30 years. This and the improved standard of living that this new middle class are seeking will require the commodities we produce, driving even greater demand growth.

The global transition to a cleaner economy — renewable energy generation, increasing electrification and the mobility revolution — will also depend on a backbone of mined products. For example, zero-emission vehicles on average require four times as much copper as conventional vehicles, and renewable energy systems can require 12 times as much copper as traditional systems.

When you consider all of this, one thing is evident: the metals and minerals we produce matter. They matter today, and they will matter even more tomorrow for the continued advancement of humanity.

I would also like to thank retiring board member Warren Seyffert for his nearly 30 years of service to Teck. He has been a terrific coach to me. I am also pleased to report that Dr. Keevil has been named our Chairman Emeritus and will act as a special advisor to the Board. His experience in the industry will no doubt prove invaluable to us going forward because, as Dr. Keevil likes to quote Mark Twain, “History doesn’t repeat itself, but it often rhymes.”

In closing, I am excited to work with the Board of Directors and, in particular, our CEO Don Lindsay to continue to build a leading Canadian-based mining champion focused on creating long-term, sustainable value.



Dominic Barton
Chair of the Board
Vancouver, B.C., Canada
February 12, 2019



Outgoing Chairman Norman Keevil welcomed Dominic Barton as the incoming Chair and new “prospector in chief” in October 2018, passing him a symbolic, silver-plated prospector’s pick. The painting is of the early open pit at the Temagami copper mine in Ontario.



Letter from the CEO

Donald R. Lindsay
President and Chief Executive Officer

To the Shareholders

This past year was transformational for Teck. We achieved key milestones and began the transition to a new phase of growth for our company. A number of important initiatives came to fruition in 2018, some of which have been in the works for close to a decade. These included entering into a partnership for, and commencing construction at, our Quebrada Blanca Phase 2 copper project (QB2), commencing production at the Fort Hills mine, progressing the Project Satellite properties and implementing innovative new technologies across our business.

Collectively, these achievements create a strong platform for Teck to build new value and seize new opportunities. Moving forward, we are focusing on continued strong performance at our existing operations, maintaining a strong balance sheet and returning cash to shareholders, disciplined execution of QB2 and seizing on the enormous potential for even more copper growth ahead.

At the same time, our commitment to safety as a core value remains unchanged. In 2018, we continued to build on our efforts to improve our safety performance. Compared to the previous year, High-Potential Incidents and Lost-Time Injury Frequency were down 28% and 21%, respectively. However, this year we were deeply saddened by two fatalities at our Elkview and Fording River operations. These incidents are a powerful reminder of how we must remain vigilant in our efforts to achieve our vision of everyone going home safe and healthy every day.

Reflecting on 2018, our operations performed very well, generating significant free cash flow, particularly from our steelmaking coal business. We had record revenues of \$12.6 billion, and record gross profit before depreciation and amortization of \$6.1 billion. We reduced our outstanding debt by \$1.4 billion, bringing our net debt to \$3.8 billion at year-end, with strong liquidity and access to credit. Early in the year, Teck was upgraded to an investment grade credit rating by Moody's.

We declared dividends of \$0.30 per share in 2018, returning \$172 million in cash to shareholders and completed \$189 million in share buybacks, of which \$131 million was done under the \$400 million of buybacks approved by our Board in November. We have bought back a further \$116 million in 2019, and when complete, we will have returned a total of \$572 million to shareholders through dividends and share buybacks.

The commissioning and successful production ramp-up of Fort Hills oil sands mine with our partners Suncor and Total further diversified our product mix. We also advanced our Frontier oil sands project through a federal-provincial Joint Review Panel public hearing, and we have reached long-term participation agreements with all 14 Indigenous communities closely connected to the project.

QB2 received regulatory approval in August 2018, and in December, Sumitomo Metal Mining and Sumitomo Corporation agreed to acquire a 30% indirect interest in the project for US\$1.2 billion. This transaction significantly de-risks Teck's investment in QB2, as the combination of proceeds and proposed project financing reduces our share of equity contributions toward the un-escalated US\$4.739 billion estimated capital cost to US\$693 million, with our first contributions not required until late 2020.

In December, our Board sanctioned full construction of QB2, with first production targeted for the second half of 2021. Once complete, QB2 will transform our copper business, making Teck a major global copper producer. QB2 utilizes only

25% of the reserves and resources currently delineated at the vast Quebrada Blanca orebody, meaning there are significant opportunities to further increase production and mine life in future phases. The next expansion opportunity, what we are calling QB3, has the potential to double production, or more, which would make the mine a top five copper producer globally. In addition, we are advancing other copper projects, including our NuevaUnión joint venture and assets within our Project Satellite portfolio. These projects provide Teck with multiple copper growth options at a time when the long-term outlook for copper is very positive.

We have significantly accelerated the pace of innovation and technology adoption across our business. Smart shovels that can detect ore from waste, artificial intelligence that predicts equipment failures before they occur and remote and autonomous equipment are just some of the innovations that are making our operations safer, more sustainable and more productive.

In all of our activities, we are committed to social and environmental responsibility. As part of this commitment, we announced new goals for reducing fresh water use and managing water quality across our operations in 2018. We have also continued to focus on strengthening diversity at all levels of our company. In 2018, 26% of all new hires at Teck were women, and 17% of our senior management team is now female.

In recent years, there have been serious tailings facility failures, including the tragic failure at Vale's Brumadinho facility in Brazil in January 2019. As Chair of the International Council of Mining and Metals, I am committed to working with CEOs from its 27 members to establish international standards for tailings facilities and emergency procedures, along with working to make a fundamental step change in how the mining industry manages tailings.

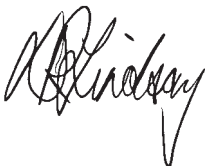
At Teck, we take extensive measures to ensure the safety and security of our tailings storage facilities at all of our operations and legacy properties. We have comprehensive systems and procedures in place, including monitoring technology, regular inspections, and reviews by independent experts. We have implemented a leading industry practice by establishing independent tailings review boards, which are in place for all of our major tailings facilities. Nothing is more important to us than the safety of our people, communities and the environment, and we are committed to continually reviewing our procedures and facilities to ensure they are best in class.

Our sustainability performance was recognized earlier this year, with Teck being named the top-ranked company in the metals and mining category on the 2019 Global 100 Most Sustainable Corporations list by media and investment research company Corporate Knights. We were also named for the second consecutive year as one of Canada's Top 100 Employers by Mediacorp, and named to the Dow Jones Sustainability World Index for the ninth consecutive year.

Turning to our people, Ray Reipas, Senior Vice President, Energy, and Tim Watson, Senior Vice President, both retired in 2018. I would like to thank them for their leadership in the successful construction and start-up of the Fort Hills oil sands mine, and for their work on the Frontier project. New members of our senior team in 2018 include Kieron McFadyen, Senior Vice President, Energy; and Andrew Milner, Senior Vice President, Technology and Innovation.

I would also like to welcome our new Chair of the Board, Dominic Barton, to Teck. Dominic previously served as the Global Managing Partner of McKinsey & Company, and will provide us with a strong global perspective as a recognized thought leader on creating long-term economic and social value. Thank you to our Chairman Emeritus, Dr. Norman B. Keevil, for his decades of leadership that have helped build Teck into the company it is today. Dr. Keevil will carry on his association with the company as special advisor to the Board.

In closing, we are on the cusp of an exciting new phase for Teck, made possible by the experience, ability and innovation of our people. This skilled team is ensuring that our existing operations are running at peak performance, that we are fully leveraging our portfolio of premier operating assets and development projects, and that we are adopting new technologies that will further enhance our business. Together, we will continue to build on the milestones we reached in 2018 to create new value for our shareholders, employees and communities through the year ahead.



Donald R. Lindsay
President and Chief Executive Officer
Vancouver, B.C., Canada
February 12, 2019

Responsibility

Health and Safety

Safety is a core value at Teck. We believe it is possible to operate without serious injuries, occupational diseases or fatalities. We are committed to providing our people with the best safety training, tools and practices to help achieve our vision of everyone going home safe and healthy every day.

In 2018, our High-Potential Incident Frequency was 28% lower than in 2017 and Total Recordable Injury Frequency remained the same as in 2017. We reduced our Lost-Time Injury Frequency by 21% since 2017, while our Lost-Time Disabling Injury Frequency remained flat year over year.

However, we were deeply saddened by two tragic incidents that resulted in fatalities at our operations in 2018. A vehicle collision occurred on November 18 at Elkview Operations that resulted in the death of a Teck employee. On April 9, an amphibious excavator overturned at Fording River Operations, resulting in the death of a contractor. Investigations have been carried out to learn as much as possible from these incidents so that we can implement measures to prevent future occurrences and share learnings across the industry. These unfortunate events reinforce that there is still work to be done to further implement our High-Potential Risk Control strategy.

Throughout 2018, we continued to focus on the fourth phase of our Courageous Safety Leadership (CSL) program and we completed the implementation company-wide, achieving 97% employee participation. In 2019, we will be undertaking our second company-wide survey on our safety culture.

As part of our Occupational Health and Hygiene strategy, we continued to implement exposure reduction plans at our operations to prevent potential exposure-related occupational diseases. We also engaged a medical director to help with strategy and program development. Our areas of focus in 2019 will include the ongoing implementation of exposure reduction plans, and continuing implementation of new software to assist with capturing and analyzing our monitoring data.

We developed a new hazard identification training program to be launched in 2019. It will be an integral part of our culture going forward. This program will better equip all employees across the company with the skills to better identify hazards and thereby reduce associated risk.

Our People

Our approximately 10,700 employees worldwide are essential to our success as a company. They are the source of the knowledge, energy and ideas that help to improve health and safety, sustainability and productivity across Teck.

In 2018, we continued to focus on attracting, retaining and developing the very best people. This included enhancing our inclusion and diversity practices, and our recruitment programs, with a particular focus on attracting more women and Indigenous Peoples. As a result of this work, one in three of our new hires in 2018 were women. This focus on diversity also included gender intelligence training, which aims to help all employees identify gender blind spots that may influence mindsets. To date, more than 1,400 employees have been through this training.

In 2018, Teck was named for the second consecutive year as one of Canada's Top 100 Employers by Mediacorp., which recognizes companies for exceptional human resources programs and forward-thinking workplace policies.

Sustainability

Teck is committed to producing the materials essential to building a modern, sustainable society. We are focused on creating value in a manner that is socially and environmentally responsible, and that meets the needs of our company, our shareholders and our communities of interest.

In 2018, all of our operations, projects and exploration sites continued to demonstrate a high level of social and environmental performance. We continued to implement our sustainability strategy, and are on track to meet our short-term goals for 2020 and long-term goals stretching out to 2030. These goals cover the six areas of focus representing the most significant sustainability issues and opportunities facing our company: Water, Biodiversity, Energy and Climate Change, Air, Our People, and Community.

Our achievements in these areas resulted in Teck being named to the Dow Jones Sustainability World Index for the ninth consecutive year, and we were ranked as one of the Global 100 Most Sustainable Corporations and Best 50 Corporate Citizens in Canada by media and investment research firm Corporate Knights.

Sustainability (continued)

Our 2018 Sustainability Report provides detail on our goals and performance on sustainability topics including Health and Safety; Water Stewardship; Energy and Climate Change; Relationships with Communities; Relationships with Indigenous Peoples; Diversity and Employee Relations; Business Ethics; Tailings, Waste and Environmental Management; Human Rights; Air Quality; and Biodiversity and Reclamation.

We are advancing implementation of a range of new technologies and innovations that have the potential to improve our performance in the areas of safety, sustainability and productivity. This includes data analytics, artificial intelligence, autonomous equipment and advanced sensors that could significantly improve efficiency and safety performance, and reduce both our costs and our environmental footprint. In addition, we are continuing to take action in the area of climate change by reducing the carbon footprint associated with our activities, analyzing the business risks and opportunities associated with climate change, and advocating for policies that help reduce greenhouse gas emissions while maintaining the competitiveness of our industry.

Our governance of sustainability takes into consideration the evolving expectations of our communities of interest and broader society. Through our memberships and involvement with various external industry and civil society organizations, we work to contribute to, and engage with others on, the development of best practices in sustainability performance.

We are a member of the International Council on Mining and Metals (ICMM), a global industry association that represents leading international mining and metals companies. As an ICMM member, we implement their 10 Sustainable Development Framework Principles, align our practices with their Position Statements, produce an externally verified sustainability report using Global Reporting Initiative (GRI) Standards and follow the ICMM Assurance Procedure. We are also participants in the United Nations Global Compact and the Mining Association of Canada's Towards Sustainable Mining initiative, and we are working to support progress on the United Nations Sustainable Development Goals (SDGs).

More information on our sustainability governance and performance can be found at www.teck.com/responsibility.

Management's Discussion and Analysis

Management's Discussion and Analysis

Our business is exploring for, acquiring, developing and producing natural resources. We are organized into business units focused on steelmaking coal, copper, zinc and energy. These are supported by our corporate offices, which manage our corporate growth initiatives and provide marketing, administrative, technical, financial and other services.

Through our interests in mining and processing operations in Canada, the United States (U.S.), Chile and Peru, we are the world's second-largest seaborne exporter of steelmaking coal, an important producer of copper, one of the world's largest producers of mined zinc and we have an interest in a large producing oil sands mine. We also produce lead, silver, molybdenum and various specialty and other metals, chemicals and fertilizers. We actively explore for copper, zinc and gold, and we hold interests in oil sands assets in the Athabasca region of Alberta.

This Management's Discussion and Analysis of our results of operations is prepared as at February 12, 2019 and should be read in conjunction with our audited annual consolidated financial statements for the year ended December 31, 2018. Unless the context otherwise dictates, a reference to Teck, Teck Resources, the Company, us, we or our refers to Teck Resources Limited and its subsidiaries, including Teck Metals Ltd. and Teck Coal Partnership. All dollar amounts are in Canadian dollars, unless otherwise stated, and are based on our 2018 audited annual consolidated financial statements that are prepared in accordance with International Financial Reporting Standards (IFRS). Certain comparative amounts have been restated as a result of the adoption of new IFRS pronouncements. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018 for more details. In addition, we use certain financial measures, which are identified throughout the Management's Discussion and Analysis in this report, that are not measures recognized under IFRS and do not have a standardized meaning prescribed by IFRS. See "Use of Non-GAAP Financial Measures" on page 59 for an explanation of these financial measures and reconciliation to the most directly comparable financial measures under IFRS.

This Management's Discussion and Analysis contains certain forward-looking information and forward-looking statements. You should review the cautionary statement on forward-looking statements under the heading "Cautionary Statement on Forward-Looking Statements" on page 69, which forms part of this Management's Discussion and Analysis, as well as the risk factors discussed in our most recent Annual Information Form.

Additional information about us, including our most recent Annual Information Form, is available on our website at www.teck.com, under Teck's profile at www.sedar.com (SEDAR), and on the EDGAR section of the United States Securities and Exchange Commission (SEC) website at www.sec.gov.

Business Unit Results

The following table shows a summary of our production of our major commodities for the last five years and estimated production for 2019.

Five-Year Production Record and Our Estimated Production in 2019

Principal Products		2014	2015	2016	2017	2018	2019 estimate ⁽³⁾
Steelmaking coal	million tonnes	26.7	25.3	27.6	26.6	26.2	26.25
Copper ⁽¹⁾	thousand tonnes	333	358	324	287	294	300
Zinc							
Contained in concentrate	thousand tonnes	660	658	662	659	705	635
Refined	thousand tonnes	277	307	312	310	303	307
Energy (bitumen) ⁽¹⁾⁽²⁾	million barrels	–	–	–	–	6.8	13.0

Notes:

- (1) We include 100% of the production and sales from Quebrada Blanca and Carmen de Andacollo mines in our production and sales volumes, even though we own 90% of these operations, because we fully consolidate their results in our financial statements. Our ownership in Quebrada Blanca is expected to be 60% upon closing of our transaction with Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation, and production and sales will continue to be reported on a 100% basis. We include 22.5% and 21.31% of production and sales from Antamina and Fort Hills, respectively, representing our proportionate ownership interest in these operations. Copper production includes cathode production at Quebrada Blanca. Zinc contained in concentrate production includes co-product zinc production from our copper business unit.
- (2) Energy (bitumen) results for the year ended December 31, 2018 are included from June 1, 2018.
- (3) Production estimates for 2019 represent the midpoint of our production guidance range.

Average commodity prices and exchange rates for the past three years, which are key drivers of our profit, are summarized in the following table.

	US\$					CAD\$				
	2018	% chg	2017	% chg	2016	2018	% chg	2017	% chg	2016
Steelmaking coal (realized — \$/tonne) ⁽¹⁾	187	+7%	174	+51%	115	243	+8%	226	+48%	153
Copper (LME cash — \$/pound)	2.96	+6%	2.80	+27%	2.21	3.84	+5%	3.64	+24%	2.94
Zinc (LME cash — \$/pound)	1.33	+2%	1.31	+38%	0.95	1.72	+1%	1.70	+35%	1.26
Blended bitumen (realized — \$/barrel) ⁽²⁾	35.12	–	–	–	–	46.14	–	–	–	–
Exchange rate (Bank of Canada)										
US\$1 = CAD\$	1.30	0%	1.30	-2%	1.33					
CAD\$1 = US\$	0.77	0%	0.77	+2%	0.75					

Notes:

- (1) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.
- (2) Energy (bitumen) results for the year ended December 31, 2018 are included from June 1, 2018.

Our revenues, gross profit before depreciation and amortization, and gross profit by business unit for the past three years are summarized in the following table.

(\$ in millions)	Revenues ⁽²⁾			Gross Profit Before Depreciation and Amortization ⁽¹⁾⁽²⁾			Gross Profit (Loss) ⁽²⁾		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Steelmaking coal	\$ 6,349	\$ 6,014	\$ 4,144	\$ 3,770	\$ 3,732	\$ 2,007	\$ 3,040	\$ 3,014	\$ 1,379
Copper	2,714	2,400	2,007	1,355	1,154	788	877	586	190
Zinc	3,094	3,496	3,147	1,085	1,173	984	869	967	830
Energy ⁽³⁾	407	–	2	(106)	–	2	(165)	–	(3)
Total	\$ 12,564	\$ 11,910	\$ 9,300	\$ 6,104	\$ 6,059	\$ 3,781	\$ 4,621	\$ 4,567	\$ 2,396

Notes:

- (1) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.
- (2) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.
- (3) Energy (bitumen) results for the year ended December 31, 2018 are included from June 1, 2018.

Steelmaking Coal

In 2018, our six steelmaking coal operations in Western Canada produced 26.2 million tonnes of coal, with sales of 26.0 million tonnes. The majority of our sales are to the Asia-Pacific region, with lesser amounts going primarily to Europe and the Americas. Our long-term production capacity is approximately 27 million tonnes, and we have total proven and probable reserves of 883 million tonnes of steelmaking coal.

In 2018, Coal Mountain Operations production declined as it reached the end of its mine reserve. However, favourable geology at Coal Mountain will allow for the mining and processing of a small amount of coal in the first quarter of 2019. In addition, throughout 2018, we hauled a portion of raw coal from Elkview Operations to Coal Mountain Operations for processing and we anticipate that practice to continue through at least the first quarter of 2019.

In 2018, our steelmaking coal business unit accounted for 50% of revenue and 62% of gross profit before depreciation and amortization.

(\$ in millions)	2018	2017	2016
Revenues ⁽²⁾	\$ 6,349	\$ 6,014	\$ 4,144
Gross profit before depreciation and amortization ⁽¹⁾⁽²⁾	\$ 3,770	\$ 3,732	\$ 2,007
Gross profit ⁽²⁾	\$ 3,040	\$ 3,014	\$ 1,379
Production (million tonnes)	26.2	26.6	27.6
Sales (million tonnes) ⁽²⁾	26.0	26.5	27.0

Notes:

(1) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

(2) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Operations

Gross profit before depreciation and amortization increased slightly to \$3.8 billion in 2018. Gross profit was \$3.0 billion in 2018, similar to 2017, as higher prices were mostly offset by lower sales volumes and higher unit operating costs.

Our average realized selling price in 2018 increased to US\$187 per tonne, compared with US\$174 per tonne in 2017 and US\$115 per tonne in 2016.

Sales volumes were 26.0 million tonnes in 2018, slightly lower than 26.5 million tonnes sold in 2017. Sales volumes of steelmaking coal were negatively affected by logistical issues throughout the supply chain during the year.

Our 2018 production of 26.2 million tonnes was 400,000 tonnes less than 2017, primarily due to declining production at Coal Mountain Operations as it reached the end of its current reserve life. In the first quarter of 2018, a pressure event in the coal dryer at Elkview Operations affected production. However, it was fully recovered in subsequent quarters by hauling a portion of raw coal from Elkview Operations to Coal Mountain Operations for processing.

The cost of product sold in 2018, before transportation and depreciation, was \$62 per tonne, compared with \$52 per tonne in 2017. This cost increase was a result of increased mining activity, equipment rentals and associated labour to generate production to capture margin in a favourable coal price environment. In addition, the business unit experienced inflationary pressures, predominantly affecting diesel costs, the result of higher oil prices. All of these factors, combined with slightly lower production, longer haul distances and increased activity on mobile maintenance, increased the unit cost per tonne, but have not undermined our strong profitability.

Capital spending in 2018 included \$232 million for sustaining capital, \$140 million for major enhancements to maintain and increase long-term production capacity, and \$90 million for the Neptune Bulk Terminals upgrade.

Elk Valley Water Management

We continue to implement the water quality management measures required by the Elk Valley Water Quality Plan (the Plan), an Area-Based Management Plan approved in 2014 by the B.C. Minister of Environment. The Plan establishes short-, medium- and long-term water quality targets for selenium, nitrate, sulphate and cadmium to protect the environment and human health, as well as a plan to manage calcite formation. In accordance with the Plan, we have constructed and are operating the first active water treatment facility (AWTF) at West Line Creek.

In the fourth quarter, we commissioned an additional treatment step to address an issue regarding selenium compounds in effluent from the West Line Creek AWTF. The facility is operating as designed. We have commenced construction on our next AWTF at Fording River Operations, which will use the same treatment process as the modified West Line Creek AWTF.

In 2018, we successfully operated our first saturated rock fill (SRF) project at our Elkview Operations. The SRF has been in operation for the past 12 months and is demonstrating near-complete removal of nitrate and selenium from the feed water. Results to date from the full-scale trial show that the technology has the potential to replace future AWTFs, as well as to reduce capital and operating costs for water treatment. We are working to increase the capacity of the Elkview SRF to potentially reduce reliance on active water treatment. This approach has not yet received necessary approvals and we continue to progress the construction of additional AWTFs to comply with the Plan.

Capital spending on water treatment in 2019 is expected to be approximately \$235 million, including advancing a clean water diversion at Fording River, application of SRF technology at Elkview, construction of Fording River South AWTF, and advancing management of calcite and the early development of water treatment for Fording River North. This compares to approximately \$57 million of capital spending on water treatment in 2018.

In our previous guidance, we estimated total capital spending for water treatment between 2018 and 2022 of \$850 to \$900 million. We intend to complete construction of the Fording River South AWTF, currently under construction. If we are successful in permitting SRF projects to replace the Elkview AWTF and Fording River North AWTF, we estimate that total capital spending on water treatment during this period would reduce to \$600 to \$650 million. If no reduction in AWTF capacity is permitted, overall capital in the same period would increase by approximately \$250 million over our previous guidance, as a result of engineering scope changes at the Elkview AWTF and an increased volume of water treated at Fording River North. We have presented regulators with evidence that SRFs are a viable technical alternative to active water treatment, and are working through a review process. We expect that this process will result in a decision in the first half of 2019.

We continue to advance research and development, including the SRF technology. We estimate that over the longer term, SRFs will have capital and operating costs that are 20% and 50%, respectively, of AWTFs of similar capacity. If we are successful in replacing a substantial portion of active water treatment capacity with SRFs, we believe that our long-term operating costs associated with water treatment could be reduced substantially.

All of the foregoing estimates are uncertain. Final costs of implementing the Plan will depend in part on the technologies applied and on the results of ongoing environmental monitoring and modelling. The timing of expenditures will depend on resolution of technical issues, permitting timelines and other factors. We expect that, in order to maintain water quality, some form of water treatment will continue for an indefinite period after mining operations end. The Plan contemplates ongoing monitoring to ensure that the water quality targets set out in the Plan are in fact protective of the environment and human health, and provides for adjustments if warranted by

monitoring results. This ongoing monitoring, as well as our continued research into treatment technologies, could reveal unexpected environmental impacts, technical issues or advances associated with potential treatment technologies that could substantially increase or decrease both capital and operating costs associated with water quality management.

During the third quarter of 2018, we received notice from Canadian federal prosecutors of potential charges under the *Fisheries Act* in connection with discharges of selenium and calcite from coal mines in the Elk Valley. Since 2014, compliance limits and site performance objectives for selenium and other constituents, as well as requirements to address calcite, in surface water throughout the Elk Valley and in the Koochanusa Reservoir have been established under a regional permit issued by the provincial government, which references the Plan. If federal charges are laid, potential penalties may include fines as well as orders with respect to operational matters. We expect that discussions with respect to the draft charges will continue at least into the third quarter of 2019. It is not possible at this time to fully assess the viability of our potential defences to any charges, or to estimate the potential financial impact on us of any conviction. Nonetheless, that impact may be material.

Rail

Rail transportation of product from our five steelmaking coal mines in southeast B.C. to Vancouver port terminals is provided under a 10-year agreement with CP Rail, which expires March 31, 2021. Most eastbound coal deliveries to North American customers are shipped pursuant to an arrangement with CP Rail. The remaining eastbound coal deliveries are shipped via the BNSF Railway. Our Cardinal River Operations in Alberta is served by Canadian National Railway (CN), which transports our product to ports on the west coast. Currently, Teck is shipping under tariff with CN.

Ports

We maintain access to terminal loading capacity in excess of our planned 2019 shipments. We continue to progress a facility upgrade at the Neptune Bulk Terminals, which will increase terminal loading capacity. In 2018, we invested \$90 million on the project, primarily in the third and fourth quarters. The program includes an additional \$210 million to be spent in 2019 and approximately \$170 million in 2020. The upgrades are expected to be completed in the third quarter of 2020.

In addition, our contract with Westshore Terminals, which expires March 31, 2021, provides us with 19 million tonnes of annual capacity, and we have contracted capacity at Ridley Terminals near Prince Rupert. We are exploring additional options for coal shipments following the expiration of our contract with Westshore Terminals in 2021.

Sales

Our steelmaking coal marketing strategy is focused on maintaining and building relationships with our traditional customers, while establishing new customers in markets where we anticipate long-term growth in steel production and demand for seaborne steelmaking coal. In 2018, we continued to focus our marketing in areas with the greatest demand growth, increasing sales volumes to areas such as India and Southeast Asia.

Markets

Global steel production and demand for seaborne steelmaking coal continued to be strong in 2018. The World Steel Association reported that global steel production increased by 4.6% in 2018 compared to 2017. This was due to resilient steel pricing and demand supported by the recovery in investment activities in developed economies and the improved performance of emerging economies. Depletion and reduced production of some Eastern European coal mines continued to increase demand from European steel mills for seaborne steelmaking coal.

The following graphs show key metrics affecting steelmaking coal sales: spot price assessments and quarterly pricing, hot metal production (each tonne of hot metal, or pig iron, produced requires approximately 650–700 kilograms of steelmaking coal), and China’s steelmaking coal imports by source.

Daily Steelmaking Coal Assessments

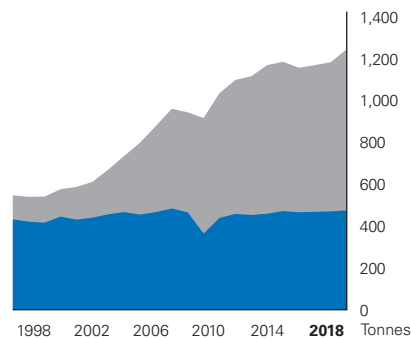
Source: Argus



- Spot price assessments (US\$ per tonne FOB Australia)
- Quarterly benchmark (US\$ per tonne FOB Australia)
- Quarterly index-linked price (US\$ per tonne FOB Australia)

Hot Metal (Pig Iron) Production

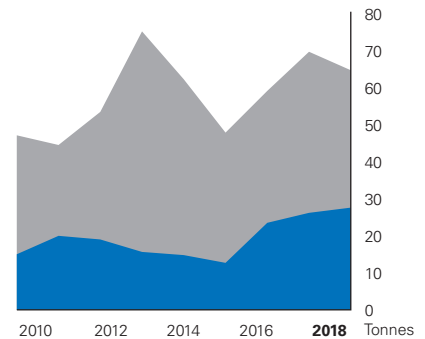
Source: World Steel Association, National Bureau of Statistics of China



- Rest of the world (tonnes in millions)
- China (tonnes in millions)

China Steelmaking Coal Imports

Source: China’s Customs



- Landborne (tonnes in millions)
- Seaborne (tonnes in millions)

Outlook

Market expectations are that global steel production and demand for steelmaking coal will remain strong in 2019. A robust steelmaking coal market is supported by the demand effect of continued steel capacity growth in India and Southeast Asia, the relocation of steel production to coastal areas in China, as well as concerns regarding supply from Australia and the U.S. While demand for steelmaking coal remains strong, pricing has softened somewhat since the beginning of 2019, reflecting shorter vessel queues in Australia and the relaxation of import restrictions in China, which were imposed from November 2018. We continue to monitor the effects that government policy and trade uncertainty might have on potential price volatility.

Steelmaking coal production in 2019 is expected to be between 26.0 and 26.5 million tonnes. We will continue to evaluate raw coal processing opportunities to capture the latent production capacity of our Elk Valley processing plants in 2019. As in prior years, annual production volumes can be adjusted to reflect market demand for our products, subject to adequate rail and port service. Assuming that current market conditions persist, annual production from 2020 to 2022 is expected to be higher than 2019, despite the closure of our Coal Mountain Operations in early 2019.

We continue to advance mining in new areas at our Fording River, Elkview and Greenhills operations, which will extend the lives of these mines and allow us to increase production to compensate for the closure of Coal Mountain. We are investing in processing plants and have transferred mining equipment from Coal Mountain in order to develop the new mining areas at each of these sites. As part of our strategy to maintain production capacity of approximately 27 million tonnes in the Elk Valley, Elkview Operations is well positioned for expansion. The operation is anticipating a

higher strip ratio in 2019, with a natural reduction of strip ratios over the next three to five years. The reduction in strip ratios will provide opportunity for a low capital-intensity investment in plant throughput capacity to capitalize on the increased raw coal release beyond 2019 for increasing production.

Although coal prices have softened somewhat since the beginning of 2019, market fundamentals remain supportive for strong coal pricing levels. We are expecting 2019 first quarter sales to reach approximately 6.1 to 6.3 million tonnes. As always, our sales may vary depending on the performance of our logistics chain.

Customers determine vessel nominations for the majority of our sales. Final sales and average prices for the quarter will depend on product mix, market direction for spot priced sales and timely arrival of vessels, as well as the performance of the rail transportation network and port loading facilities.

In December, we experienced poor performance across the supply chain due to underperformance in rail, material handling issues and high wind events in Vancouver. Logistical challenges continued in January, including unplanned dumper outages at Westshore Terminals, which affected train unloading and negatively affected supply chain performance. Performance has improved since late January, but these factors continue to present a risk to our quarterly sales guidance.

We expect our site unit costs to be in the range of \$62 to \$65 per tonne in 2019. This range is slightly higher than in 2018, primarily as the result of the efforts described above to maintain total production after the closure of Coal Mountain, which will require the use of additional equipment, diesel and labour. We expect quarterly cost of sales to fluctuate in 2019, with higher cost of sales in the second and third quarter when our operations are scheduled to complete major plant maintenance outages.

Transportation costs in 2019 are expected to remain consistent at approximately \$37 to \$39 per tonne.

We invested approximately \$7.5 million in 2018 to continue to evaluate the MacKenzie Redcap detailed design study at our Cardinal River Operations and will be continuing this evaluation in 2019. The MacKenzie Redcap development is expected to supply approximately 1.8 million tonnes of steelmaking coal production per year and has the potential to extend production at Cardinal River to approximately 2027, beyond the planned closure in 2020. Beyond 2020, this additional tonnage would add to the current longer-term planned production capacity of approximately 27 million tonnes in the Elk Valley.

We expect sustaining capital expenditures for our steelmaking coal operations to be approximately \$485 million in 2019, including approximately \$235 million related to water treatment and \$250 million for ongoing operations. Sustaining capital expenditures largely relate to reinvestment in our equipment fleets. In addition, approximately \$200 million will be invested in major enhancement projects in 2019, primarily relating to the development of the new mining areas at our Elk Valley operations and increasing the plant capacity at our Elkview Operations. This is expected to increase our long-term production capacity and mitigate reduced production on closure of Coal Mountain Operations.

On February 11, 2019, we agreed with Poscan, pursuant to a reopener in the Greenhills joint venture agreement, to increase the royalty paid by Poscan in respect of its 20% share of Greenhills' coal production. At current benchmark coal prices of approximately US\$200 tonne, the royalty payment will increase by approximately \$90 million annually. At current exchange rates, a US\$10 per tonne increase or decrease in the coal price would increase or decrease the annual royalty by approximately \$4 million. The new royalty remains in effect until December 31, 2022.

Copper

In 2018, we produced 293,900 tonnes of copper from our Highland Valley Copper Operations in B.C., our 22.5% interest in Antamina in Peru, and our Carmen de Andacollo and Quebrada Blanca operations in Chile. Copper production rose by 2% from 2017, as higher production from Highland Valley Copper, Antamina and Quebrada Blanca was partially offset by lower production from Carmen de Andacollo as a result of declining ore grades.

In 2018, our copper operations accounted for 22% of our revenue and 22% of our gross profit before depreciation and amortization.

(\$ in millions)	Revenues			Gross Profit (Loss) Before Depreciation and Amortization ⁽¹⁾⁽²⁾			Gross Profit (Loss) ⁽²⁾		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Highland Valley Copper	\$ 941	\$ 733	\$ 750	\$ 343	\$ 213	\$ 268	\$ 164	\$ 18	\$ 86
Antamina	1,061	936	627	794	670	409	652	534	305
Carmen de Andacollo	488	549	401	193	222	86	121	142	9
Quebrada Blanca	224	182	229	26	50	24	(59)	(107)	(211)
Other	–	–	–	(1)	(1)	1	(1)	(1)	1
Total	\$ 2,714	\$ 2,400	\$ 2,007	\$ 1,355	\$ 1,154	\$ 788	\$ 877	\$ 586	\$ 190

Notes:

(1) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

(2) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

(thousand tonnes)	Production			Sales		
	2018	2017	2016	2018	2017	2016
Highland Valley Copper	101	93	119	103	89	122
Antamina	100	95	97	99	94	95
Carmen de Andacollo	67	76	73	64	77	73
Quebrada Blanca	26	23	35	26	23	35
Total	294	287	324	292	283	325

Operations

Highland Valley Copper

Our Highland Valley Copper Operations is located in south-central B.C. Gross profit before depreciation and amortization was \$343 million in 2018, compared to \$213 million in 2017 and \$268 million in 2016. Gross profit was \$164 million in 2018, compared with \$18 million in 2017, due to higher production and sales volumes as a result of improved copper ore grades and recoveries, and higher copper and molybdenum prices, partially offset by higher operating costs.

Highland Valley Copper's 2018 copper production was 100,800 tonnes, compared to 92,800 tonnes in 2017 and 119,300 tonnes in 2016. The increase was primarily due to significantly higher copper grades and higher recoveries in the first half of 2018 compared to early 2017. Copper and molybdenum ore grades declined as expected in the second half of 2018 as we mined ore from lower-grade sections of the Lornex and Valley pits as anticipated in the mine plan. Molybdenum production was 6% lower in 2018 at 8.7 million pounds, compared to 9.3 million pounds in 2017, primarily due to lower molybdenum grades.

A \$73 million project to install an additional ball mill to increase grinding circuit capacity is progressing on budget and on schedule, with start-up anticipated in the third quarter of 2019. An autonomous haulage pilot project was successfully started during the second half of 2018 in the Lornex pit, with six autonomous haul trucks now fully operational. We also continued studies to assess the potential economic viability of extending the Highland Valley Copper mine life to 2040.

Copper production in 2019 is anticipated to be between 115,000 and 120,000 tonnes, with a relatively even distribution throughout the year. Annual copper production from 2020 to 2022 is expected to be between 135,000 and 155,000 tonnes per year, increasing from the low end to high end of the range during the three-year period. Copper production is anticipated to average about 150,000 tonnes per year after 2022, through to the end of the current mine plan in 2028. Molybdenum production in 2019 is expected to be approximately 6.0 million pounds contained in concentrate, with annual production expected to decline to between 4.0 million and 5.0 million pounds per year afterwards.

Antamina

We have a 22.5% share interest in Antamina, a copper-zinc mine in Peru. The other shareholders are BHP Billiton plc (33.75%), Glencore plc (33.75%) and Mitsubishi Corporation (10%). In 2018, our share of gross profit before depreciation and amortization was \$794 million, compared with \$670 million in 2017 and \$409 million in 2016. Gross profit in 2018 was \$652 million, compared with \$534 million in 2017 and \$305 million in 2016. Gross profit in 2018 increased from 2017 due to higher copper and zinc prices, as well as record production levels of total copper and zinc concentrates of 2.4 million tonnes in 2018.

Antamina's copper production (100% basis) in 2018 was 446,100 tonnes, compared to 422,500 tonnes in 2017, with the increase primarily as a result of higher copper grades. Zinc production was 409,300 tonnes in 2018, an increase from 372,100 tonnes of production in 2017, primarily due to a higher portion of copper-zinc ores processed in 2018. In 2018, molybdenum production was 10.2 million pounds, which was 17% higher than in 2017.

Pursuant to a long-term streaming agreement made in 2015, Teck delivers an equivalent to 22.5% of payable silver sold by Compañía Minera Antamina S.A. to a subsidiary of Franco-Nevada Corporation (FNC). FNC pays a cash price of 5% of the spot price at the time of each delivery, in addition to an upfront acquisition price previously paid. In 2018, approximately 3.2 million ounces of silver were delivered under the agreement. After 86 million ounces of silver have been delivered under the agreement, the stream will be reduced by one-third. A total of 13.2 million ounces of silver have been delivered under the agreement from the effective date in 2015 to December 31, 2018.

Our 22.5% share of Antamina's 2019 production is expected to be in the range of 95,000 to 100,000 tonnes of copper, 65,000 to 70,000 tonnes of zinc and approximately 2.0 million pounds of molybdenum in concentrate. Our share of copper production is expected to be between 90,000 and 95,000 tonnes per year from 2020 to 2022. The lower zinc production in 2019 is a result of mine sequencing, and is expected to return to higher production levels after 2019 with higher grades and a higher proportion of copper-zinc ore to process. Our share of zinc production is expected to average between 100,000 and 110,000 tonnes per year from 2020 to 2022, although annual production will fluctuate due to feed grades and the amount of copper-zinc ore processed. Our share of annual molybdenum production is expected to be between 2.0 and 3.0 million pounds per year between 2020 and 2022.

Carmen de Andacollo

We have a 90% interest in the Carmen de Andacollo mine, which is located in the Coquimbo Region of central Chile. The remaining 10% is owned by Empresa Nacional de Minería (ENAMI), a state-owned Chilean mining company. Gross profit before depreciation and amortization was \$193 million in 2018, compared to \$222 million in 2017 and \$86 million in 2016. Gross profit decreased to \$121 million from \$142 million in 2017, primarily due to lower copper production and sales volumes.

Carmen de Andacollo produced 63,500 tonnes of copper contained in concentrate in 2018, compared to 72,500 tonnes in 2017. This was primarily due to lower grades as anticipated in the mine plan, partially offset by higher mill throughput. Mill throughput was a record 4.93 million tonnes in the fourth quarter. Copper cathode production was 3,700 tonnes in 2018, compared with 3,500 tonnes in 2017. Gold production of 59,600 ounces in 2018 was higher than the 54,500 ounces produced in 2017, with 100% of the gold produced for the account of RGLD Gold AG, a wholly owned subsidiary of Royal Gold, Inc. In effect, 100% of gold production from the mine has been sold to Royal Gold, Inc., who pays a cash price of 15% of the monthly average gold price at the time of each delivery, in addition to an upfront acquisition price previously paid.

Consistent with the mine plan, copper grades are expected to continue to decline towards reserve grades in 2019 and future years. We continue to study and implement projects that could help to increase production, including the installation of a sizer to better manage harder ores at depth and increase mill throughput. The sizer project is anticipated to be operational in the first half of 2019 and is included in our production guidance. Carmen de Andacollo's production in 2019 is expected to be in the range of 60,000 to 65,000 tonnes of copper in concentrate and approximately 2,000 tonnes of copper cathode. Annual copper in concentrate production is expected to be approximately 60,000 tonnes from 2020 to 2022. Cathode production volumes are uncertain past 2019, although there is some potential to extend production.

Quebrada Blanca

Quebrada Blanca Operations is located in the Tarapacá Region of northern Chile. In April 2018, we increased our interest in Quebrada Blanca to 90% by acquiring an additional indirect 13.5% interest in Compañía Minera Teck Quebrada Blanca S.A. (QBSA) through the purchase of Inversiones Mineras S.A. The purchase price consisted of US\$52.5 million paid in cash on closing, an additional payment of US\$60 million paid on approval of the social and environmental impact assessment for the Quebrada Blanca Phase 2 (QB2) project and the expiry of certain appeal rights, and a further US\$50 million paid within 30 days of the commencement of commercial production at QB2. Additional amounts may become payable to the extent that average copper prices exceed US\$3.15 per pound in each of the first three years following commencement of commercial production, up to a cumulative maximum of US\$100 million if commencement of commercial production occurs prior to January 21, 2024, or up to a lesser maximum in certain circumstances thereafter.

The other shareholder of QBSA is ENAMI, a Chilean state agency, which holds a 10% preference share interest in QBSA that does not require ENAMI to fund capital spending.

Since the first quarter of 2017, all supergene ore mined has been sent directly to the dump leach circuit. This has resulted in lower recovery and a longer leaching cycle at reduced operating costs, compared to the previous operations of the heap leach circuit. Mining of the supergene was expected to end in the second quarter of 2018, but continued until the fourth quarter due to an extension in the mine plan. Mining equipment and personnel have been redeployed to the QB2 project, and the operation is now focused on leaching the dump material and secondary extraction.

Quebrada Blanca produced 25,500 tonnes of copper cathode in 2018, compared to 23,400 tonnes in 2017, with the increase primarily due to increased production from secondary leaching.

Quebrada Blanca's gross profit before depreciation and amortization was \$26 million in 2018, compared to \$50 million in 2017 and \$24 million in 2016. Quebrada Blanca incurred a gross loss of \$59 million, compared to \$107 million in 2017. The improvement in 2018 related to a reduction in depreciation and amortization charges due to the asset impairment charge taken in 2017. However, after depreciation and amortization, a gross loss was recorded in both 2018 and 2017.

We expect production of approximately 20,000 to 23,000 tonnes of copper cathode in 2019. We expect cathode production to carry on into early 2020.

Quebrada Blanca Phase 2

The Quebrada Blanca Phase 2 (QB2) project is one of the world's largest undeveloped copper resources. QB2 is expected to have low operating costs, an initial mine life of 28 years, and significant potential for further growth.

The social and environmental impact assessment (SEIA) for the QB2 project was approved in August 2018. The Chile Environmental Evaluation Commission unanimously voted to approve the project on August 8, 2018. The final regulatory approval document, or RCA, was received on August 29, 2018. Long-term community agreements have been reached with all Indigenous communities involved in the evaluation. As expected, various administrative and legal appeals have been filed in respect of the SEIA approval, and QBSA and the relevant Chilean authorities are responding in the ordinary course.

In December, our Board of Directors approved the QB2 project for full construction and we announced a transaction with Sumitomo Metal Mining Co., Ltd. (SMM) and Sumitomo Corporation (SC) to subscribe for a 30% indirect interest in QBSA, which owns 100% of the QB2 project. The consideration payable by SMM and SC consists of a US\$1.2 billion contribution for a 30% indirect interest in QBSA, US\$50 million to Teck if QB2 achieves optimized target mill throughput of 154,000 tonnes per day by December 31, 2025, subject to adjustment; and a contingent contribution of 12% of the incremental NPV of a major expansion project (QB3) upon approval of construction, subject to adjustment (8% contingent earn-in contribution, 4% matching contribution). Closing of the transaction is subject to customary conditions precedent, including receipt of necessary regulatory approvals, and is now expected to occur before the end of March 2019.

On announcement of the transaction with SMM/SC, the Teck Board approved the QB2 project for full construction. Project development expenditures for 2019 are anticipated to be approximately US\$1,460 million. After the transaction proceeds have been expended, Teck and SMM/SC will fund the balance of project costs with proceeds from the expected US\$2.5 billion of project financing and pro rata contributions from Teck and SMM/SC on a 66.67% and 33.33% basis, respectively. ENAMI is not required to provide funding toward the capital cost of QB2. Teck and SMM/SC are in discussions with export credit agencies and commercial banks with respect to a proposed limited recourse project finance facility of up to US\$2.5 billion.

The combination of the contributions by SMM and SC from the transaction and proposed project financing reduces Teck's share of equity contributions toward the un-escalated US\$4.739 billion³ estimated capital cost of the QB2 project to US\$693 million⁴ with Teck's first contributions post-closing not required until late 2020. The target date for project completion and the start of commissioning and ramp-up is the fourth quarter of 2021. Full production is expected in the middle of 2022.

On a 100% basis, average annual copper-equivalent production of QB2 over the first five full years of operation is estimated at 316,000 tonnes. The mine plan is constrained by the current capacity of the tailings facility and exploits less than 25% of the total defined reserve and resource. The significant resource outside the current mine plan provides the potential for expansions in future years and the mine facilities have been designed with this in mind. The project scope includes the construction of a 143,000-tonne-per-day concentrator and related facilities, which are connected to a new port and desalination plant by 165-kilometre concentrate and desalinated water pipelines.

Project development expenditures during 2018 were approximately US\$317 million. During the fourth quarter we started to ramp up field activities and release major contracts. There are currently about 2,000 beds available for construction, with the current construction workforce already over 1,000 people. Earthworks activities are fully underway, including utilizing the existing mine fleet and third-party contractors, as well as other enabling construction

³ On a 100% go-forward basis from January 1, 2019 in constant Q2 2017 dollars and a CLP/USD exchange rate of 625, not including escalation (estimated at US\$300–\$470 million based on 2%–3% per annum inflation), working capital or interest during construction. Includes approximately US\$500 million in contingency. At the current spot CLP/USD rate of approximately 675, capital would be reduced by approximately US\$270 million.

⁴ On a go-forward basis from January 1, 2019. Assumes US\$2.5 billion in project finance loans and without deduction of fees and interest during construction, and US\$1.2 billion contribution from SMM and SC.

activities including camp construction and development of infrastructure for power and water. Other project activities during the year focused on advancing detailed engineering, procurement and contracting activities to support construction as well as advancing operational readiness.

Engineering studies are also underway to assess the expansion potential beyond QB2, including a potential doubling of throughput capacity in the future.

NuevaUnión

Compañía Minera NuevaUnión S.A., which owns the Relincho and La Fortuna projects, is owned 50% by Teck and 50% by Goldcorp Inc. A prefeasibility study (PFS) on the NuevaUnión project was completed in early 2018, which incorporates key design changes from the earlier scoping study to improve project economics and respond to community and Indigenous Peoples' input.

The PFS estimates an initial capital cost for the Phase 1 development of the project on a 100% basis of US\$3.4 to US\$3.5 billion (not including working capital or interest during construction). Phase 2 development of the project will require additional capital investment to link the La Fortuna site to the processing facility. Mining the higher-grade portions of Relincho in Phase 1 will allow the project to help fund Phase 2 from project cash flows. Initial production from the La Fortuna mine in Phase 2 will also focus on higher-grade areas, providing significant cash flows in the early years of this phase. As a result, the PFS contemplates average annual production of 224,000 tonnes of copper, 269,000 ounces of gold and 1,700 tonnes of molybdenum in concentrate for the first five full years of mine life, or approximately 283,000 tonnes per year of copper-equivalent production.

A feasibility study (FS) commenced in the third quarter of 2018 and is anticipated to be complete in late 2019. The project team continues to work closely with the local communities and is preparing to submit an Environmental Impact Assessment (EIA) to the regulatory authorities in the second half of 2019. Detailed project economics will be released with the completion of the FS.

Project Satellite

The objective of the Project Satellite initiative is to surface value from five substantial base metals assets: Zafranal, San Nicolás, Galore Creek, Mesaba and Schaft Creek, all of which are located in stable jurisdictions in the Americas.

At the Zafranal copper-gold project in southern Peru, the project team significantly advanced its activities in support of a feasibility study, which we expect to complete in the first half of 2019. We expect to submit the SEIA in the second quarter of 2019, which is approximately two quarters later than originally planned as a result of the requirement to complete detailed pre-reviews with the regulator prior to submission. Spending in 2018 was \$29.4 million and planned spending in 2019 is \$39.7 million.

At the San Nicolás copper-zinc-silver-gold project in Zacatecas, Mexico, a significant drill program was completed, which included infill, geotechnical, hydrogeological, exploration and condemnation drillholes. In addition, the project team advanced social and environmental baseline studies, community engagement activities, preliminary hydrogeological studies and project engineering programs in support of a prefeasibility study (PFS) and early permitting activities. We expect the PFS to be complete in the fourth quarter of 2019. Spending in 2018 was \$18.2 million and planned spending in 2019 is \$25.6 million.

At the Galore Creek copper-gold-silver project in British Columbia, Newmont Mining Corporation acquired NOVAGOLD Resources Inc.'s 50% interest in the Galore Creek Partnership in July 2018. Since Newmont's entry into the partnership, subject matter experts from both Newmont and Teck have worked together to develop the scope of fieldwork programs and prefeasibility study work to be carried out over the next three to four years. Program work in 2018 focused on maintaining the mineral properties and carrying out preliminary geological mapping, prospecting and mineral deposit studies. Our share of spending in 2018 was \$4.6 million and our share of planned spending in 2019 is \$19.2 million.

At the Mesaba copper-nickel-platinum group metals-cobalt deposit in northeastern Minnesota, the project team completed a range of planning activities, preliminary development and environmental studies, and mineral resource estimate work. Spending in 2018 was \$6.4 million and planned spending in 2019 is \$13.5 million.

Markets

Copper prices on the London Metal Exchange (LME) averaged US\$2.96 per pound in 2018, up US\$0.16 per pound from average prices in 2017.

Copper stocks on the LME fell by 35% to 132,200 tonnes in 2018, while copper stocks on the Shanghai Futures Exchange fell by 21% to 118,700 tonnes and COMEX warehouse stocks fell 54% to 84,900 tonnes. Combined exchange stocks decreased by 197,700 tonnes during 2018 and ended the year at 335,800 tonnes, the lowest levels since 2014. Total reported global stocks, including producer, consumer, merchant and terminal stocks, stood at an estimated 17.3 days of global consumption versus the 25-year average of 28 days.

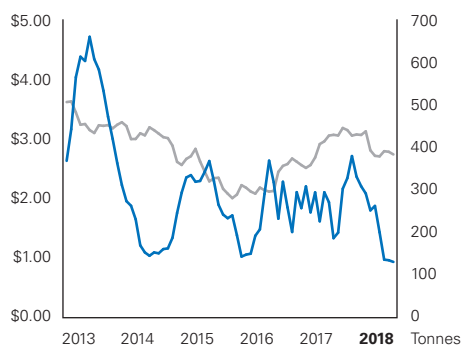
In 2018, global copper mine production increased 2.8% according to Wood Mackenzie, a commodity research consultancy, with total production estimated at 20.6 million tonnes. While the industry experienced several disruptions at large mines in 2017, production at these mines achieved expected production levels in 2018, and, despite a large number of labour contracts expiring in 2018, most settled without incident. Wood Mackenzie is forecasting a 0.3% increase in global mine production in 2019 to 20.7 million tonnes.

Copper scrap availability decreased in 2018 as global trade patterns were disrupted by environmental restrictions on certain types of scrap imports into China. Scrap and unrefined copper imports into China, including blister and anode, were down 15% year over year to September 2018.

Wood Mackenzie estimates that global refined copper production grew 2.5% in 2018, below the 3.0% growth rate for global copper cathode demand. They are projecting that refined production will increase 1.6% in 2019, reaching 23.9 million tonnes. Fundamentals for copper are expected to remain positive over the medium to long term, with mine supply constrained by lower grades and a lack of investment in new mine projects. Wood Mackenzie are forecasting that global copper metal demand will increase by 2.5% in 2019, reaching 24.3 million tonnes, suggesting the refined copper market will be in deficit again in 2019.

Copper Price and LME Inventory

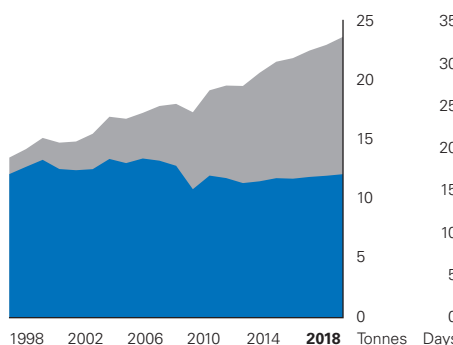
Source: LME



■ LME inventory (tonnes in thousands)
■ Copper price (US\$ per pound)

Global Demand for Copper

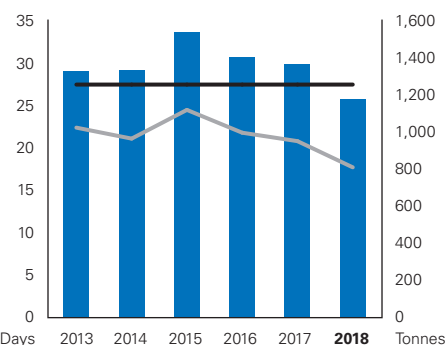
Source: Wood Mackenzie



■ Rest of the world (tonnes in millions)
■ China (tonnes in millions)

Global Copper Inventories

Source: ICSG, LME, COMEX, SHFE



■ Inventories (tonnes in thousands)
■ Days of global consumption
■ 25-year average days inventory

Outlook

We expect 2019 copper production to be in the range of 290,000 to 310,000 tonnes, slightly higher than 2018 production levels. The higher production is primarily due to improving grades at Highland Valley Copper.

In 2019, we expect our copper unit costs to be in the range of US\$1.70 to US\$1.80 per pound before margins from by-products, similar to 2018 levels. Copper unit costs are expected to be in the range of US\$1.45 to US\$1.55 per pound after by-products based on current production plans, by-product prices and exchange rates, an increase from 2018 due to expected lower by-product prices in 2019.

We expect annual copper production to be in the range of 285,000 to 305,000 tonnes from 2020 to 2022, excluding QB2, which is scheduled for first production in late 2021 and is expected to add substantially to our overall copper production in 2022.

Zinc

We are one of the world's largest producers of mined zinc, primarily from our Red Dog Operations in Alaska, the Antamina copper mine in northern Peru (where zinc is a co-product) and our Pend Oreille mine in Washington state. Our metallurgical complex in Trail, B.C. is one of the world's largest integrated zinc and lead smelting and refining operations. In 2018, we produced 705,000 tonnes of zinc in concentrate, while our Trail Operations produced 302,900 tonnes of refined zinc.

In 2018, our zinc business unit accounted for 25% of revenue and 18% of gross profit before depreciation and amortization.

(\$ in millions)	Revenues			Gross Profit (Loss) Before Depreciation and Amortization ⁽¹⁾			Gross Profit (Loss)		
	2018	2017	2016	2018	2017	2016	2018	2017	2016
Red Dog	\$ 1,696	\$ 1,752	\$ 1,444	\$ 990	\$ 971	\$ 749	\$ 864	\$ 874	\$ 668
Trail Operations	1,942	2,266	2,049	91	209	241	16	131	178
Pend Oreille	98	105	77	(5)	19	–	(20)	(12)	(10)
Other	8	8	7	9	(26)	(6)	9	(26)	(6)
Intra-segment	(650)	(635)	(430)	–	–	–	–	–	–
Total	\$ 3,094	\$ 3,496	\$ 3,147	\$ 1,085	\$ 1,173	\$ 984	\$ 869	\$ 967	\$ 830

Note:

(1) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

(thousand tonnes)	Production			Sales		
	2018	2017	2016	2018	2017	2016
Refined zinc						
Trail Operations	303	310	312	304	309	312
Contained in concentrate						
Red Dog	583	542	583	521	534	600
Pend Oreille	30	33	34	30	32	34
Copper business unit ⁽¹⁾	92	84	45	93	85	43
Total	705	659	662	644	651	677

Note:

(1) Includes zinc production from Antamina.

Operations

Red Dog

Red Dog Operations, located in northwest Alaska, is one of the world's largest zinc mines. Red Dog's gross profit before depreciation and amortization in 2018 was \$990 million, compared with \$971 million in 2017 and \$749 million in 2016. Gross profit in 2018 was \$864 million, similar to 2017, as sales volumes and metal prices were similar year over year.

In 2018, zinc production at Red Dog increased to 583,200 tonnes compared to 541,900 tonnes in 2017, primarily due to higher zinc grades and recoveries. Lead production in 2018 declined to 98,400 tonnes, compared to 111,300 tonnes in 2017, primarily due to lower grades and recoveries.

Work continues on the US\$110 million mill upgrade project, which is progressing as planned. Construction started in late 2017 and is expected to increase average mill throughput by about 15% over the remaining mine life, helping to offset lower grades and harder ore, with planned start-up in the first quarter of 2020.

Red Dog's location exposes the operation to severe weather and winter ice conditions, which can significantly affect production, sales volumes and operating costs. In addition, the mine's bulk supply deliveries and all concentrate shipments occur during a short ocean shipping season that normally runs from early July to late October. This short shipping season means that Red Dog's sales volumes are usually higher in the last six months of the year, resulting in significant variability in its quarterly profit, depending on metal prices.

In accordance with the operating agreement between Teck and NANA Regional Corporation, Inc. (NANA) governing the Red Dog mine, we pay a royalty on net proceeds of production each quarter. This royalty increases by 5% every fifth year to a maximum of 50%. The most recent increase occurred in October 2017, bringing the royalty to 35%. The NANA royalty charge in 2018 was US\$252 million, compared with US\$324 million in 2017. NANA has advised us that it ultimately shares approximately 60% of this royalty, net of allowable costs, with other Regional Alaska Native Corporations pursuant to section 7(i) of the *Alaska Native Claims Settlement Act*.

Red Dog's production of contained metal in 2019 is expected to be in the range of 535,000 to 555,000 tonnes of zinc and 85,000 to 90,000 tonnes of lead. From 2020 to 2022, Red Dog's production of contained metal is expected to be in the range of 500,000 to 520,000 tonnes of zinc and 85,000 to 100,000 tonnes of lead per year, respectively.

Trail Operations

Our Trail Operations in southern B.C. produces refined zinc and lead, as well as a variety of precious and specialty metals, chemicals and fertilizer products.

Trail Operations had a gross profit before depreciation and amortization of \$91 million in 2018, compared with \$209 million in 2017 and \$241 million in 2016. Gross profit was \$16 million in 2018, a decrease of \$115 million from 2017, primarily due to lower production levels, historically low treatment and refining charges, and increased electricity costs after the sale of the Waneta Dam.

The British Columbia Utilities Commission (BCUC) approved the \$1.2 billion sale of our two-thirds interest in the Waneta Dam to BC Hydro in the third quarter and closing of the sale occurred on July 26, 2018. Under our agreement with BC Hydro, we entered into a 20-year arrangement to purchase power for our Trail Operations, with an option to extend the arrangement for a further 10 years on comparable terms. This arrangement results in additional annual power costs for Trail Operations of \$75 million, escalating at 2% per year. We recognized this transaction as a disposition of the Waneta Dam and related transmission assets. We recorded a pre-tax gain, net of transaction costs of \$888 million (\$812 million after tax).

Refined zinc production in 2018 was 302,900 tonnes, compared with 310,100 tonnes in 2017. Refined lead production in 2018 was 61,000 tonnes, compared with 87,100 tonnes in 2017. The decline in refined lead production was primarily due to a planned extended maintenance shutdown of the KIVCET furnace completed in the fourth quarter of 2018, which occurs once every four years. Additional factors included the effect of wildfire smoke that caused a temporary shutdown of some facilities in August. Silver production declined to 11.6 million ounces in 2018 from 21.4 million ounces in 2017, due to the KIVCET maintenance shutdown and lower silver inputs.

Our recycling process treated 41,700 tonnes of material during the year, and we plan to treat about 44,700 tonnes in 2019. Our focus remains on treating lead acid batteries and cathode ray tube glass, plus small quantities of zinc alkaline batteries and other post-consumer waste.

In November 2016, we announced that we would invest \$174 million in the installation of a second new acid plant to improve efficiency and environmental performance at Trail Operations. The construction of the acid plant is over 90% completed, and on time and on budget, with commissioning planned in the second quarter of 2019.

In 2019, we expect Trail Operations to produce 305,000 to 310,000 tonnes of refined zinc, approximately 70,000 to 75,000 tonnes of refined lead and 13.0 to 14.0 million ounces of silver. Zinc production from 2020 to 2022 is expected to increase to 310,000 to 315,000 tonnes per year, while annual lead production is expected to rise to 85,000 to 95,000 tonnes. Silver production depends on the amount of silver contained in the purchased concentrates.

Pend Oreille

Pend Oreille, located in Washington state, achieved zinc production of 29,700 tonnes in 2018, compared to 33,100 tonnes in 2017. Production declined due to reduced availability of higher-grade ore sources and additional ground support requirements in the first half of 2018.

We expect production in 2019 to be between 20,000 and 30,000 tonnes of zinc in concentrate. Production rates beyond the third quarter of 2019 are uncertain.

Markets

Zinc prices on the LME averaged US\$1.33 per pound for the year, similar to US\$1.31 per pound in 2017.

Zinc stocks on the LME fell by 52,700 tonnes in 2018, a 29% decline from 2017 levels, finishing the year at 129,300 tonnes, the lowest levels since early 2008. Stocks held on the Shanghai Futures Exchange fell 48,500 tonnes in 2018, a 71% decline from 2017 levels, finishing the year at 20,100 tonnes, the lowest level since stocks started to be reported in early 2007. We estimate that total reported global stocks, which include producer, consumer, merchant and terminal stocks, fell by approximately 102,000 tonnes in 2018 to 0.7 million tonnes at year-end, representing an estimated 21 days of global demand, compared to the 25-year average of 41 days.

In 2018, global zinc mine production increased 2.5% according to Wood Mackenzie, a commodity research consultancy, with total production reaching 12.9 million tonnes. Zinc mine production increased for the second consecutive year, but still remained below 2015 production levels. Wood Mackenzie expects global zinc mine production to grow to 13.9 million tonnes in 2019, largely attributable to restarts at several previously closed mines, along with some previously committed new larger-scale mines.

Wood Mackenzie estimates that the global zinc metal market remained in deficit in 2018 for the third consecutive year, recording a shortfall of 1.14 million tonnes. Global refined zinc demand was relatively flat at 14.3 million tonnes, growing only an estimated 0.6% over 2017.

Wood Mackenzie estimates that global refined zinc production fell 2.5% in 2018 for the third year in a row on tight concentrate supplies, with refined production reaching 13.2 million tonnes. They also estimate that refined zinc production will see a 6.4% increase in 2019 over 2018 levels, to 14.0 million tonnes, the first increase to refined production in four years. The estimate for the total increase in supply will still be below global metal demand, which is forecast to grow 1.5% to 14.5 million tonnes, suggesting that the refined metal market will continue in deficit into 2019.

Zinc Price and LME Inventory

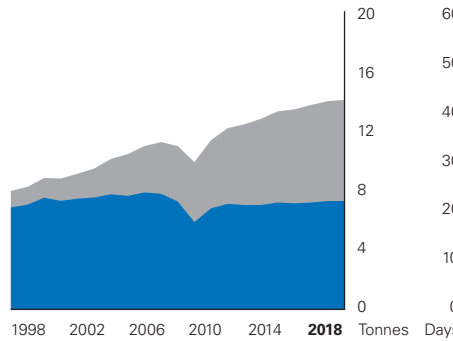
Source: LME



■ LME inventory (tonnes in thousands)
■ Zinc price (US\$ per pound)

Global Demand for Zinc

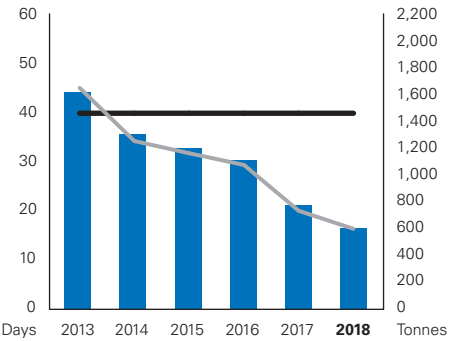
Source: ILZSG, Wood Mackenzie



■ Rest of the world (tonnes in millions)
■ China (tonnes in millions)

Global Zinc Inventories

Source: ILZSG, LME, SHFE



■ Inventories (tonnes in thousands)
■ Days of global consumption
■ 25-year average days inventory

Outlook

We expect zinc in concentrate production in 2019, including co-product zinc production from our copper business unit, to be in the range of 620,000 to 650,000 tonnes.

In 2019, we expect our zinc unit costs to be in the range of US\$0.50 to US\$0.55 per pound before margins from by-products and US\$0.35 to US\$0.40 per pound after margins from by-products based on current production plans, by-product prices and exchange rates. Unit costs after by-product margins are expected to vary significantly throughout the year with higher costs in the first half, as sales of Red Dog lead, our main by-product, are typically completed in the third and fourth quarters.

For the 2020 to 2022 period, we expect total annual zinc in concentrate production to be in the range of 600,000 to 630,000 tonnes excluding Pend Oreille, which has an uncertain production profile beyond 2019.

Benchmark terms for zinc treatment and refining charges were at historical lows in 2018, contributing to Trail Operations' profitability challenges in the fourth quarter. Trail Operations uses a long-term concentrate purchase strategy that averages payment terms and results in composite treatment charge terms generally over two years. We estimate that more than half of Trail Operations' concentrate purchases for the first half of 2019 are referenced to 2018 benchmark terms.

Energy

Our energy assets include a 21.3% interest in the Fort Hills oil sands mine, a 100% interest in the Frontier oil sands project and a 50% interest in various other oil sands leases in the exploration phase, including the Lease 421 Area. All these assets are located in the Athabasca oil sands region of northeastern Alberta.

In 2018, our Energy business unit accounted for 3% of revenue and incurred a \$106 million gross loss before depreciation and amortization. Fort Hills results were effective from June 1, 2018 when we concluded the mine was operational.

Fort Hills⁽¹⁾⁽³⁾

(\$ in millions)	2018
Blended bitumen price realized (US\$/bbl) ⁽²⁾⁽⁴⁾	\$ 35.12
Bitumen price realized (CAD\$/bbl) ⁽²⁾⁽⁴⁾	\$ 32.81
Operating netback (CAD\$/bbl) ⁽²⁾⁽⁴⁾	\$ (10.95)
Production (million blended bitumen barrels)	6.8
Production (average barrels per day)	31,955
Gross profit (loss) before depreciation and amortization ⁽²⁾	\$ (106)
Gross profit (loss)	\$ (165)

Notes:

(1) Fort Hills results for the year ended December 31, 2018 are effective from June 1, 2018.

(2) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

(3) Fort Hills figures presented at our ownership interest of 21.3%.

(4) See "Use of Non-GAAP Financial Measures" section for reconciliation.

Fort Hills

The Fort Hills oil sands mine is located in northern Alberta. As at December 31, 2018, we held a 21.3% interest in the Fort Hills Energy Limited Partnership (Fort Hills Partnership), which owns the Fort Hills oil sands mine, with Total E&P Canada Ltd. (Total) and Suncor Energy Inc. (Suncor) holding the remaining interest. An affiliate of Suncor is the operator of the project.

Both production volumes and product quality on start-up have exceeded our expectations. Bitumen production from the first two secondary extraction trains at Fort Hills commenced in the first quarter of 2018, followed by the third and final train in May. All commissioning and construction activities are now complete. In the second quarter, we concluded that Fort Hills was operational, and results from Fort Hills are included in our consolidated results from June 1, 2018.

Realized prices and operating results in the fourth quarter were significantly impacted by a material decline in global benchmark prices and the widening of Canadian heavy blend differentials, namely Western Canada Select (WCS). In addition, costs associated with diluent increased significantly during the fourth quarter of 2018 due to a seasonal increase in diluent consumption and unusual widening in the spread between diluent and WCS. As a result of the decline in prices, we recorded inventory write-downs during the fourth quarter of approximately \$34 million.

The plant was successfully tested and ran at full design nameplate capacity for much of the fourth quarter, with December production exceeding 200,000 barrels per day. Fort Hills produced 46 million barrels of bitumen, or 125,000 barrels per day, since first oil in January 2018. Our share of production since January 1, 2018 was 9.7 million barrels, or 26,580 barrels per day, which was near the high end of our guidance of 8.5 million to 10.0 million barrels. Unit operating costs averaged \$32.89 for the year and continued to improve to below \$23.00 per barrel in December as production ramped up to full capacity.

Fort Hills has performed very well during start-up and commissioning and there is further potential to debottleneck and expand the production capacity. Evaluation of debottlenecking opportunities will include near-term work to improve the performance of the existing facilities with minimal capital. Long-term opportunities that may require modest capital expenditure will also be investigated. Between the near-term and long-term opportunities, there is a potential to increase Fort Hills' production by 20,000 to 40,000 barrels per day of bitumen on a 100% basis. Our share of annual production could increase from 14 million barrels to approximately 15.5 to 17 million barrels.

Our share of Fort Hills' major enhancement capital expenditures was \$69 million in 2018 and is expected to be \$100 million in 2019. Sustaining capital expenditures were \$21 million in 2018 and are expected to be \$60 million in 2019. Fort Hills' major enhancement and sustaining capital is expected to remain elevated in 2019 at approximately \$13.50 per barrel, primarily due to tailings and equipment ramp-up spending, before sustaining capital declines to \$3 to \$5 per barrel on average over the life of mine. Major enhancement capital is variable over the life of mine due to phasing of tailings and other development spending.

Markets

Based on industry estimates, we forecast global crude oil demand growth in 2019 to be approximately 1.325 million barrels per day. Non-OPEC production growth in 2019 is forecast at 2.000 million barrels per day, with North America contributing 1.500 million barrels per day of incremental supply. In order for the market to be in balance — given the projected imbalance between demand growth and non-OPEC supply growth — the production curtailment accord between OPEC and certain Russian producers announced in December 2018 needs to be adhered to in some measure. Canadian crude oil supply growth in 2019 is forecast at 0.270 million barrels per day. As in 2018, the majority of the supply increase in 2019 is anticipated to come from heavy blends. Supply growth will be generated via the commissioning and start-up of smaller or brownfield oil sands projects.

Export pipeline capacity for Canadian crude oil versus overall supply was in deficit through 2018 and is expected to remain that way until new capacity is developed. Exacerbating the imbalance was a slower-than-expected ramp-up of crude by rail takeaway capacity. Once contracted for, committed rail capacity will be utilized on a regular basis to ship heavy blends.

Fort Hills' bitumen production is delivered via pipeline to the East Tank Farm blend facility and ultimately sold as a blended bitumen product known as Fort Hills Reduced Carbon Life Cycle Dilbit Blend (FRB). We sell our share of FRB to a variety of customers at Hardisty market hub and the U.S. Gulf Coast. Approximately 80% of our FRB sales are at Hardisty, with the remainder at the U.S. Gulf Coast.

Net bitumen realizations at Fort Hills are influenced by a combination of North American crude oil benchmark prices, including the New York Mercantile Exchange (NYMEX) light sweet crude oil (WTI), Canadian heavy crude oil (WCS at Hardisty) and diluent (condensate at Edmonton). Bitumen price realizations are also affected by specific bitumen quality and spot sales.

The NYMEX WTI is the current light oil benchmark for North American crude oil prices. WTI averaged US\$64.77 per barrel in 2018.

WCS is a blend of conventionally produced heavy oils and bitumen, blended with diluent (condensate). WCS is a widely marketed crude grade with transparent market price references quoted at Hardisty and U.S. Gulf Coast market hubs. The index pricing period for WCS at Hardisty is typically the first nine to 11 business days that begin on the first business day of the calendar month prior to the month of delivery. WCS at Hardisty typically trades at a differential below the NYMEX WTI benchmark price, and traded at an average discount of US\$39.45 per barrel for fourth quarter deliveries, for a value of US\$19.35 per barrel. Hardisty differentials widened substantially in the quarter as increases in production strained crude oil export infrastructure and regional storage capacities.

WCS at the U.S. Gulf Coast is priced at a material premium to WCS at Hardisty, reflective of strong heavy sour oil demand, and reduced supply from Venezuela and Mexico. The U.S. Gulf Coast WCS differential to the NYMEX WTI in 2018 ranged between a discount of US\$5.45 per barrel and a premium of US\$1.12 per barrel, for an average 2018 discount of US\$2.63 per barrel.

Operating Netback

The following table summarizes our Fort Hills operating netback for the year.

(Amounts reported in CAD\$ per barrel of bitumen sold)	2018 ⁽²⁾
Bitumen price realized ⁽¹⁾⁽³⁾⁽⁴⁾	\$ 32.81
Crown royalties ⁽⁵⁾	(2.04)
Transportation costs ⁽⁶⁾	(8.83)
Adjusted operating costs ⁽¹⁾⁽³⁾⁽⁷⁾	(32.89)
Operating netback⁽¹⁾	\$ (10.95)

Notes:

- (1) Non-GAAP measure. See "Use of Non-GAAP Financial Measures" section for further details.
- (2) Fort Hills financial results for the year ended December 31, 2018 are included in operating results from June 1, 2018.
- (3) See "Use of Non-GAAP Financial Measures" section for reconciliation.
- (4) Bitumen price realized represents the realized petroleum revenue (blended bitumen sales revenue) net of diluent expense, expressed on a per barrel basis. Blended bitumen sales revenue represents revenue from our share of the heavy crude oil blend known as Fort Hills Reduced Carbon Life Cycle Dilbit Blend (FRB), sold at the Hardisty and U.S. Gulf Coast market hubs. FRB is comprised of bitumen produced from the Fort Hills oil sands mining and processing operations blended with purchased diluent. The cost of blending is affected by the amount of diluent required and the cost of purchasing, transporting and blending the diluent. A portion of diluent expense is effectively recovered in the sales price of the blended product. Diluent expense is also affected by Canadian and U.S. benchmark pricing and changes in the value of the Canadian dollar relative to the U.S. dollar.
- (5) The royalty rate applicable to pre-payout oil sands operations starts at 1% of gross revenue and increases for every dollar by which the WTI crude oil price in Canadian dollars exceeds \$55 per barrel, to a maximum of 9% when the WTI crude oil price is \$120 per barrel or higher. Fort Hills is currently in the pre-payout phase. Detailed information regarding Alberta oil sands royalties can be found on the following website: <https://www.energy.alberta.ca/OS/OSRoyalty/Pages/default.aspx>.
- (6) Transportation costs represent pipeline and storage costs downstream of the East Tank Farm blending facility. We use various pipeline and storage facilities to transport and sell our blend to customers throughout North America. Sales to the U.S. markets require additional transportation costs, but realize higher selling prices.
- (7) Operating costs represent the costs to produce a barrel of bitumen from the Fort Hills mine and processing operation.

Outlook

Due to limited export capacity and extreme price volatility for Alberta crude oil, the Government of Alberta announced the curtailment of provincial crude oil and bitumen production, effective January 1, 2019. Initially, 325,000 barrels per day for the first quarter of 2019 was to be reduced across the industry, declining to approximately 30% of the initial curtailment levels for the remainder of the year. The government subsequently revised the first quarter curtailment level to 250,000 barrels per day for the production months of February and March.

Although there continues to be uncertainty around the details of the Government of Alberta announced curtailment, we expect it to affect both production and unit operating costs in 2019. We expect our 2019 share of bitumen production to be in the range of 33,000 to 38,000 barrels per day (12 to 14 million barrels annualized), including estimated production curtailments and unit operating costs to be \$26.00 to \$29.00 per barrel for the year. Consistent with the announced curtailments, we expect production to be lower in the first quarter at a range of 30,000 to 32,000 barrels per day. With the lower production, we also expect unit operating costs to be higher in the first quarter.

Consistent with the Government of Alberta's production curtailment announcement, our production guidance for 2019 assumes the mandatory production curtailments as described above. The high end of our production guidance reflects curtailments being lifted in the second quarter.

Based on our share of Fort Hills operating at full production rates (approximately 90% of nameplate capacity of 194,000 barrels per day), our estimated EBITDA sensitivity to a US\$1/barrel change in the WCS price is approximately \$18.5 million, and \$13.5 million in respect of our after-tax profit.

Frontier Project

We hold a 100% interest in the Frontier oil sands project, which is located in northern Alberta. The regulatory application review of Frontier continued with a public hearing before a joint federal/provincial panel that concluded in December 2018. The earliest a federal decision statement could be expected for Frontier is in the second half of 2019. Our expenditures on Frontier are limited to supporting this process. We continue to evaluate the future project schedule and development options as part of our ongoing capital review and prioritization process.

As of December 31, 2018, our best estimate of unrisks contingent bitumen resources for the Frontier project is approximately 3.2 billion barrels. The project has been designed for a total nominal production of approximately 260,000 barrels per day of bitumen. The Frontier contingent resources have been subcategorized as “development pending” and “economically viable”. There is uncertainty that it will be commercially viable to produce any portion of the resources.

The disclosure regarding our oil sands assets includes references to reserves and contingent bitumen resource estimates. Further information about these resource estimates, and the related risks and uncertainties, and contingencies that prevent the classification of resources as reserves, is set out on page 70 under the heading “Contingent Resource Disclosure”. For further information about these reserve estimates, see our most recent Annual Information Form, which is available on our website at www.teck.com, on the Canadian Securities Administrators website at www.sedar.com (SEDAR), and under cover of Form 40-F on the EDGAR section of the Securities Exchange Commission (SEC) website at www.sec.gov.

Lease 421 Area

We hold a 50% interest in the Lease 421 Area, which is located east of the Fort Hills project in northern Alberta. To date, a total of 89 core holes have been completed in the Lease 421 Area.

Exploration

Throughout 2018, we conducted exploration around the world through our seven regional offices. Expenditures for the year of \$69 million were focused on copper, zinc and gold.

Exploration plays three critical roles at Teck: discovery of new orebodies through early stage exploration and acquisition; pursuit, evaluation and acquisition of development opportunities; and delivery of geoscience solutions and services to create value at our existing mines and development projects.

During 2018, early stage copper exploration continued to focus primarily on advancing porphyry-style projects in Chile, Peru, the United States and Mexico. In addition, significant exploration was carried out in and around our existing operations and advanced projects, including approximately 18 kilometres at QB2 and QB3. In 2019, we plan to drill several early stage copper projects, and we will continue to explore around our existing operations and advanced projects, with a significant program to support QB3 studies.

Zinc exploration has been concentrated in four areas: the Red Dog mine district in Alaska, western Canada, northeastern Australia, and Ireland. In Alaska, Australia and Canada, the targets are large, high-grade, sediment-hosted deposits similar to major world-class deposits. In 2018, we continued to drill on 100% state-owned lands near our Red Dog mine (completing approximately 10 kilometres), and at our Reward project (Teena Deposit) in the McArthur district of Australia (completing approximately 9 kilometres), to better define external limits and internal continuity to mineralization.

We have ongoing exploration for, and partnerships in, gold opportunities. Our plan is to explore, find and advance gold resources through targeted exploration in select jurisdictions. Once an opportunity has been recognized, the strategy is to optimize that opportunity or asset through further definition drilling and engineering studies, then capture value through periodic divestitures. Our current exploration efforts and drill testing for gold are primarily focused in Chile, Peru and Turkey.

Financial Overview

Financial Summary

(\$ in millions, except per share data)	2018	2017 ⁽²⁾	2016 ⁽²⁾
Revenues and profit			
Revenues	\$ 12,564	\$ 11,910	\$ 9,300
Gross profit before depreciation and amortization ⁽¹⁾	\$ 6,104	\$ 6,059	\$ 3,781
Gross profit	\$ 4,621	\$ 4,567	\$ 2,396
EBITDA ⁽¹⁾	\$ 6,174	\$ 5,589	\$ 3,350
Profit attributable to shareholders	\$ 3,107	\$ 2,460	\$ 1,040
Cash flow			
Cash flow from operations	\$ 4,438	\$ 5,049	\$ 3,056
Property, plant and equipment expenditures	\$ 1,906	\$ 1,621	\$ 1,416
Capitalized production stripping costs	\$ 707	\$ 678	\$ 477
Investments expenditures	\$ 284	\$ 309	\$ 114
Balance sheet			
Cash balances	\$ 1,734	\$ 952	\$ 1,407
Total assets	\$ 39,626	\$ 37,028	\$ 35,629
Debt, including current portion	\$ 5,519	\$ 6,369	\$ 8,343
Per share amounts			
Profit attributable to shareholders	\$ 5.41	\$ 4.26	\$ 1.80
Dividends declared	\$ 0.30	\$ 0.60	\$ 0.10

Notes:

(1) Non-GAAP Financial Measures. See "Use of Non-GAAP Financial Measures" section for further information and a reconciliation to GAAP measures.

(2) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Our revenue and profit depend on the prices for the commodities we produce, sell and use in our production processes. Commodity prices are determined by the supply of and demand for those commodities, which are influenced by global economic conditions. We normally sell the products that we produce at prevailing market prices or, in the case of steelmaking coal, through an index-linked pricing mechanism or on a spot basis. Prices for our products can fluctuate significantly and that volatility can have a material effect on our financial results.

Foreign exchange rate movements can also have a significant effect on our results and cash flows, as a substantial portion of our operating costs are incurred in Canadian and other currencies, and most of our revenue and debt are denominated in U.S. dollars. We determine our financial results in local currency and report those results in Canadian dollars and, accordingly, our reported operating results and cash flows are affected by changes in the Canadian dollar exchange rate relative to the U.S. dollar, as well as the Peruvian sol and Chilean peso.

In 2018, our profit attributable to shareholders was \$3.1 billion, or \$5.41 per share. This compares with \$2.5 billion or \$4.26 per share in 2017 and \$1.0 billion or \$1.80 per share in 2016. The changes are mainly due to the gain on the sale of the Waneta Dam in 2018, varying commodity prices, sales volumes, exchange rate movements and the after-tax impairment charges and reversals recorded in the respective periods.

Our profit over the past three years has included items that we segregate for presentation to investors so that the ongoing profit of the company may be more clearly understood. Our adjusted profit, which takes these items into account, was \$2.4 billion in 2018, \$2.5 billion in 2017 and \$1.1 billion in 2016, or \$4.13, \$4.36 and \$1.91 per share, respectively. These items are described below and summarized in the table that follows.

In 2018, we completed the sale of our two-thirds interest in the Waneta Dam to BC Hydro for \$1.2 billion cash and recorded a pre-tax gain of \$888 million, with no cash taxes payable on the transaction. We also purchased US\$1.0 billion principal amount of our near-term debt maturities, reducing the outstanding balance to US\$3.8 billion and recorded a \$26 million pre-tax charge on the transaction. We also recorded a non-cash pre-tax asset impairment of \$41 million, of which \$31 million related to capitalized exploration expenditures that are not expected to be recovered, and \$10 million related to Quebrada Blanca assets that will not be recovered through use because mining operations ended in the fourth quarter of 2018.

In 2017, due to the improvement in steelmaking coal prices and future operating cost estimates, we recorded a \$207 million non-cash pre-tax reversal of an impairment charge that we took against our steelmaking coal operations in 2015. This was partially offset by a non-cash pre-tax asset impairment of \$44 million recorded against our Quebrada Blanca assets that will not be recovered through use. We also recorded an \$82 million charge related to increased provincial tax rates in B.C., and the reduction in tax rates in the U.S. resulted in a \$101 million non-cash credit to our 2017 tax expense. We incurred a \$216 million pre-tax loss on the repurchase of certain of our outstanding notes in the first half of the year.

In 2016, we recorded an impairment of our investment in the Fort Hills oil sands project due to increased development costs. We also recorded asset impairments relating to a project at our Trail Operations and our interest in the Wintering Hills Wind Power Facility, which was sold in 2017. These non-cash charges totalled \$294 million on a pre-tax basis and \$217 million on an after-tax basis.

The following table shows the effect of these items on our profit.

(\$ in millions, except per share data)	2018	2017 ⁽³⁾	2016 ⁽³⁾
Profit attributable to shareholders	\$ 3,107	\$ 2,460	\$ 1,040
Add (deduct):			
Debt purchase loss (gain)	19	159	(44)
Debt prepayment option loss (gain)	31	(38)	(84)
Asset sales	(809)	(5)	(53)
Foreign exchange (gain) loss	(8)	(4)	(45)
Environmental provisions	13	60	–
Asset impairments (reversals)	30	(100)	217
Other	(11)	(12)	72
Adjusted profit⁽¹⁾⁽²⁾	\$ 2,372	\$ 2,520	\$ 1,103
Adjusted basic earnings per share⁽¹⁾⁽²⁾	\$ 4.13	\$ 4.36	\$ 1.91
Adjusted diluted earnings per share⁽¹⁾⁽²⁾	\$ 4.07	\$ 4.30	\$ 1.89

Notes:

(1) Non-GAAP Financial Measures. See "Use of Non-GAAP Financial Measures" section for further information.

(2) See "Use of Non-GAAP Financial Measures" section for reconciliation.

(3) Certain 2017 comparative figures have been restated for new IFRS pronouncements. The 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Cash flow from operations in 2018 was \$4.4 billion, compared with \$5.0 billion in 2017 and \$3.1 billion in 2016. The changes in cash flow from operations are mainly due to varying commodity prices and sales volumes, offset to some extent by changes in foreign exchange rates.

At December 31, 2018, our cash balance was \$1.7 billion. Total debt was \$5.5 billion and our net debt to net-debt-plus-equity ratio was 14% at December 31, 2018, compared with 21% at December 31, 2017 and 28% at the end of 2016.

Gross Profit

Our gross profit is made up of our revenue less the operating expenses at our producing operations, including depreciation and amortization. Income and expenses from our business activities that do not produce commodities for sale are included in our other operating income and expenses or in our non-operating income and expenses.

Our principal commodities are steelmaking coal, copper, zinc and blended bitumen, which accounted for 50%, 18%, 19% and 3% of revenue, respectively, in 2018. Silver and lead are significant by-products of our zinc operations, each accounting for 3% of our 2018 revenue. We also produce a number of other by-products, including molybdenum, various specialty metals, and chemicals and fertilizers, which in total accounted for 4% of our revenue in 2018.

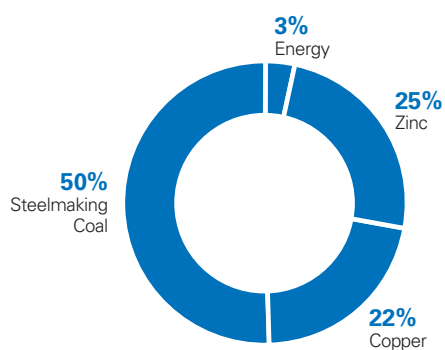
Our revenue is affected by sales volumes, which are determined by our production levels and by demand for the commodities we produce, commodity prices and currency exchange rates.

Our revenue was a record \$12.6 billion in 2018, compared with \$11.9 billion in 2017 and \$9.3 billion in 2016. The increase in 2018 revenue was mainly due to higher steelmaking coal and copper prices and the addition of revenue from the sale of blended bitumen from our Fort Hills oil sands mine, partially offset by lower sales volumes of refined lead and silver from our Trail Operations. Average prices for steelmaking coal and copper were 7% and 6% higher in 2018 than in 2017. The increase in 2017 from 2016 revenue was mainly due to higher steelmaking coal, copper and zinc prices, partially offset by lower sales volumes of steelmaking coal and a slightly weaker average U.S. dollar exchange rate.

Our cost of sales includes all of the expenses required to produce our products, such as labour, energy, operating supplies, concentrates purchased for our Trail Operations' refining and smelting activities, diluent purchased for our Fort Hills oil sands mine to transport our bitumen by pipeline, royalties, and marketing and distribution costs required to sell and transport our products to various delivery points. Our cost of sales also includes depreciation and amortization expense. Due to the geographic locations of many of our operations, we are highly dependent on third parties for the provision of rail, port, pipeline and other distribution services. In certain circumstances, we negotiate prices and other terms for the provision of these services where we may not have viable alternatives to using specific providers, or may not have access to regulated rate-setting mechanisms or appropriate remedies for service failures. Contractual disputes, demurrage charges, rail, port and pipeline capacity issues, availability of vessels and railcars, weather problems and other factors can have a material effect on our ability to transport materials from our suppliers and to our customers in accordance with schedules and contractual commitments.

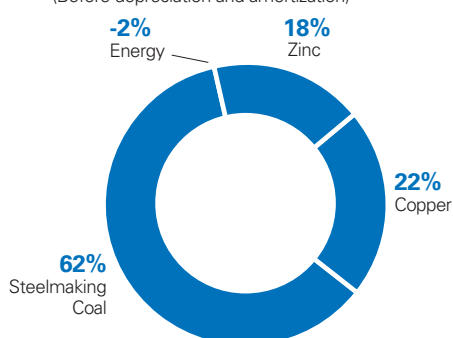
Our costs are dictated mainly by our production volumes, by the costs for labour, operating supplies, concentrate purchases and diluent purchases, and by strip ratios, haul distances, ore grades, distribution costs, commodity prices, foreign exchange rates, costs related to non-routine maintenance projects, and our ability to manage these costs. Production volumes mainly affect our variable operating and our distribution costs. In addition, production affects our sales volumes and, when combined with commodity prices, affects profitability and, ultimately, our royalty expenses.

2018 Revenue by Business Unit

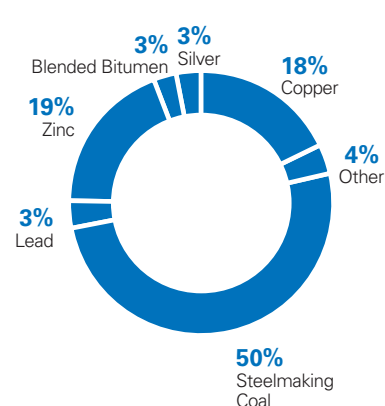


2018 Gross Profit by Business Unit

(Before depreciation and amortization)



2018 Revenue by Commodity



Our cost of sales was \$7.9 billion in 2018, compared with \$7.3 billion in 2017 and \$6.9 billion in 2016. In our steelmaking coal business, unit cost increases were partly driven by our decision to increase mining activity to capture margin in a favourable steelmaking coal price environment. In addition, increased diesel and operating supplies costs also resulted in increased unit costs. Costs were higher at our Trail Operations due to both maintenance issues and the effect of wildfires in southeast British Columbia, as well as the increase in power costs resulting from the sale of the Waneta Dam to BC Hydro in July 2018. Cost of sales in 2018 also included costs from Fort Hills, which produced its first bitumen in January and achieved commercial production on June 1.

Our 2017 costs were higher than 2016 due to a number of factors, including difficult weather conditions early in the year, higher employee turnover rates and geotechnical issues at our coal operations, all of which affected material movement. Our Highland Valley Copper Operations was mining lower-grade ore as planned, which results in higher unit operating costs. At Red Dog, we had some challenges early in the year that affected production and costs. A metallurgically complex, highly oxidized, higher-grade ore from the Qanaiyaq pit was introduced to the mill early in the year, impacting recoveries. As we gained processing experience with this ore and deepened the pit to access less-weathered ore, recoveries improved and allowed us to increase the amount of Qanaiyaq ore, which resulted in a significant improvement in metal production in the second half of the year.

Other Expenses

(\$ in millions)	2018	2017	2016
General and administration	\$ 142	\$ 116	\$ 99
Exploration	69	58	51
Research and development	35	55	30
Asset impairments (impairment reversal)	41	(163)	294
Other operating expense (income)	(450)	230	197
Finance income	(33)	(17)	(16)
Finance expense	252	229	354
Non-operating expense (income)	52	151	(239)
Share of losses (income) of associates	3	(6)	(2)
	\$ 111	\$ 653	\$ 768

We must continually replace our reserves as they are depleted in order to maintain production levels over the long term. We try to do this through our exploration and development programs and through acquisition of interests in new properties or in companies that own them. Exploration for minerals, steelmaking coal and oil is highly speculative and the projects involve many risks. The vast majority of exploration projects are unsuccessful and there are no assurances that current or future exploration programs will find deposits that are ultimately brought into production.

Our research and development expenditures are primarily focused on advancing our proprietary CESL hydrometallurgical technology, the development of internal and external growth opportunities, and the development and implementation of process and environmental technology improvements at operations, such as the saturated rock fill project.

In 2018, we recorded asset impairments of \$41 million, of which \$31 million related to capitalized exploration expenditures that are not expected to be recovered, and \$10 million related to our Quebrada Blanca assets that will not be recorded through use because mining operations ended in the fourth quarter of 2018 as reserves were depleted.

In 2017, due to the improvement in steelmaking coal prices and future operating cost estimates, we recorded a \$207 million reversal of an impairment charge that we took against our steelmaking coal operations in 2015. This was partially offset by an impairment of \$44 million recorded on our Quebrada Blanca assets that will not be recovered through use.

During 2016, we recorded an impairment of our investment in the Fort Hills oil sands project as a result of increased development costs. We also recorded asset impairments relating to a project at our Trail Operations and our interest in the Wintering Hills Wind Power Facility. These charges, primarily related to Fort Hills, totalled \$294 million on a pre-tax basis and \$217 million on an after-tax basis.

The key inputs used in determining the magnitude of asset impairments and reversals are outlined on pages 53 to 55 in this Management's Discussion and Analysis.

The impairment charges and (reversals) were as follows:

(\$ in millions)	2018	2017	2016
Steelmaking coal operations	\$ –	\$ (207)	\$ –
Energy — Fort Hills	–	–	222
Other	41	44	72
	\$ 41	\$ (163)	\$ 294

Other operating income and expenses include items we consider to be related to the operation of our business, such as final pricing adjustments (which are further described in the following paragraph), share-based compensation, gains or losses on commodity derivatives, gains or losses on the sale of operating or exploration assets, and provisions for various costs at our closed properties. Significant items in 2018 included an \$888 million gain on the sale of our two-thirds interest in the Waneta Dam to BC Hydro, \$117 million of negative pricing adjustments, \$31 million for environmental costs, \$59 million for share-based compensation and a \$106 million charge for take-or-pay contracts. Significant items in 2017 included \$190 million of positive pricing adjustments, \$186 million for environmental costs, \$125 million for share-based compensation, an \$81 million charge for take-or-pay contracts and a \$28 million break fee related to the sale of the Waneta Dam that was paid to Fortis. Significant items in 2016 included a \$171 million expense for share-based compensation, \$153 million of positive pricing adjustments, a \$48 million charge for take-or-pay contracts and \$144 million for environmental costs.

Sales of our products, including by-products, are recognized in revenue at the point in time when the customer obtains control of the product. Control is achieved when a product is delivered to the customer, we have present right to payment for the product, significant risks and rewards of ownership have transferred to the customer according to contract terms, and there is no unfulfilled obligation that could affect the customer's acceptance of the product. For sales of steelmaking coal and copper, zinc and lead concentrates, control of the product generally transfers to the customer when an individual shipment parcel is loaded onto a carrier accepted or directly contracted by the customer. For sales of refined metals, chemicals, and fertilizers, control of the product transfers to the customer when the product is loaded onto a carrier specified by the customer. For blended bitumen, control of the product generally transfers to the customer when the product passes the delivery point specified in the sales contract.

The majority of our base metal concentrates and refined metals are sold under pricing arrangements where final prices are determined by quoted market prices in a period subsequent to sale. For these sales, revenue is recognized based on the estimated consideration to be received at the date of sale with reference to relevant commodity market prices. Our refined metals are sold under spot or average pricing contracts. For all steelmaking coal sales under average pricing contracts where pricing is not finalized when revenue is recognized, revenue is recorded based on the estimated consideration to be received at the date of sale with reference to steelmaking coal price assessments. The majority of our blended bitumen is sold under pricing arrangements where final prices are determined based on commodity price indices that are finalized at or near the date of sale. Our revenue for blended bitumen is net of royalty payments to governments.

Adjustments are made to settlement receivables in subsequent periods based on movements in quoted market prices or published price assessments (for steelmaking coal) up to the date of final pricing. These pricing adjustments result in gains in a rising price environment and losses in a declining price environment, and are recorded as other operating income or expense. The extent of the pricing adjustments also takes into account the actual price participation terms as provided in certain concentrate sales agreements. It should be noted that these effects arise on the sale of concentrates, as well as on the purchase of concentrates at our Trail Operations.

The following table outlines our outstanding receivable positions, which were provisionally valued at December 31, 2018 and 2017, respectively.

(payable pounds in millions)	Outstanding at December 31, 2018		Outstanding at December 31, 2017	
	Pounds	US\$/lb.	Pounds	US\$/lb.
Copper	93	\$ 2.70	138	\$ 3.26
Zinc	208	\$ 1.12	197	\$ 1.50

Our finance expense includes the interest expense on our debt, finance lease interest, letters of credit and standby fees, the interest components of our pension obligations, and accretion on our decommissioning and restoration provisions, less any interest that we capitalize against the cost of our development projects. Debt interest expense decreased in 2018, mainly due to the reduction in our outstanding notes. These items were partially offset by additional fees from an increase in our outstanding letters of credit, and the effect of accretion on our decommissioning and restoration provisions. Further detail is provided in Note 10 to our 2018 audited annual consolidated financial statements.

Non-operating income (expense) includes items that arise from financial and other matters and includes such items as foreign exchange gains or losses, debt refinancing costs, gains or losses on the revaluation of debt prepayment options, and gains or losses on the sale of investments. In 2018, other non-operating expenses included \$42 million of losses on debt prepayment options, \$16 million of foreign exchange gains and a \$26 million charge on debt repurchased during the year. In 2017, other non-operating expenses included \$51 million of gains on debt prepayment options, \$5 million of foreign exchange gains, \$9 million of gains on sale of investments and a \$216 million charge on debt repurchased during the year. In 2016, other non-operating expenses included \$113 million of gains on debt prepayment options, \$46 million of foreign exchange gains, \$49 million of gains on debt repurchases and \$34 million of gains on sale of investments.

Profit (loss) attributable to non-controlling interests relates to the ownership interests that are held by third parties in our Quebrada Blanca, Carmen de Andacollo and Elkview operations, and Compañía Minera Zafranal S.A.C.

Income Taxes

Income and resource taxes in 2018 were \$1.4 billion, or 30% of pre-tax profits. This effective tax rate is higher than the Canadian statutory income tax rate of 27% as a result of resource taxes and higher rates in some foreign jurisdictions. The effect of these is partially offset by the gain on the sale of our two-thirds interest in the Waneta Dam, which was taxed at a lower rate. Due to available tax pools, we are currently shielded from cash income taxes, but not resource taxes, in Canada. We remain subject to cash taxes in foreign jurisdictions.

Subsequent to year-end, the Peruvian tax authority, Superintendencia Nacional de Aduanas y de Administración Tributaria (SUNAT), issued an income tax assessment to Antamina (our joint operation in which we own a 22.5% share) denying its accelerated depreciation allowance on costs incurred in 2013 related to the expansion of the Antamina mine, as provided under Antamina's tax stability agreement. If the assessment is sustained, our indirect share of the current tax debt that Antamina may have to pay, including interest and penalties, is estimated to be approximately \$40 million (US\$30 million). However, since these items are mainly a matter of timing rather than the ultimate liability, the resulting charge to our earnings would be approximately \$20 million (US\$15 million) consisting of interest and penalties. If SUNAT's view on the scope of the tax stability agreement were sustained and extended to 2015 (being the last year of tax stability), our indirect share of the tax debt that Antamina may have to pay, including interest and penalties, could reach about \$125 million (US\$94 million) and the charge to our earnings could reach about \$60 million (US\$45 million). Based on opinions from Peruvian counsel, we believe that Antamina's original filing positions will ultimately prevail and Antamina will appeal the 2013 income tax assessment in due course. As a result, we have not provided for this matter in our financial statements as at December 31, 2018.

Financial Position and Liquidity

Our financial position and liquidity have improved from our strong position at the beginning of the year. At December 31, 2018, we had \$1.7 billion of cash and a US\$4.0 billion unused line of credit, providing us with \$7.2 billion of liquidity. Based on our current strong financial position, we expect to be able to maintain our operations and fund our development activities as planned.

Our outstanding debt was \$5.5 billion at December 31, 2018, compared with \$6.4 billion at the end of 2017 and \$8.3 billion at the end of 2016. The decrease is due primarily to the US\$1.0 billion of notes that we repurchased and retired in the third quarter of 2018. Additionally, in the first quarter of 2018, we repaid US\$22 million of notes that matured. In total, since September 2015, our term notes have been reduced by US\$3.4 billion, reducing the principal outstanding to US\$3.8 billion.

Our debt positions and credit ratios are summarized in the following table:

	2018	2017 ⁽⁴⁾	2016
Term notes face value	\$ 3,809	\$ 4,831	\$ 6,141
Unamortized fees and discounts	(31)	(40)	(50)
Other	268	286	122
Debt (US\$ in millions)	\$ 4,046	\$ 5,077	\$ 6,213
Debt (CAD\$ equivalent) ⁽¹⁾ (A)	\$ 5,519	\$ 6,369	\$ 8,343
Less cash balances	(1,734)	(952)	(1,407)
Net debt ⁽²⁾ (B)	\$ 3,785	\$ 5,417	\$ 6,936
Equity (C)	\$ 23,018	\$ 19,993	\$ 18,007
Debt to debt-plus-equity ratio ⁽²⁾ (A/(A+C))	19%	24%	32%
Net debt to net-debt-plus-equity ratio ⁽²⁾ (B/(B+C))	14%	21%	28%
Debt to EBITDA ratio ⁽²⁾⁽³⁾	0.9x	1.1x	2.5x
Net debt to EBITDA ratio ⁽²⁾⁽³⁾	0.6x	1.0x	2.1x
Average interest rate	6.1%	5.7%	5.7%

Notes:

(1) Translated at year-end exchange rates.

(2) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

(3) See "Use of Non-GAAP Financial Measures" section for reconciliation.

(4) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

At December 31, 2018, the weighted average maturity of our term notes is approximately 16 years and the weighted average coupon rate is approximately 6.1%.

Our primary sources of liquidity and capital resources are our cash and temporary investments, cash flow provided from operations, and funds available under our committed and uncommitted bank credit facilities, of which approximately US\$4.1 billion is currently available. Further information about our liquidity and associated risks is outlined in Notes 28 and 30 to our 2018 audited annual consolidated financial statements.

Cash flow from operations was \$4.4 billion in 2018. Our cash position increased from \$952 million at the end of 2017 to \$1.7 billion at December 31, 2018. Significant outflows included \$2.6 billion of capital expenditures, \$1.4 billion to purchase and cancel US\$1.0 billion of notes, \$172 million on returns to shareholders through dividends, \$189 million on share buybacks and \$407 million primarily consisting of interest on our outstanding debt.

We maintain various committed and uncommitted credit facilities for liquidity and for the issuance of letters of credit. Our US\$4.0 billion revolving credit facility matures in November 2023 and has a letter of credit sub-limit of US\$1.5 billion. There are currently no drawings on this facility and it remains fully available as at February 12, 2019.

We also have a US\$600 million facility that matures in November 2021. As at December 31, 2018, there were US\$573 million of letters of credit issued on this facility.

Borrowing under our primary committed credit facilities is subject to our compliance with the covenants in the agreement and our ability to make certain representations and warranties at the time of the borrowing request.

In addition to our two primary revolving committed credit facilities, we maintain uncommitted bilateral credit facilities with various banks and with Export Development Canada for the issuance of letters of credit, stand-alone letters of credit and surety bonds, all primarily to support our future reclamation obligations. At December 31, 2018, we had \$1.82 billion of letters of credit issued on the \$2.15 billion of bilateral credit facilities that we have. In addition to the letters of credit outstanding under these uncommitted credit facilities, we also had stand-alone letters of credit of \$369 million outstanding as at December 31, 2018, which were not issued under a credit facility. We also had surety bonds of \$350 million outstanding as at December 31, 2018 to support our current and future reclamation obligations.

The cost of funds under certain of our credit facilities depends on our credit ratings. Teck was upgraded to an investment grade credit rating by Moody's on January 16, 2019, at Baa3 with a stable outlook. Our current credit ratings from S&P and Fitch are BB+ and BB+, respectively, with positive outlooks. As a result of the Moody's upgrade, the drawn cost on our US\$4.0 billion revolving credit facility has been reduced by 0.35%. Should another rating agency upgrade our rating by a single notch, letters of credit totalling US\$672 million could be released.

Under the terms of the silver streaming agreement relating to Antamina, if there is an event of default under the agreement or Teck insolvency, Teck Base Metals Ltd., our subsidiary that holds our interest in Antamina, is restricted from paying dividends or making other distributions to Teck to the extent that there are unpaid amounts under the agreement.

Operating Cash Flow

Cash flow from operations was \$4.4 billion in 2018, compared with a record \$5.0 billion in 2017 and \$3.1 billion in 2016. The decrease in 2018 was primarily associated with the changes in non-cash working capital items due to the buildup of inventories with the ramp-up of Fort Hills, along with a reduction of accounts payable early in the year following a significant increase in the fourth quarter of 2017 related to Red Dog's seasonality. The increase in 2017 compared to 2016 was mainly due to the higher average commodity prices.

Investing Activities

Capital expenditures in 2018 were \$1.9 billion property, plant and equipment and \$707 million for capitalized stripping, as summarized in the table on pages 49 to 50.

The largest components of sustaining capital included \$232 million at our steelmaking coal operations, \$150 million at Trail Operations, \$65 million at Red Dog Operations and \$63 million for our share of spending at Antamina.

Major enhancement expenditures included \$230 million at our steelmaking coal operations, primarily related to the upgrade at Neptune Terminals, developing the Baldy Ridge pit at Elkview Operations and the Swift pit at Fording River Operations; \$100 million for the mill upgrade project at Red Dog Operations; \$55 million towards installing an additional ball mill to increase grinding circuit capacity at Highland Valley Copper Operations; and \$69 million on tailings and equipment ramp-up spending at Fort Hills.

New mine development included \$414 million for the Quebrada Blanca Phase 2 project, \$263 million for our share of completing the development of the Fort Hills oil sands project and \$56 million on our Project Satellite.

Expenditures on investments in 2018 and 2017 were \$284 million and \$309 million, respectively. In 2018, we paid US\$112.5 million — US\$52.5 million on closing and US\$60 million upon receipt of the regulatory approvals received in August — to acquire Inversiones Mineras S.A. to bring our ownership share of Quebrada Blanca to 90%. Other investments include \$44 million for the 1.3% increase in Fort Hills, and \$48 million on NuevaUnión, which is an equity investment under the IFRS accounting rules. For 2017, investments included \$121 million for a 0.89% increase in our share of Fort Hills, \$43 million on our NuevaUnión copper project, \$63 million to acquire Goldcorp's minority 21% interest in the San Nicolás copper project, and \$13 million to acquire the remaining 70% of AQM Copper Inc. not already owned, giving us an 80% interest in the Zafranal copper-gold project located in southern Peru.

Cash proceeds from the sale of assets and investments were \$1.3 billion in 2018, \$126 million in 2017 and \$170 million in 2016. The major item in 2018 was the \$1.2 billion of proceeds from the sale of our two-thirds interest in the Waneta Dam. Significant items in 2017 were proceeds of \$59 million from the sale of our 49% interest in the Wintering Hills Wind Power Facility and \$30 million from the sale of marketable securities and various royalty interests.

Financing Activities

In 2018, we purchased US\$1.0 billion aggregate principal amount of our outstanding notes pursuant to cash tender offers. The principal amount of notes purchased was US\$103 million of 4.50% notes due January 2021, US\$471 million of 4.75% notes due 2022 and US\$426 million of 3.75% notes due 2023. The total cost of the purchases, which was funded from cash on hand, including the premiums, was US\$1.01 billion. We recorded a pre-tax accounting charge of \$26 million (\$19 million after tax) in non-operating income (expense) in connection with these purchases.

In November 2018, we changed the amounts and maturity dates, and made certain other amendments to our two committed revolving credit facilities. We increased our US\$3.0 billion facility to US\$4.0 billion (undrawn at December 31, 2018) and extended the maturity date from October 2022 to November 2023. We decreased the US\$1.2 billion facility to US\$600 million (US\$573 million drawn for letters of credit at December 31, 2018) and extended the maturity date from October 2020 to November 2021. In addition, our obligations under these agreements and our outstanding 8.5% term notes due 2024 are no longer guaranteed on a senior unsecured basis by certain Teck subsidiaries.

In April 2017, our Board announced a dividend policy reflecting our commitment to return cash to shareholders in balance with the needs and opportunities to invest in, and the inherent cyclicity of, our underlying businesses. The policy is anchored by an annual base dividend of \$0.20 per share, to be paid \$0.05 on the last business day of each quarter. Each year the Board will review the free cash flow generated by the business, the outlook for business conditions and priorities regarding capital allocation, and determine whether a supplemental dividend should be paid. Any supplemental dividends declared are expected to be paid on the last business day of the calendar year. If declared, supplemental dividends may be highly variable from year to year, given the volatility of commodity prices and the potential need to conserve cash for certain project capital expenditures or other corporate priorities. As always, the payment of dividends is at the discretion of the Board, who will review the dividend policy regularly. During 2018, we paid \$172 million of eligible dividends, of which approximately \$57 million, or \$0.10 per share, was for the supplemental dividend.

In 2018, we purchased and cancelled approximately 6.3 million Class B shares at a cost of \$189 million under our normal course issuer bids. Our current normal course issuer bid allows us to purchase up to 40 million Class B shares during the period starting October 10, 2018 and ending October 9, 2019. As of February 12, 2019, we have purchased approximately 8.5 million shares under this bid for \$247 million, of which 4.7 million shares were purchased and cancelled in 2018.

Teck is making the normal course issuer bid because it believes that the market price of its Class B Shares may, from time to time, not reflect their underlying value and that the share buyback program may provide value by reducing the number of shares outstanding at attractive prices. All repurchased shares will be cancelled. During Teck's prior normal course issuer bid, which commenced on October 10, 2017 and ended October 9, 2018, Teck purchased 7,483,388 Class B Shares on the open market at a volume-weighted average price of \$31.05 per Class B Share. Shareholders may obtain a copy of Teck's normal course issuer bid notice by contacting our Corporate Secretary.

Quarterly Profit and Cash Flow

(\$ in millions except per share data)	2018				2017(restated)			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Revenue	\$ 3,247	\$ 3,209	\$ 3,016	\$ 3,092	\$ 3,156	\$ 3,075	\$ 2,832	\$ 2,847
Gross profit	1,011	1,009	1,241	1,360	1,263	1,068	1,073	1,163
EBITDA ⁽¹⁾	1,152	2,064	1,403	1,555	1,563	1,370	1,341	1,315
Profit attributable to shareholders	433	1,281	634	759	740	584	580	556
Basic earnings per share	\$ 0.75	\$ 2.23	\$ 1.10	\$ 1.32	\$ 1.28	\$ 1.01	\$ 1.00	\$ 0.96
Diluted earnings per share	\$ 0.75	\$ 2.20	\$ 1.09	\$ 1.30	\$ 1.26	\$ 0.99	\$ 0.99	\$ 0.95
Cash flow from operations	\$ 1,352	\$ 872	\$ 1,100	\$ 1,114	\$ 1,458	\$ 894	\$ 1,407	\$ 1,290

Note:

(1) Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

Gross profit in the fourth quarter from our steelmaking coal business unit was \$819 million, compared with \$625 million a year ago. Strong fourth quarter sales and significantly higher realized steelmaking coal prices increased gross profit before depreciation and amortization by \$196 million from a year ago, despite higher operating and transportation unit costs.

Sales volumes of 6.6 million tonnes in the fourth quarter were 5% higher than the same period a year ago, including record high monthly sales in November. This strong performance resulted from a combination of robust demand in all market areas led by continued steel production capacity growth in India and Southeast Asia and steelmaking coal supply concerns, mainly in Australia.

Gross profit from our copper business unit was \$138 million in the fourth quarter, compared with \$288 million a year ago. Gross profit before depreciation and amortization decreased by \$166 million, compared with a year ago due mainly to lower copper sales and lower prices for copper and zinc. A sharp decline in copper prices, especially in December, also resulted in inventory write-down charges at Quebrada Blanca (\$27 million) and Highland Valley Copper (\$14 million). In the same period last year, we reversed prior inventory write-downs at our Quebrada Blanca mine of \$25 million as a result of higher copper prices.

Copper production in the fourth quarter decreased by 7% from a year ago primarily due to lower ore grades and mill throughput at Highland Valley Copper, as expected in the mine plan. Our total cash unit costs⁵ before by-product credits in the fourth quarter were US\$1.76 per pound, similar to the same period a year ago. Higher zinc and molybdenum sales volumes in 2018 were offset by lower zinc prices. As a result, cash unit costs after by-product credits of US\$1.28 per pound in the fourth quarter were also similar to US\$1.27 per pound in the fourth quarter last year.

Gross profit from our zinc business unit was \$206 million in the fourth quarter, compared with \$350 million a year ago. Gross profit before depreciation and amortization decreased by \$133 million due primarily to lower zinc prices and a decrease in by-product revenues from lead and silver, partially offset by lower royalties.

Fourth quarter production was lower at our Trail Operations due to planned major maintenance in the lead circuit and the treatment of lead concentrates with lower silver content in the period, resulting in refined lead and silver production declining substantially by 45% and 77%, respectively, compared with a year ago. Refined zinc production was 7% lower due to temporary maintenance issues in the zinc roasters. Profit at Trail Operations was also negatively affected by historically low treatment and refining charges and increased electricity costs. At Red Dog, zinc and lead production increased by 13% and 6%, respectively, compared to a year ago as a result of strong operational performance with higher than planned throughput.

In our energy business unit, both production volumes and product quality on start-up at the Fort Hills mine have exceeded our expectations. Bitumen production from the first two secondary extraction trains at Fort Hills commenced in the first quarter of 2018, followed by the third and final train in May. All commissioning and construction activities are now complete. In the second quarter, we concluded that Fort Hills was operational and results from Fort Hills are included in our consolidated results from June 1, 2018.

Realized prices and operating results in the fourth quarter were significantly affected by a material decline in global benchmark crude oil prices and the widening of Canadian heavy blend differentials, for WCS. In addition, costs associated with diluent increased significantly during the fourth quarter of 2018 due to a seasonal increase in diluent consumption and unusual widening in the spread between diluent and WCS. As a result of the decline in prices, we recorded inventory write-downs during the fourth quarter of approximately \$34 million.

Our profit attributable to shareholders was \$433 million, or \$0.75 per share, in the fourth quarter compared with \$740 million, or \$1.28 per share, a year ago.

Cash flow from operations was \$1.4 billion in the fourth quarter, similar to \$1.5 billion a year ago.

⁵ Non-GAAP Financial Measure. See "Use of Non-GAAP Financial Measures" section for further information.

Outlook

The sales of our products are denominated in U.S. dollars while a significant portion of our expenses are incurred in local currencies, particularly the Canadian dollar and the Chilean peso. Foreign exchange fluctuations can have a significant effect on our operating margins, unless such fluctuations are offset by related changes to commodity prices.

Our U.S. dollar denominated debt is subject to revaluation based on changes in the Canadian/U.S. dollar exchange rate. As at December 31, 2018, \$2.6 billion of our U.S. dollar denominated debt is designated as a hedge against our foreign operations that have a U.S. dollar functional currency. As a result, any foreign exchange gains or losses arising on that amount of our U.S. dollar debt are recorded in other comprehensive income, with the remainder being charged to profit.

Commodity markets are volatile. Prices can change rapidly and customers can alter shipment plans. This can have a substantial effect on our business and financial results. Demand fundamentals, especially for steelmaking coal, refined zinc and refined copper, remain strong and prices for steelmaking coal rose substantially in the past year, contributing additional revenues and cash flows. Production and logistics disruptions in a number of the coal producing regions continued to have an effect on available supplies and market prices. Recent uncertainty in global markets arising from government policy changes, including tariffs and the potential for trade disputes, may have a significant positive or negative effect on the various products we produce. Price volatility will continue, but over the long term, the industrialization of emerging economies, as well as infrastructure replacement in developed economies, will continue to be a major factor in the demand for the commodities we produce.

While price volatility remains a significant factor in our industry, we have taken significant steps to insulate our company from its effects. We have improved operations and made selective short-term decisions to maximize production more specifically in our steelmaking coal operations to capture significant gross profit cash margins. We have strengthened our balance sheet and credit ratings by reducing debt. Further, the supply and demand balance for our products is favourable. Combined, these factors are significant positives for the outlook for our company.

Commodity Prices and Sensitivities

Commodity prices are a key driver of our profit and cash flows. On the supply side, the depleting nature of ore reserves, difficulties in finding new ore-bodies, the permitting processes and the availability of skilled resources to develop projects, as well as infrastructure constraints, political risk and significant cost inflation, may continue to have a moderating effect on the growth in future production for the industry as a whole.

The sensitivity of our annual profit attributable to shareholders and EBITDA to changes in the Canadian/U.S. dollar exchange rate and commodity prices, before pricing adjustments, based on our current balance sheet, our expected 2019 mid-range production estimates, current commodity prices and a Canadian/U.S. dollar exchange rate of \$1.32, is as follows:

	2019 Mid-Range Production Estimates ⁽¹⁾	Change	Estimated Effect of Change on Profit ⁽²⁾	Estimated Effect on EBITDA ⁽²⁾
US\$ exchange		CAD\$0.01	\$ 48 million	\$ 76 million
Steelmaking coal (million tonnes)	26.25	US\$1/tonne	\$ 20 million	\$ 31 million
Copper (thousand tonnes)	300.0	US\$0.01/lb.	\$ 5 million	\$ 8 million
Zinc (thousand tonnes) ⁽³⁾	942.5	US\$0.01/lb.	\$ 10 million	\$ 13 million
WCS (million bbl) ⁽⁴⁾	13.0	US\$1/bbl	\$ 12 million	\$ 17 million
WTI ⁽⁵⁾		US\$1/bbl	\$ 9 million	\$ 12 million

Notes:

- (1) All production estimates are subject to change based on market and operating conditions.
- (2) The effect on our profit attributable to shareholders and on EBITDA of commodity price and exchange rate movements will vary from quarter to quarter depending on sales volumes. Our estimate of the sensitivity of profit and EBITDA to changes in the U.S. dollar exchange rate is sensitive to commodity price assumptions.
- (3) Zinc includes 307,500 tonnes of refined zinc and 635,000 tonnes of zinc contained in concentrate.
- (4) Bitumen volumes from our energy business unit.
- (5) Our WTI oil price sensitivity takes into account our interest in Fort Hills for respective change in revenue, partially offset by the effect of the change in diluent purchase costs as well as the effect on the change in operating costs across our business units, as our operations use a significant amount of diesel fuel.

2019 Production and Other Guidance

Our steelmaking coal production in 2019 is expected to be in the range of 26.0 to 26.5 million tonnes, compared with 26.2 million tonnes produced in 2018. Our actual production will depend primarily on customer demand for deliveries of steelmaking coal. Depending on market conditions and the sales outlook, we may adjust our production plans.

Our copper production for 2019 is expected to be in the range of 290,000 to 310,000 tonnes, compared with 293,900 tonnes produced in 2018. Copper production at Highland Valley Copper is expected to increase approximately 17,000 tonnes as a result of higher ore grades. Our share of production from Antamina and Carmen de Andacollo is expected to remain similar to 2018 levels.

Our zinc in concentrate production in 2019 is expected to be in the range of 620,000 to 650,000 tonnes, compared with 705,000 tonnes produced in 2018. Red Dog's production is expected to be between 535,000 to 555,000 tonnes, approximately 7% lower than 2018 production levels. Our share of Antamina's zinc production in 2019 is expected to decrease by approximately 25,000 tonnes. Refined zinc production in 2019 from our Trail Operations is expected to be in the range of 305,000 to 310,000 tonnes, compared with 302,900 tonnes produced in 2018.

Our share of bitumen production in 2019 is expected to be in the range of 12 to 14 million barrels (33,000 to 38,000 barrels per day), including estimated production curtailments. The high end of our guidance reflects the Government of Alberta's production curtailments being lifted in the second quarter of 2019.

In 2019, we expect to spend approximately \$140 million on research and development initiatives including our Ideas at Work technology and innovation fund, projects that could reduce our energy consumption and greenhouse gas emissions and the continued advancement of research and development of alternative water treatment strategies, including with respect to SRF technology.

We will apply IFRS 16, Leases (IFRS 16) from January 1, 2019 and expect to record additional leases on our consolidated balance sheet, which will increase our debt and property, plant and equipment balances. As a result of recognizing additional lease liabilities and right of use assets, we expect a reduction in our cost of sales, as operating lease expense will be replaced by depreciation expense and finance expense.

Guidance

Production Guidance

The table below shows our share of production of our principal products for 2018, our guidance for production in 2019 and our guidance for production for the following three years.

Units in thousand tonnes (excluding steelmaking coal, molybdenum and bitumen)	2018	2019 Guidance	Three-Year Guidance 2020–2022
Principal Products			
Steelmaking coal (million tonnes)	26.2	26.0–26.5	26.5–27.5
Copper ⁽¹⁾⁽²⁾⁽³⁾			
Highland Valley Copper	100.8	115–120	135–155
Antamina	100.4	95–100	90–95
Carmen de Andacollo	67.2	62–67	60
Quebrada Blanca ⁽⁵⁾	25.5	20–23	–
	293.9	290–310	285–305
Zinc ⁽¹⁾⁽²⁾⁽⁴⁾			
Red Dog	583.2	535–555	500–520
Antamina	92.1	65–70	95–110
Pend Oreille	29.7	20–30	–
	705.0	620–650	600–630
Refined zinc			
Trail Operations	302.9	305–310	310–315
Bitumen (million barrels) ⁽²⁾⁽⁶⁾⁽⁷⁾			
Fort Hills	6.8	12–14	14
Other Products			
Lead ⁽¹⁾			
Red Dog	98.4	85–90	85–100
Refined lead			
Trail Operations	61.0	70–75	85–95
Molybdenum (million pounds) ⁽¹⁾⁽²⁾			
Highland Valley Copper	8.7	6.0	4.0–5.0
Antamina	2.3	2.0	2.0–3.0
	11.0	8.0	6.0–8.0
Refined silver (million ounces)			
Trail Operations	11.6	13–14	N/A

Notes:

(1) Metal contained in concentrate.

(2) We include 100% of production and sales from our Quebrada Blanca and Carmen de Andacollo mines in our production and sales volumes, even though we own 90% of these operations, because we fully consolidate their results in our financial statements. We include 22.5% and 21.3% of production and sales from Antamina and Fort Hills, respectively, representing our proportionate ownership interest in these operations.

(3) Copper production includes cathode production at Quebrada Blanca and Carmen de Andacollo.

(4) Total zinc includes co-product zinc production from our copper business unit.

(5) Excludes production from QB2 for three-year guidance 2020–2022.

(6) Results for 2018 are effective from June 1, 2018.

(7) The 2020–2022 bitumen production guidance does not include potential near-term debottlenecking opportunities. See energy business unit for more information.

Sales Guidance

The table below shows our sales for the last quarter and our sales guidance for the next quarter for selected primary products.

	Q4 2018	Q1 2019 Guidance
Steelmaking coal (million tonnes)	6.6	6.1–6.3
Zinc (thousand tonnes) ⁽¹⁾		
Red Dog	175.7	125–130

Note:

(1) Metal contained in concentrate.

Unit Cost Guidance

The table below reports our unit costs for selected principal products for 2018 and our guidance for unit costs for selected principal products in 2019.

(Per unit costs — CAD\$/tonne)	2018	2019 Guidance
Steelmaking coal⁽¹⁾		
Adjusted site cost of sales ⁽⁵⁾	\$ 62	\$ 62–65
Transportation costs	37	37–39
Unit costs ⁽⁵⁾	\$ 99	\$ 99–104
Copper⁽²⁾		
Total cash unit costs ⁽⁵⁾ (US\$/lb.)	\$ 1.74	\$ 1.70–1.80
Net cash unit costs ⁽³⁾⁽⁵⁾ (US\$/lb.)	\$ 1.23	\$ 1.45–1.55
Zinc⁽⁴⁾		
Total cash unit costs ⁽⁵⁾ (US\$/lb.)	\$ 0.49	\$ 0.50–0.55
Net cash unit costs ⁽³⁾⁽⁵⁾ (US\$/lb.)	\$ 0.31	\$ 0.35–0.40
Energy (bitumen)		
Adjusted operating costs ⁽⁵⁾ (CAD\$/barrel)	\$ 32.89	\$ 26–29

Notes:

- (1) Steelmaking coal unit costs are reported in Canadian dollars per tonne. Steelmaking coal unit cost of sales include site costs, transport costs, and other and does not include capitalized stripping or capital expenditures. See “Use of Non-GAAP Financial Measures” section for further information.
- (2) Copper unit costs are reported in U.S. dollars per payable pound of metal contained in concentrate. Copper total cash costs after by-product margins include adjusted cash cost of sales, smelter processing charges and cash margin for by-products including co-products. Assumes a zinc price of US\$1.30 per pound, a molybdenum price of US\$12 per pound, a silver price of US\$16.00 per ounce, a gold price of US\$1,250 per ounce and a Canadian/U.S. dollar exchange rate of \$1.30. See “Use of Non-GAAP Financial Measures section” for further information.
- (3) After co-product and by-product margins.
- (4) Zinc unit costs are reported in U.S. dollars per payable pound of metal contained in concentrate. Zinc total cash costs after by-product margins are mine costs including adjusted cash cost of sales, smelter processing charges and cash margin for by-products. Assumes a lead price of US\$1.00 per pound, a silver price of US\$16.00 per ounce and a Canadian/U.S. dollar exchange rate of \$1.30. By-products include both by-products and co-products.
- (5) Non-GAAP Financial Measure. See “Use of Non-GAAP Financial Measures” section for further information and reconciliation.

Capital Expenditure Guidance

The table below reports our capital expenditures for 2018 and our guidance for capital expenditures in 2019.

(Teck's share in \$ millions)	2018	2019 Guidance
Sustaining		
Steelmaking coal ⁽¹⁾	\$ 232	\$ 540
Copper	157	240
Zinc	225	170
Energy	21	60
Corporate	10	5
	\$ 645	\$ 1,015
Major Enhancement		
Steelmaking coal ⁽²⁾	\$ 230	\$ 410
Copper	62	70
Zinc	107	60
Energy	69	100
	\$ 468	\$ 640
New Mine Development		
Copper ⁽³⁾	\$ 56	\$ 130
Zinc	38	30
Energy	285	30
	\$ 379	\$ 190
Total		
Steelmaking coal	\$ 462	\$ 950
Copper	275	440
Zinc	370	260
Energy	375	190
Corporate	10	5
	\$ 1,492	\$ 1,845
QB2 capital expenditures	414	1,930
Total before SMM and SC contributions	1,906	3,775
Estimated SMM and SC contributions to capital expenditures ⁽⁴⁾	–	(1,585)
Total Teck spend	\$ 1,906	\$ 2,190

Notes:

- (1) For steelmaking coal, sustaining capital includes Teck's share of water treatment charges of \$57 million in 2018. Sustaining capital guidance includes Teck's share of water treatment charges related to the Elk Valley Water Quality Plan, which are approximately \$235 million in 2019.
- (2) For steelmaking coal major enhancement capital guidance includes \$210 million relating to the facility upgrade at Neptune Bulk Terminals that will be funded by Teck.
- (3) For copper, new mine development guidance for 2019 includes early scoping studies for QB3, Zafranal, San Nicolás and Galore Creek.
- (4) Total estimated SMM and SC contributions are \$1.77 billion. The difference will be in cash at December 31, 2019. Total estimated contributions are US\$1.2 billion as disclosed and US\$142 million for their share of expenditures from January 1, 2019 to March 31, 2019.

Consistent with our direct funding of the capital expenditures, we have included our investments in both sustaining and major expansion at Neptune Bulk Terminals in our capital expenditures and guidance going forward. This is consistent with our presentation of these items in previous years when we funded significant capital projects, most recently in 2013.

Capital Expenditure Guidance – Capitalized Stripping

(Teck's share in CAD\$ millions)	2018	2019 Guidance
Capitalized Stripping		
Steelmaking coal	\$ 507	\$ 410
Copper	161	175
Zinc	39	45
	\$ 707	\$ 630

Other Information

Carbon Pricing Policies and Associated Costs

Across our operations, the most significant carbon pricing action has taken place in Canada. In 2018, our most material carbon pricing policy impacts were related to B.C.'s carbon tax. In 2018, the Province of B.C. increased the carbon tax by \$5 per tonne of CO₂-equivalent (CO₂e) from \$30 to \$35. This price is expected to increase by \$5 per tonne of CO₂e per year until reaching \$50 per tonne of CO₂e. The B.C. Government also made a commitment to address impacts on emissions-intensive, trade-exposed industries to ensure that B.C. operations maintain their competitiveness and to minimize carbon leakage.

On January 1, 2018, Alberta introduced the Carbon Competitiveness Incentive Regulation, an industry-specific carbon pricing policy requiring large emitters, and other facilities that have opted in, to reduce their emissions intensity below a prescribed level, or to purchase emissions credits in concert with or as an alternative to physical abatement, with significant penalties for failure to achieve compliance. In June 2018, the Government of Canada introduced the *Greenhouse Gas Pollution Pricing Act* that establishes a federal carbon levy for any province or territory that has not implemented a compliant carbon-pricing regime. Federal carbon levy rates will start with a minimum price of \$10 per tonne in 2018, increasing \$10 per year to \$50 per tonne by 2022. The *Greenhouse Gas Pollution Pricing Act* comes into effect in April 2019 and will only apply in provinces or territories whose policies are not deemed sufficiently similar. Both B.C.'s and Alberta's policies meet these requirements at this time, and as a result, the national carbon pricing regulations will not apply to our operations.

The cost of compliance with various climate change regulations will ultimately be determined by the regulations themselves and by the markets that evolve for carbon credits and offsets. Teck's greenhouse gas emissions attributable to our operations for 2018 are estimated to be approximately 2.9 million tonnes (CO₂e). The most material indirect emissions associated with our activities are those from the use of our steelmaking coal by our customers. Based on our 2018 sales volumes, emissions from the use of our steelmaking coal would have been approximately 76 million tonnes of CO₂.

For 2018, our seven B.C.-based operations incurred \$58.8 million in British Columbia provincial carbon tax and our Cardinal River Operations in Alberta paid \$1.2 million in carbon costs, primarily from our use of coal, diesel fuel and natural gas.

We will continue to assess the potential implications of the updated policies on our operations and projects.

Financial Instruments and Derivatives

We hold a number of financial instruments, derivatives and contracts containing embedded derivatives, which are recorded on our consolidated balance sheet at fair value with gains and losses in each period included in other comprehensive income (loss) in the year and profit for the period on our consolidated statements of income and consolidated statements of other comprehensive income, as appropriate. The most significant of these instruments are investments in marketable equity and debt securities, commodity swap contracts, metal-related forward contracts, settlement receivables and payables, embedded debt prepayment options, and gold stream and silver stream embedded derivatives. Some of our gains and losses on metal-related financial instruments are affected by smelter price participation and are taken into account in determining royalties and other expenses. All are subject to varying rates of taxation, depending on their nature and jurisdiction. Further information about our financial instruments, derivatives and contracts containing embedded derivatives and associated risks is outlined in Note 28 to our 2018 audited annual consolidated financial statements.

Areas of Judgment and Critical Accounting Estimates

In preparing our consolidated financial statements, we make judgments in applying our accounting policies. The judgments that have the most significant effect on the amounts recognized in our financial statements are outlined below. In addition, we make assumptions about the future in deriving estimates used in preparing our consolidated financial statements. We have outlined below information about assumptions and other sources of estimation uncertainty as at December 31, 2018 that have a risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next year.

a) Areas of Judgment

Assessment of Impairment Indicators

Judgment is required in assessing whether certain factors would be considered an indicator of impairment or impairment reversal. We consider both internal and external information to determine whether there is an indicator of impairment or impairment reversal present and, accordingly, whether impairment testing is required. The information we consider in assessing whether there is an indicator of impairment or impairment reversal includes, but is not limited to, market transactions for similar assets, commodity prices, interest rates, inflation rates, our market capitalization, reserves and resources, mine plans and operating results. Refer to the impairment testing section below for further detail on our assessment of impairment indicators in 2018 and 2017.

Property, Plant and Equipment – Determination of Available for Use Date

Judgment is required in determining the date that property, plant and equipment is available for use. An asset is available for use when it is in the location and condition necessary to operate in the manner intended by management. At that time, we commence depreciation of the asset and cease capitalization of borrowing costs. We consider a number of factors in making the determination of when an asset is available for use including, but not limited to, design capacity of the asset, production levels achieved, capital spending remaining and commissioning status. Fort Hills produced first oil in January 2018 and was considered available for use as at June 1, 2018. When concluding that these assets were available for use at June 1, 2018, we considered whether all three secondary extraction trains were running as expected, whether the production and product quality were consistent with expectations, and the status of asset commissioning. We have included the operating results for Fort Hills in our consolidated statements of income from that date forward.

Joint Arrangements

We are a party to a number of arrangements over which we do not have control. Judgment is required in determining whether joint control over these arrangements exists and, if so, which parties have joint control and whether each arrangement is a joint venture or joint operation. In assessing whether we have joint control, we analyze the activities of each arrangement and determine which activities most significantly affect the returns of the arrangement over its life. These activities are determined to be the relevant activities of the arrangement. If unanimous consent is required over the decisions about the relevant activities, the parties whose consent is required would have joint control over the arrangement. The judgments around which activities are considered the relevant activities of the arrangement are subject to analysis by each of the parties to the arrangement and may be interpreted differently. When performing this assessment, we generally consider decisions about activities such as managing the asset while it is being designed, developed and constructed, during its operating life and during the closure period. We may also consider other activities including the approval of budgets, expansion and disposition of assets, financing, significant operating and capital expenditures, appointment of key management personnel, representation on the Board of Directors and other items. When circumstances or contractual terms change, we reassess the control group and the relevant activities of the arrangement.

If we have joint control over the arrangement, an assessment of whether the arrangement is a joint venture or joint operation is required. This assessment is based on whether we have rights to the assets, and obligations for the liabilities, relating to the arrangement or whether we have rights to the net assets of the arrangement. In making this determination, we review the legal form of the arrangement, the terms of the contractual arrangement and other facts and circumstances. In a situation where the legal form and the terms of the contractual arrangement do not give us rights to the assets and

obligations for the liabilities, an assessment of other facts and circumstances is required, including whether the activities of the arrangement are primarily designed for the provision of output to the parties and whether the parties are substantially the only source of cash flows contributing to the arrangement. The consideration of other facts and circumstances may result in the conclusion that a joint arrangement is a joint operation. This conclusion requires judgment and is specific to each arrangement. Other facts and circumstances have led us to conclude that Antamina and Fort Hills are joint operations for the purposes of our 2018 audited annual consolidated financial statements. The other facts and circumstances considered for both of these arrangements include the provisions of output to the parties of the joint arrangements and the funding obligations. For both Antamina and Fort Hills, we will take our share of the output from the assets directly over the life of the arrangement. We have concluded that this gives us direct rights to the assets and obligations for the liabilities of these arrangements proportionate to our ownership interests.

Streaming Transactions

When we enter into a long-term streaming arrangement linked to production at specific operations, judgment is required in assessing the appropriate accounting treatment for the transaction on the closing date and in future periods. We consider the specific terms of each arrangement to determine whether we have disposed of an interest in the reserves and resources of the respective operation or executed some other form of arrangement. This assessment considers what the counterparty is entitled to and the associated risks and rewards attributable to them over the life of the operation. These include the contractual terms related to the total production over the life of the arrangement as compared to the expected production over the life of the mine, the percentage being sold, the percentage of payable metals produced, the commodity price referred to in the ongoing payment and any guarantee relating to the upfront payment if production ceases.

For our silver and gold streaming arrangements entered into in 2015, there is no guarantee associated with the upfront payment. We have concluded that control of the rights to the silver and gold mineral interests were transferred to the buyer when the contracts came into effect at Antamina and Carmen de Andacollo, respectively. Therefore, we consider these arrangements a disposition of a mineral interest.

Any gains from the sale of mineral properties are recognized in accordance with IFRS 15, *Revenue from Contracts with Customers* (IFRS 15). For both streaming transactions, the total transaction price less costs was allocated to the identified performance obligations based on their estimated stand-alone selling prices. The performance obligations include the interest in the reserves and resources of the operation, mining, refining and delivery services. The allocation involved the use of a variety of estimates in a discounted cash flow model to estimate the stand-alone selling price of the mineral interest. The significant estimates included expected commodity prices, production costs, discount rates and mine plans. A residual value approach was used to estimate the selling prices of mining services.

Based on our judgment, control of the interest in the reserves and resources transferred to the buyer when the contract was executed. At that time, we had the right to payment, the customer was entitled to the commodities, the buyer had no recourse in requiring Teck to mine the product, and the buyer had significant risks and rewards of ownership of the reserves and resources. The allocation of proceeds under IFRS 15 resulted in a net gain allocated to the reserves and resources for the Antamina silver stream transaction. This resulted in an IFRS 15 transition pre-tax adjustment of \$755 million to retained earnings, as the amount was previously recorded as deferred consideration. There was no net gain or loss adjustment on application of IFRS 15 to the Carmen de Andacollo gold stream.

We recognize the amount of consideration related to refining, mining and delivery services as the work is performed.

Deferred Tax Assets and Liabilities

Judgment is required in assessing whether deferred tax assets and certain deferred tax liabilities are recognized on the balance sheet and what tax rate is expected to be applied in the year when the related temporary differences reverse, particularly in regard to the utilization of tax loss carryforwards. We also evaluate the recoverability of deferred tax assets based on an assessment of our ability to use the underlying future tax deductions before they expire against future taxable income. Deferred tax liabilities arising from temporary differences on investments in subsidiaries, joint ventures and associates are recognized unless the reversal of the temporary differences is not expected to occur in the foreseeable future and can be controlled. Judgment is also required on the application of income tax legislation. These judgments are subject to risk and uncertainty and could result in an adjustment to the deferred tax provision and a corresponding credit or charge to profit.

b) Sources of Estimation Uncertainty

Impairment Testing

When impairment testing is required, discounted cash flow models are used to determine the recoverable amount of respective assets. These models are prepared internally with assistance from third-party advisors when required. When market transactions for comparable assets are available, these are considered in determining the recoverable amount of assets. Significant assumptions used in preparing discounted cash flow models include commodity prices, reserves and resources, mine plans, operating costs, capital expenditures, discount rates, foreign exchange rates and inflation rates. These inputs are based on management's best estimates of what an independent market participant would consider appropriate. Changes in these inputs may alter the results of impairment testing, the amount of the impairment charges or reversals recorded in the statement of income and the resulting carrying values of assets.

We allocate goodwill arising from business combinations to the cash-generating unit (CGU) or group of CGUs acquired that is expected to receive the benefits from the business combination. When performing annual goodwill impairment tests, we are required to determine the recoverable amount of each CGU or group of CGUs to which goodwill has been allocated. Our Quebrada Blanca CGU and steelmaking coal CGU have goodwill allocated to them. The recoverable amount of each CGU or group of CGUs is determined as the higher of its fair value less costs of disposal and its value in use.

Asset Impairments and Impairment Reversals

(\$ in millions)	2018	2017
Steelmaking coal CGU	\$ —	\$ (207)
Other	41	44
Total	\$ 41	\$ (163)

Steelmaking Coal CGU

In 2018, there were no indicators of impairment or impairment reversal relating to our steelmaking coal CGU. We performed our annual goodwill impairment testing for the steelmaking coal CGU as at October 31, 2018, which is outlined in more detail below.

As at December 31, 2017, we recorded a pre-tax impairment reversal of \$207 million (\$131 million after tax) related to one of the mines in our steelmaking coal CGU. The estimated post-tax recoverable amount of this mine was significantly higher than the carrying value. This impairment reversal arose as a result of changes in short-term and long-term market participant price expectations for steelmaking coal and expected future operating cost estimates included in our annual goodwill impairment testing.

Other

During the year ended December 31, 2018, we recorded other asset impairments of \$41 million, of which \$31 million is related to capitalized exploration expenditures that are not expected to be recovered and \$10 million (\$44 million—2017) is related to Quebrada Blanca assets that will not be recovered through use.

Annual Goodwill Impairment Testing

In 2018, we performed our annual goodwill impairment testing at October 31 and did not identify any goodwill impairment losses.

Given the nature of expected future cash flows used to determine the recoverable amount, a material change could occur over time, as the cash flows are significantly affected by the key assumptions described as follows.

Sensitivity Analysis

Our annual goodwill impairment test carried out at October 31, 2018 resulted in the recoverable amount of our steelmaking coal CGU exceeding its carrying value by approximately \$6.7 billion. The recoverable amount of our steelmaking coal CGU is most sensitive to the long-term Canadian dollar steelmaking coal price assumption. In isolation, a 15% decrease in the long-term Canadian dollar steelmaking coal price would result in the recoverable amount of the steelmaking coal CGU being equal to the carrying value.

Our annual goodwill impairment test for the Quebrada Blanca CGU carried out at October 31, 2018 resulted in a recoverable amount that exceeded the carrying value and no goodwill impairment losses were identified. Subsequent to our annual goodwill impairment test, Teck announced the QB2 partnering transaction with SMM and SC. We compared the implied fair value that can be derived from the announced market transaction to the carrying value for our Quebrada Blanca CGU and concluded that the fair value exceeded our carrying value, including goodwill. In deriving a fair value for QBSA relative to the interest subscribed for by SMM and SC, we adjusted the transaction value to reflect the additional value attributed to a controlling interest.

Key Assumptions

The following are the key assumptions used in our impairment testing calculations during the years ended December 31, 2018 and 2017:

	2018	2017
Steelmaking coal prices	Current price used in initial year, decreased to a long-term price in 2023 of US\$150 per tonne	Current price used in initial year, decreased to a long-term price in 2022 of US\$140 per tonne
Copper prices	Current price used in initial year, increased to a long-term price in 2023 of US\$3.00 per pound	Current price used in initial year, decreased to a long-term price in 2022 of US\$3.00 per pound
Discount rate	6.0%	5.9%
Long-term foreign exchange rate	1 U.S. to 1.25 Canadian dollars	1 U.S. to 1.25 Canadian dollars
Inflation rate	2%	2%

Commodity Prices

Commodity price assumptions are based on a number of factors, including forward curves in the near term, and are benchmarked with external sources of information, including information published by our peers and market transactions, where possible, to ensure they are within the range of values used by market participants.

Discount Rates

Discount rates are based on a mining weighted average cost of capital for all mining operations. For the year ended December 31, 2018, we used a discount rate of 6.0% real, 8.1% nominal post-tax (2017 — 5.9% real, 8.0% nominal post-tax) for mining operations and goodwill.

Foreign Exchange Rates

Foreign exchange rates are benchmarked with external sources of information based on a range used by market participants. Long-term foreign exchange assumptions are from year 2023 onwards for analysis performed in the year ended December 31, 2018, and are from year 2022 onwards for analysis performed in the year ended December 31, 2017.

Inflation Rates

Inflation rates are based on average historical inflation for the location of each operation and long-term government targets.

Reserves and Resources

Future mineral production is included in projected cash flows based on mineral reserve and resource estimates, and on exploration and evaluation work undertaken by appropriately qualified persons.

Operating Costs and Capital Expenditures

Operating costs and capital expenditures are based on life of mine plans and internal management forecasts. Cost estimates incorporate management experience and expertise, current operating costs, the nature and location of each operation, and the risks associated with each operation. Future capital expenditures are based on management's best estimate of expected future capital requirements, which are generally for the extraction and processing of existing reserves and resources. All committed and anticipated capital expenditures based on future cost estimates have been included in the projected cash flows. Operating cost and capital expenditure assumptions are continuously subjected to ongoing optimization and review by management.

Recoverable Amount Basis

In the absence of a relevant market transaction, we estimate the recoverable amount of our CGUs on a fair value less costs of disposal (FVLCD) basis using a discounted cash flow methodology and taking into account assumptions likely to be made by market participants unless it is expected that the value-in-use methodology would result in a higher recoverable amount. For the asset impairment, impairment reversal and goodwill impairment analyses performed in 2018 and 2017, we have applied the FVLCD basis.

Estimated Recoverable Reserves and Resources

Mineral and oil reserve and resource estimates are based on various assumptions relating to operating matters as set forth in National Instrument 43-101, Standards of Disclosure for Mineral Projects and National Instrument 51-101, Standards of Disclosure for Oil and Gas Activities. Assumptions used include production costs, mining and processing recoveries, cut-off grades, marketing and sales, long-term commodity prices and, in some cases, exchange rates, inflation rates and capital costs. Cost estimates are based on pre-feasibility or feasibility study estimates or operating history. Estimates are prepared by, or under the supervision of, appropriately qualified persons, or qualified reserves evaluators, but will be affected by forecasted commodity prices, inflation rates, exchange rates, capital and production costs, and recoveries, among other factors. Estimated recoverable reserves and resources are used to determine the depreciation of property, plant and equipment at operating mine sites, in accounting for capitalized production stripping costs, in performing impairment testing, and in forecasting the timing of the payment of decommissioning and restoration costs. Therefore, changes in the assumptions used could affect the carrying value of assets, depreciation and impairment charges recorded in the statement of income, and the carrying value of the decommissioning and restoration provision.

Decommissioning and Restoration Provisions

The decommissioning and restoration provision (DRP) is based on future cost estimates using information available at the balance sheet date. The DRP represents the present value of estimated costs of future decommissioning and other site restoration activities. The DRP is adjusted at each reporting period for changes to factors such as the expected amount of cash flows required to discharge the liability, the timing of such cash flows and the credit-adjusted discount rate. The DRP requires other significant estimates and assumptions, including the requirements of the relevant legal and regulatory framework and the timing, extent and costs of required decommissioning and restoration activities. To the extent the actual costs differ from these estimates, adjustments will be recorded and the income statement may be affected.

Provision for Income Taxes

We calculate current and deferred tax provisions for each of the jurisdictions in which we operate. Actual amounts of income tax expense are not final until tax returns are filed and accepted by the relevant authorities. This occurs subsequent to the issuance of our financial statements, and the final determination of actual amounts may not be completed for a number of years. Therefore, profit in subsequent periods will be affected by the amount that estimates differ from the final tax return.

Deferred Tax Assets and Liabilities

Assumptions about the generation of future taxable profits and repatriation of retained earnings depend on management's estimates of future production and sales volumes, commodity prices, reserves and resources, operating costs, decommissioning and restoration costs, capital expenditures, dividends and other capital management transactions. These estimates could result in an adjustment to the deferred tax provision and a corresponding credit or charge to profit.

Adoption of New Accounting Standards and Accounting Developments

Adoption of New Accounting Standards

We adopted IFRS 15 and IFRS 9, Financial Instruments (IFRS 9), which became effective January 1, 2018. Effective October 1, 2018, we also adopted the hedging requirements section of IFRS 9. We have adopted these new IFRS pronouncements in accordance with the transitional provisions outlined in the respective standards.

IFRS 9 was adopted prospectively from January 1, 2018 and did not affect our previously reported figures for 2017. There were no measurement changes to our financial assets or financial liabilities as a result of adopting IFRS 9. In addition, the adoption of the hedging requirements section of IFRS 9 on October 1, 2018 did not affect our existing designated hedging relationships.

We adopted IFRS 15 on January 1, 2018 in accordance with the transitional provisions of the standard, applying a full retrospective approach in restating our prior period financial information. Based on our analysis, the timing and amount of our revenue from product sales did not change significantly under IFRS 15. For steelmaking coal sales where we have a shipment that is partially loaded on a vessel at a reporting date, we concluded that the performance obligation in these contracts is for the full shipment. Therefore, we cannot recognize revenue until the full shipment is loaded. This does not significantly affect the revenue recognized in a period. This is a timing difference only and does not change the amount of revenue recognized for the full shipment.

As part of our assessment of IFRS 15, we analyzed the treatment of freight services provided to customers subsequent to the transfer of control of the product sold. Under IFRS 15, in our view, these services represent performance obligations that should be recognized separately. For the performance obligation related to these freight services, we have concluded that we are the principal to the shipping of product in our refined metal sales and concentrate sales contracts and will continue to reflect the revenue in these arrangements on a gross basis. For certain of our steelmaking coal sales contracts, we have concluded that we are the agent to the ocean freight shipping of product due to the terms of the arrangement, and our revenue will be reported on a net basis for these arrangements. There will be no effect on our gross profit, as the freight costs will be netted against revenue for these arrangements and not presented within cost of sales.

We have assessed the effects of IFRS 15 on our silver and gold streaming arrangements. At the date these transactions were completed, we accounted for the arrangements as the sale of a portion of our mineral interests at Antamina and Carmen de Andacollo, respectively. We did not recognize disposal gains on the transactions as a result of the requirements of the IFRS standards in effect at the dates of closing. Under the recognition and measurement principles of IFRS 15, any gain on these streaming transactions would have been recognized in full as control over the right to the silver or gold mineral interest transferred to the purchaser. Accordingly, we have recognized the deferred consideration recorded on our balance sheet through equity on transition to IFRS 15 as at January 1, 2017, resulting in an increase in equity of \$565 million, reduction in deferred consideration on the balance sheet of \$755 million and an increase in our deferred tax liabilities of \$190 million. We also reversed the amortization of the deferred consideration that was recorded as a reduction of cost of sales for the year ended December 31, 2017.

The tables in Note 32(a) to our audited consolidated financial statements for the year ended December 31, 2018 outline the adjustments to our financial statements resulting from the adoption of IFRS 15, described above, for all comparative periods presented, and includes a summary of changes to our significant accounting policies that resulted from the adoption of IFRS 15 and IFRS 9.

The adoption of these new IFRS pronouncements has resulted in adjustments to previously reported figures for 2017. Refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018 for further detail on the adjustments to previously reported figures and our assessment of the effect of adoption of these new IFRS pronouncements, including changes to our significant accounting policies that resulted from the adoption.

Accounting Developments

New IFRS pronouncements that have been issued but are not yet effective are listed below. We plan to apply the new standard or interpretation in the annual period for which it is required.

Leases

The International Accounting Standards Board (IASB) issued IFRS 16, Leases (IFRS 16), which eliminates the classification of leases as either operating or finance leases for a lessee. IFRS 16 is effective from January 1, 2019. Under IFRS 16, all leases will be recorded on the balance sheet for the lessee. The only exemptions to this will be for leases that are 12 months or less in duration or for leases of low-value assets. The requirement to record all leases on the balance sheet under IFRS 16 will increase “right-of-use” assets and lease liabilities on an entity’s financial statements. IFRS 16 will also change the nature of expenses relating to leases, as the straight-line lease expense previously recognized for operating leases will be replaced with depreciation expense for right-of-use assets and finance expense for lease liabilities. IFRS 16 includes an overall disclosure objective and requires a company to disclose (a) information about right-of-use assets and expenses and cash flows related to leases, (b) a maturity analysis of lease liabilities, and (c) any additional company-specific information that is relevant to satisfying the disclosure objective.

As at December 31, 2018, our review and assessment of IFRS 16 and the effect on our financial statements is nearing completion. Our work around identification of leases is substantially complete and we are currently finalizing our calculation and review of the lease balances under the requirements of IFRS 16. We are also reviewing our processes and internal controls to ensure leases are properly identified and accounted for going forward. We will apply IFRS 16 as at January 1, 2019 using a cumulative catch-up approach where we will record leases prospectively from that date forward and will not restate comparative information. We will record right-of-use assets based on the lease liabilities determined as at January 1, 2019 and as a result, will not have a retained earnings adjustment on transition.

Conceptual Framework

In March 2018, the IASB issued a comprehensive set of concepts for financial reporting, the revised Conceptual Framework for Financial Reporting (revised Conceptual Framework), replacing the previous version of the Conceptual Framework issued in 2010. The purpose of the revised Conceptual Framework is to assist preparers of financial reports to develop consistent accounting policies for transactions or other events when no IFRS applies or IFRS allows a choice of accounting policies and to assist all parties to understand and interpret IFRS.

The revised Conceptual Framework sets out the objective of general purpose financial reporting; the qualitative characteristics of useful financial information; a description of the reporting entity and its boundary; definitions of an asset, a liability, equity, income and expenses and guidance on when to derecognize them; measurement bases and guidance on when to use them; concepts and guidance on presentation and disclosure; and concepts relating to capital and capital maintenance. The revised Conceptual Framework provides concepts and guidance that underpin the decisions the IASB makes when developing standards but is not in itself an IFRS standard and does not override any IFRS standard or any requirement of an IFRS standard. The revised Conceptual Framework is applicable to annual periods beginning on or after January 1, 2020 for preparers who develop an accounting policy based on the Conceptual Framework. We are currently assessing the effect of the revised Conceptual Framework on our financial statements.

Outstanding Share Data

As at February 12, 2019, there were approximately 559.7 million Class B subordinate voting shares and 7.8 million Class A common shares outstanding. In addition, there were approximately 19.6 million employee stock options outstanding, with exercise prices ranging between \$4.15 and \$58.80 per share. More information on these instruments, and the terms of their conversion, is set out in Note 23 to our 2018 audited financial statements.

Contractual and Other Obligations

(\$ in millions)	Less than 1 Year	2–3 Years	4–5 Years	More than 5 Years	Total
Principal and interest payments on debt	\$ 317	\$ 815	\$ 1,157	\$ 7,990	\$ 10,279
Operating leases ⁽¹⁾	113	105	57	164	439
Capital leases	50	84	63	556	753
Minimum purchase obligations ⁽²⁾					
Concentrate, equipment, supply and other purchases	683	168	35	36	922
Shipping and distribution	436	490	322	760	2,008
Energy contracts	260	530	546	3,666	5,002
NAB PILT and VIF payments ⁽⁷⁾	37	83	83	77	280
Pension funding ⁽³⁾	22	–	–	–	22
Other non-pension post-retirement benefits ⁽⁴⁾	15	32	34	311	392
Decommissioning and restoration provision ⁽⁵⁾	91	133	100	1,290	1,614
Other long-term liabilities ⁽⁶⁾	64	79	21	30	194
	\$ 2,088	\$ 2,519	\$ 2,418	\$ 14,880	\$ 21,905

Notes:

- (1) We lease road and port facilities from the Alaska Industrial Development and Export Authority, through which it ships metal concentrates produced at the Red Dog mine. Minimum lease payments are US\$18 million for the next 4 years and US\$6 million for the following 18 years and are subject to deferral and abatement for *force majeure* events.
- (2) The majority of our minimum purchase obligations are subject to continuing operations and *force majeure* provisions.
- (3) As at December 31, 2018, the company had a net pension asset of \$164 million, based on actuarial estimates prepared on a going concern basis. The amount of minimum funding for 2019 in respect of defined benefit pension plans is \$22 million. The timing and amount of additional funding after 2019 is dependent upon future returns on plan assets, discount rates and other actuarial assumptions.
- (4) We had a discounted, actuarially determined liability of \$392 million in respect of other non-pension post-retirement benefits as at December 31, 2018. Amounts shown are estimated expenditures in the indicated years.
- (5) We accrue environmental and reclamation obligations over the life of our mining operations, and amounts shown are estimated expenditures in the indicated years at fair value, assuming credit-adjusted risk-free discount rates between 6.49% and 7.99% and an inflation factor of 2.00%.
- (6) Other long-term liabilities include amounts for post-closure, environmental costs and other items.
- (7) On April 25, 2017, Teck Alaska entered into a 10-year agreement with the Northwest Arctic Borough (NAB) for payments in lieu of taxes (PILT). Payments under the agreement are based on a percentage of land, buildings and equipment at cost less accumulated depreciation. The effective date of this agreement was January 1, 2016 and this agreement expires on December 31, 2025. On April 25, 2017, Teck Alaska entered into a 10-year agreement with the Northwest Arctic Borough (NAB) for payments to a village improvement fund (VIF). Payments under the agreement are based on a percentage of earnings before income taxes, with 2017–2025 having minimum payments of \$4 million and maximum payments of \$8 million. The effective date of this agreement was January 1, 2016 and this agreement expires on December 31, 2025.

Disclosure Controls and Internal Control Over Financial Reporting

Disclosure Controls and Procedures

Disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in reports filed or submitted by us under U.S. and Canadian securities legislation is recorded, processed, summarized and reported within the time periods specified in those rules, and include controls and procedures designed to ensure that information required to be disclosed in reports filed or submitted by us under U.S. and Canadian securities legislation is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to permit timely decisions regarding required disclosure. Management, including the Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of

the design and operation of our disclosure controls and procedures, as defined in the rules of the U.S. Securities and Exchange Commission and the Canadian Securities Administrators, as at December 31, 2018. Based on this evaluation, the Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were effective as at December 31, 2018.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Any system of internal control over financial reporting, no matter how well-designed, has inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Management has used the Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2013 framework to evaluate the effectiveness of our internal control over financial reporting. Based on this assessment, management has concluded that as at December 31, 2018, our internal control over financial reporting was effective.

The effectiveness of our internal controls over financial reporting has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, who have expressed their opinion in their report included with our annual consolidated financial statements.

Use of Non-GAAP Financial Measures

Our financial results are prepared in accordance with International Financial Reporting Standards (IFRS). This document refers to a number of Non-GAAP Financial Measures, which are not measures recognized under IFRS in Canada and do not have a standardized meaning prescribed by IFRS or Generally Accepted Accounting Principles (GAAP) in the United States.

The Non-GAAP Measures described below do not have standardized meanings under IFRS, may differ from those used by other issuers, and may not be comparable to such measures as reported by others. These measures have been derived from our financial statements and applied on a consistent basis as appropriate. We disclose these measures because we believe they assist readers in understanding the results of our operations and financial position and are meant to provide further information about our financial results to investors. These measures should not be considered in isolation or used in substitute for other measures of performance prepared in accordance with IFRS.

Adjusted profit: For adjusted profit, we adjust profit attributable to shareholders as reported to remove the after-tax effect of certain types of transactions that in our judgment are not indicative of our normal operating activities or do not necessarily occur on a regular basis.

Adjusted basic earnings per share: Adjusted basic earnings per share is adjusted profit divided by average number of shares outstanding in the period.

Adjusted diluted earnings per share: Adjusted diluted earnings per share is adjusted profit divided by average number of fully diluted shares in a period.

EBITDA: EBITDA is profit attributable to shareholders before net finance expense, provision for income taxes, and depreciation and amortization.

Adjusted EBITDA: Adjusted EBITDA is EBITDA before the pre-tax effect of the adjustments that we make to adjusted profit attributable to shareholders as described above.

The above adjustments to profit attributable to shareholders and EBITDA highlight items and allow us and readers to analyze the rest of our results more clearly. We believe that disclosing these measures assists readers in understanding the ongoing cash generating potential of our business in order to provide liquidity to fund working capital needs, service outstanding debt, fund future capital expenditures and investment opportunities, and pay dividends.

Gross profit before depreciation and amortization: Gross profit before depreciation and amortization is gross profit with the depreciation and amortization expense added back. We believe this measure assists us and readers to assess our ability to generate cash flow from our business units or operations.

Unit costs: Unit costs for our steelmaking coal operations are total cost of goods sold, divided by tonnes sold in the period, excluding depreciation and amortization charges. We include this information as it is frequently requested by investors and investment analysts who use it to assess our cost structure and margins and compare it to similar information provided by many companies in the industry.

Adjusted site cost of sales: Adjusted site cost of sales for our steelmaking coal operations is defined as the cost of the product as it leaves the mine excluding depreciation and amortization charges, outbound transportation costs and any one-time collective agreement charges and inventory write-down provisions.

Total cash unit costs: Total cash unit costs for our copper and zinc operations include adjusted cash costs of sales, as described above, plus the smelter and refining charges added back in determining adjusted revenue. This presentation allows a comparison of total cash unit costs, including smelter charges, to the underlying price of copper or zinc in order to assess the margin for the mine on a per unit basis.

Net cash unit costs: Net cash unit costs of principal product, after deducting co-product and by-product margins, are also a common industry measure. By deducting the co- and by-product margin per unit of the principal product, the margin for the mine on a per unit basis may be presented in a single metric for comparison to other operations. Readers should be aware that this metric, by excluding certain items and reclassifying cost and revenue items, distorts our actual production costs as determined under IFRS.

Adjusted cash costs of sales: Adjusted cash cost of sales for our copper and zinc operations is defined as the cost of the product delivered to the port of shipment, excluding depreciation and amortization charges, any one-time collective agreement charges or inventory write-down provisions, and by-product cost of sales. It is common practice in the industry to exclude depreciation and amortization, as these costs are non-cash, and discounted cash flow valuation models used in the industry substitute expectations of future capital spending for these amounts.

Adjusted operating costs: Adjusted operating costs for our energy business unit are defined as the costs of product as it leaves the mine, excluding depreciation and amortization charges, cost of diluent for blending to transport our bitumen by pipeline, cost of non-proprietary product purchased, and transportation costs of our product, and non-proprietary product and any one-time collective agreement charges or inventory write-down provisions.

Cash margins for by-products: Cash margins for by-products is revenue from by-products and co-products, less any associated cost of sales of the by-product and co-product. In addition, for our copper operations, by-product cost of sales also includes cost recoveries associated with our streaming transactions.

Adjusted revenue: Adjusted revenue for our copper and zinc operations excludes the revenue from co-products and by-products, but adds back the processing and refining charges to arrive at the value of the underlying payable pounds of copper and zinc. Readers may compare this on a per unit basis with the price of copper and zinc on the LME.

Adjusted revenue for our energy business unit excludes the cost of diluent for blending and non-proprietary product revenues, but adds back Crown royalties to arrive at the value of the underlying bitumen.

Blended bitumen revenue: Blended bitumen revenue is revenue as reported for our energy business unit, but excludes non-proprietary product revenue, and adds back Crown royalties that are deducted from revenue.

Blended bitumen price realized: Blended bitumen price realized is blended bitumen revenue divided by blended bitumen barrels sold in the period.

Operating netback: Operating netbacks per barrel in our energy business unit are calculated as blended bitumen sales revenue net of diluent expenses (also referred to as bitumen price realized), less Crown royalties, transportation and operating expenses divided by barrels of bitumen sold. We include this information as investors and investment analysts use it to measure our profitability on a per barrel basis and compare it to similar information provided by other companies in the oil sands industry.

The debt-related measures outlined below are disclosed as we believe they provide readers with information that allows them to assess our credit capacity and the ability to meet our short and long-term financial obligations.

Net debt: Net debt is total debt, less cash and cash equivalents.

Debt to debt-plus-equity ratio: Debt to debt-plus-equity ratio takes total debt as reported and divides that by the sum of total debt plus total equity, expressed as a percentage.

Net debt to net debt-plus-equity ratio: Net debt to net debt-plus-equity ratio is net debt divided by the sum of net debt plus total equity, expressed as a percentage.

Debt to EBITDA ratio: Debt to EBITDA ratio takes total debt as reported and divides that by EBITDA for the 12 months ended at the reporting period, expressed as the number of times EBITDA needs to be earned to repay all of the outstanding debt.

Net debt to EBITDA ratio: Net debt to EBITDA ratio is the same calculation as the debt to EBITDA ratio, but using net debt as the numerator.

Reconciliation of Basic Earnings per share to Adjusted Basic Earnings per share

(Per share amounts)	2018	2017 ⁽¹⁾
Earnings per share	\$ 5.41	\$ 4.26
Add (deduct):		
Debt purchase losses	0.03	0.28
Debt prepayment option loss (gain)	0.05	(0.07)
Asset sales	(1.40)	(0.01)
Foreign exchange loss (gain)	(0.01)	(0.01)
Environmental provisions	0.02	0.10
Asset impairments (reversals)	0.05	(0.17)
Other	(0.02)	(0.02)
Adjusted earnings per share	\$ 4.13	\$ 4.36

Note:

(1) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Reconciliation of Diluted Earnings per share to Adjusted Diluted Earnings per share

(Per share amounts)	2018	2017 ⁽¹⁾
Diluted earnings per share	\$ 5.34	\$ 4.19
Add (deduct):		
Debt purchase losses	0.03	0.28
Debt prepayment option loss (gain)	0.05	(0.06)
Asset sales	(1.39)	(0.01)
Foreign exchange loss (gain)	(0.01)	(0.01)
Environmental provisions	0.02	0.10
Asset impairments (reversals)	0.05	(0.17)
Other	(0.02)	(0.02)
Adjusted diluted earnings per share	\$ 4.07	\$ 4.30

Note:

(1) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Reconciliation of Net Debt to EBITDA Ratio

(\$ in millions)	2018	2017 ⁽¹⁾
Profit attributable to shareholders	\$ 3,107	\$ 2,460
Finance expense net of finance income	219	212
Provision for income taxes	1,365	1,425
Depreciation and amortization	1,483	1,492
EBITDA	\$ 6,174	\$ 5,589
Total debt at period end	\$ 5,519	\$ 6,369
Less: cash and cash equivalents at period end	(1,734)	(952)
Net debt	\$ 3,785	\$ 5,417
Debt to EBITDA ratio	0.9	1.1
Net Debt to EBITDA ratio	0.6	1.0

Note:

(1) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Reconciliation of EBITDA and Adjusted EBITDA

(\$ in millions)	2018	2017 ⁽¹⁾
Profit attributable to shareholders	\$ 3,107	\$ 2,460
Finance expense net of finance income	219	212
Provision for income taxes	1,365	1,425
Depreciation and amortization	1,483	1,492
EBITDA	\$ 6,174	\$ 5,589
Add (deduct):		
Debt repurchase losses	26	216
Debt prepayment option (gains) losses	42	(51)
Asset sales	(885)	(7)
Foreign exchange (gains) losses	(16)	(5)
Environmental provisions	18	81
Asset impairments (reversals)	41	(163)
Other	(10)	–
Adjusted EBITDA	\$ 5,390	\$ 5,660

Note:

(1) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Reconciliation of Gross Profit (Loss) Before Depreciation and Amortization

(\$ in millions)	2018	2017 ⁽²⁾	2016
Gross profit	\$ 4,621	\$ 4,567	\$ 2,396
Depreciation and amortization	1,483	1,492	1,385
Gross profit before depreciation and amortization	\$ 6,104	\$ 6,059	\$ 3,781
Reported as:			
Steelmaking coal	\$ 3,770	\$ 3,732	\$ 2,007
Copper			
Highland Valley Copper	343	213	268
Antamina	794	670	409
Quebrada Blanca	26	50	24
Carmen de Andacollo	193	222	86
Other	(1)	(1)	1
	\$ 1,355	\$ 1,154	\$ 788
Zinc			
Trail Operations	91	209	241
Red Dog	990	971	749
Pend Oreille	(5)	19	–
Other	9	(26)	(6)
	\$ 1,085	\$ 1,173	\$ 984
Energy⁽¹⁾	\$ (106)	\$ –	\$ 2
Gross profit before depreciation and amortization	\$ 6,104	\$ 6,059	\$ 3,781

Notes:

(1) Energy results for the year ended December 31, 2018 are included from June 1, 2018.

(2) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Steelmaking Coal Unit Cost Reconciliation

(CAD\$ in millions, except where noted)	2018	2017 ⁽²⁾
Cost of sales as reported	\$ 3,309	\$ 3,000
Less:		
Transportation	(975)	(892)
Depreciation and amortization	(730)	(718)
Adjusted cash cost of sales	\$ 1,604	\$ 1,390
Tonnes sold (millions)	26.0	26.5
Per unit amounts — CAD\$/tonne		
Adjusted cash cost of sales	\$ 62	\$ 52
Transportation	37	34
Cash unit costs — CAD\$/tonne	\$ 99	\$ 86
US\$ amounts⁽¹⁾		
Average exchange rate (CAD\$ per US\$1.00)	\$ 1.30	\$ 1.30
Per unit amounts — US\$/tonne		
Adjusted cash cost of sales	\$ 47	\$ 40
Transportation	29	26
Cash unit costs — US\$/tonne	\$ 76	\$ 66

Notes:

(1) Average period exchange rates are used to convert to US\$/tonne equivalent.

(2) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Copper Unit Cost Reconciliation

(CAD\$ in millions, except where noted)	2018	2017 ⁽²⁾
Revenue as reported	\$ 2,714	\$ 2,400
By-product revenue (A)	(472)	(378)
Smelter processing charges (B)	157	180
Adjusted revenue	\$ 2,399	\$ 2,202
Cost of sales as reported	\$ 1,837	\$ 1,814
Less:		
Depreciation and amortization	(478)	(568)
Inventory (write-downs) provision reversal	(44)	12
Collective agreement charges	(5)	(15)
By-product cost of sales (C)	(61)	(54)
Adjusted cash cost of sales (D)	\$ 1,249	\$ 1,189
Payable pounds sold (millions) (E)	622.9	604.4
Per unit amounts — CAD\$/pound		
Adjusted cash cost of sales (D/E)	\$ 2.01	\$ 1.97
Smelter processing charges (B/E)	0.25	0.30
Total cash unit costs — CAD\$/pound	\$ 2.26	\$ 2.27
Cash margin for by-products — ((A-C)/E)	(0.66)	(0.54)
Net cash unit cost — CAD\$/pound	\$ 1.60	\$ 1.73
US\$ amounts⁽¹⁾		
Average exchange rate (CAD\$ per US\$1.00)	\$ 1.30	\$ 1.30
Per unit amounts — US\$/pound		
Adjusted cash cost of sales	\$ 1.55	\$ 1.52
Smelter processing charges	0.19	0.23
Total cash unit costs — US\$/pound	\$ 1.74	\$ 1.75
Cash margin for by-products	(0.51)	(0.42)
Net cash unit costs — US\$/pound	\$ 1.23	\$ 1.33

Notes:

(1) Average period exchange rates are used to convert to US\$/pound equivalent.

(2) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Zinc Unit Cost Reconciliation (mining operations⁽¹⁾)

(CAD\$ in millions, except where noted)	2018	2017 ⁽³⁾
Revenue as reported	\$ 3,094	\$ 3,496
Less:		
Trail Operations revenues as reported	(1,942)	(2,266)
Other revenues as reported	(8)	(8)
Add back: Inter-segment revenues as reported	650	635
	\$ 1,794	\$ 1,857
By-product revenues (A)	(316)	(400)
Smelter processing charges (B)	255	339
Adjusted revenue	\$ 1,733	\$ 1,796
Cost of sales as reported	\$ 2,225	\$ 2,529
Less:		
Trail Operations cost of sales as reported	(1,926)	(2,135)
Other costs of sales as reported	1	(34)
Add back: Inter-segment purchases as reported	650	635
	950	995
Less:		
Depreciation and amortization	(141)	(128)
Royalty costs	(328)	(412)
By-product cost of sales (C)	(70)	(77)
Adjusted cash cost of sales (D)	\$ 411	\$ 378
Payable pounds sold (millions) (E)	1,035.5	1,060.9
Per unit amounts — CAD\$/pound		
Adjusted cash cost of sales (D/E)	\$ 0.40	\$ 0.35
Smelter processing charges (B/E)	0.25	0.32
Total cash unit costs — CAD\$/pound	\$ 0.65	\$ 0.67
Cash margin for by-products ((A-C)/E)	(0.24)	(0.30)
Net cash unit cost CAD\$/pound	\$ 0.41	\$ 0.37
US\$ amounts⁽²⁾		
Average exchange rate (CAD\$ per US\$1.00)	\$ 1.30	\$ 1.30
Per unit amounts — US\$/pound		
Adjusted cash cost of sales	\$ 0.30	\$ 0.27
Smelter processing charges	0.19	0.25
Total cash unit costs — US\$/pound	\$ 0.49	\$ 0.52
Cash margin for by-products	(0.18)	(0.24)
Net cash unit cost US\$/pound	\$ 0.31	\$ 0.28

Notes:

(1) Red Dog and Pend Oreille.

(2) Average period exchange rates are used to convert to US\$/pound equivalent.

(3) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Energy Business Unit — Operating Netback, Bitumen and Blended Bitumen Price Realized Reconciliations⁽¹⁾

(CAD\$ in millions, except where noted)	2018
Revenue as reported	\$ 407
Less:	
Cost of diluent for blending	(181)
Non-proprietary product revenue	(18)
Add back: Crown royalties (D)	14
Adjusted revenue (A)	\$ 222
Cost of sales as reported	\$ 572
Less:	
Depreciation and amortization	(59)
Inventory write-downs	(34)
Cash cost of sales	\$ 479
Less:	
Cost of diluent for blending	(181)
Cost of non-proprietary product purchased	(12)
Transportation for non-proprietary product purchased	(3)
Transportation costs for FRB (C)	(60)
Adjusted operating costs (E)	\$ 223
Blended bitumen barrels sold (thousands)	8,746
Less diluent barrels included in blended bitumen (thousands)	(1,965)
Bitumen barrels sold (thousands) (B)	6,781
Per barrel amounts — CAD\$	
Bitumen price realized (A/B)⁽²⁾	\$ 32.81
Crown royalties (D/B)	(2.04)
Transportation costs for FRB (C/B)	(8.83)
Adjusted operating costs (E/B)	(32.89)
Operating netback — CAD\$ per barrel	\$ (10.95)

Notes:

(1) Results for the year ended December 31, 2018 are effective from June 1, 2018.

(2) Bitumen price realized represents the realized petroleum revenue (blended bitumen sales revenue) net of diluent expense, expressed on a per barrel basis. Blended bitumen sales revenue represents revenue from our share of the heavy crude oil blend known as Fort Hills Reduced Carbon Life Cycle Dilbit Blend (FRB), sold at the Hardisty and U.S. Gulf Coast market hubs. FRB is comprised of bitumen produced from Fort Hills blended with purchased diluent. The cost of blending is affected by the amount of diluent required and the cost of purchasing, transporting and blending the diluent. A portion of diluent expense is effectively recovered in the sales price of the blended product. Diluent expense is also affected by Canadian and U.S. benchmark pricing and changes in the value of the Canadian dollar relative to the U.S. dollar.

Blended Bitumen Price Realized Reconciliation⁽²⁾

(CAD\$ in millions, except where noted)	2018
Revenue as reported	\$ 407
Less: non-proprietary product revenue	(18)
Add back: Crown royalties	14
Blended bitumen revenue (A)	\$ 403
Blended bitumen barrels sold (thousands) (B)	8,746
Blended bitumen price realized — (CAD\$/barrel) (A/B) = D ⁽¹⁾	\$ 46.14
Average exchange rate (CAD\$ per US\$1.00) (C)	1.31
Blended bitumen price realized — (US\$/barrel) (D/C) ⁽¹⁾	\$ 35.12

Notes:

(1) Calculated per unit amounts may differ due to rounding.

(2) Results for the year ended December 31, 2018 are effective from June 1, 2018.

Quarterly Reconciliation

(\$ in millions)	2018				2017 ⁽¹⁾			
	Q4	Q3	Q2	Q1	Q4	Q3	Q2	Q1
Profit attributable to shareholders	\$ 433	\$ 1,281	\$ 634	\$ 759	\$ 740	\$ 584	\$ 580	\$ 556
Finance expense, net of finance income	58	74	48	39	39	39	58	76
Provision for income taxes	261	329	368	407	407	347	334	337
Depreciation and amortization	400	380	353	350	377	400	369	346
EBITDA	\$ 1,152	\$ 2,064	\$ 1,403	\$ 1,555	\$ 1,563	\$ 1,370	\$ 1,341	\$ 1,315

Note:

(1) Certain 2017 comparative figures have been restated for new IFRS pronouncements. 2016 figures have not been restated. Please refer to Note 32 to our audited annual consolidated financial statements for the year ended December 31, 2018.

Cautionary Statement on Forward-Looking Statements

This document contains certain forward-looking information and forward-looking statements as defined in applicable securities laws (collectively referred to as “forward-looking statements”). All statements other than statements of historical fact are forward-looking statements. Forward-looking statements involve known and unknown risks, uncertainties and other factors, which may cause the actual results, performance or achievements of Teck to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These forward-looking statements include, but are not limited to, estimates, forecasts and statements as to management’s expectations with respect to, among other things, anticipated future production at our business units, products and individual operations (including our long-term production guidance), cost and spending guidance for our business units and individual operations, production and sales forecasts for our products and operations, our expectation that we will meet our production guidance, sales volume and selling prices for our products (including settlement of coal contracts with customers), forecast capital expenditures and capital spending, mine lives and the expected life of our various operations, including our expectation that we will be able to extend the mine lives of Fording River, Elkview and Greenhills, our expectation we will be able to increase production at our Elkview Operations beyond 2019, expected prices and demand for our products, expected receipt of regulatory approvals and timing thereof, expected receipt of pre-feasibility studies, feasibility studies and other studies and the timing thereof, plans and expectations for our development projects, including forecast operating costs and costs of product sold, expected production, including our expectation that we will be able to increase production at our other coal operations to compensate for the closure of Coal Mountain, expected progress, planned activities, costs and outcomes of our various projects and investments, including, but not limited to, those described in the discussions of our operations, the effect of currency exchange rates and commodity price changes, our strategies and objectives, discussions of our areas of focus for 2019, discussions of new or proposed technology or innovations, our expectations for the general market for our commodities, future trends for the company, expectations regarding the potential for the proposed MacKenzie Redcap development at Cardinal River to supply additional coal production or extend production at Cardinal River and the costs and accounting adjustments associated therewith, the costs, steps and potential impact of managing water quality at our coal operations, including but not limited to statements relating to our expectations regarding timing and costs of active water treatment, capital spending guidance, the potential for saturated rock fills to reduce capital and operating costs associated with active water treatment, the regulatory process relating to active water treatment and estimates of our long-term costs of water management; our expectation that we will be able to continue to capture latent production capacity by hauling raw coal from Elkview to Coal Mountain for processing, expectation that Neptune Bulk Terminals will increase our terminal loading capacity and our expectation that it will be completed in the first half of 2020, expectation that steelmaking coal production from 2020 to 2022 will be higher than 2019, our expectations regarding the increase in the royalty paid by Poscan in respect of our Greenhills property; anticipated benefits and timing of our ball mill project at Highland Valley Copper, the statement that there is potential to extend cathode production at Carmen de Andacollo past 2019, expectations regarding the Quebrada Blanca Phase 2 project, including expectations regarding capacity, mine life, reserve and resources, projected expenditures, timing of contributions and project financing, expected spending and activities on our Project Satellite properties, the anticipated benefits of the Red Dog mill upgrade project and the associated timing and cost, the timing of closing of the sale of a 30% interest in QBSA and expectation that the transaction will close, benefits of the new acid plant at our Trail Operations and the timing thereof, our expectation that unit operating costs at Fort Hills will continue to improve, our expectation regarding the potential to debottleneck and expand production capacity at Fort Hills, our expectation relating to curtailment measures affecting Fort Hills, our expectations regarding the adequacy of our logistic arrangements for delivering our products to our customers, timing expectations regarding the Frontier project review and permitting process, the availability of our credit facilities, sources of liquidity and capital resources, statements regarding the impact and sensitivity of our annual profit attributable to shareholders and EBITDA to changes in exchange rates and commodity prices, our expectation that we will fund our commitments from cash on hand and our credit facilities, expectations regarding our dividend policy, including that an annual base dividend will be declared and paid, impact of carbon pricing policies and associated costs including our expectation that Canadian federal carbon tax policies will not apply to our operations, projections and sensitivities under the heading “Commodity Prices and 2018 Production”, all guidance appearing in this document appearing in this documentation including but not limited to the production, sales, unit cost and capital expenditure guidance under the heading “Guidance,” including our estimate of reduction in current taxes, forecast and demand and market outlook for commodities and our products. These forward-looking statements involve numerous assumptions, risks and uncertainties and actual results may vary materially.

These statements are based on a number of assumptions, including, but not limited to, assumptions regarding general business, regulatory and economic conditions, the supply and demand for, deliveries of, and the level and volatility of prices of zinc, copper, steelmaking coal and bitumen and other primary metals and minerals as well as oil, and related products, the timing of the receipt of regulatory and governmental approvals for our development projects and other operations, our costs of production, and production and productivity levels, as well as those of our competitors, power prices, continuing availability of water and power resources for our operations, market competition, the accuracy of our reserve and resource estimates (including with respect to size, grade and recoverability) and the geological, operational and price assumptions on which these are based, conditions in financial markets, the future financial performance of the company, our ability to attract and retain skilled staff, our ability to procure equipment and operating supplies, positive results from the studies on our expansion projects, our steelmaking coal and other product inventories, our ability to secure adequate transportation, including rail, port and pipeline services, for our products and the costs associated therewith, our ability to obtain permits for our operations and expansions, and our ongoing relations with our employees, business partners and joint venturers. Assumptions regarding the Elk Valley Water Quality Plan include assumptions that additional treatment will be effective at scale, and that the technology and facilities operate as expected, as well as additional assumptions discussed under the heading “Steelmaking Coal — Elk Valley Water Management”. Expectations regarding Quebrada Blanca Phase 2 are

based on current project assumptions and the final feasibility study. Assumptions regarding Fort Hills are based on assumptions regarding the performance of the plant and other facilities at Fort Hills, and the operation of the project. Expectations regarding the impact of foreign exchange and commodity prices are based on 2019 mid-range production estimates, current commodity prices and a Canadian/U.S. dollar exchange rate of \$1.32. Statements regarding the availability of our credit facilities are based on assumptions that we will be able to satisfy the conditions for borrowing at the time of a borrowing request and that the credit facilities are not otherwise terminated or accelerated due to an event of default. Assumptions relating to our expectations for the closing of the QB2 transaction, include that all regulatory approvals will be obtained in a timely manner. The foregoing list of assumptions is not exhaustive. Events or circumstances could cause actual results to vary materially.

Factors that may cause actual results to vary materially include, but are not limited to, changes in commodity and power prices, changes in market demand for our products, changes in interest and currency exchange rates, acts of foreign or domestic governments, the outcome of legal proceedings, inaccurate geological and metallurgical assumptions (including with respect to the size, grade and recoverability of mineral reserves and resources), unanticipated operational difficulties (including failure of plant, equipment or processes to operate in accordance with specifications or expectations, cost escalation, unavailability of materials and equipment, government action or delays in the receipt of government approvals, changes in tax or royalty rates, industrial disturbances or other job action, adverse weather conditions and unanticipated events related to health, safety and environmental matters), union labour disputes, political risk, social unrest, failure of customers or counterparties to perform their contractual obligations (including but not limited to port, rail, pipeline and other logistics providers), changes in our credit ratings, unanticipated increases in costs to construct our development projects, difficulty in obtaining permits, inability to address concerns regarding permits or environmental impact assessments, and changes or further deterioration in general economic conditions. The amount and timing of actual capital expenditures is dependent upon, among other matters, being able to secure permits, equipment, supplies, materials and labour on a timely basis and at expected costs to enable the related capital project to be completed as currently anticipated. Our Fort Hills project is not controlled by us and production schedules may be adjusted by our partners. Certain of our other operations and projects are operated through joint arrangements where we may not have control over all decisions, which may cause outcomes to differ from current expectations. Further factors associated with our Elk Valley Water Quality Plan are discussed under the heading "Management's Discussion and Analysis — Steelmaking Coal — Elk Valley Water Management". Declaration and payment of dividends is in the discretion of the Board, and our dividend policy will be reviewed regularly and may change. Closing of the QB2 transaction depends on certain regulatory approvals; if all required approvals are not received in a timely manner, the timing and ability to close will be jeopardized.

Statements concerning future production costs or volumes, mine lives of our operations and the sensitivity of the company's profit to changes in commodity prices and exchange rates, are based on numerous assumptions of management regarding operating matters and on assumptions that demand for products develops as anticipated, that customers and other counterparties perform their contractual obligations, that operating and capital plans will not be disrupted by issues such as mechanical failure, unavailability of parts and supplies, labour disturbances, interruption in transportation or utilities, and adverse weather conditions, and that there are no material unanticipated variations in the cost of energy or supplies. Statements regarding anticipated steelmaking coal sales volumes and average steelmaking coal prices depend on timely arrival of vessels and performance of our steelmaking coal-loading facilities, as well as the level of spot pricing sales.

We assume no obligation to update forward-looking statements except as required under securities laws. Further information concerning risks, assumptions and uncertainties associated with these forward-looking statements and our business can be found in our Annual Information Form for the year ended December 31, 2018, filed under our profile on SEDAR (www.sedar.com) and on EDGAR (www.sec.gov) under cover of Form 40-F, as well as subsequent filings that can also be found under our profile.

Scientific and technical information regarding our material mining projects in this annual report was approved by Mr. Rodrigo Alves Marinho, P.Geol., an employee of Teck. Mr. Marinho is a qualified person, as defined under National Instrument (NI) 43-101.

Contingent Resource Disclosure

The contingent bitumen resources at Frontier have been prepared by Sproule Associates Limited, a qualified resources evaluator, in accordance with the guidelines set out in the Canadian Oil and Gas Evaluation Handbook. The Sproule estimates of contingent resources have not been adjusted for risk based on the chance of development (85% chance of development risk). There is uncertainty that any of these resources will be commercially viable to produce any portion of the resources. Contingent bitumen resources are defined for this purpose as those quantities of petroleum estimated, as of a given date, to be potentially recoverable from known accumulations using established technology or technology under development, but which are not currently considered to be commercially recoverable due to one or more contingencies. The entire contingent bitumen resources for Frontier oil sands mine are sub-classified into the development pending project maturity sub-class as extensive pre-development work has been completed. Contingencies may include factors such as economic, legal, environmental, political and regulatory matters or a lack of markets. Contingent resources do not constitute, and should not be confused with, reserves. There is no certainty that the Frontier project will produce any portion of the volumes currently classified as contingent resources. The primary contingencies that currently prevent the classification of the contingent resources disclosed above for the Frontier project as reserves include project economics due to the uncertainty in oil price and uncertainty in exchange rate; uncertainties around receiving regulatory approval to develop the project; potential issues regarding social licence for oil sands mining generally and climate change policy costs. In addition, there would be a need for approval of a decision to proceed to construction of the project by Teck. The Frontier project is based on a development study. The recovery technology at Frontier is expected to be a paraffinic froth treatment process. The total cost required to achieve first commercial production has been estimated by the resources evaluator at \$16.2 billion.

Consolidated Financial Statements

For the Years Ended December 31, 2018 and 2017

Consolidated Financial Statements

For the Years Ended December 31, 2018 and 2017

Management's Responsibility for Financial Reporting

Management is responsible for the integrity and fair presentation of the financial information contained in this annual report. Where appropriate, the financial information, including financial statements, reflects amounts based on the best estimates and judgments of management. The financial statements have been prepared in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board. Financial information presented elsewhere in the annual report is consistent with that disclosed in the financial statements.

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Any system of internal control over financial reporting, no matter how well-designed, has inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. The system of controls is also supported by a professional staff of internal auditors who conduct periodic audits of many aspects of our operations and report their findings to management and the Audit Committee.

Management has a process in place to evaluate internal control over financial reporting based on the criteria established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) 2013 framework.

The Board of Directors oversees management's responsibility for financial reporting and internal control systems through an Audit Committee, which is composed entirely of independent directors. The Audit Committee meets periodically with management, our internal auditors and independent auditors to review the scope and results of the annual audit, and to review the financial statements and related financial reporting and internal control matters before the financial statements are approved by the Board of Directors and submitted to the shareholders.

PricewaterhouseCoopers LLP, an independent registered public accounting firm, appointed by the shareholders, have audited our financial statements in accordance with the standards of the Public Company Accounting Oversight Board (United States) and have expressed their opinion in the Report of Independent Registered Public Accounting Firm.



Donald R. Lindsay

President and Chief Executive Officer



Ronald A. Millos

Senior Vice President, Finance and Chief Financial Officer

February 12, 2019

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Teck Resources Limited

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Teck Resources Limited and its subsidiaries, (together, the Company) as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, cash flows, and changes in equity for the years then ended, including the related notes (collectively referred to as the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control — Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and their financial performance and their cash flows for the years then ended in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS). Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control — Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principles

As discussed in Note 32 to the consolidated financial statements, the Company changed the manner in which it accounts for revenue from contracts with customers and the manner in which it accounts for financial instruments in 2018.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control Over Financial Reporting, appearing in Management's Discussion and Analysis. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

PricewaterhouseCoopers LLP

Chartered Professional Accountants
Vancouver, Canada
February 12, 2019

We have served as the Company's auditor since 1964.

Consolidated Statements of Income Years ended December 31

(CAD\$ in millions, except for share data)	2018	2017 (restated)
Revenues (Note 6)	\$ 12,564	\$ 11,910
Cost of sales	(7,943)	(7,343)
Gross profit	4,621	4,567
Other operating income (expenses)		
General and administration	(142)	(116)
Exploration	(69)	(58)
Research and development	(35)	(55)
Impairment reversal and (asset impairments) (Note 8)	(41)	163
Other operating income (expense) (Note 9)	450	(230)
Profit from operations	4,784	4,271
Finance income (Note 10)	33	17
Finance expense (Note 10)	(252)	(229)
Non-operating income (expense) (Note 11)	(52)	(151)
Share of income (loss) of associates and joint ventures (Note 15)	(3)	6
Profit before taxes	4,510	3,914
Provision for income taxes (Note 20)	(1,365)	(1,425)
Profit for the year	\$ 3,145	\$ 2,489
Profit attributable to:		
Shareholders of the company	\$ 3,107	\$ 2,460
Non-controlling interests	38	29
Profit for the year	\$ 3,145	\$ 2,489
Earnings per share (Note 23(f))		
Basic	\$ 5.41	\$ 4.26
Diluted	\$ 5.34	\$ 4.19
Weighted average shares outstanding (millions)	573.9	577.5
Weighted average diluted shares outstanding (millions)	582.1	586.4
Shares outstanding at end of year (millions)	570.7	573.3

The accompanying notes are an integral part of these financial statements. Certain 2017 amounts have been restated for the adoption of new accounting pronouncements (Note 32).

Consolidated Statements of Comprehensive Income Years ended December 31

(CAD\$ in millions)	2018	2017 (restated)
Profit for the year	\$ 3,145	\$ 2,489
Other comprehensive income (loss) in the year		
Items that may be reclassified to profit		
Currency translation differences (net of taxes of \$40 and \$(46))	393	(203)
Change in fair value of debt securities (2017 – change in fair value of available-for-sale financial instruments) (net of taxes of \$nil and \$2)	–	(10)
Share of other comprehensive loss of associates and joint ventures (Note 15)	–	(1)
	393	(214)
Items that will not be reclassified to profit		
Change in fair value of marketable equity securities (net of taxes of \$1 and \$nil)	(9)	–
Remeasurements of retirement benefit plans (net of taxes of \$(2) and \$(55))	8	129
	(1)	129
Total other comprehensive income (loss) for the year	392	(85)
Total comprehensive income for the year	\$ 3,537	\$ 2,404
Total other comprehensive income (loss) attributable to:		
Shareholders of the company	\$ 382	\$ (77)
Non-controlling interests	10	(8)
	\$ 392	\$ (85)
Total comprehensive income attributable to:		
Shareholders of the company	\$ 3,489	\$ 2,383
Non-controlling interests	48	21
	\$ 3,537	\$ 2,404

The accompanying notes are an integral part of these financial statements. Certain 2017 amounts have been restated for the adoption of new accounting pronouncements (Note 32).

Consolidated Statements of Cash Flows

Years ended December 31

(CAD\$ in millions)	2018	2017 (restated)
Operating activities		
Profit for the year	\$ 3,145	\$ 2,489
Depreciation and amortization	1,483	1,492
Provision for income taxes	1,365	1,425
Asset impairments (impairment reversal)	41	(163)
Gain on sale of investments and assets	(892)	(51)
Foreign exchange gains	(16)	(5)
Loss on debt repurchase	26	216
Loss (gain) on debt prepayment options	42	(51)
Net finance expense	219	212
Income taxes paid	(780)	(879)
Other	(166)	195
Net change in non-cash working capital items	(29)	169
	4,438	5,049
Investing activities		
Expenditures on property, plant and equipment	(1,906)	(1,621)
Capitalized production stripping costs	(707)	(678)
Expenditures on investments and other assets	(284)	(309)
Proceeds from investments and assets	1,292	126
	(1,605)	(2,482)
Financing activities		
Repurchase and repayment of debt	(1,410)	(1,929)
Debt interest and finance charges paid	(407)	(495)
Issuance of Class B subordinate voting shares	54	26
Purchase and cancellation of Class B subordinate voting shares	(189)	(175)
Dividends paid	(172)	(344)
Distributions to non-controlling interests	(40)	(56)
	(2,164)	(2,973)
Effect of exchange rate changes on cash and cash equivalents	113	(49)
Increase (decrease) in cash and cash equivalents	782	(455)
Cash and cash equivalents at beginning of year	952	1,407
Cash and cash equivalents at end of year	\$ 1,734	\$ 952

Supplemental cash flow information (Note 12)

The accompanying notes are an integral part of these financial statements. Certain 2017 amounts have been restated for the adoption of new accounting pronouncements (Note 32).

Consolidated Balance Sheets

(CAD\$ in millions)	December 31, 2018	December 31, 2017 (restated)	January 1, 2017 (restated)
Assets			
Current assets			
Cash and cash equivalents (Note 12)	\$ 1,734	\$ 952	\$ 1,407
Current income taxes receivable	78	48	97
Trade and settlement receivables	1,180	1,419	1,413
Inventories (Note 13)	2,065	1,669	1,673
Prepays and other current assets	260	310	172
Assets held for sale (Note 5(b))	–	350	–
	5,317	4,748	4,762
Financial and other assets (Note 14)	907	1,051	1,034
Investments in associates and joint ventures (Note 15)	1,071	943	1,012
Property, plant and equipment (Note 8 and Note 16)	31,050	29,045	27,595
Deferred income tax assets (Note 20)	160	154	112
Goodwill (Note 8 and Note 17)	1,121	1,087	1,114
	\$ 39,626	\$ 37,028	\$ 35,629
Liabilities and Equity			
Current liabilities			
Trade accounts payable and other liabilities (Note 18)	\$ 2,333	\$ 2,290	\$ 1,870
Current income taxes payable	151	268	199
Debt (Note 19)	32	55	99
	2,516	2,613	2,168
Debt (Note 19)	5,487	6,314	8,244
Deferred income tax liabilities (Note 20)	6,331	5,579	5,086
Retirement benefit liabilities (Note 21)	482	552	643
Provisions and other liabilities (Note 22)	1,792	1,977	1,322
	16,608	17,035	17,463
Equity			
Attributable to shareholders of the company	22,884	19,851	18,007
Attributable to non-controlling interests (Note 24)	134	142	159
	23,018	19,993	18,166
	\$ 39,626	\$ 37,028	\$ 35,629

Contingencies (Note 25)

Commitments (Note 26)

The accompanying notes are an integral part of these financial statements. Certain 2017 amounts have been restated for the adoption of new accounting pronouncements (Note 32).

Approved on behalf of the Board of Directors



Tracey L. McVicar
Chair of the Audit Committee



Una M. Power
Director

Consolidated Statements of Changes in Equity Years ended December 31

(CAD\$ in millions)	2018	2017 (restated)
Class A common shares (Note 23)		
Beginning of year	\$ 6	\$ 7
Class A shares conversion (Note 23(b))	–	(1)
End of year	6	6
Class B subordinate voting shares (Note 23)		
Beginning of year	6,603	6,637
Share repurchases (Note 23(h))	(77)	(69)
Issued on exercise of options (Note 23(c))	69	34
Class A shares conversion (Note 23(b))	–	1
End of year	6,595	6,603
Retained earnings		
Beginning of year	12,796	10,720
IFRS 9 transition adjustment on January 1, 2018 (Note 32(c))	34	–
Profit for the year attributable to shareholders of the company	3,107	2,460
Dividends paid (Note 23(g))	(172)	(344)
Share repurchases (Note 23(h))	(119)	(106)
Purchase of non-controlling interests (Note 5(a))	(159)	(63)
Remeasurements of retirement benefit plans	8	129
End of year	15,495	12,796
Contributed surplus		
Beginning of year	202	193
Share option compensation expense (Note 23(c))	17	17
Transfer to Class B subordinate voting shares on exercise of options	(15)	(8)
End of year	204	202
Accumulated other comprehensive income attributable to shareholders of the company (Note 23(e))		
Beginning of year	244	450
IFRS 9 transition adjustment on January 1, 2018 (Note 32(c))	(34)	–
Other comprehensive income (loss)	382	(77)
Less remeasurements of retirement benefit plans recorded in retained earnings	(8)	(129)
End of year	584	244
Non-controlling interests (Note 24)		
Beginning of year	142	159
Profit for the year attributable to non-controlling interests	38	29
Other comprehensive income (loss) attributable to non-controlling interests	10	(8)
Purchase of non-controlling interests (Note 5(a))	(16)	–
Acquisition of AQM Copper Inc.	–	18
Dividends or distributions	(40)	(56)
End of year	134	142
Total equity	\$ 23,018	\$ 19,993

The accompanying notes are an integral part of these financial statements. Certain 2017 amounts have been restated for the adoption of new accounting pronouncements (Note 32).

1. Nature of Operations

Teck Resources Limited and its subsidiaries (Teck, we, us or our) are engaged in mining and related activities including research, exploration and development, processing, smelting, refining and reclamation. Our major products are steelmaking coal, copper, zinc and blended bitumen. We also produce precious metals, molybdenum, fertilizers and other metals. Metal products are sold as refined metals or concentrates.

Teck Resources Limited is a Canadian corporation and our registered office is at 550 Burrard Street, Vancouver, British Columbia, Canada, V6C 0B3.

2. Basis of Preparation and New IFRS Pronouncements

a) Basis of Preparation

These annual consolidated financial statements have been prepared by management in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and were approved by the Board of Directors on February 12, 2019.

We adopted IFRS 15, Revenue from Contracts with Customers (IFRS 15) and IFRS 9, Financial Instruments (IFRS 9), which became effective January 1, 2018. Effective October 1, 2018, we also adopted the hedging requirements section of IFRS 9. Note 32 discloses the effects of the adoption of these new IFRS pronouncements for all periods presented, including the nature and effect of changes in accounting policies.

b) New IFRS Pronouncements

New IFRS pronouncements that have been issued but are not yet effective at the date of these financial statements are listed below. We plan to apply the new standards or interpretations in the annual period for which they are first required.

Leases

The IASB issued IFRS 16, Leases (IFRS 16), which eliminates the classification of leases as either operating or finance leases for a lessee. IFRS 16 is effective from January 1, 2019. Under IFRS 16, all leases will be recorded on the balance sheet for the lessee. The only exemptions to this will be for leases that are 12 months or less in duration or for leases of low-value assets. The requirement to record all leases on the balance sheet under IFRS 16 will increase "right-of-use" assets and lease liabilities on an entity's financial statements. IFRS 16 will also change the nature of expenses relating to leases, as the straight-line lease expense previously recognized for operating leases will be replaced with depreciation expense for right-of-use assets and finance expense for lease liabilities. IFRS 16 includes an overall disclosure objective and requires a company to disclose (a) information about right-of-use assets and expenses and cash flows related to leases, (b) a maturity analysis of lease liabilities, and (c) any additional company-specific information that is relevant to satisfying the disclosure objective.

As at December 31, 2018, our review and assessment of IFRS 16 and the effect on our financial statements is nearing completion. Our work around identification of leases is substantially complete and we are currently finalizing our calculation and review of the lease balances under the requirements of IFRS 16. We are also reviewing our processes and internal controls to ensure leases are properly identified and accounted for going forward. We will apply IFRS 16 as at January 1, 2019 using a cumulative catch-up approach where we will record leases prospectively from that date forward and will not restate comparative information. We will record right-of-use assets based on the lease liabilities determined as at January 1, 2019 and as a result, will not have a retained earnings adjustment on transition.

Conceptual Framework

In March 2018, the IASB issued a comprehensive set of concepts for financial reporting, the revised Conceptual Framework for Financial Reporting (revised Conceptual Framework), replacing the previous version of the Conceptual Framework issued in 2010. The purpose of the revised Conceptual Framework is to assist preparers of financial reports to develop consistent accounting policies for transactions or other events when no IFRS applies or IFRS allows a choice of accounting policies and to assist all parties to understand and interpret IFRS.

The revised Conceptual Framework sets out the objective of general purpose financial reporting; the qualitative characteristics of useful financial information; a description of the reporting entity and its boundary; definitions of an asset, a liability, equity, income and expenses and guidance on when to derecognize them; measurement bases and guidance on when to use them; concepts and guidance on presentation and disclosure; and concepts relating to capital and capital maintenance. The revised Conceptual Framework provides concepts and guidance that underpin the decisions the IASB makes when developing standards but is not in itself an IFRS standard and does not override any IFRS standard or any requirement of an IFRS standard. The revised Conceptual Framework is applicable to annual periods beginning on or after January 1, 2020 for preparers who develop an accounting policy based on the Conceptual Framework. We are currently assessing the effect of the revised Conceptual Framework on our financial statements.

3. Summary of Significant Accounting Policies

The significant accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to all periods presented, unless otherwise stated.

Basis of Presentation

Our consolidated financial statements include the accounts of Teck Resources Limited and all of its subsidiaries. Our significant operating subsidiaries include Teck Metals Ltd. (TML), Teck Alaska Incorporated (TAK), Teck Highland Valley Copper Partnership (Highland Valley Copper), Teck Coal Partnership (Teck Coal), Teck Washington Incorporated (TWI), Compañía Minera Teck Quebrada Blanca S.A. (QBSA or Quebrada Blanca) and Compañía Minera Teck Carmen de Andacollo (Carmen de Andacollo).

All subsidiaries are entities that we control, either directly or indirectly. Control is defined as the exposure, or rights, to variable returns from involvement with an investee and the ability to affect those returns through power over the investee. Power over an investee exists when our existing rights give us the ability to direct the activities that significantly affect the investee's returns. This control is generally evidenced through owning more than 50% of the voting rights or currently exercisable potential voting rights of a company's share capital. All of our intra-group balances and transactions, including unrealized profits and losses arising from intra-group transactions, have been eliminated in full. For subsidiaries that we control but do not own 100% of, the net assets and net profit attributable to outside shareholders are presented as amounts attributable to non-controlling interests in the consolidated balance sheet and consolidated statements of income and comprehensive income.

Certain of our business activities are conducted through joint arrangements. Our interests in joint operations include Galore Creek Partnership (Galore Creek, 50% share) and Fort Hills Energy L.P. (Fort Hills, 21.3% share), which operate in Canada, and Compañía Minera Antamina S.A. (Antamina, 22.5% share), which operates in Peru. We account for our interests in these joint operations by recording our share of the respective assets, liabilities, revenue, expenses and cash flows. We also have an interest in a joint venture, NuevaUnión SPA (NuevaUnión, 50% share), in Chile that we account for using the equity method (Note 15).

During the year ended December 31, 2018, our share of the Fort Hills oil sands mine increased from 20.89% to 21.3% on resolution of a commercial dispute between the Fort Hills partners. We funded an increased share of the project capital in the amount of \$58 million, as consideration for the additional interest in the project.

All dollar amounts are presented in Canadian dollars unless otherwise specified.

Interests in Joint Arrangements

A joint arrangement can take the form of a joint venture or joint operation. All joint arrangements involve a contractual arrangement that establishes joint control, which exists only when decisions about the activities that significantly affect the returns of the investee require unanimous consent of the parties sharing control. A joint operation is a joint arrangement in which we have rights to the assets and obligations for the liabilities relating to the arrangement. A joint venture is a joint arrangement in which we have rights to only the net assets of the arrangement.

Joint ventures are accounted for in accordance with the policy "Investments in Associates and Joint Ventures". Joint operations are accounted for by recognizing our share of the assets, liabilities, revenue, expenses and cash flows of the joint operation in our consolidated financial statements.

3. Summary of Significant Accounting Policies (continued)

Investments in Associates and Joint Ventures

Investments over which we exercise significant influence but do not control or jointly control are associates. Investments in associates are accounted for using the equity method, except when classified as held for sale. Investments in joint ventures as determined in accordance with the policy "Interests in Joint Arrangements" are also accounted for using the equity method.

The equity method involves recording the initial investment at cost and subsequently adjusting the carrying value of the investment for our proportionate share of the profit or loss, other comprehensive income or loss and any other changes in the associate's or joint venture's net assets, such as further investments or dividends.

Our proportionate share of the associate's or joint venture's profit or loss and other comprehensive income or loss is based on its most recent financial statements. Adjustments are made to align any inconsistencies between our accounting policies and our associate's or joint venture's policies before applying the equity method. Adjustments are also made to account for depreciable assets based on their fair values at the acquisition date of the investment and for any impairment losses recognized by the associate or joint venture.

If our share of the associate's or joint venture's losses were equal to or exceeded our investment in the associate or joint venture, recognition of further losses would be discontinued. After our interest is reduced to zero, additional losses would be provided for and a liability recognized only to the extent that we have incurred legal or constructive obligations to provide additional funding or make payments on behalf of the associate or joint venture. If the associate or joint venture subsequently reports profits, we resume recognizing our share of those profits only when we have a positive interest in the entity.

At each balance sheet date, we consider whether there is objective evidence of impairment in associates and joint ventures. If there is such evidence, we determine the amount of impairment to record, if any, in relation to the associate or joint venture.

Foreign Currency Translation

The functional currency of each of our subsidiaries and our joint operations, joint ventures and associates is the currency of the primary economic environment in which the entity operates. Transactions in foreign currencies are translated to the functional currency of the entity at the exchange rate in existence at the date of the transaction. Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are retranslated at the period end date exchange rates.

The functional currency of Teck Resources Limited, the parent entity, is the Canadian dollar, which is also the presentation currency of our consolidated financial statements.

Foreign operations are translated from their functional currencies, generally the U.S. dollar, into Canadian dollars on consolidation. Items in the statements of income and other comprehensive income are translated using weighted average exchange rates that reasonably approximate the exchange rate at the transaction date. Items on the balance sheet are translated at the closing spot exchange rate. Exchange differences on the translation of the net assets of entities with functional currencies other than the Canadian dollar, and any offsetting exchange differences on net debt used to hedge those assets, are recognized in a separate component of equity through other comprehensive income (loss).

Exchange differences that arise relating to long-term intra-group balances that form part of the net investment in a foreign operation are also recognized in this separate component of equity through other comprehensive income (loss).

On disposition or partial disposition of a foreign operation, the cumulative amount of related exchange differences recorded in a separate component of equity is recognized in the statement of income.

Revenue

Our revenue consists of sales of steelmaking coal, copper, zinc and lead concentrates, refined zinc, lead and silver, and blended bitumen. We also sell other by-products, including molybdenum concentrates, various refined specialty metals, chemicals and fertilizers. Our performance obligations relate primarily to the delivery of these products to our customers, with each separate shipment representing a separate performance obligation.

Revenue, including revenue from the sale of by-products, is recognized at the point in time when the customer obtains control of the product. Control is achieved when a product is delivered to the customer, we have a present right to payment for the product, significant risks and rewards of ownership have transferred to the customer according to contract terms and there is no unfulfilled obligation that could affect the customer's acceptance of the product.

Steelmaking coal

For steelmaking coal, control of the product generally transfers to the customer when an individual shipment parcel is loaded onto a carrier accepted or directly contracted by the customer. For a majority of steelmaking coal sales we are not responsible for the provision of shipping or product insurance after the transfer of control. For certain sales we arrange shipping on behalf of our customers and are agent to these shipping transactions.

Steelmaking coal is sold under spot or average pricing contracts. For spot price contracts, pricing is final when revenue is recognized. For average pricing contracts, the final pricing is determined based on quoted steelmaking coal price assessments over a specific period. Control of the goods may transfer and revenue may be recognized before, during or subsequent to the period in which final average pricing is determined. For all steelmaking coal sales under average pricing contracts where pricing is not finalized when revenue is recognized, revenue is recorded based on estimated consideration to be received at the date of sale with reference to steelmaking coal price assessments. For average pricing contracts, adjustments are made to settlement receivables in subsequent periods based on published price assessments up to the date of final pricing. This adjustment mechanism is based on the market price of the commodity and accordingly, the changes in value of the settlement receivables are not considered to be revenue from contracts with customers. The changes in fair value of settlement receivables are recorded in other operating income (expense).

Steelmaking coal sales are billed based on final quality measures upon the passage of control to the customer. If pricing is not finalized when control of the product is transferred, a subsequent invoice is issued when pricing is finalized. The payment terms generally require prompt collection from customers; however, payment terms are customer specific and subject to change based on market conditions and other factors. We generally retain title to these products until we receive the first contracted payment, which is typically received shortly after loading, solely to manage the credit risk of the amounts due to us. This retention of title does not preclude the customer from obtaining control of the product.

Base metal concentrates

For copper, lead and zinc concentrates, control of the product generally transfers to the customer when an individual shipment parcel is loaded onto a carrier accepted by the customer. We sell a majority of our concentrates on commercial terms where we are responsible for providing freight services after the date at which control of the product passes to the customer. We are the principal to this freight performance obligation. A minority of zinc and lead concentrate sales are made on consignment. For consignment transactions, control of the product transfers to the customer and revenue is recognized at the time the product is consumed in the customers' process.

The majority of our metal concentrates are sold under pricing arrangements where final prices are determined by quoted market prices in a period subsequent to the date of sale. For these sales, revenue is recorded based on the estimated consideration to be received at the date of sale with reference to relevant commodity market prices. Adjustments are made to settlement receivables in subsequent periods based on movements in quoted commodity prices up to the date of final pricing. This adjustment mechanism is based on the market price of the commodity and accordingly, the changes in value of the settlement receivables are not considered to be revenue from contracts with customers. The changes in fair value of settlement receivables are recorded in other operating income (expense).

3. Summary of Significant Accounting Policies (continued)

Metal concentrate sales are billed based on provisional weights and assays upon the passage of control to the customer. The first provisional invoice is billed to the customer at the time of transfer of control. As final prices, weights and assays are received, additional invoices are issued and collected. In general, consideration is promptly collected from customers; however, the payment terms are customer specific and subject to change based on market conditions and other factors. We generally retain title to these products until we receive the first contracted payment, which is typically received shortly after loading, solely to manage the credit risk of the amounts due to us. This retention of title does not preclude the customer from obtaining control of the product.

Refined metals

For sales of refined metals, chemicals and fertilizers, control of the product transfers to the customer when the product is loaded onto a carrier specified by the customer. For these products, loading generally coincides with the transfer of title.

Our refined metals, chemicals and fertilizers are sold under spot or average pricing contracts. For spot sales contracts, pricing is final when revenue is recognized. For refined metal sales contracts where pricing is not finalized when revenue is recognized, revenue is recorded based on the estimated consideration to be received at the date of sale with reference to commodity market prices. Adjustments are made to settlement receivables in subsequent periods based on movements in quoted commodity prices up to the date of final pricing. This adjustment mechanism is based on the market price of the commodity and accordingly, the changes in value of the settlement receivables are not considered to be revenue from contracts with customers. The changes in fair value of settlement receivables are recorded in other operating income (expense).

We sell a portion of our refined metals on commercial terms where we are responsible for providing freight services after the date at which control of the product passes to the customer. We are the principal to this freight performance obligation.

Refined metal sales are billed based on final specification measures upon the passage of control to the customer. If pricing is not finalized when control of the product is transferred, a subsequent invoice is issued when pricing is finalized.

In general, consideration is promptly collected from customers; however, the payment terms are customer specific and subject to change based on market conditions and other factors.

Blended bitumen

For blended bitumen, control of the product generally transfers to the customer when the product passes the delivery point as specified in the contract, which normally coincides with title and risk transfer to the customer. The majority of our blended bitumen is sold under pricing arrangements where final prices are determined based on commodity price indices that are finalized at or near the date of sale. Payments for blended bitumen sales are usually due and settled within 30 days. Our revenue for blended bitumen is net of royalty payments to governments.

Financial Instruments

The following financial instruments accounting policies have been applied as at January 1, 2018 on adoption of IFRS 9 and for the year ended December 31, 2018. For the year ended December 31, 2017, we applied financial instruments policies aligned with IAS 39, Financial Instruments Recognition and Measurement (IAS 39). Note 32 outlines the policy changes required to our IAS 39 policies to meet the IFRS 9 requirements, effective January 1, 2018.

We recognize financial assets and liabilities on the balance sheet when we become a party to the contractual provisions of the instrument.

Cash and cash equivalents

Cash and cash equivalents include cash on account, demand deposits and money market investments with maturities from the date of acquisition of three months or less, which are readily convertible to known amounts of cash and are subject to insignificant changes in value. Cash is classified as a financial asset that is subsequently measured at amortized cost. Cash equivalents are classified as subsequently measured at amortized cost, except for money market investments, which are classified as subsequently measured at fair value through profit or loss.

Trade receivables

Trade receivables relate to amounts received from sales under our spot pricing contracts for steelmaking coal, refined metals, blended bitumen, chemicals and fertilizers. These receivables are non-interest bearing and are recognized at face amount, except when fair value is materially different, and are subsequently measured at amortized cost. Trade receivables recorded are net of lifetime expected credit losses.

Settlement receivables

Settlement receivables arise from average pricing steelmaking coal contracts and base metal concentrate sales contracts where amounts receivable vary based on steelmaking coal price assessments or underlying commodity prices. Settlement receivables are classified as fair value through profit or loss and are recorded at fair value at each reporting period based on published price assessments or quoted commodity prices up to the date of final pricing. The changes in fair value are recorded in other operating income (expense).

Investments in marketable equity securities

Investments in marketable equity securities are classified, at our election, as subsequently measured at fair value through other comprehensive income. For new investments in marketable equity securities, we can elect the same classification as subsequently measured at fair value through other comprehensive income, or we can elect to classify an investment as at fair value through profit or loss. This election can be made on an investment-by-investment basis and is irrevocable. Investment transactions are recognized on the trade date with transaction costs included in the underlying balance. Fair values are determined by reference to quoted market prices at the balance sheet date.

When investments in marketable equity securities are disposed of, the cumulative gains and losses recognized in other comprehensive income (loss) are not recycled to profit and remain within equity. Dividends are recognized in profit and these investments are not assessed for impairment.

Investments in debt securities

Investments in debt securities are classified as subsequently measured at fair value through other comprehensive income and recorded at fair value. Investment transactions are recognized on the trade date with transaction costs included in the underlying balance. Fair values are determined by reference to quoted market prices at the balance sheet date.

Unrealized gains and losses on debt securities are recognized in other comprehensive income (loss) until investments are disposed of and the cumulative gains and losses recognized in other comprehensive income (loss) are reclassified from equity to profit at that time. Loss allowances and interest income are recognized in profit.

Trade payables

Trade payables are non-interest bearing if paid when due and are recognized at face amount, except when fair value is materially different. Trade payables are subsequently measured at amortized cost.

Debt

Debt is initially recorded at fair value, less transaction costs. Debt is subsequently measured at amortized cost, calculated using the effective interest rate method.

3. Summary of Significant Accounting Policies (continued)

Derivative instruments

Derivative instruments, including embedded derivatives in executory contracts or financial liability contracts, are classified as at fair value through profit or loss and, accordingly, are recorded on the balance sheet at fair value. Unrealized gains and losses on derivatives not designated in a hedging relationship are recorded as part of other operating income (expense) or non-operating income (expense) in profit depending on the nature of the derivative. Fair values for derivative instruments are determined using inputs based on market conditions existing at the balance sheet date or settlement date of the derivative. Derivatives embedded in non-derivative contracts are recognized separately unless they are closely related to the host contract.

Expected credit losses

For trade receivables, we apply the simplified approach to determining expected credit losses, which requires expected lifetime losses to be recognized upon initial recognition of the receivables.

Loss allowances on investments in debt securities are initially assessed based on the expected 12-month credit losses. At each reporting date, we assess whether the credit risk for our debt securities has increased significantly since initial recognition. If the credit risk has increased significantly since initial recognition, the loss allowance is adjusted to be based on the lifetime expected credit losses.

Hedging

Certain derivative investments may qualify for hedge accounting. At inception of hedge relationships, we document the economic relationship between hedging instruments and hedged items and our risk management objective and strategy for undertaking the hedge transactions.

For fair value hedges, any gains or losses on both the hedged item and the hedging instrument are recognized in the same line item in profit.

For cash flow hedges, any unrealized gains and losses on the hedging instrument relating to the effective portion of the hedge are initially recorded in other comprehensive income (loss). Gains and losses are recognized in profit upon settlement of the hedging instrument, when the hedged item ceases to exist, or when the hedge is determined to be ineffective.

For hedges of net investments in foreign operations, any foreign exchange gains or losses on the hedging instrument relating to the effective portion of the hedge are initially recorded in other comprehensive income (loss). Gains and losses are recognized in profit on the ineffective portion of the hedge, or when there is a disposition or partial disposition of a foreign operation being hedged.

Inventories

Finished products, work in process, raw materials and supplies inventories are valued at the lower of weighted average cost and net realizable value. Raw materials include concentrates for use at smelting and refining operations. Work in process inventory includes inventory in the milling, smelting or refining process and stockpiled ore at mining operations. For our oil sands mine, raw materials consist of diluent used in blending, work in process inventory consists of raw bitumen and finished products consist of blended bitumen.

For work in process and finished product inventories, cost includes all direct costs incurred in production, including direct labour and materials, freight, depreciation and amortization, and directly attributable overhead costs. Production stripping costs that are not capitalized are included in the cost of inventories as incurred. Depreciation and amortization of capitalized production stripping costs are included in the cost of inventory.

When inventories have been written down to net realizable value, we make a new assessment of net realizable value in each subsequent period. If the circumstances that caused the write-down no longer exist, the remaining amount of the write-down on inventory not yet sold is reversed.

We use both joint-product and by-product costing for work in process and finished product inventories. Joint-product costing is applied to primary products where the profitability of the operations is dependent upon the production of these products. Joint-product costing allocates total production costs based on the relative values of the products. By-product costing is used for products that are not the primary products produced by the operation. The by-products are allocated only the incremental costs of processes that are specific to the production of that product.

Supplies inventory is valued at the lower of weighted average cost and net realizable value. Cost includes acquisition, freight and other directly attributable costs.

Property, Plant and Equipment

Land, buildings, plant and equipment

Land is recorded at cost and buildings, plant and equipment are recorded at cost less accumulated depreciation and impairment losses. Cost includes the purchase price and the directly attributable costs to bring the assets to the location and condition necessary for them to be capable of operating in the manner intended by management.

Depreciation of mobile equipment, buildings used for production, and plant and processing equipment at our mining operations are calculated on a units-of-production basis. Depreciation of buildings not used for production, and of plant and equipment at our smelting operations is calculated on a straight-line basis over the assets' estimated useful lives. Where components of an asset have different useful lives, depreciation is calculated on each component separately. Depreciation commences when an asset is ready for its intended use. Estimates of remaining useful lives and residual values are reviewed annually. Changes in estimates are accounted for prospectively.

The expected useful lives are as follows:

- Buildings and equipment (not used for production) 2–50 years
- Plant and equipment (smelting operations) 3–30 years

Mineral properties and mine development costs

The cost of acquiring and developing mineral properties or property rights, including pre-production waste rock stripping costs related to mine development and costs incurred during production to increase future output, are capitalized.

Waste rock stripping costs incurred in the production phase of a surface mine are recorded as capitalized production stripping costs within property, plant and equipment when it is probable that the stripping activity will improve access to the orebody, when the component of the orebody or pit to which access has been improved can be identified, and when the costs relating to the stripping activity can be measured reliably. When the actual waste-to-ore stripping ratio in a period is greater than the expected life-of-component waste-to-ore stripping ratio for that component, the excess is recorded as capitalized production stripping costs.

Once available for use, mineral properties and mine development costs are depreciated on a units-of-production basis over the proven and probable reserves to which they relate. Since the stripping activity within a component of a mine improves access to the reserves of the same component, capitalized production stripping costs incurred during the production phase of a mine are depreciated on a units-of-production basis over the proven and probable reserves expected to be mined from the same component.

Underground mine development costs are depreciated using the block depreciation method, where development costs associated with each distinct section of the mine are depreciated over the reserves to which they relate.

3. Summary of Significant Accounting Policies (continued)

Exploration and evaluation costs

Property acquisition costs are capitalized. Other exploration and evaluation costs are capitalized if they relate to specific properties for which resources, as defined under National Instrument 43-101, Standards of Disclosure for Mineral Projects, exist or are near a specific property with a defined resource, and it is expected that the expenditure can be recovered by future exploitation or sale. All other costs are charged to profit in the year in which they are incurred. Capitalized exploration and evaluation costs are considered to be tangible assets. These assets are not depreciated as they are not currently available for use. When proven and probable reserves are determined and development is approved, capitalized exploration and evaluation costs are reclassified to mineral properties within property, plant and equipment.

Costs of oil sands properties

The costs of acquiring, exploring, evaluating and developing oil sands properties are capitalized when it is expected that these costs will be recovered through future exploitation or sale of the property. Capitalized development costs of oil sands properties are tangible assets. These assets are not depreciated as they are not currently available for use. When proven and probable reserves are determined and development is approved, capitalized development costs for oil sands properties are reclassified to mineral properties within property, plant and equipment.

Construction in progress

Assets in the course of construction are capitalized as construction in progress. On completion, the cost of construction is transferred to the appropriate category of property, plant and equipment, and depreciation commences when the asset is available for its intended use.

Impairment of non-current assets

The carrying amounts of assets included in property, plant and equipment are reviewed for impairment whenever facts and circumstances indicate that the carrying amounts are less than the recoverable amounts. If there are indicators of impairment, the recoverable amount of the asset is estimated in order to determine the extent of any impairment. Where the asset does not generate cash flows that are independent from other assets, the recoverable amount of the cash-generating unit (CGU) to which the asset belongs is determined. The recoverable amount of an asset or CGU is determined as the higher of its fair value less costs of disposal and its value in use. An impairment loss exists if the asset's or CGU's carrying amount exceeds the estimated recoverable amount, and is recorded as an expense immediately.

Fair value is the price that would be received from selling an asset in an orderly transaction between market participants at the measurement date. Costs of disposal are incremental costs directly attributable to the disposal of an asset. For mining assets, when a binding sale agreement is not readily available, fair value less costs of disposal is usually estimated using a discounted cash flow approach, unless comparable market transactions on which to estimate fair value are available. Estimated future cash flows are calculated using estimated future commodity prices, reserves and resources, and operating and capital costs. All inputs used are those that an independent market participant would consider appropriate. Value in use is determined as the present value of the future cash flows expected to be derived from continuing use of an asset or CGU in its present form. These estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or CGU for which estimates of future cash flows have not been adjusted. A value in use calculation uses a pre-tax discount rate and a fair value less costs of disposal calculation uses a post-tax discount rate.

Indicators of impairment for exploration and evaluation assets are assessed on a project-by-project basis or as part of the existing operation to which they relate.

Tangible assets that have been impaired in prior periods are tested for possible reversal of impairment whenever events or significant changes in circumstances indicate that the impairment may have reversed. Indicators of a

potential reversal of an impairment loss mainly mirror the indicators present when the impairment was originally recorded. If the impairment has reversed, the carrying amount of the asset is increased to its recoverable amount, but not beyond the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognized for the asset in prior periods. A reversal of an impairment loss is recognized into profit immediately.

Repairs and maintenance

Repairs and maintenance costs, including shutdown maintenance costs, are charged to expense as incurred, except when these repairs significantly extend the life of an asset or result in a significant operating improvement. In these instances, the portion of these repairs relating to the betterment is capitalized as part of plant and equipment.

Borrowing costs

We capitalize borrowing costs that are directly attributable to the acquisition, construction or production of an asset that takes a substantial period of time to construct or prepare for its intended use. We begin capitalizing borrowing costs when there are general or specific borrowings, expenditures are incurred, and activities are undertaken to prepare the asset for its intended use. The amount of borrowing costs capitalized cannot exceed the actual amount of borrowing costs incurred during the period. All other borrowing costs are expensed as incurred.

We discontinue the capitalization of borrowing costs when substantially all of the activities necessary to prepare the qualifying asset for its intended use or sale are complete. In addition, we cease capitalization of borrowing costs when there is suspension of activities to prepare an asset for its intended use or sale. Capitalization recommences when the activities are restarted. Capitalized borrowing costs are amortized over the useful life of the related asset.

Leased assets

Leased assets from which we receive substantially all of the risks and rewards of ownership of the asset are capitalized as finance leases at the lower of the fair value of the asset or the estimated present value of the minimum lease payments. The corresponding lease obligation is recorded within debt on the balance sheet. We review arrangements entered into during the year to assess if the arrangements are, or contain, leases that should be accounted for as such.

Assets under operating leases are not capitalized, and rental payments are expensed based on the terms of the lease.

Goodwill

We allocate goodwill arising from business combinations to each CGU or group of CGUs that are expected to receive the benefits from the business combination. The carrying amount of the CGU or group of CGUs to which goodwill has been allocated is tested annually for impairment or when there is an indication that the goodwill may be impaired. Any impairment is recognized as an expense immediately. Should there be a recovery in the value of a CGU, any impairment of goodwill previously recorded is not subsequently reversed.

Income Taxes

Taxes, comprising both income taxes and resource taxes, are accounted for as income taxes under IAS 12, Income Taxes and are recognized in the statement of income, except where they relate to items recognized in other comprehensive income (loss) or directly in equity, in which case the related taxes are recognized in other comprehensive income (loss) or equity.

Current taxes receivable or payable are based on estimated taxable income for the current year at the statutory tax rates enacted or substantively enacted less amounts paid or received on account.

Deferred tax assets and liabilities are recognized based on temporary differences (the difference between the tax and accounting values of assets and liabilities) and are calculated using enacted or substantively enacted tax rates for the periods in which the differences are expected to reverse. The effect of changes in tax legislation, including changes in tax rates, is recognized in the period of substantive enactment.

3. Summary of Significant Accounting Policies (continued)

Deferred tax assets are recognized only to the extent that it is probable that future taxable profits of the relevant entity or group of entities in a particular jurisdiction will be available, against which the assets can be utilized.

Deferred tax liabilities are recognized for taxable temporary differences arising on investments in subsidiaries, joint ventures and associates. However, we do not recognize such deferred tax liabilities where the timing of the reversal of the temporary differences can be controlled without affecting our operations or business, and it is probable that the temporary differences will not reverse in the foreseeable future.

Deferred tax assets and liabilities are not recognized if the temporary differences arise from the initial recognition of goodwill or an asset or liability in a transaction, other than in a business combination, which will affect neither accounting profit nor taxable profit.

We are subject to assessments by various taxation authorities, who may interpret tax legislation differently than we do. The final amount of taxes to be paid depends on a number of factors, including the outcomes of audits, appeals or negotiated settlements. We account for such differences based on our best estimate of the probable outcome of these matters.

Employee Benefits

Defined benefit pension plans

Defined benefit pension plan obligations are based on actuarial determinations. The projected unit credit method, which sees each period of service as giving rise to an additional unit of benefit entitlement and measures each unit separately to build up the final obligation, is used to determine the defined benefit obligations, the related current service costs and, where applicable, the past service costs. Actuarial assumptions used in the determination of defined benefit pension plan assets and liabilities are based upon our best estimates, including discount rates, salary escalation, expected health care costs and retirement dates of employees.

Vested and unvested costs arising from past service following the introduction of changes to a defined benefit plan are recognized immediately as an expense when the changes are made.

Actuarial gains and losses can arise from differences between expected and actual outcomes or changes in actuarial assumptions. Actuarial gains and losses, changes in the effect of asset ceiling rules and return on plan assets are collectively referred to as remeasurements of retirement benefit plans and are recognized immediately through other comprehensive income (loss) and directly into retained earnings. Measurement of our net defined benefit asset is limited to the lower of the surplus of assets less liabilities in the defined benefit plan and the asset ceiling less liabilities in the defined benefit plan. The asset ceiling is the present value of the expected economic benefit available to us in the form of refunds from the plan or reductions in future contributions to the plan.

We apply one discount rate to the net defined benefit asset or liability for the purposes of determining the interest component of the defined benefit cost. This interest component is recorded as part of finance expense. Depending on the classification of the salary of plan members, current service costs and past service costs are included in either operating expenses or general and administration expenses.

Defined contribution pension plans

The cost of providing benefits through defined contribution plans is charged to profit as the obligation to contribute is incurred.

Non-pension post-retirement plans

We provide health care benefits for certain employees when they retire. Non-pension post-retirement plan obligations are based on actuarial determinations. The cost of these benefits is expensed over the period in which the employees render services. We fund these non-pension post-retirement benefits as they become due.

Termination benefits

We recognize a liability and an expense for termination benefits when we have demonstrably committed to terminate employees. We are demonstrably committed to a termination when, and only when, there is a formal plan for the termination with no realistic possibility of withdrawal. The plan should include, at a minimum, the location, function and approximate number of employees whose services are to be terminated, the termination benefits for each job classification or function, and the time at which the plan will be implemented without significant changes.

Share-Based Payments

The fair value method of accounting is used for share-based payment transactions. Under this method, the cost of share options and other equity-settled share-based payment arrangements is recorded based on the estimated fair value at the grant date, including an estimate of the forfeiture rate, and charged to other operating income (expense) over the vesting period. For employees eligible for normal retirement prior to vesting, the expense is charged to other operating income (expense) over the period from the grant date to the date they are eligible for retirement.

Share-based payment expense relating to cash-settled awards, including deferred, restricted and performance share units, is accrued over the vesting period of the units based on the quoted market value of Class B subordinate voting shares. Performance share units (PSUs) have an additional vesting factor determined by our total shareholder return in comparison to a group of specified companies. PSUs issued in 2017 and onwards and performance deferred share units (PDSUs) also have a vesting factor determined by the ratio of the change in our earnings before interest, taxes, depreciation and amortization (EBITDA) over the life of the share unit to the change in a specified weighted commodity price index. As these awards will be settled in cash, the expense and liability are adjusted each reporting period for changes in the underlying share price as well as changes to the above-noted vesting factors, as applicable.

Share Repurchases

Where we repurchase any of our equity share capital, the excess of the consideration paid over book value is deducted from retained earnings.

Provisions

Decommissioning and restoration provisions

Future obligations to retire an asset and to restore a site, including dismantling, remediation and ongoing treatment and monitoring of the site related to normal operations, are initially recognized and recorded as a provision based on estimated future cash flows discounted at a credit-adjusted risk-free rate. This decommissioning and restoration provision is adjusted at each reporting period for changes to factors including the expected amount of cash flows required to discharge the liability, the timing of such cash flows and the discount rate.

The provisions are also accreted to full value over time through periodic charges to profit. This unwinding of the discount is charged to finance expense in the statement of income.

The amount of the decommissioning and restoration provision initially recognized is capitalized as part of the related asset's carrying value. The method of depreciation follows that of the underlying asset. For a closed site or where the asset that generated a decommissioning and restoration provision no longer exists, there is no longer any future benefit related to the costs, and as such, the amounts are expensed through other operating income (expense). For operating sites, a revision in estimates or a new disturbance will result in an adjustment to the provision with an offsetting adjustment to the capitalized asset retirement cost.

During the operating life of an asset, events such as infractions of environmental laws or regulations may occur. These events are not related to the normal operation of the asset. The costs associated with these provisions are accrued and charged to other operating income (expense) in the period in which the event giving rise to the liability occurs. Changes in the estimated liability resulting in an adjustment to the provision are also charged to other operating income (expense) in the period in which the estimate changes.

3. Summary of Significant Accounting Policies (continued)

Other provisions

Provisions are recognized when a present legal or constructive obligation exists as a result of past events, and it is probable that an outflow of resources that can be reliably estimated will be required to settle the obligation. Where the effect is material, the provision is discounted using an appropriate credit-adjusted risk-free rate.

Research and Development

Research costs are expensed as incurred. Development costs are only capitalized when the product or process is clearly defined; the technical feasibility has been established; the future market for the product or process is clearly defined; and we are committed, and have the resources, to complete the project.

Earnings per Share

Earnings per share is calculated based on the weighted average number of shares outstanding during the year. For diluted earnings per share, dilution is calculated based upon the net number of common shares issued should "in-the-money" options and warrants be exercised and the proceeds be used to repurchase common shares at the average market price in the year.

4. Areas of Judgment and Estimation Uncertainty

In preparing our consolidated financial statements, we make judgments in applying our accounting policies. The judgments that have the most significant effect on the amounts recognized in our financial statements are outlined below. In addition, we make assumptions about the future in deriving estimates used in preparing our consolidated financial statements. We have outlined below information about assumptions and other sources of estimation uncertainty as at December 31, 2018 that have a risk of resulting in a material adjustment to the carrying amounts of assets and liabilities within the next year.

a) Areas of Judgment

Assessment of Impairment Indicators

Judgment is required in assessing whether certain factors would be considered an indicator of impairment or impairment reversal. We consider both internal and external information to determine whether there is an indicator of impairment or impairment reversal present and, accordingly, whether impairment testing is required. The information we consider in assessing whether there is an indicator of impairment or impairment reversal includes, but is not limited to, market transactions for similar assets, commodity prices, interest rates, inflation rates, our market capitalization, reserves and resources, mine plans and operating results.

Property, Plant and Equipment – Determination of Available for Use Date

Judgment is required in determining the date that property, plant and equipment is available for use. An asset is available for use when it is in the location and condition necessary to operate in the manner intended by management. At that time, we commence depreciation of the asset and cease capitalization of borrowing costs. We consider a number of factors in making the determination of when an asset is available for use including, but not limited to, design capacity of the asset, production levels achieved, capital spending remaining and commissioning status. Fort Hills produced first oil in January 2018 and were considered available for use as at June 1, 2018. When concluding that these assets were available for use at June 1, 2018, we considered whether all three secondary extraction trains were running as expected, whether the production and product quality were consistent with expectations, and the status of asset commissioning. We have included the operating results for Fort Hills in our consolidated statements of income from that date forward.

Joint Arrangements

We are a party to a number of arrangements over which we do not have control. Judgment is required in determining whether joint control over these arrangements exists and, if so, which parties have joint control and whether each arrangement is a joint venture or joint operation. In assessing whether we have joint control, we analyze the activities of each arrangement and determine which activities most significantly affect the returns of the arrangement over its life. These activities are determined to be the relevant activities of the arrangement. If unanimous consent is required over the decisions about the relevant activities, the parties whose consent is required would have joint control over the arrangement. The judgments around which activities are considered the relevant activities of the arrangement are subject to analysis by each of the parties to the arrangement and may be interpreted differently. When performing this assessment, we generally consider decisions about activities such as managing the asset while it is being designed, developed and constructed, during its operating life and during the closure period. We may also consider other activities including the approval of budgets, expansion and disposition of assets, financing, significant operating and capital expenditures, appointment of key management personnel, representation on the board of directors and other items. When circumstances or contractual terms change, we reassess the control group and the relevant activities of the arrangement.

If we have joint control over the arrangement, an assessment of whether the arrangement is a joint venture or joint operation is required. This assessment is based on whether we have rights to the assets, and obligations for the liabilities, relating to the arrangement or whether we have rights to the net assets of the arrangement. In making this determination, we review the legal form of the arrangement, the terms of the contractual arrangement and other facts and circumstances. In a situation where the legal form and the terms of the contractual arrangement do not give us rights to the assets and obligations for the liabilities, an assessment of other facts and circumstances is required, including whether the activities of the arrangement are primarily designed for the provision of output to the parties and whether the parties are substantially the only source of cash flows contributing to the arrangement. The consideration of other facts and circumstances may result in the conclusion that a joint arrangement is a joint operation. This conclusion requires judgment and is specific to each arrangement. Other facts and circumstances have led us to conclude that Antamina and Fort Hills are joint operations for the purposes of our consolidated financial statements. The other facts and circumstances considered for both of these arrangements include the provisions of output to the parties of the joint arrangements and the funding obligations. For both Antamina and Fort Hills, we will take our share of the output from the assets directly over the life of the arrangement. We have concluded that this gives us direct rights to the assets and obligations for the liabilities of these arrangements proportionate to our ownership interests.

Streaming Transactions

When we enter into a long-term streaming arrangement linked to production at specific operations, judgment is required in assessing the appropriate accounting treatment for the transaction on the closing date and in future periods. We consider the specific terms of each arrangement to determine whether we have disposed of an interest in the reserves and resources of the respective operation or executed some other form of arrangement. This assessment considers what the counterparty is entitled to and the associated risks and rewards attributable to them over the life of the operation. These include the contractual terms related to the total production over the life of the arrangement as compared to the expected production over the life of the mine, the percentage being sold, the percentage of payable metals produced, the commodity price referred to in the ongoing payment and any guarantee relating to the upfront payment if production ceases.

For our silver and gold streaming arrangements entered into in 2015, there is no guarantee associated with the upfront payment. We have concluded that control of the rights to the silver and gold mineral interests were transferred to the buyer when the contracts came into effect at Antamina and Carmen de Andacollo, respectively. Therefore, we consider these arrangements a disposition of a mineral interest.

4. Areas of Judgment and Estimation Uncertainty (continued)

Any gains from the sale of mineral properties are recognized in accordance with IFRS 15. For both streaming transactions, the total transaction price less costs was allocated to the identified performance obligations based on their estimated stand-alone selling prices. The performance obligations include the interest in the reserves and resources of the operation, mining, refining and delivery services. The allocation involved the use of a variety of estimates in a discounted cash flow model to estimate the stand-alone selling price of the mineral interest. The significant estimates included expected commodity prices, production costs, discount rates and mine plans. A residual value approach was used to estimate the selling prices of mining services.

Based on our judgment, control of the interest in the reserves and resources transferred to the buyer when the contract was executed. At that time, we had the right to payment, the customer was entitled to the commodities, the buyer had no recourse in requiring Teck to mine the product, and the buyer had significant risks and rewards of ownership of the reserves and resources. The allocation of proceeds under IFRS 15 resulted in a net gain allocated to the reserves and resources for the Antamina silver stream transaction. This resulted in an IFRS 15 transition pre-tax adjustment of \$755 million to retained earnings, as the amount was previously recorded as deferred consideration (Note 32). There was no net gain or loss adjustment on application of IFRS 15 to the Carmen de Andacollo gold stream.

We recognize the amount of consideration related to refining, mining and delivery services as the work is performed.

Deferred Tax Assets and Liabilities

Judgment is required in assessing whether deferred tax assets and certain deferred tax liabilities are recognized on the balance sheet and what tax rate is expected to be applied in the year when the related temporary differences reverse, particularly in regard to the utilization of tax loss carryforwards. We also evaluate the recoverability of deferred tax assets based on an assessment of our ability to use the underlying future tax deductions before they expire against future taxable income. Deferred tax liabilities arising from temporary differences on investments in subsidiaries, joint ventures and associates are recognized unless the reversal of the temporary differences is not expected to occur in the foreseeable future and can be controlled. Judgment is also required on the application of income tax legislation. These judgments are subject to risk and uncertainty and could result in an adjustment to the deferred tax provision and a corresponding credit or charge to profit.

b) Sources of Estimation Uncertainty

Impairment Testing

When impairment testing is required, discounted cash flow models are used to determine the recoverable amount of respective assets. These models are prepared internally with assistance from third-party advisors when required. When market transactions for comparable assets are available, these are considered in determining the recoverable amount of assets. Significant assumptions used in preparing discounted cash flow models include commodity prices, reserves and resources, mine plans, operating costs, capital expenditures, discount rates, foreign exchange rates and inflation rates. Note 8 outlines the significant inputs used when performing goodwill and other asset impairment testing. These inputs are based on management's best estimates of what an independent market participant would consider appropriate. Changes in these inputs may alter the results of impairment testing, the amount of the impairment charges or reversals recorded in the statement of income and the resulting carrying values of assets.

Estimated Recoverable Reserves and Resources

Mineral and oil reserve and resource estimates are based on various assumptions relating to operating matters as set forth in National Instrument 43-101, Standards of Disclosure for Mineral Projects and National Instrument 51-101, Standards of Disclosure for Oil and Gas Activities. Assumptions used include production costs, mining and processing recoveries, cut-off grades, marketing and sales, long-term commodity prices and, in some cases, exchange rates, inflation rates and capital costs. Cost estimates are based on pre-feasibility or feasibility study estimates or operating history. Estimates are prepared by or under the supervision of appropriately qualified persons, or qualified reserves evaluators, but will be affected by forecasted commodity prices, inflation rates, exchange rates, capital and production costs, and recoveries, among other factors. Estimated recoverable reserves and resources are used to determine the depreciation of property, plant and equipment at operating mine sites, in accounting for capitalized production stripping costs, in performing impairment testing, and in forecasting the timing of the payment of decommissioning and restoration costs. Therefore, changes in the assumptions used could affect the carrying value of assets, depreciation and impairment charges recorded in the statement of income and the carrying value of the decommissioning and restoration provision.

Decommissioning and Restoration Provisions

The decommissioning and restoration provision (DRP) is based on future cost estimates using information available at the balance sheet date (Note 22(a)). The DRP represents the present value of estimated costs of future decommissioning and other site restoration activities. The DRP is adjusted at each reporting period for changes to factors such as the expected amount of cash flows required to discharge the liability, the timing of such cash flows and the credit-adjusted discount rate. The DRP requires other significant estimates and assumptions, including the requirements of the relevant legal and regulatory framework and the timing, extent and costs of required decommissioning and restoration activities. To the extent the actual costs differ from these estimates, adjustments will be recorded and the income statement may be affected.

Provision for Income Taxes

We calculate current and deferred tax provisions for each of the jurisdictions in which we operate. Actual amounts of income tax expense are not final until tax returns are filed and accepted by the relevant authorities. This occurs subsequent to the issuance of our financial statements, and the final determination of actual amounts may not be completed for a number of years. Therefore, profit in subsequent periods will be affected by the amount that estimates differ from the final tax return.

Deferred Tax Assets and Liabilities

Assumptions about the generation of future taxable profits and repatriation of retained earnings depend on management's estimates of future production and sales volumes, commodity prices, reserves and resources, operating costs, decommissioning and restoration costs, capital expenditures, dividends and other capital management transactions. These estimates could result in an adjustment to the deferred tax provision and a corresponding credit or charge to profit.

5. Transactions

a) Quebrada Blanca

In April of 2018, we acquired an additional 13.5% interest in QBSA through the purchase of Inversiones Mineras S.A. (IMSA), a private Chilean company. This acquisition brought our interest in QBSA from 76.5% to 90%.

The purchase price consisted of US\$53 million paid in cash on closing, an additional US\$60 million paid in 2018 on the issuance of the major approval of the social and environmental impact assessment for the Quebrada Blanca Phase 2 copper development project (QB2) and a further US\$50 million payable within 30 days of the commencement of commercial production at QB2. Additional amounts may become payable to the extent that average copper prices exceed US\$3.15 per pound in each of the first three years following commencement of commercial production, up to a cumulative maximum of US\$100 million if commencement of commercial production occurs prior to January 21, 2024, or up to a lesser maximum in certain circumstances thereafter.

This transaction is considered a change in the ownership of a subsidiary that we control and accordingly, we accounted for this as an equity transaction. At the acquisition date, we recorded a cash payment of \$67 million and liabilities for the estimated fair value of amounts due in the future, which are recorded in provisions and other liabilities on the balance sheet. The total fair value of \$175 million was recorded as a reduction in non-controlling interests and equity attributable to shareholders of \$16 million and \$159 million, respectively, as at December 31, 2018.

In December of 2018, we announced a transaction for Sumitomo Metal Mining Co., Ltd. and Sumitomo Corporation (together referred to as Sumitomo) to subscribe for a 30% indirect interest in QBSA, which owns QB2. Upon closing, Teck and Sumitomo will have an indirect ownership interest in QBSA of 60% and 30%, respectively, and Empresa Nacional de Minería (ENAMI) will continue to have a 10% direct ownership interest in QBSA. ENAMI, a Chilean State agency, holds a preference share interest in QBSA, which does not require ENAMI to fund capital spending. Closing of the transaction is subject to customary conditions precedent, including receipt of necessary regulatory approvals, and is expected to occur before the end of March 2019.

We analyzed the implied fair value that can be derived from this announced market transaction as part of our impairment testing for the Quebrada Blanca CGU (Note 8(b)).

b) Waneta Dam Sale

During 2018, the transaction for the sale of our two-thirds interest in the Waneta Dam and related transmission assets to BC Hydro closed. The Waneta Dam and related transmission assets were previously classified as assets held for sale of \$350 million on our consolidated balance sheet as at December 31, 2017. As part of the sale, we entered into a 20-year arrangement to purchase power for our Trail Operations, with an option to extend the arrangement for a further 10 years on comparable terms. We recognized this transaction as a disposition of the Waneta Dam and related transmission assets and recorded a pre-tax gain, net of transaction costs, of \$888 million (after-tax \$812 million) based on proceeds of \$1.203 billion. The gain is recorded in other operating income (expense) (Note 9). The power supply arrangement is accounted for as an ongoing cost to operate and is recorded in cost of sales.

6. Revenues

a) Total Revenues by Major Product Type and Business Unit

The following table shows our revenue disaggregated by major product type and by business unit. Our business units are reported based on the primary products that they produce and are consistent with our reportable segments (Note 27) that have revenue from contracts with customers. A business unit can have revenue from more than one commodity as it can include an operation that produces more than one product. Intra-segment revenues are accounted for at current market prices as if the sales were made to arm's-length parties and are eliminated on consolidation.

(CAD\$ in millions)	2018				
	Steelmaking Coal	Copper	Zinc	Energy ¹	Total
Steelmaking coal	\$ 6,349	\$ –	\$ –	\$ –	\$ 6,349
Copper	–	2,242	–	–	2,242
Zinc	–	279	2,701	–	2,980
Blended bitumen	–	–	–	407	407
Silver	–	18	306	–	324
Lead	–	–	419	–	419
Other	–	175	318	–	493
Intra-segment	–	–	(650)	–	(650)
	\$ 6,349	\$ 2,714	\$ 3,094	\$ 407	\$ 12,564

(CAD\$ in millions)	2017 (restated)				
	Steelmaking Coal	Copper	Zinc	Energy	Total
Steelmaking coal	\$ 6,014	\$ –	\$ –	\$ –	\$ 6,014
Copper	–	2,022	–	–	2,022
Zinc	–	252	2,673	–	2,925
Silver	–	16	556	–	572
Lead	–	–	570	–	570
Other	–	110	332	–	442
Intra-segment	–	–	(635)	–	(635)
	\$ 6,014	\$ 2,400	\$ 3,496	\$ –	\$ 11,910

Note:

1) Includes revenue for Fort Hills from June 1, 2018 (Note 4(a)).

Notes to Consolidated Financial Statements Years ended December 31, 2018 and 2017

6. Revenues (continued)

b) Total Revenues by Regions

The following table shows our revenue disaggregated by geographical region. Revenues are attributed to regions based on the destination port or delivery location as designated by the customer. The 2018 results include revenue for Fort Hills from June 1, 2018.

(CAD\$ in millions)	2018	2017 (restated)
Asia		
China	\$ 2,060	\$ 2,079
Japan	1,880	1,872
South Korea	1,515	1,352
India	981	761
Other	1,207	951
Americas		
United States	1,609	1,357
Canada	932	920
Latin America	297	407
Europe		
Germany	561	578
Finland	242	284
Netherlands	240	215
Other	1,040	1,134
	\$ 12,564	\$ 11,910

7. Expenses by Nature

(CAD\$ in millions)	2018	2017 (restated)
Employment-related costs:		
Wages and salaries	\$ 1,005	\$ 899
Employee benefits and other wage-related costs	247	236
Bonus payments	191	192
Post-employment benefits and pension costs	112	122
	1,555	1,449
Transportation	1,408	1,245
Depreciation and amortization	1,483	1,492
Raw material purchases	914	824
Fuel and energy	830	657
Operating supplies consumed	640	569
Maintenance and repair supplies	775	698
Contractors and consultants	738	570
Overhead costs	365	287
Royalties	370	453
Other operating costs	15	9
	9,093	8,253
Less:		
Capitalized production stripping costs	(707)	(678)
Change in inventory	(197)	(3)
Total cost of sales, general and administration, exploration and research and development expenses	\$ 8,189	\$ 7,572

Approximately 26% (2017 – 29%) of our costs are incurred at our foreign operations where the functional currency is the U.S. dollar.

8. Asset and Goodwill Impairment Testing

a) Impairment Reversal and Asset Impairments

The following pre-tax impairment reversal and (asset impairments) were recorded in the statement of income:

Impairment Reversal and (Asset Impairments)

(CAD\$ in millions)	2018	2017
Steelmaking coal CGU	\$ –	\$ 207
Other	(41)	(44)
Total	\$ (41)	\$ 163

8. Asset and Goodwill Impairment Testing (continued)

Steelmaking Coal CGU

We did not identify any asset impairment or impairment reversal indicators for our steelmaking coal CGU during 2018. The results of our annual goodwill impairment testing for our steelmaking coal CGU as at October 31, 2018 are outlined in Note 8(b).

As at December 31, 2017, we recorded a pre-tax impairment reversal of \$207 million (after-tax \$131 million) related to one of the mines in our steelmaking coal business unit. The estimated post-tax recoverable amount of this mine was significantly higher than the carrying value. This impairment reversal arose as a result of changes in short-term and long-term market participant price expectations for steelmaking coal and expected future operating cost estimates included in our annual goodwill impairment testing performed in 2017. The impairment reversal affected the profit (loss) of our steelmaking coal operating segment (Note 27).

Other

During the year ended December 31, 2018, we recorded asset impairments of \$41 million, of which \$31 million is related to capitalized exploration expenditures that are not expected to be recovered and \$10 million (\$44 million – 2017) is related to Quebrada Blanca assets that will not be recovered through use.

b) Annual Goodwill Impairment Testing

The allocation of goodwill to CGUs or groups of CGUs reflects how goodwill is monitored for internal management purposes. Our Quebrada Blanca CGU and steelmaking coal CGU have goodwill allocated to them (Note 17). The Quebrada Blanca CGU primarily relates to assets of QB2.

We performed our annual goodwill impairment testing at October 31, 2018 and did not identify any goodwill impairment losses.

Cash flow projections are based on expected mine life. For our steelmaking coal operations, the cash flows cover periods of 9 to 51 years, with a steady state thereafter until reserves and resources are exhausted. For Quebrada Blanca, the cash flow covers 31 years, with our estimate of cash flows thereafter until reserves and resources are exhausted.

Given the nature of expected future cash flows used to determine the recoverable amount, a material change could occur over time as the cash flows are significantly affected by the key assumptions described below in Note 8(c).

Sensitivity Analysis

Our annual goodwill impairment test carried out at October 31, 2018 resulted in the recoverable amount of our steelmaking coal CGU exceeding its carrying value by approximately \$6.7 billion. The recoverable amount of our steelmaking coal CGU is most sensitive to the long-term Canadian dollar steelmaking coal price assumption. In isolation, a 15% decrease in the long-term Canadian dollar steelmaking coal price would result in the recoverable amount of the steelmaking coal CGU being equal to the carrying value.

Our annual goodwill impairment test for the Quebrada Blanca CGU carried out at October 31, 2018 resulted in a recoverable amount that exceeded the carrying value and no goodwill impairment losses were identified. Subsequent to our annual goodwill impairment test, Teck announced the QB2 partnering transaction (Note 5(a)). We compared the implied fair value that can be derived from the announced market transaction to the carrying value for our Quebrada Blanca CGU and concluded that the fair value exceeded our carrying value, including goodwill. In deriving a fair value for QBSA relative to the interest subscribed for by Sumitomo, we adjusted the transaction value to reflect the additional value attributed to a controlling interest.

c) Key Assumptions

The following are the key assumptions used in our impairment testing calculations during the years ended December 31, 2018 and 2017:

	2018	2017
Steelmaking coal prices	Current price used in initial year, decreased to a long-term price in 2023 of US\$150 per tonne	Current price used in initial year, decreased to a long-term price in 2022 of US\$140 per tonne
Copper prices	Current price used in initial year, increased to a long-term price in 2023 of US\$3.00 per pound	Current price used in initial year, decreased to a long-term price in 2022 of US\$3.00 per pound
Discount rate	6.0%	5.9%
Long-term foreign exchange rate	1 U.S. to 1.25 Canadian dollars	1 U.S. to 1.25 Canadian dollars
Inflation rate	2%	2%

Commodity Prices

Commodity price assumptions are based on a number of factors, including forward curves in the near term, and are benchmarked with external sources of information, including information published by our peers and market transactions, where possible, to ensure they are within the range of values used by market participants.

Discount Rates

Discount rates are based on a mining weighted average cost of capital for all mining operations. For the year ended December 31, 2018, we used a discount rate of 6.0% real, 8.1% nominal post-tax (2017 – 5.9% real, 8.0% nominal post-tax) for mining operations and goodwill.

Foreign Exchange Rates

Foreign exchange rates are benchmarked with external sources of information based on a range used by market participants. Long-term foreign exchange assumptions are from year 2023 onwards for analysis performed in the year ended December 31, 2018 and are from year 2022 onwards for analysis performed in the year ended December 31, 2017.

Inflation Rates

Inflation rates are based on average historical inflation for the location of each operation and long-term government targets.

Reserves and Resources

Future mineral production is included in projected cash flows based on mineral reserve and resource estimates and on exploration and evaluation work undertaken by appropriately qualified persons.

Operating Costs and Capital Expenditures

Operating costs and capital expenditures are based on life of mine plans and internal management forecasts. Cost estimates incorporate management experience and expertise, current operating costs, the nature and location of each operation, and the risks associated with each operation. Future capital expenditures are based on management's best estimate of expected future capital requirements, which are generally for the extraction and processing of existing reserves and resources. All committed and anticipated capital expenditures based on future cost estimates have been included in the projected cash flows. Operating cost and capital expenditure assumptions are continuously subjected to ongoing optimization and review by management.

8. Asset and Goodwill Impairment Testing (continued)

Recoverable Amount Basis

In the absence of a relevant market transaction, we estimate the recoverable amount of our CGUs on a fair value less costs of disposal (FVLCD) basis using a discounted cash flow methodology, taking into account assumptions likely to be made by market participants unless it is expected that the value-in-use methodology would result in a higher recoverable amount. For the asset impairment, impairment reversal and goodwill impairment analyses performed in 2018 and 2017 (Note 8(a)), we have applied the FVLCD basis. These estimates are classified as a Level 3 measurement within the fair value measurement hierarchy (Note 29).

9. Other Operating Income (Expense)

(CAD\$ in millions)	2018	2017
Settlement pricing adjustments (Note 28(b))	\$ (117)	\$ 190
Share-based compensation	(59)	(125)
Environmental and care and maintenance costs	(31)	(186)
Social responsibility and donations	(18)	(7)
Gain (loss) on sale of assets	(3)	35
Commodity derivatives	(36)	12
Take or pay contract costs	(106)	(81)
Waneta Dam sale (a)	888	(28)
Other	(68)	(40)
	\$ 450	\$ (230)

a) The 2018 amount relates to the pre-tax gain from the Waneta Dam sale (Note 5(b)). The 2017 amount relates to the break fee on that sale paid to Fortis Inc.

10. Finance Income and Finance Expense

(CAD\$ in millions)	2018	2017
Finance income		
Investment income	\$ 33	\$ 17
Total finance income	\$ 33	\$ 17
Finance expense		
Debt interest	\$ 338	\$ 385
Finance lease interest	24	2
Letters of credit and standby fees	65	76
Net interest expense on retirement benefit plans	6	12
Accretion on decommissioning and restoration provisions (Note 22(a))	101	81
Other	11	6
	545	562
Less capitalized borrowing costs (Note 16(c))	(293)	(333)
Total finance expense	\$ 252	\$ 229

11. Non-Operating Income (Expense)

(CAD\$ in millions)	2018	2017
Foreign exchange gains	\$ 16	\$ 5
Gain (loss) on debt prepayment options (Note 28(b))	(42)	51
Gain on sale of investments	–	9
Loss on debt repurchases (Note 19(a) and Note 19(b))	(26)	(216)
	\$ (52)	\$ (151)

12. Supplemental Cash Flow Information

(CAD\$ in millions)	December 31, 2018	December 31, 2017
Cash and cash equivalents		
Cash	\$ 438	\$ 230
Investments with maturities from the date of acquisition of three months or less	1,296	722
	\$ 1,734	\$ 952

(CAD\$ in millions)	2018	2017 (restated)
Net change in non-cash working capital items		
Trade and settlements receivables	\$ 282	\$ (44)
Prepays and other current assets	(26)	(145)
Inventories	(338)	(27)
Trade accounts payable and other liabilities	53	385
	\$ (29)	\$ 169

13. Inventories

(CAD\$ in millions)	December 31, 2018	December 31, 2017 (restated)
Supplies	\$ 693	\$ 563
Raw materials	300	223
Work in process	595	529
Finished products	539	462
	2,127	1,777
Less long-term portion (Note 14)	(62)	(108)
	\$ 2,065	\$ 1,669

Cost of sales of \$7.9 billion (2017 – \$7.3 billion) include \$7.3 billion (2017 – \$6.6 billion) of inventories recognized as an expense during the year.

Notes to Consolidated Financial Statements Years ended December 31, 2018 and 2017

13. Inventories (continued)

Total inventories held at net realizable value amounted to \$172 million at December 31, 2018 (December 31, 2017 – \$17 million). Total inventory write-downs in 2018 were \$82 million (2017 – \$20 million) and were included as part of cost of sales. Total reversals of inventory write-downs previously recorded was nil in 2018 (2017 – \$30 million).

Long-term inventories consist of ore stockpiles and other in-process materials that are not expected to be processed within one year.

14. Financial and Other Assets

(CAD\$ in millions)	December 31, 2018	December 31, 2017
Long-term receivables and deposits	\$ 220	\$ 209
Marketable equity and debt securities carried at fair value	167	156
Debt prepayment options (Note 28(c))	73	108
Pension plans in a net asset position (Note 21(a))	254	339
Long-term portion of inventories (Note 13)	62	108
Intangibles	80	76
Other	51	55
	\$ 907	\$ 1,051

15. Investments in Associates and Joint Ventures

(CAD\$ in millions)	NuevaUnión	Other	Total
At January 1, 2017	\$ 946	\$ 66	\$ 1,012
Contributions	43	4	47
Changes in foreign exchange rates	(64)	1	(63)
Share of income	4	2	6
Share of other comprehensive loss	–	(1)	(1)
Acquisition of AQM Copper Inc.	–	(58)	(58)
At December 31, 2017	\$ 929	\$ 14	\$ 943
Contributions	48	–	48
Changes in foreign exchange rates	83	–	83
Share of loss	(2)	(1)	(3)
At December 31, 2018	\$ 1,058	\$ 13	\$ 1,071

16. Property, Plant and Equipment

(CAD\$ in millions)	Exploration and Evaluation	Mineral Properties	Land, Buildings, Plant and Equipment	Capitalized Production Stripping Costs	Construction In Progress	Total
At December 31, 2016						
Cost	\$ 1,613	\$ 18,667	\$ 13,517	\$ 4,269	\$ 3,907	\$ 41,973
Accumulated depreciation	–	(5,105)	(7,165)	(2,108)	–	(14,378)
Net book value	\$ 1,613	\$ 13,562	\$ 6,352	\$ 2,161	\$ 3,907	\$ 27,595
Year ended December 31, 2017						
Opening net book value	\$ 1,613	\$ 13,562	\$ 6,352	\$ 2,161	\$ 3,907	\$ 27,595
Additions	171	174	562	742	1,284	2,933
Disposals	–	–	(67)	–	–	(67)
Impairment reversal and (asset impairments) (Note 8)	–	207	(44)	–	–	163
Depreciation and amortization	–	(368)	(640)	(566)	–	(1,574)
Transfers between classifications	–	(8)	104	–	(96)	–
Decommissioning and restoration provision change in estimate	–	501	24	–	–	525
Capitalized borrowing costs	–	102	–	–	231	333
Reclassification of Waneta Dam to assets held for sale and other	–	40	(394)	–	–	(354)
Changes in foreign exchange rates	(10)	(240)	(155)	(39)	(65)	(509)
Closing net book value	\$ 1,774	\$ 13,970	\$ 5,742	\$ 2,298	\$ 5,261	\$ 29,045
At December 31, 2017						
Cost	\$ 1,774	\$ 19,329	\$ 12,948	\$ 4,561	\$ 5,261	\$ 43,873
Accumulated depreciation	–	(5,359)	(7,206)	(2,263)	–	(14,828)
Net book value	\$ 1,774	\$ 13,970	\$ 5,742	\$ 2,298	\$ 5,261	\$ 29,045

16. Property, Plant and Equipment (continued)

(CAD\$ in millions)	Exploration and Evaluation	Mineral Properties	Land, Buildings, Plant and Equipment	Capitalized Production Stripping Costs	Construction In Progress	Total
Year ended December 31, 2018						
Opening net book value	\$ 1,774	\$ 13,970	\$ 5,742	\$ 2,298	\$ 5,261	\$ 29,045
Additions	144	86	710	761	1,135	2,836
Disposals	–	–	(12)	–	–	(12)
Asset impairments (Note 8)	(31)	(6)	(4)	–	–	(41)
Depreciation and amortization	–	(372)	(595)	(543)	–	(1,510)
Transfers between classifications	–	1,050	3,307	–	(4,357)	–
Decommissioning and restoration provision change in estimate	–	(250)	(29)	–	–	(279)
Capitalized borrowing costs	–	108	–	–	185	293
Other	–	(2)	56	–	–	54
Changes in foreign exchange rates	21	290	182	50	121	664
Closing net book value	\$ 1,908	\$ 14,874	\$ 9,357	\$ 2,566	\$ 2,345	\$ 31,050
At December 31, 2018						
Cost	\$ 1,908	\$ 20,613	\$ 17,452	\$ 5,435	\$ 2,345	\$ 47,753
Accumulated depreciation	–	(5,739)	(8,095)	(2,869)	–	(16,703)
Net book value	\$ 1,908	\$ 14,874	\$ 9,357	\$ 2,566	\$ 2,345	\$ 31,050

a) Exploration and Evaluation

Significant exploration and evaluation projects in property, plant and equipment include primarily Galore Creek and non-Fort Hills oil sands properties in Alberta.

b) Finance Leases

The net carrying value of property, plant and equipment held under finance leases (Note 19(c)) at December 31, 2018 is \$613 million (2017 – \$406 million), of which \$504 million (2017 – \$192 million) is included in land, buildings, plant and equipment. During the year ended December 31, 2018, our share of the pipeline leases of Fort Hills were transferred from construction in progress to land, buildings, plant and equipment. Ownership of leased assets remains with the lessor.

c) Borrowing Costs

Borrowing costs are capitalized at a rate based on our weighted average cost of borrowing or at the rate on the project-specific debt, as applicable. These projects are shown as part of mineral properties and leases, land, buildings, plant and equipment, or construction in progress. Our weighted average borrowing rate used for capitalization of borrowing costs in 2018 was 5.9% (2017 – 5.8%).

17. Goodwill

(CAD\$ in millions)	Steelmaking Coal Operations	Quebrada Blanca	Total
January 1, 2017	\$ 702	\$ 412	\$ 1,114
Changes in foreign exchange rates	–	(27)	(27)
December 31, 2017	\$ 702	\$ 385	\$ 1,087
Changes in foreign exchange rates	–	34	34
December 31, 2018	\$ 702	\$ 419	\$ 1,121

The results of our annual goodwill impairment analysis and key assumptions used in the analysis are outlined in Notes 8(b) and 8(c).

18. Trade Accounts Payable and Other Liabilities

(CAD\$ in millions)	December 31, 2018	December 31, 2017 (restated)	January 1, 2017 (restated)
Trade accounts payable and accruals	\$ 1,185	\$ 1,111	\$ 943
Capital project accruals	201	149	142
Payroll-related liabilities	361	420	252
Accrued interest	102	120	148
Commercial and government royalties	211	296	246
Customer deposits	67	19	18
Current portion of provisions (Note 22(a))	155	133	71
Settlement payables (Note 28(b))	45	39	43
Other	6	3	7
	\$ 2,333	\$ 2,290	\$ 1,870

Notes to Consolidated Financial Statements Years ended December 31, 2018 and 2017

19. Debt

(\$ in millions)	December 31, 2018			December 31, 2017		
	Face Value (US\$)	Carrying Value (CAD\$)	Fair Value (CAD\$)	Face Value (US\$)	Carrying Value (CAD\$)	Fair Value (CAD\$)
2.5% notes due February 2018	\$ –	\$ –	\$ –	\$ 22	\$ 28	\$ 28
4.5% notes due January 2021 (a)(b)	117	159	159	220	274	285
4.75% notes due January 2022 (a)(b)	202	275	275	672	841	884
3.75% notes due February 2023 (a)(b)	220	295	286	646	804	818
8.5% notes due June 2024	600	819	883	600	753	853
6.125% notes due October 2035	609	818	802	609	751	865
6.0% notes due August 2040	490	666	621	491	613	686
6.25% notes due July 2041	795	1,072	1,031	795	986	1,144
5.2% notes due March 2042	399	537	465	399	494	502
5.4% notes due February 2043	377	509	449	377	468	481
	3,809	5,150	4,971	4,831	6,012	6,546
Antamina term loan due April 2020	23	31	31	23	28	28
Finance lease liabilities (c)	248	338	338	250	313	313
Other	–	–	–	13	16	16
	4,080	5,519	5,340	5,117	6,369	6,903
Less current portion of debt	(24)	(32)	(32)	(45)	(55)	(55)
	\$ 4,056	\$ 5,487	\$ 5,308	\$ 5,072	\$ 6,314	\$ 6,848

The fair values of debt are determined using market values, if available, and discounted cash flows based on our cost of borrowing where market values are not available. The latter are considered Level 2 fair value measurements with significant other observable inputs on the fair value hierarchy (Note 29).

The 2024 notes include a prepayment option that is considered to be an embedded derivative (Note 28(c)).

a) Debt Transactions – 2018

During the year ended December 31, 2018, we purchased US\$1 billion aggregate principal amount of certain of our outstanding notes pursuant to cash tender offers. The principal amount of notes purchased was US\$103 million of 4.5% notes due 2021, US\$471 million of 4.75% notes due 2022, and US\$426 million of 3.75% notes due 2023. The total cost of the purchases, which were funded from cash on hand, including the premiums, was US\$1.01 billion. We recorded an expense of \$26 million in non-operating income (expense) (Note 11) in connection with these purchases.

b) Debt Transactions – 2017

During the year ended December 31, 2017, we purchased US\$1.26 billion aggregate principal amount of our outstanding notes pursuant to cash tender offers, make-whole redemptions and open-market purchases. The principal amount of notes purchased was US\$278 million of 3.00% notes due 2019, US\$280 million of 4.50% notes due January 2021, US\$650 million of 8.00% notes due June 2021 (June 2021 notes), US\$28 million of 4.75% notes due 2022 and US\$24 million of 3.75% notes due 2023. The total cost of the purchases, which was funded from cash on hand, including the premiums, was US\$1.36 billion. We recorded an expense of \$216 million in non-operating income (expense) (Note 11) in connection with these purchases for the year ended December 31, 2017. The accounting charge of \$216 million included \$75 million relating to the write-off of the prepayment option recorded in other assets for the June 2021 notes (Note 28(c)).

c) Finance Lease Liabilities

As at December 31, 2018, the carrying amount of assets under finance leases was \$613 million (2017 – \$406 million) (Note 16(b)) and the corresponding finance lease liabilities were \$338 million (2017 – \$313 million).

Minimum lease payments in respect of finance lease liabilities and the effect of discounting are as follows:

(CAD\$ in millions)	December 31, 2018	December 31, 2017
Undiscounted minimum finance lease payments:		
Less than one year	\$ 50	\$ 51
One to five years	147	134
Thereafter	556	554
	753	739
Effect of discounting	(415)	(426)
Present value of minimum finance lease payments – total finance lease liabilities	338	313
Less current portion	(32)	(27)
Long-term finance lease liabilities	\$ 306	\$ 286

The present value of finance lease liabilities and their expected timing of payment are as follows:

(CAD\$ in millions)	December 31, 2018	December 31, 2017
Less than one year	\$ 46	\$ 48
One to five years	114	106
Thereafter	178	159
Total	\$ 338	\$ 313

Fort Hills entered into a service agreement in 2017 with TransCanada Corp. for the operation of the Northern Courier Pipeline to transport bitumen between Fort Hills and Fort McMurray, Alberta, for a period of 25 years with an option to renew for four additional five-year periods. As at December 31, 2018, our share of the related lease liability was \$207 million (2017 – \$229 million).

d) Optional Redemptions

All of our outstanding notes, except the 2024 notes, are redeemable at any time by repaying the greater of the principal amount and the present value of the sum of the remaining scheduled principal and interest amounts discounted at a comparable treasury yield plus a stipulated spread, plus, in each case, accrued interest to, but not including, the date of redemption. In addition, the 2023, 2042 and 2043 notes issued in 2012 are callable at 100% (plus accrued interest to, but not including, the date of redemption) at any time on or after November 1, 2022, September 1, 2041, and August 1, 2042, respectively. The 2022 and 2041 notes issued in 2011 are callable at 100% at any time on or after October 15, 2021, and January 15, 2041, respectively. The January 2021 notes are callable at 100% on or after October 15, 2020, and the 2040 notes are callable at 100% on or after February 15, 2040. The 2024 notes issued in 2016 are callable on or after June 1, 2019 at predefined prices based on the date of redemption. Prior to June 1, 2019, the 2024 notes can be redeemed in whole or in part, at a redemption price equal to the principal amount plus accrued interest to, but not including, the date of redemption and a make-whole call premium.

19. Debt (continued)

e) Revolving Facilities

On November 23, 2018, we completed several amendments to our two committed revolving credit facilities. The size of our US\$3.0 billion facility was increased to US\$4.0 billion and its maturity was extended to November 2023. The size of our US\$1.2 billion facility was reduced to US\$600 million and its maturity was extended to November 2021. In addition, guarantees from material subsidiaries of our obligations under the facilities were released.

At December 31, 2018, the US\$4.0 billion facility maturing November 2023 was undrawn and the US\$600 million facility maturing November 2021 had an aggregate of US\$573 million in outstanding letters of credit drawn against it.

Any amounts drawn under the committed revolving credit facilities can be repaid at any time and are due in full at maturity. Amounts outstanding under these facilities bear interest at LIBOR plus an applicable margin based on credit ratings. Both facilities require that our net debt-to-capitalization ratio, which was 0.13 to 1.0 at December 31, 2018, not exceed 0.55 to 1.0.

When our credit ratings are below investment grade, we are required to satisfy financial security requirements under power purchase agreements at Quebrada Blanca and transportation, tank storage and pipeline capacity agreements for our interest in Fort Hills. At December 31, 2018, we had an aggregate of US\$822 million in letters of credit outstanding for these security requirements. These letters of credit will be terminated if and when we regain investment grade ratings and for the power purchase agreements will also be reduced, if, and when, certain project milestones are reached.

We maintain uncommitted bilateral credit facilities primarily for the issuance of letters of credit to support our future reclamation obligations. As at December 31, 2018, we were party to various uncommitted credit facilities providing for a total of \$2.15 billion of capacity, and the aggregate outstanding letters of credit issued thereunder were \$1.82 billion. In addition to the letters of credit outstanding under these uncommitted credit facilities, we also had stand-alone letters of credit of \$369 million outstanding at December 31, 2018, which were not issued under a credit facility. These uncommitted credit facilities and stand-alone letters of credit are typically renewed on an annual basis.

We also have \$350 million in surety bonds outstanding at December 31, 2018, to support current and future reclamation obligations.

f) Scheduled Principal Payments

At December 31, 2018, the scheduled principal payments excluding finance lease liabilities (c), during the next five years and thereafter are as follows:

(\$ in millions)	US\$	CAD\$ Equivalent
2019	\$ —	\$ —
2020	23	31
2021	117	159
2022	202	275
2023	220	300
Thereafter	3,270	4,462
	\$ 3,832	\$ 5,227

g) Debt Continuity

(\$ in millions)	US\$		CAD\$ Equivalent	
	2018	2017	2018	2017
As at January 1	\$ 5,077	\$ 6,213	\$ 6,369	\$ 8,343
Cash flows				
Scheduled debt repayments	(22)	(49)	(28)	(64)
Debt repurchases	(1,015)	(1,356)	(1,328)	(1,831)
Finance lease payments (c)	(42)	(26)	(54)	(34)
Non-cash changes				
Loss on debt repurchases (a)(b)	20	105	26	141
Changes in foreign exchange rates	(20)	–	472	(424)
Finance lease liabilities (c)	60	187	78	234
Finance fees and discount amortization	–	3	1	4
Other	(12)	–	(17)	–
As at December 31	\$ 4,046	\$ 5,077	\$ 5,519	\$ 6,369

20. Income Taxes

a) Provision for Income Taxes

(CAD\$ in millions)	2018	2017 (restated)
Current		
Current taxes on profits for the year	\$ 697	\$ 1,009
Adjustments for current taxes of prior periods	(6)	(15)
Total current taxes	\$ 691	\$ 994
Deferred		
Origination and reversal of temporary differences	\$ 686	\$ 436
Adjustments to deferred taxes of prior periods	(16)	23
Tax losses not recognized (recognition of previously unrecognized losses)	4	(9)
Effect due to tax legislative changes	–	(19)
Total deferred taxes	\$ 674	\$ 431
	\$ 1,365	\$ 1,425

Notes to Consolidated Financial Statements Years ended December 31, 2018 and 2017

20. Income Taxes (continued)

b) Reconciliation of income taxes calculated at the Canadian statutory income tax rate to the actual provision for income taxes is as follows:

(CAD\$ in millions)	2018	2017 (restated)
Tax expense at the Canadian statutory income tax rate of 27% (2017 – 26.10%)	\$ 1,217	\$ 1,021
Tax effect of:		
Resource taxes	360	368
Resource and depletion allowances	(80)	(127)
Non-temporary differences including one-half of capital gains and losses	(157)	14
Tax pools not recognized (recognition of previously unrecognized tax pools)	4	(9)
Effect due to tax legislative changes	–	(13)
Withholding taxes	47	57
Difference in tax rates in foreign jurisdictions	2	129
Revisions to prior year estimates	(21)	12
Other	(7)	(27)
	\$ 1,365	\$ 1,425

c) The amount of deferred tax expense charged (credited) to the income statement is as follows:

(CAD\$ in millions)	2018	2017 (restated)
Net operating loss carryforwards	\$ 234	\$ 127
Capital allowances in excess of depreciation	(92)	775
Decommissioning and restoration provisions	264	(393)
U.S. alternative minimum tax credits	105	(31)
Unrealized foreign exchange losses	(11)	89
Withholding taxes	25	(10)
Inventories	32	(12)
Other temporary differences	117	(114)
	\$ 674	\$ 431

d) Temporary differences giving rise to deferred income tax assets and liabilities are as follows:

(CAD\$ in millions)	December 31, 2018	December 31, 2017 (restated)	January 1, 2017 (restated)
Net operating loss carryforwards	\$ 139	\$ 58	\$ 32
Property, plant and equipment	(130)	(189)	35
Decommissioning and restoration provisions	94	78	–
U.S. alternative minimum tax credits	–	143	–
Other temporary differences	57	64	45
Deferred income tax assets	\$ 160	\$ 154	\$ 112
Net operating loss carryforwards	\$ (750)	\$ (1,065)	\$ (1,218)
Property, plant and equipment	7,422	7,390	6,881
Decommissioning and restoration provisions	(474)	(754)	(439)
U.S. alternative minimum tax credits	(38)	–	(112)
Unrealized foreign exchange	(146)	(135)	(224)
Withholding taxes	104	79	89
Inventories	97	65	77
Other temporary differences	116	(1)	32
Deferred income tax liabilities	\$ 6,331	\$ 5,579	\$ 5,086

e) The movement in the net deferred income taxes account is as follows:

(CAD\$ in millions)	2018	2017 (restated)
As at January 1	\$ 5,425	\$ 4,974
Income statement change	674	431
Tax charge relating to components of other comprehensive income	(47)	90
Foreign exchange and other differences	119	(70)
As at December 31	\$ 6,171	\$ 5,425

f) Deferred Tax Liabilities Not Recognized

Deferred tax liabilities of approximately \$745 million (2017 – \$694 million) have not been recognized on the unremitted foreign earnings associated with investments in subsidiaries and interests in joint arrangements where we are in a position to control the timing of the reversal of the temporary differences, and it is probable that such differences will not reverse in the foreseeable future.

g) Loss Carryforwards and Canadian Development Expenses

At December 31, 2018, we had \$2.91 billion of Canadian federal net operating loss carryforwards (2017 – \$3.63 billion). These loss carryforwards expire at various dates between 2029 and 2038. We have \$685 million of cumulative Canadian development expenses at December 31, 2018 (2017 – \$981 million), which are deductible for income tax purposes on a declining balance basis at a maximum rate of 30% per year. The deferred tax benefits of these pools have been recognized. In addition, we have \$106 million (2017 – \$104 million) of Canadian federal and provincial investment tax credits that expire at various dates between 2022 and 2038.

20. Income Taxes (continued)

h) Deferred Tax Assets Not Recognized

We have not recognized \$239 million (2017 – \$231 million) of deferred tax assets associated with unused tax credits and tax pools in entities and jurisdictions that do not have established sources of taxable income.

i) Scope of Antamina's Peruvian Tax Stability Agreement

Subsequent to year end, the Peruvian tax authority, La Superintendencia Nacional de Aduanas y de Administración Tributaria (SUNAT), issued an income tax assessment to Antamina (our joint operation in which we own a 22.5% share) denying its accelerated depreciation allowance on costs incurred in 2013 related to the expansion of the Antamina mine, as provided under Antamina's tax stability agreement. If the assessment is sustained, our indirect share of the current tax debt that Antamina may have to pay, including interest and penalties, is estimated to be approximately \$40 million (US\$30 million). However, since these items are mainly a matter of timing rather than the ultimate liability, the resulting charge to our earnings would be approximately \$20 million (US\$15 million) consisting of interest and penalties. If SUNAT's view on the scope of the tax stability agreement were sustained and extended to 2015 (being the last year of tax stability), our indirect share of the tax debt that Antamina may have to pay, including interest and penalties, could reach about \$125 million (US\$94 million) and the charge to our earnings could reach about \$60 million (US\$45 million). Based on opinions from Peruvian counsel, we believe that Antamina's original filing positions will ultimately prevail and Antamina will appeal the 2013 income tax assessment in due course. As a result, we have not provided for this matter in our financial statements as at December 31, 2018.

21. Retirement Benefit Plans

We have defined contribution pension plans for certain groups of employees. Our share of contributions to these plans is expensed in the year earned by employees.

We have multiple defined benefit pension plans registered in various jurisdictions that provide benefits based principally on employees' years of service and average annual remuneration. These plans are only available to certain qualifying employees, and some are now closed to additional members. The plans are "flat-benefit" or "final-pay" plans and may provide for inflationary increases in accordance with certain plan provisions. All of our registered defined benefit pension plans are governed and administered in accordance with applicable pension legislation in either Canada or the United States. Actuarial valuations are performed at least every three years to determine minimum annual contribution requirements as prescribed by applicable legislation. For the majority of our plans, current service costs are funded based on a percentage of pensionable earnings or as a flat dollar amount per active member depending on the provisions of the pension plans. Actuarial deficits are funded in accordance with minimum funding regulations in each applicable jurisdiction. All of our defined benefit pension plans were actuarially valued within the past three years. While the majority of benefit payments are made from registered held-in-trust funds, there are also several unregistered and unfunded plans where benefit payment obligations are met as they fall due.

We also have several post-retirement benefit plans that provide post-retirement medical, dental and life insurance benefits to certain qualifying employees and surviving spouses. These plans are unfunded, and we meet benefit obligations as they come due.

a) Actuarial Valuation of Plans

(CAD\$ in millions)	2018		2017	
	Defined Benefit Pension Plans	Non-Pension Post-Retirement Benefit Plans	Defined Benefit Pension Plans	Non-Pension Post-Retirement Benefit Plans
Defined benefit obligation				
Balance at beginning of year	\$ 2,224	\$ 455	\$ 2,106	\$ 538
Current service cost	50	19	48	24
Past service costs arising from plan improvements	–	–	10	–
Benefits paid	(139)	(19)	(153)	(23)
Interest expense	73	17	79	22
Obligation experience adjustments	26	(30)	27	(22)
Effect from change in financial assumptions	(127)	(35)	119	25
Effect from change in demographic assumptions	4	(20)	–	(104)
Changes in foreign exchange rates	14	5	(12)	(5)
Balance at end of year	2,125	392	2,224	455
Fair value of plan assets				
Fair value at beginning of year	2,510	–	2,342	–
Interest income	82	–	88	–
Return on plan assets, excluding amounts included in interest income	(84)	–	212	–
Benefits paid	(139)	(19)	(153)	(23)
Contributions by the employer	42	19	31	23
Changes in foreign exchange rates	12	–	(10)	–
Fair value at end of year	2,423	–	2,510	–
Funding surplus (deficit)	298	(392)	286	(455)
Less effect of the asset ceiling				
Balance at beginning of year	44	–	58	–
Interest on asset ceiling	1	–	3	–
Change in asset ceiling	89	–	(17)	–
Balance at end of year	134	–	44	–
Net accrued retirement benefit asset (liability)	\$ 164	\$ (392)	\$ 242	\$ (455)
Represented by:				
Pension assets (Note 14)	\$ 254	\$ –	\$ 339	\$ –
Accrued retirement benefit liability	(90)	(392)	(97)	(455)
Net accrued retirement benefit asset (liability)	\$ 164	\$ (392)	\$ 242	\$ (455)

A number of the plans have a surplus totalling \$134 million at December 31, 2018 (December 31, 2017 – \$44 million), which is not recognized on the basis that future economic benefits are not available to us in the form of a reduction in future contributions or a cash refund.

In 2018, we recorded a \$19 million gain (2017 – \$104 million) through other comprehensive income (loss) as a result of changes in assumptions related to a reduction in future Medical Services Plan premiums required for post-retirement benefit plan members in the province of British Columbia.

21. Retirement Benefit Plans (continued)

We expect to contribute \$22 million to our defined benefit pension plans in 2019 based on minimum funding requirements. The weighted average duration of the defined benefit pension obligation is 14 years and the weighted average duration of the non-pension post-retirement benefit obligation is 16 years.

Defined contribution expense for 2018 was \$47 million (2017 – \$44 million).

b) Significant Assumptions

The discount rate used to determine the defined benefit obligations and the net interest cost was determined by reference to the market yields on high-quality debt instruments at the measurement date with durations similar to the duration of the expected cash flows of the plans.

Weighted average assumptions used to calculate the defined benefit obligation at the end of each year are as follows:

	2018		2017	
	Defined Benefit Pension Plans	Non-Pension Post-Retirement Benefit Plans	Defined Benefit Pension Plans	Non-Pension Post-Retirement Benefit Plans
Discount rate	3.78%	3.88%	3.36%	3.44%
Rate of increase in future compensation	3.25%	3.25%	3.25%	3.25%
Medical trend rate	–	5.00%	–	5.00%

c) Sensitivity of the defined benefit obligation to changes in the weighted average assumptions:

	2018		
	Effect on Defined Benefit Obligation		
	Change in Assumption	Increase in Assumption	Decrease in Assumption
Discount rate	1.0%	Decrease by 12%	Increase by 14%
Rate of increase in future compensation	1.0%	Increase by 1%	Decrease by 1%
Medical cost claim trend rate	1.0%	Increase by 1%	Decrease by 1%

	2017		
	Effect on Defined Benefit Obligation		
	Change in Assumption	Increase in Assumption	Decrease in Assumption
Discount rate	1.0%	Decrease by 15%	Increase by 17%
Rate of increase in future compensation	1.0%	Increase by 1%	Decrease by 1%
Medical cost claim trend rate	1.0%	Increase by 2%	Decrease by 2%

The above sensitivity analyses are based on a change in each actuarial assumption while holding all other assumptions constant. The sensitivity analyses on our defined benefit obligation are calculated using the same methods as those used for calculating the defined benefit obligation recognized on our balance sheet. The methods and types of assumptions used in preparing the sensitivity analyses did not change from the prior period.

d) Mortality Assumptions

Assumptions regarding future mortality are set based on management's best estimate in accordance with published mortality tables and expected experience. These assumptions translate into the following average life expectancies for an employee retiring at age 65:

	2018		2017	
	Male	Female	Male	Female
Retiring at the end of the reporting period	85.2 years	87.7 years	85.2 years	87.6 years
Retiring 20 years after the end of the reporting period	86.3 years	88.6 years	86.3 years	88.6 years

e) Significant Risks

The defined benefit pension plans and post-retirement benefit plans expose us to a number of risks, the most significant of which include asset volatility risk, changes in bond yields, and an increase in life expectancy.

Asset volatility risk

The discount rate used to determine the defined benefit obligations is based on AA-rated corporate bond yields. If our plan assets underperform this yield, the deficit will increase. Our strategic asset allocation includes a significant proportion of equities that increases volatility in the value of our assets, particularly in the short term. We expect equities to outperform corporate bonds in the long term.

Changes in bond yields

A decrease in bond yields increases plan liabilities, which are partially offset by an increase in the value of the plans' bond holdings.

Life expectancy

The majority of the plans' obligations are to provide benefits for the life of the member. Increases in life expectancy will result in an increase in the plans' liabilities.

f) Investment of Plan Assets

The assets of our defined benefit pension plans are managed by external asset managers under the oversight of the Teck Resources Limited Executive Pension Committee.

Our pension plan investment strategies support the objectives of each defined benefit plan and are related to each plan's demographics and timing of expected benefit payments to plan members. The objective for the plan asset portfolios is to achieve annualized portfolio returns over five-year periods in excess of the annualized percentage change in the Consumer Price Index plus a certain premium.

Strategic asset allocation policies have been developed for each defined benefit plan to achieve this objective. The policies also reflect an asset/liability matching framework that seeks to reduce the effect of interest rate changes on each plan's funded status by matching the duration of the bond investments with the duration of the pension liabilities. We do not use derivatives to manage interest risk. Asset allocation is monitored at least quarterly and rebalanced if the allocation to any asset class exceeds its allowable allocation range. Portfolio and investment manager performance is monitored quarterly and the investment guidelines for each plan are reviewed at least annually.

The defined benefit pension plan assets at December 31, 2018 and 2017 are as follows:

(CAD\$ in millions)	2018			2017		
	Quoted	Unquoted	Total %	Quoted	Unquoted	Total %
Equity securities	\$ 850	\$ –	35%	\$ 1,184	\$ –	47%
Debt securities	\$ 1,225	\$ –	51%	\$ 935	\$ –	37%
Real estate and other	\$ 91	\$ 257	14%	\$ 74	\$ 317	16%

22. Provisions and Other Liabilities

(CAD\$ in millions)	December 31, 2018	December 31, 2017
Provisions (a)	\$ 1,653	\$ 1,905
Derivative liabilities (net of current portion of \$6 (2017 – \$nil))	39	43
IMSA payable	58	–
Other	42	29
	\$ 1,792	\$ 1,977

a) Provisions

The following table summarizes the movements in provisions for the year ended December 31, 2018:

(CAD\$ in millions)	Decommissioning and Restoration Provisions	Other	Total
As at January 1, 2018	\$ 1,844	\$ 194	\$ 2,038
Settled during the year	(76)	(29)	(105)
Change in discount rate	(409)	–	(409)
Change in amount and timing of cash flows	111	18	129
Accretion	101	2	103
Other	(2)	–	(2)
Changes in foreign exchange rates	45	9	54
As at December 31, 2018	1,614	194	1,808
Less current portion of provisions (Note 18)	(91)	(64)	(155)
Long-term provisions	\$ 1,523	\$ 130	\$ 1,653

During the year ended December 31, 2018, we recorded \$33 million (2017 – \$121 million) of additional study and environmental costs arising from legal obligations through other provisions.

Decommissioning and Restoration Provisions

The decommissioning and restoration provisions represent the present value of estimated costs for required future decommissioning and other site restoration activities. The majority of the decommissioning and site restoration expenditures occur at the end of, or after, the life of the related operation. Our provision for these expenditures was \$1,160 million as at December 31, 2018. After the end of the life of certain operations, water quality management costs may extend for periods in excess of 100 years. Our provision for these expenditures was \$454 million as at December 31, 2018. In 2018, the decommissioning and restoration provision was calculated using nominal discount rates between 6.49% and 7.99%. We also used an inflation rate of 2.00% in our cash flow estimates. The decommissioning and restoration provision includes \$249 million (2017 – \$270 million) in respect of closed operations.

23. Equity

a) Authorized Share Capital

Our authorized share capital consists of an unlimited number of Class A common shares without par value, an unlimited number of Class B subordinate voting shares (Class B shares) without par value and an unlimited number of preferred shares without par value issuable in series.

Class A common shares carry the right to 100 votes per share. Class B shares carry the right to one vote per share. Each Class A common share is convertible, at the option of the holder, into one Class B share. In all other respects, the Class A common shares and Class B shares rank equally.

The attributes of the Class B subordinate voting shares contain so-called "coattail provisions," which provide that, in the event that an offer (an "Exclusionary Offer") to purchase Class A common shares, which is required to be made to all or substantially all holders thereof, is not made concurrently with an offer to purchase Class B subordinate voting shares on identical terms, then each Class B subordinate voting share will be convertible into one Class A common share at the option of the holder during a certain period provided that any Class A common shares received upon such conversion are deposited to the Exclusionary Offer. Any Class B subordinate voting shares converted into Class A common shares pursuant to such conversion right will automatically convert back to Class B subordinate voting shares in the event that any such shares are withdrawn from the Exclusionary Offer or not otherwise ultimately taken up and paid for under the Exclusionary Offer.

The Class B subordinate voting shares will not be convertible in the event that holders of a majority of the Class A common shares (excluding those shares held by the offeror making the Exclusionary Offer) certify to Teck that they will not, among other things, tender their Class A common shares to the Exclusionary Offer.

If an offer to purchase Class A common shares does not, under applicable securities legislation or the requirements of any stock exchange having jurisdiction, constitute a "take-over bid" or is otherwise exempt from any requirement that such offer be made to all or substantially all holders of Class A common shares, the coattail provisions will not apply.

b) Class A Common Shares and Class B Subordinate Voting Shares Issued and Outstanding

Shares (in 000's)	Class A Common Shares	Class B Subordinate Voting Shares
As at January 1, 2017	9,353	567,546
Class A shares conversion	(1,576)	1,576
Options exercised (c)	–	2,275
Acquired and cancelled pursuant to normal course issuer bid (h)	–	(5,891)
As at December 31, 2017	7,777	565,506
Class A shares conversion	(9)	9
Options exercised (c)	–	3,710
Acquired and cancelled pursuant to normal course issuer bid (h)	–	(6,300)
As at December 31, 2018	7,768	562,925

During the year ended December 31, 2017, 1,576,166 Class A common shares were converted into the same number of Class B subordinate voting shares. As a result of this conversion, the percentage of total votes attached to outstanding Class A common shares was reduced from 62.2% to 57.7%.

c) Share Options

The maximum number of Class B shares issuable to full-time employees pursuant to options granted under our current stock option plan is 28 million. As at December 31, 2018, 3,443,007 share options remain available for grant. The exercise price for each option is the closing price for our Class B shares on the last trading day before the date of grant. Our share options are settled through the issuance of Class B shares.

Notes to Consolidated Financial Statements Years ended December 31, 2018 and 2017

23. Equity (continued)

During the year ended December 31, 2018, we granted 1,575,355 Class B share options to employees. These share options have a weighted average exercise price of \$37.44, vest in equal amounts over three years, and have a term of 10 years.

The weighted average fair value of Class B share options granted in the year was estimated at \$11.10 per option (2017 – \$8.32) at the grant date based on the Black-Scholes option-pricing model using the following assumptions:

	2018	2017
Weighted average exercise price	\$ 37.44	\$ 27.79
Dividend yield	2.67%	2.20%
Risk-free interest rate	2.06%	1.06%
Expected option life	4.2 years	4.2 years
Expected volatility	41%	42%
Forfeiture rate	0.54%	0.36%

The expected volatility is based on a statistical analysis of historical daily share prices over a period equal to the expected option life.

Outstanding share options are as follows:

	2018		2017	
	Share Options (in 000's)	Weighted Average Exercise Price	Share Options (in 000's)	Weighted Average Exercise Price
Outstanding at beginning of year	22,068	\$ 19.52	22,854	\$ 18.38
Granted	1,575	37.44	2,011	27.79
Exercised	(3,710)	14.58	(2,275)	11.47
Forfeited	(107)	32.92	(78)	16.25
Expired	(51)	37.56	(444)	40.40
Outstanding at end of year	19,775	\$ 21.75	22,068	\$ 19.52
Vested and exercisable at end of year	14,036	\$ 22.83	12,266	\$ 24.94

The average share price during the year was \$32.55 (2017 – \$27.86).

Information relating to share options outstanding at December 31, 2018, is as follows:

Outstanding Share Options (in 000's)	Exercise Price Range	Weighted Average Remaining Life of Outstanding Options (months)
6,411	\$ 4.15–\$ 12.35	78
3,634	\$ 12.36–\$ 20.14	71
2,218	\$ 20.15–\$ 26.79	59
4,386	\$ 26.80–\$ 36.85	63
3,126	\$ 36.86–\$ 58.80	68
19,775	\$ 4.15–\$ 58.80	70

Total share option compensation expense recognized for the year was \$17 million (2017 – \$17 million).

d) Deferred Share Units, Restricted Share Units, Performance Share Units and Performance Deferred Share Units

We have issued and outstanding deferred share units (DSUs), restricted share units (RSUs), performance share units (PSUs) and performance deferred share units (PDSUs) (collectively, Units).

As of 2017, DSUs are granted to directors only. RSUs are granted to both employees and directors. PSUs and PDSUs are granted to certain officers only. DSUs entitle the holder to a cash payment equal to the closing price of one Class B subordinate voting share on the Toronto Stock Exchange on the day prior to exercise. RSUs entitle the holder to a cash payment equal to the weighted average trading price of one Class B share on the Toronto Stock Exchange over either 10 or 20 consecutive trading days prior to the payout date, depending on the date issued. PSUs granted prior to 2017 vest in a percentage of the original grant varying from 0% to 200% based on our total shareholder return ranking compared to a group of specified companies. PSUs issued in 2018 and 2017 vest in a percentage from 0% to 200% based on both relative total shareholder return and a calculation based on the change in EBITDA over the vesting period divided by the change in a weighted commodity price index. Once vested, PSUs entitle the holder to a cash payment equal to the weighted average trading price of one Class B subordinate voting share on the Toronto Stock Exchange over either 10 or 20 consecutive trading days prior to vesting, depending on the date issued. Officers granted PSUs in 2018 and 2017 can elect on the grant date to receive PSUs or PDSUs, which pay out following termination of employment as described below.

RSUs, PSUs, and PDSUs vest on December 20 in the year prior to the third anniversary of the grant date. DSUs vest immediately for directors, and on the December 20 in the year prior to the third anniversary of the grant date for employees. Units vest on a *pro rata* basis if employees retire or are terminated without cause, and unvested units are forfeited if employees resign or are terminated with cause.

DSUs and PDSUs may be exercised on or before December 15 of the first calendar year commencing after the date on which the participant ceases to be a director or employee. RSUs and PSUs pay out on the vesting date.

Additional Units are issued to Unit holders to reflect dividends paid and other adjustments to Class B subordinate voting shares.

In 2018, we recognized compensation expense of \$42 million for Units (2017 – \$108 million). The total liability and intrinsic value for vested Units as at December 31, 2018 was \$103 million (2017 – \$185 million).

The outstanding Units are summarized in the following table:

(in 000's)	2018		2017	
	Outstanding	Vested	Outstanding	Vested
DSUs	2,644	2,644	2,648	2,423
RSUs	821	381	2,823	1,699
PSUs	667	312	1,517	869
PDSUs	123	61	70	20
	4,255	3,398	7,058	5,011

23. Equity (continued)

e) Accumulated Other Comprehensive Income

(CAD\$ in millions)	2018	2017 (restated)
Accumulated other comprehensive income – beginning of year	\$ 244	\$ 450
IFRS 9 transition adjustment on January 1, 2018 (Note 32(c))	(34)	–
Currency translation differences:		
Unrealized gains (losses) on translation of foreign subsidiaries	638	(536)
Foreign exchange differences on debt designated as a hedge of our investment in foreign subsidiaries (net of taxes of \$40 and \$(46))	(255)	341
	383	(195)
Marketable equity and debt securities (2017 – Available-for-sale financial assets):		
Unrealized loss on marketable equity and debt securities (2017 – available-for-sale financial assets) (net of taxes of \$1 and \$1)	(10)	(4)
Realized gain on marketable equity and debt securities (net of taxes of \$nil and \$nil)	1	–
Realized loss on available-for-sale financial assets reclassified to profit (net of taxes of \$nil and \$1)	–	(6)
	(9)	(10)
Share of other comprehensive loss of associates and joint ventures	–	(1)
Remeasurements of retirement benefit plans (net of taxes of \$(2) and \$(55))	8	129
Total other comprehensive income (loss)	382	(77)
Less remeasurements of retirement benefit plans recorded in retained earnings	(8)	(129)
Accumulated other comprehensive income – end of year	\$ 584	\$ 244

f) Earnings Per Share

The following table reconciles our basic and diluted earnings per share:

(CAD\$ in millions, except per share data)	2018	2017 (restated)
Net basic and diluted profit attributable to shareholders of the company	\$ 3,107	\$ 2,460
Weighted average shares outstanding (000's)	573,905	577,482
Dilutive effect of share options	8,233	8,910
Weighted average diluted shares outstanding (000's)	582,138	586,392
Basic earnings per share	\$ 5.41	\$ 4.26
Diluted earnings per share	\$ 5.34	\$ 4.19

At December 31, 2018, 5,458,816 (2017 – 4,240,949) potentially dilutive shares were not included in the diluted earnings per share calculation because their effect was anti-dilutive.

g) Dividends

We declared and paid dividends on our Class A common and Class B subordinate voting shares of \$0.05 per share in each of the first three quarters of 2018, \$0.15 per share in the fourth quarter of 2018 and \$0.10, \$0.05 and \$0.45 per share in the second, third and fourth quarters of 2017, respectively.

h) Normal Course Issuer Bid

On occasion, we purchase and cancel Class B subordinate voting shares pursuant to normal course issuer bids that allow us to purchase up to a specified maximum number of shares over a one-year period.

In 2018, we purchased 6,539,558 Class B subordinate voting shares under our normal course issuer bids. As at December 31, 2018, of the shares repurchased, 6,299,558 shares have been cancelled and 240,000 shares are pending cancellation.

24. Non-Controlling Interests

Set out below is information about our subsidiaries with non-controlling interests and the non-controlling interest balances included in equity.

(CAD\$ in millions)	Principal Place of Business	Percentage of Ownership Interest and Voting Rights Held by Non- Controlling Interest	December 31, 2018	December 31, 2017
Carmen de Andacollo	Region IV, Chile	10%	\$ 32	\$ 34
Quebrada Blanca (a)	Region I, Chile	10%	10	30
Elkview Mine Limited Partnership	British Columbia, Canada	5%	59	53
Compañía Minera Zafranal S.A.C.	Arequipa Region, Peru	20%	33	25
			\$ 134	\$ 142

a) During the year ended December 31, 2018, we acquired an additional 13.5% interest in QBSA (Note 5(a)).

The total fair value of the transaction of \$175 million was recorded as a reduction of our non-controlling interests by \$16 million and equity by \$159 million.

25. Contingencies

We consider provisions for all of our outstanding and pending legal claims to be adequate. The final outcome with respect to actions outstanding or pending as at December 31, 2018, or with respect to future claims, cannot be predicted with certainty. Significant contingencies not disclosed elsewhere in the notes to our financial statements are as follows:

Upper Columbia River Basin

Teck American Inc. (TAI) continues studies under the 2006 settlement agreement with the U.S. Environmental Protection Agency (EPA) to conduct a remedial investigation on the Upper Columbia River in Washington state. Residential soil testing within the study site has identified certain properties where remediation is required. TAI and EPA have reached an agreement regarding remediation to be undertaken, and that work is ongoing.

The Lake Roosevelt litigation involving TML in the Federal District Court for the Eastern District of Washington continues. In September 2012, TML entered into an agreement with the plaintiffs, agreeing that certain facts were established for purposes of the litigation. The agreement stipulated that some portion of the slag discharged from TML's Trail Operations into the Columbia River between 1896 and 1995, and some portion of the effluent discharged from Trail Operations, have been transported to and are present in the Upper Columbia River in the United States, and that some hazardous substances from the slag and effluent have been released into the environment within the United States. In December 2012, the Court found in favour of the plaintiffs in phase one of the case, issuing a declaratory judgment that TML is liable under the *Comprehensive Environmental Response, Compensation, and Liability Act* (CERCLA) for response costs, the amount of which will be determined in later phases of the case. In August 2016 the District Court ruled in favour of the Tribal plaintiffs awarding approximately US\$9 million in past response costs and TML appealed that decision, along with certain other findings in the first phase of the case, in the Ninth Circuit Court of Appeals, which upheld the trial court ruling in September 2018. TML applied for rehearing of the Ninth Circuit ruling, which was denied, and is seeking leave to appeal certain findings in phase one of the case to the United States Supreme Court.

A District Court ruling in favour of plaintiffs on a motion seeking recovery from TML for environmental response costs, and in a subsequent proceeding, natural resource damages and assessment costs, arising from the alleged deposition of hazardous substances in the United States from aerial emissions from TML's Trail Operations was overturned on appeal in the Ninth Circuit in July 2016, with the result that alleged damages associated with air emissions are no longer part of the case.

A hearing with respect to natural resource damages and assessment costs is expected to follow resolution of appeals with respect to issues raised in the first phase of the litigation and completion of the remedial investigation and Feasibility Study being undertaken by TAI.

There is no assurance that we will ultimately be successful in our defence of the litigation or that we or our affiliates will not be faced with further liability in relation to this matter. Until the studies contemplated by the EPA settlement agreement and additional damage assessments are completed, it is not possible to estimate the extent and cost, if any, of any additional remediation or restoration that may be required or to assess our potential liability for damages. The studies may conclude, on the basis of risk, cost, technical feasibility or other grounds, that no remediation other than some residential soil removal should be undertaken. If other remediation is required and damage to resources found, the cost of that remediation may be material.

Elk Valley Water Quality

During the year ended December 31, 2018, Teck Coal Limited (TCL) received notice from Canadian federal prosecutors of potential charges under the *Fisheries Act* in connection with discharges of selenium and calcite from coal mines in the Elk Valley. Since 2014, compliance limits and site performance objectives for selenium and other constituents, as well as requirements to address calcite, in surface water throughout the Elk Valley and in the Koocanusa Reservoir have been established under a regional permit issued by the provincial government in British Columbia. This permit references the Elk Valley Water Quality Plan, an area-based management plan developed by Teck in accordance with a 2013 Order of the British Columbia Minister of Environment. If federal charges are laid, potential penalties may include fines as well as orders with respect to operational matters. It is not possible at this time to fully assess the viability of TCL's potential defences to any charges, or to estimate the potential financial impact on TCL of any conviction. Nonetheless, that impact may be material.

26. Commitments

a) Capital Commitments

As at December 31, 2018, we had contracted for \$724 million of capital expenditures that have not yet been incurred for the purchase of property, plant and equipment. This amount includes \$562 million for QB2, \$113 million for our steelmaking coal operations and \$49 million for our 22.5% share of Antamina. The amount includes \$638 million that is expected to be incurred within one year and \$86 million within two to five years.

b) Operating Lease Commitments

We lease office premises, mining equipment and rail facilities under operating leases. The terms of these leases are up to 17 years.

TAK leases road and port facilities from the Alaska Industrial Development and Export Authority, through which it ships all concentrates produced at the Red Dog Operations. The lease requires TAK to pay a minimum annual user fee of US\$18 million for the next four years and US\$6 million for the following 18 years, totalling US\$173 million over 22 years.

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

(CAD\$ in millions)	2018	2017
Less than one year	\$ 113	\$ 93
One to five years	162	179
Thereafter	164	327
	\$ 439	\$ 599

Total operating lease expenses were \$118 million (2017 – \$113 million). This consists of \$13 million (2017 – \$13 million) for office premises, \$66 million (2017 – \$60 million) for mining equipment, \$6 million (2017 – \$12 million) for rail facilities and \$33 million (2017 – \$28 million) for road and port facilities.

c) Red Dog Royalty

In accordance with the operating agreement governing the Red Dog mine, TAK pays a royalty to NANA Regional Corporation, Inc. (NANA) on the net proceeds of production. A 25% royalty became payable in the third quarter of 2007 after we had recovered cumulative advance royalties previously paid to NANA. The net proceeds of production royalty rate will increase by 5% every fifth year to a maximum of 50%. The increase to 35% of net proceeds of production occurred in the fourth quarter of 2017. An expense of US\$252 million was recorded in 2018 (2017 – US\$324 million) in respect of this royalty.

d) Antamina Royalty

Our interest in the Antamina mine is subject to a net profits royalty equivalent to 7.4% of our share of the mine's free cash flow. An expense of \$25 million was recorded in 2018 (2017 – \$28 million) in respect of this royalty.

e) Purchase Commitments

We have a number of forward purchase commitments for the purchase of concentrates and other process inputs, and for shipping and distribution of products, which are incurred in the normal course of business. The majority of these contracts are subject to *force majeure* provisions.

We have contractual arrangements for the purchase of 240 megawatts of power for the expansion of our Quebrada Blanca Operations. These contracts contain monthly fixed prices and variable prices per hour and were effective from dates between November 2016 and January 2018. We also have a contractual arrangement to purchase power for our Trail Operations for 20 years, with an option to extend for a further 10 years. This arrangement requires a payment of \$75 million per year, escalating at 2% per year (Note 5(b)).

Notes to Consolidated Financial Statements Years ended December 31, 2018 and 2017

27. Segmented Information

Based on the primary products we produce and our development projects, we have five reportable segments — steelmaking coal, copper, zinc, energy and corporate — which is the way we report information to our Chief Executive Officer. The corporate segment includes all of our initiatives in other commodities, our corporate growth activities, and groups that provide administrative, technical, financial and other support to all of our business units. Other operating expenses include general and administration costs, exploration, research and development, and other operating income (expenses). Sales between segments are carried out on terms that arm's-length parties would use. Total assets does not include intra-group receivables between segments. Deferred tax assets have been allocated amongst segments.

(CAD\$ in millions)	December 31, 2018					
	Steelmaking Coal	Copper	Zinc	Energy	Corporate	Total
Segment revenues	\$ 6,349	\$ 2,714	\$ 3,744	\$ 407	\$ –	\$ 13,214
Less: Intra-segment revenues	–	–	(650)	–	–	(650)
Revenues	6,349	2,714	3,094	407	–	12,564
Cost of sales	(3,309)	(1,837)	(2,225)	(572)	–	(7,943)
Gross profit (loss)	3,040	877	869	(165)	–	4,621
Asset impairments	–	(10)	(31)	–	–	(41)
Other operating income (expenses)	(79)	(247)	826	1	(297)	204
Profit (loss) from operations	2,961	620	1,664	(164)	(297)	4,784
Net finance expense	(47)	(47)	(37)	(16)	(72)	(219)
Non-operating income (expense)	37	4	11	–	(104)	(52)
Share of loss of associates and joint ventures	–	(2)	–	–	(1)	(3)
Profit (loss) before taxes	2,951	575	1,638	(180)	(474)	4,510
Capital expenditures	969	850	409	375	10	2,613
Goodwill	702	419	–	–	–	1,121
Total assets	15,491	10,219	3,692	6,131	4,093	39,626

(CAD\$ in millions)							December 31, 2017 (restated)						
	Steelmaking												
	Coal	Copper	Zinc	Energy	Corporate	Total							
Segment revenues	\$ 6,014	\$ 2,400	\$ 4,131	\$ –	\$ –	\$ 12,545							
Less: Intra-segment revenues	–	–	(635)	–	–	(635)							
Revenues	6,014	2,400	3,496	–	–	11,910							
Cost of sales	(3,000)	(1,814)	(2,529)	–	–	(7,343)							
Gross profit	3,014	586	967	–	–	4,567							
Impairment reversal and (asset impairments)	207	(44)	–	–	–	163							
Other operating income (expenses)	(99)	63	(28)	(3)	(392)	(459)							
Profit (loss) from operations	3,122	605	939	(3)	(392)	4,271							
Net finance expense	(5)	(45)	(31)	(7)	(124)	(212)							
Non-operating income (expense)	(29)	5	(9)	–	(118)	(151)							
Share of income of associates and joint ventures	–	3	–	–	3	6							
Profit (loss) before taxes	3,088	568	899	(10)	(631)	3,914							
Capital expenditures	673	467	244	911	4	2,299							
Goodwill	702	385	–	–	–	1,087							
Total assets	15,241	9,533	3,720	5,667	2,867	37,028							

The geographical distribution of our non-current assets is as follows:

(CAD\$ in millions)	December 31, 2018	December 31, 2017
Canada	\$ 23,238	\$ 22,466
Chile	7,146	6,077
Peru	1,477	1,305
United States	1,282	1,131
Other	99	96
	\$ 33,242	\$ 31,075

Non-current assets attributed to geographical locations exclude deferred income tax assets and financial and other assets.

28. Financial Instruments and Financial Risk Management

a) Financial Risk Management

Our activities expose us to a variety of financial risks, which include liquidity risk, foreign exchange risk, interest rate risk, commodity price risk, credit risk and other risks associated with capital markets. From time to time, we may use foreign exchange, commodity price and interest rate contracts to manage exposure to fluctuations in these variables. We do not have a practice of trading derivatives. Our use of derivatives is based on established practices and parameters to mitigate risk and is subject to the oversight of our Hedging Committee and our Board of Directors.

Foreign Exchange Risk

We operate on an international basis, and therefore, foreign exchange risk exposures arise from transactions denominated in a currency other than the functional currency of the entity. Our foreign exchange risk arises primarily with respect to the U.S. dollar and to a lesser extent, the Chilean peso and Peruvian sol. Our cash flows from Canadian, Chilean and Peruvian operations are exposed to foreign exchange risk, as commodity sales are denominated in U.S. dollars and a substantial portion of operating expenses are denominated in local currencies.

We also have various investments in U.S. dollar foreign operations, whose net assets are exposed to foreign currency translation risk. This currency exposure is managed in part through our U.S. dollar denominated debt as a hedge against net investments in foreign operations.

U.S. dollar financial instruments subject to foreign exchange risk consist of U.S. dollar denominated items held in Canada and are summarized below. This risk is reduced by our policy to apply a hedge against our U.S. dollar net investments using our U.S. dollar debt.

(US\$ in millions)	December 31, 2018	December 31, 2017
Cash and cash equivalents	\$ 907	\$ 368
Trade and settlement receivables	640	913
Trade accounts payable and other liabilities	(421)	(569)
Debt	(3,809)	(4,831)
	(2,683)	(4,119)
Net investment in foreign operations hedged	2,628	4,149
Net U.S. dollar exposure	\$ (55)	\$ 30

As at December 31, 2018, with other variables unchanged, a \$0.10 strengthening of the Canadian dollar against the U.S. dollar would result in a \$8 million pre-tax loss (2017 – \$3 million) from our financial instruments. There would also be a \$408 million pre-tax loss (2017 – \$157 million) in other comprehensive income from the translation of our foreign operations. The inverse effect would result if the Canadian dollar weakened by \$0.10 against the U.S. dollar.

Liquidity Risk

Liquidity risk arises from our general and capital funding requirements. We have planning, budgeting and forecasting processes to help determine our funding requirements to meet various contractual and other obligations. Note 19(e) details our available credit facilities as at December 31, 2018.

Contractual undiscounted cash flow requirements for financial liabilities as at December 31, 2018 are as follows:

(CAD\$ in millions)	Less Than 1 Year	2–3 Years	4–5 Years	More Than 5 Years	Total
Trade accounts payable and other liabilities (Note 18)	\$ 2,333	\$ –	\$ –	\$ –	\$ 2,333
Debt (Note 19(f))	–	190	575	4,462	5,227
Estimated interest payments on debt	\$ 317	\$ 625	\$ 582	\$ 3,528	\$ 5,052

Interest Rate Risk

Our interest rate risk is both fair value and cash flow risk and arises mainly in respect of our holdings of cash and cash equivalents. Our interest rate management policy is generally to borrow at fixed rates. However, floating rate funding may be used to fund short-term operating cash flow requirements or, in conjunction with fixed to floating interest rate swaps, be used to offset interest rate risk from our cash. The fair value of fixed-rate debt fluctuates with changes in market interest rates, but the cash flows, denominated in U.S. dollars, do not.

Cash and cash equivalents have short terms to maturity and receive interest based on market interest rates.

A 1% increase in the short-term interest rate at the beginning of the year, with other variables unchanged, would have resulted in a \$15 million pre-tax increase in our profit (2017 – \$10 million). There would be no effect on other comprehensive income. The inverse effect would result if the short-term interest rate decreased by 1%.

Commodity Price Risk

We are subject to price risk from fluctuations in market prices of the commodities that we produce. From time to time, we may use commodity price contracts to manage our exposure to fluctuations in commodity prices. At the balance sheet date, we had zinc and lead derivative contracts outstanding as described in (b) below.

Our commodity price risk associated with financial instruments primarily relates to changes in fair value caused by final settlement pricing adjustments to receivables and payables, derivative contracts for zinc and lead, embedded derivatives in one of our road and port contracts, and in the ongoing payments under our silver stream and gold stream arrangements.

The following represents the effect on profit attributable to shareholders from a 10% change in commodity prices, based on outstanding receivables and payables subject to final pricing adjustments at December 31, 2018. There is no effect on other comprehensive income.

(CAD\$ in millions, except for US\$/lb. data)	Price on December 31,		Change in Profit Attributable to Shareholders	
	2018	2017	2018	2017
Copper	US\$2.70/lb.	US\$3.26/lb.	\$ 21	\$ 35
Zinc	US\$1.12/lb.	US\$1.50/lb.	\$ 7	\$ 5

28. Financial Instruments and Financial Risk Management (continued)

A 10% change in the price of zinc, lead, silver and gold, respectively, with other variables unchanged, would change our net liability relating to derivatives and embedded derivatives, excluding receivables and payables subject to final pricing adjustments, and change our pre-tax profit attributable to shareholders by \$16 million (2017 – \$26 million). There would be no effect on other comprehensive income.

Credit Risk

Credit risk arises from cash, cash equivalents, derivative contracts, debt securities and trade receivables. While we are exposed to credit losses due to the non-performance of our counterparties, there are no significant concentrations of credit risk and we do not consider this to be a material risk.

Our primary counterparties related to our cash, cash equivalents, derivative contracts and debt securities carry investment grade ratings as assessed by external rating agencies, which are monitored on an ongoing basis. All of our commercial customers are assessed for credit quality at least once a year or more frequently if business or customer specific conditions change based on an extensive credit rating scorecard developed internally using key credit metrics and measurements that were adapted from S&P's and Moody's rating methodologies. Sales to customers that do not meet the credit quality criteria are secured either by a parental guarantee, letter of credit or prepayment.

For our trade receivables, we apply the simplified approach for determining expected credit losses, which requires us to determine the lifetime expected losses for all our trade receivables. The expected lifetime credit loss provision for our trade receivables is based on historical counterparty default rates and adjusted for relevant forward-looking information, as required. Since the majority of our customers are considered to have low default risk and our historical default rate and frequency of loss are low, the lifetime expected credit loss allowance for trade receivables is nominal as at December 31, 2018 and January 1, 2018.

Our investments in debt securities carried at fair value through other comprehensive income are considered to have low credit risk as our counterparties have investment grade credit ratings. The credit risk of our investments in debt securities has not increased significantly since initial recognition of these investments and accordingly, the loss allowance for investments in debt securities is determined based on the 12-month expected credit losses. The 12-month expected credit loss allowance is based on historical and forward-looking default rates for investment grade entities, which are low and accordingly, the 12-month expected credit loss allowance for our investments in debt securities is nominal as at December 31, 2018 and January 1, 2018.

b) Derivative Financial Instruments and Hedges

Sale and Purchase Contracts

We record adjustments to our settlement receivables and payables for provisionally priced sales and purchases, respectively, in periods up to the date of final pricing based on movements in quoted market prices or published price assessments (for steelmaking coal). These arrangements are based on the market price of the commodity and the value of our settlement receivables and payables will vary as prices for the underlying commodities vary in the metal markets. These final pricing adjustments result in gains (losses from purchases) in a rising price environment and losses (gains from purchases) in a declining price environment and are recorded in other operating income (expense).

The table below outlines our outstanding settlement receivables and payables, which were provisionally valued at December 31, 2018, and December 31, 2017.

(Pounds in millions)	Outstanding at December 31, 2018		Outstanding at December 31, 2017	
	Pounds	US\$/lb.	Pounds	US\$/lb.
Receivable positions				
Copper	93	\$ 2.70	138	\$ 3.26
Zinc	208	\$ 1.12	197	\$ 1.50
Lead	24	\$ 0.91	44	\$ 1.13
Payable positions				
Zinc payable	77	\$ 1.12	97	\$ 1.50
Lead payable	16	\$ 0.91	30	\$ 1.13

At December 31, 2018, total outstanding settlement receivables were \$557 million (2017 – \$687 million), and total outstanding settlement payables were \$45 million (2017 – \$39 million). These amounts are included in trade and settlement receivables and trade accounts payable and other liabilities, respectively, on the consolidated balance sheet.

Zinc and Lead Swaps

Due to ice conditions, the port serving our Red Dog mine is normally only able to ship concentrates from July to October each year. As a result, zinc and lead concentrate sales volumes are generally higher in the third and fourth quarter of each year than in the first and second quarter. During 2018 and 2017, we purchased and sold zinc and lead swaps to match our economic exposure to the average zinc and lead prices over our shipping year, which is from July of one year to June of the following year. We do not apply hedge accounting to the zinc or lead swaps.

The fair value of our commodity swaps is calculated using a discounted cash flow method based on forward metal prices. A summary of these derivative contracts and related fair values as at December 31, 2018 is as follows:

Derivatives not designated as hedging instruments	Quantity	Average Price of Purchase Commitments	Average Price of Sale Commitments	Fair Value Asset (Liability) (CAD\$ in millions)
Zinc swaps	122 million lbs.	US\$1.14/lb.	US\$1.11/lb.	\$ (6)
Lead swaps	70 million lbs.	US\$0.90/lb.	US\$0.92/lb.	2
				\$ (4)

All free-standing derivative contracts mature in 2019 and 2020.

Free-standing derivatives, not designated as hedging instruments, are recorded in prepaid and other current assets in the amount of \$2 million and in trade accounts payable and other liabilities in the amount of \$6 million on the consolidated balance sheet.

28. Financial Instruments and Financial Risk Management (continued)

Derivatives Not Designated as Hedging Instruments and Embedded Derivatives

(CAD\$ in millions)	Amount of Gain (Loss) Recognized in Other Operating Income (Expense) (Note 9)	
	2018	2017
Zinc derivatives	\$ (40)	\$ 11
Lead derivatives	(4)	10
Settlements receivable and payable	(117)	190
Contingent zinc escalation payment embedded derivative (c)	13	(24)
Gold stream embedded derivative (c)	(1)	13
Silver stream embedded derivative (c)	(4)	2
	\$ (153)	\$ 202

During the year ended December 31, 2018, we recorded a \$42 million loss (2017 – \$51 million gain) in non-operating income (expense) (Note 11) related to a decrease in the value of debt prepayment options (Note 28(c)).

Accounting Hedges

Net investment hedge

We manage the foreign currency translation risk of our various investments in U.S. dollar foreign operations in part through the designation of our U.S. dollar denominated debt as a hedge against net investments in foreign operations (Note 28(a)). We designate the spot element of the U.S. dollar debt as the hedging instrument. As only the spot rate element of the debt is designated in the hedging relationship, no ineffectiveness is expected and no ineffectiveness was recognized in profit for the years ended December 31, 2018 and 2017. The hedged foreign currency risk component is the change in the carrying amount of the net assets of the foreign operation arising from spot U.S. dollar to Canadian dollar exchange rate movements. At December 31, 2018, US\$2.6 billion of our debt (2017 – US\$4.1 billion) and U.S. dollar investment in foreign operations was designated in a net investment hedging relationship. During the year ended December 31, 2018, \$295 million (2017 – \$387 million) of foreign exchange translation on our U.S. dollar investment in foreign operations was hedged by an offsetting amount of foreign exchange translation on our U.S. dollar denominated debt. Refer to Note 23(e) for the effect of our net investment hedges on other comprehensive income (loss).

c) Embedded Derivatives

One of our road and port contracts contains a contingent zinc escalation payment that is considered to be an embedded derivative. The fair value of this embedded derivative was \$34 million at December 31, 2018 (2017 – \$43 million) and is included in provisions and other liabilities on the consolidated balance sheet.

The gold stream and silver stream agreements entered into in 2015 each contain an embedded derivative in the ongoing future payments due to Teck. The gold stream's 15% ongoing payment contains an embedded derivative relating to the gold price. The fair value of this embedded derivative was \$11 million at December 31, 2018 (2017 – \$9 million) and is included in financial and other assets on the consolidated balance sheet. The silver stream's 5% ongoing payment contains an embedded derivative relating to the silver price. The fair value of this embedded derivative was \$1 million at December 31, 2018 (2017 – \$3 million) and is included in provisions and other liabilities (2017 – financial and other assets) on the consolidated balance sheet.

Our 2024 notes include a prepayment option that is considered to be an embedded derivative (Note 19). At December 31, 2018, the prepayment option in the 2024 notes is recorded as financial and other assets (Note 14) on the consolidated balance sheet at a fair value of \$73 million (2017 – \$108 million) based on current market interest rates for similar instruments and our credit spread.

29. Fair Value Measurements

Certain of our financial assets and liabilities are measured at fair value on a recurring basis and classified in their entirety based on the lowest level of input that is significant to the fair value measurement. Certain non-financial assets and liabilities may also be measured at fair value on a non-recurring basis. There are three levels of the fair value hierarchy that prioritize the inputs to valuation techniques used to measure fair value, with Level 1 inputs having the highest priority. The levels and the valuation techniques used to value our financial assets and liabilities are described below:

Level 1 – Quoted Prices in Active Markets for Identical Assets

Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Certain cash equivalents, certain marketable equity securities and certain debt securities are valued using quoted market prices in active markets. Accordingly, these items are included in Level 1 of the fair value hierarchy.

Level 2 – Significant Observable Inputs Other than Quoted Prices

Quoted prices in markets that are not active, quoted prices for similar assets or liabilities in active markets, or inputs that are observable, either directly or indirectly, for substantially the full term of the asset or liability.

Derivative instruments and embedded derivatives are included in Level 2 of the fair value hierarchy as they are valued using pricing models or discounted cash flow models. These models require a variety of inputs, including, but not limited to, market prices, forward price curves, yield curves and credit spreads. These inputs are obtained from or corroborated with the market. Also included in Level 2 are settlement receivables and settlement payables from provisional pricing on concentrate sales and purchases, certain refined metal sales and steelmaking coal sales because they are valued using quoted market prices derived based on forward curves for the respective commodities and published price assessments for steelmaking coal sales.

Level 3 – Significant Unobservable Inputs

Unobservable (supported by little or no market activity) prices.

We include investments in certain debt securities and certain equity securities in non-public companies in Level 3 of the fair value hierarchy because they trade infrequently and have little price transparency. We review the fair value of these instruments periodically and estimate an impairment charge based on management's best estimates, which are unobservable inputs.

29. Fair Value Measurements (continued)

The fair values of our financial assets and liabilities measured at fair value on a recurring basis at December 31, 2018 and 2017, are summarized in the following table:

(CAD\$ in millions)	2018				2017			
	Level 1	Level 2	Level 3	Total	Level 1	Level 2	Level 3	Total
Financial assets								
Cash equivalents	\$ 68	\$ –	\$ –	\$ 68	\$ 722	\$ –	\$ –	\$ 722
Marketable equity securities	44	–	36	80	124	–	–	124
Debt securities	90	–	3	93	37	–	4	41
Settlement receivables	–	557	–	557	–	687	–	687
Derivative instruments and embedded derivatives	–	86	–	86	–	126	–	126
	\$ 202	\$ 643	\$ 39	\$ 884	\$ 883	\$ 813	\$ 4	\$ 1,700
Financial liabilities								
Derivative instruments and embedded derivatives	\$ –	\$ 45	\$ –	\$ 45	\$ –	\$ 43	\$ –	\$ 43
Settlement payables	–	45	–	45	–	39	–	39
	\$ –	\$ 90	\$ –	\$ 90	\$ –	\$ 82	\$ –	\$ 82

As at December 31, 2017, we measured certain non-financial assets at their recoverable amounts using a FVLCD basis, which is classified as a Level 3 measurement. Refer to Note 8 for information about these fair value measurements.

30. Capital Management

The capital we manage is the total of equity and debt on our balance sheet. Our capital management objectives are to maintain access to the capital we require to operate and grow our business while minimizing the cost of such capital and providing for returns to our investors. Our financial policies are to maintain, on average over time, a target debt to debt-plus-equity ratio of less than 30% and a target debt-to-EBITDA ratio of less than 2.5x. These ratios are expected to vary from their target levels from time to time, reflecting commodity price cycles and corporate activity, including the development of major projects. We may also review and amend such policy targets from time to time. We maintain two committed revolving credit facilities consisting of a core liquidity facility of US\$4.0 billion and a US\$600 million facility, which is used for financial letters of credit required while our credit rating is non-investment grade. These credit facilities include a financial covenant that requires us to maintain a net debt-to-capitalization ratio that does not exceed 0.55 (Note 19).

As at December 31, 2018, our debt to debt-plus-equity ratio was 19% (2017 – 24%), our debt-to-EBITDA ratio was 0.9 (2017 – 1.1) and our net debt-to-capitalization ratio was 0.13 (2017 – 0.21). We manage the risk of not meeting our financial targets through the issuance and repayment of debt, our distribution policy, the issuance of equity capital, asset sales as well as through the ongoing management of operations, investments and capital expenditures.

31. Key Management Compensation

The compensation for key management recognized in total comprehensive income in respect of employee services is summarized in the table below. Key management includes our directors and senior vice presidents.

(CAD\$ in millions)	2018	2017
Salaries, bonuses, director fees and other short-term benefits	\$ 16	\$ 16
Post-employment benefits	1	5
Share option compensation expense (Note 23(c))	6	7
Compensation expense related to Units (Note 23(d))	7	52
	\$ 30	\$ 80

32. Adoption of New IFRS Pronouncements

We have adopted the new IFRS pronouncements listed below as at January 1, 2018, in accordance with the transitional provisions outlined in the respective standards and described below. The adoption of these new IFRS pronouncements has resulted in adjustments to previously reported figures as outlined below.

a) Adjustments to Consolidated Financial Statements

All of the adjustments to previously reported figures outlined below relate to the adoption of IFRS 15 (Note 32(b)).

Adjustments to Condensed Consolidated Balance Sheets

(CAD\$ in millions)	December 31, 2017	January 1, 2017
Equity before accounting changes	\$ 19,525	\$ 17,601
Adjustments to equity relating to:		
Trade and settlement receivables	(61)	–
Inventories	32	–
Current portion of deferred consideration	23	32
Current income taxes payable	5	–
Deferred consideration	651	723
Deferred income tax liabilities	(182)	(190)
Equity after accounting changes	\$ 19,993	\$ 18,166
Equity after accounting changes attributable to:		
Shareholders of the company	\$ 19,851	\$ 18,007
Non-controlling interests	142	159
	\$ 19,993	\$ 18,166

32. Adoption of New IFRS Pronouncements (continued)

Adjustments to Condensed Consolidated Statements of Income

(CAD\$ in millions)	Year ended December 31, 2017
Profit for the year before accounting changes	\$ 2,538
Adjustments to profit relating to:	
Revenues	(138)
Cost of sales	76
Provision for income taxes	13
Profit for the year after accounting changes	\$ 2,489
Profit for the year after accounting changes attributable to:	
Shareholders of the company	\$ 2,460
Non-controlling interests	29
	\$ 2,489
Earnings per share after accounting changes	
Basic	\$ 4.26
Diluted	\$ 4.19

The adjustments to profit relating to the new IFRS pronouncements in Note 32(b) decreased basic earnings per share by \$0.08 and diluted earnings per share by \$0.09 for the year ended December 31, 2017.

Adjustments to Condensed Consolidated Statements of Comprehensive Income

(CAD\$ in millions)	Year ended December 31, 2017
Total comprehensive income before accounting changes	\$ 2,501
Adjustments to comprehensive income relating to:	
Profit	(49)
Other comprehensive income:	
Currency translation differences	(48)
Total comprehensive income after accounting changes	\$ 2,404
Total comprehensive income after accounting changes attributable to:	
Shareholders of the company	\$ 2,383
Non-controlling interests	21
	\$ 2,404

b) Revenue from Contracts with Customers

Overview of Changes in IFRS

We adopted IFRS 15 on January 1, 2018 in accordance with the transitional provisions of the standard, applying a full retrospective approach in restating our prior period financial information.

The new revenue standard introduces a single principles-based, five-step model for the recognition of revenue when control of goods is transferred to, or a service is performed for, the customer. The five steps are to identify the contract(s) with the customer, identify the performance obligations in the contract, determine the transaction price, allocate the transaction price to each performance obligation and recognize revenue as each performance obligation is satisfied. IFRS 15 also requires enhanced disclosures about revenue to help users better understand the nature, amount, timing and uncertainty of revenue and cash flows from contracts with customers.

Timing and Amount of Revenue Recognized

Based on our analysis, the timing and amount of our revenue from product sales did not change significantly under IFRS 15. For steelmaking coal sales where we have a shipment that is partially loaded on a vessel at a reporting date, we concluded that the performance obligation in these contracts is for the full shipment. Therefore, we cannot recognize revenue until the full shipment is loaded. This does not significantly affect the revenue recognized in a period. This is a timing difference only and does not change the amount of revenue recognized for the full shipment.

As part of our assessment of IFRS 15, we analyzed the treatment of freight services provided to customers subsequent to the transfer of control of the product sold. Under IFRS 15, in our view, these services represent performance obligations that should be recognized separately. For the performance obligation related to these freight services, we have concluded that we are the principal to the shipping of product in our refined metal sales and concentrate sales contracts and will continue to reflect the revenue in these arrangements on a gross basis. For certain of our steelmaking coal sales contracts, we have concluded that we are the agent to the ocean freight shipping of product due to the terms of the arrangement, and our revenue will be reported on a net basis for these arrangements. There will be no effect on our gross profit, as the freight costs will be netted against revenue for these arrangements and not presented within cost of sales.

We have assessed the effects of IFRS 15 on our silver and gold streaming arrangements. At the date these transactions were completed, we accounted for the arrangements as the sale of a portion of our mineral interests at Antamina and Carmen de Andacollo, respectively. We did not recognize disposal gains on the transactions as a result of the requirements of the IFRS standards in effect at the dates of closing. Under the recognition and measurement principles of IFRS 15, any gain on these streaming transactions would have been recognized in full as control over the right to the silver or gold mineral interest transferred to the purchaser. Accordingly, we have recognized the deferred consideration recorded on our balance sheet through equity on transition to IFRS 15 as at January 1, 2017. We have also reversed the amortization of the deferred consideration that was recorded as a reduction of cost of sales for the year ended December 31, 2017.

The tables in Note 32(a) outline the adjustments to our financial statements resulting from the adoption of IFRS 15, described above, for all comparative periods presented.

32. Adoption of New IFRS Pronouncements (continued)

c) Financial Instruments

Overview of Changes in IFRS

We adopted IFRS 9 on January 1, 2018 in accordance with the transitional provisions of the standard, with the exception of the hedging provisions. Effective October 1, 2018, we adopted the hedging requirements section of IFRS 9.

IFRS 9 addresses the classification, measurement and recognition of financial assets and financial liabilities and supersedes the guidance relating to the classification and measurement of financial instruments in IAS 39.

IFRS 9 requires financial assets to be classified into three measurement categories on initial recognition: those measured at fair value through profit and loss, those measured at fair value through other comprehensive income and those measured at amortized cost. Investments in equity instruments are required to be measured by default at fair value through profit or loss. However, there is an irrevocable option for each equity instrument to present fair value changes in other comprehensive income. Measurement and classification of financial assets is dependent on the entity's business model for managing the financial assets and the contractual cash flow characteristics of the financial asset. For financial liabilities, the standard retains most of the IAS 39 requirements. The main change is that, in cases where the fair value option is taken for financial liabilities, the part of a fair value change relating to an entity's own credit risk is recorded in other comprehensive income rather than the income statement, unless this creates an accounting mismatch.

IFRS 9 introduces a new three-stage expected credit loss model for calculating impairment for financial assets. IFRS 9 no longer requires a triggering event to have occurred before credit losses are recognized. An entity is required to recognize expected credit losses when financial instruments are initially recognized and to update the amount of expected credit losses recognized at each reporting date to reflect changes in the credit risk of the financial instruments. In addition, IFRS 9 requires additional disclosure requirements about expected credit losses and credit risk.

The new hedge accounting model in IFRS 9 aligns hedge accounting with risk management activities undertaken by an entity. Components of both financial and non-financial items are now be eligible for hedge accounting, as long as the risk component can be identified and measured. The hedge accounting model includes eligibility criteria that must be met, but these criteria are based on an economic assessment of the strength of the hedging relationship.

Classification and Measurement Changes

We have assessed the classification and measurement of our financial assets and financial liabilities under IFRS 9 and have summarized the original measurement categories under IAS 39 and the new measurement categories under IFRS 9 in the following table:

	Measurement Category	
	2017 (IAS 39)	2018 (IFRS 9)
Financial Assets:		
Cash	Amortized cost	Amortized cost
Cash equivalents	Available-for-sale	Amortized cost/fair value through profit or loss
Trade receivables	Amortized cost	Amortized cost
Settlement receivables	Fair value through profit or loss	Fair value through profit or loss
Marketable equity securities	Available-for-sale	Fair value through other comprehensive income
Debt securities	Available-for-sale	Fair value through other comprehensive income
Long term receivables and deposits	Amortized cost	Amortized cost
Derivative instruments and embedded derivatives with non-financial host contracts	Fair value through profit or loss	Fair value through profit or loss
Financial Liabilities:		
Trade payables	Amortized cost	Amortized cost
Settlement payables	Fair value through profit or loss	Fair value through profit or loss
Debt	Amortized cost	Amortized cost
Derivative instruments and embedded derivatives	Fair value through profit or loss	Fair value through profit or loss

There has been no change in the carrying value of our financial instruments or to previously reported figures as a result of changes to the measurement categories in the table noted above.

Cash equivalents

Our cash equivalents were reclassified from available-for sale to amortized cost or fair value through profit or loss, depending on their nature. The fair value of \$640 million as at January 1, 2018 is deemed to be the starting amortized cost for cash equivalents classified as subsequently measured at amortized cost. There was no impact on retained earnings as at January 1, 2018 as a result of this reclassification because the fair value is equal to the carrying value.

Marketable equity securities

We have made the irrevocable classification choice to record fair value changes on our current portfolio of investments in marketable equity securities through other comprehensive income. As a result, marketable equity securities with a fair value of \$124 million were reclassified from available-for-sale financial assets to financial assets through other comprehensive income. Available-for-sale financial assets under IAS 39 were accounted for at fair value with changes in fair value recorded in other comprehensive income. Realized gain or losses on available-for-sale financial assets were recycled into profit. This election resulted in the reclassification of a \$41 million loss (\$34 million after-tax) from our retained earnings to accumulated other comprehensive income (loss), all within equity, on January 1, 2018. This adjustment is presented in our Consolidated Statement of Changes in Equity for the year ended December 31, 2018.

32. Adoption of New IFRS Pronouncements (continued)

Debt securities

Investments in debt securities were reclassified from available-for-sale to fair value through other comprehensive income, as the company's business model is achieved both by collecting contractual cash flows and selling of these assets. The contractual cash flows of these investments are solely principal and interest. As a result, debt securities with a fair value of \$41 million were reclassified from available-for-sale financial assets to financial assets at fair value through other comprehensive income.

Expected credit losses

Credit risk arises from cash, cash equivalents, derivative contracts, debt securities and trade receivables. While we are exposed to credit losses due to the non-performance of our counterparties, there are no significant concentrations of credit risk and we do not consider this to be a material risk.

Our primary counterparties related to our cash, cash equivalents, derivative contracts and debt securities carry investment grade ratings as assessed by external rating agencies. There is ongoing review to evaluate the creditworthiness of these counterparties. All of our customers are assessed for credit quality by taking into account external credit ratings, where available, an analysis of financial position and liquidity, past experience and other factors. Individual customer credit limits are set based on internal or external ratings in accordance with our credit policy. Customer credit ratings and compliance with credit limits is regularly monitored by management. For some customers, we may obtain security over trade and settlement receivables in the form of letters of credit.

Under IAS 39 we applied an incurred loss model. We have reviewed our expected credit losses on our trade receivables and debt securities carried at fair value through other comprehensive income on transition to IFRS 9. We have also implemented a process for managing and estimating provisions relating to trade receivables going forward under IFRS 9. For our trade receivables, we apply the simplified approach for determining expected credit losses which requires us to determine the lifetime expected losses for all our trade receivables. The expected lifetime credit loss provision for our trade receivables is based on historical counterparty default rates and adjusted for relevant forward-looking information, as required. As the majority of our customers are considered to have low default risk and we do not extend credit to customers with high default risk, historical default rates are low and the lifetime expected credit loss allowance for trade receivables is nominal as at January 1, 2018. Accordingly, we did not record an adjustment relating to the implementation of the expected credit loss model for our trade receivables.

Our investments in debt securities carried at fair value through other comprehensive income are considered to have low credit risk, as our counterparties have investment grade credit ratings. As at January 1, 2018, the credit risk of our investments in debt securities has not increased significantly since initial recognition of these investments and accordingly, the loss allowance for investments in debt securities is determined based on the 12-month expected credit losses. The 12-month expected credit loss allowance is based on historical default rates for investment grade entities, which are low and accordingly, the 12-month expected credit loss allowance for our investments in debt securities is nominal as at January 1, 2018. Therefore, we did not record an adjustment relating to the implementation of the expected credit loss model for our investments in debt securities.

Hedges

The adoption of the hedging requirements section of IFRS 9 did not affect our existing designated hedging arrangements (Note 28(b)).

Board of Directors⁶

Dominic S. Barton⁽¹⁾⁽⁴⁾

Chair of the Board
Director since 2018

Norman B. Keevil III⁽¹⁾⁽⁵⁾⁽⁶⁾

Vice Chair of the Board
Director since 1997

Donald R. Lindsay⁽¹⁾

President and Chief Executive Officer
Director since 2005

Mayank M. Ashar⁽³⁾⁽⁵⁾⁽⁶⁾

Director since 2007

Quan Chong

Director since 2016

Laura L. Dottori-Attanasio⁽²⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾

Director since 2014

Edward C. Dowling⁽¹⁾⁽³⁾⁽⁴⁾⁽⁶⁾

Director since 2012

Eiichi Fukuda⁽⁶⁾

Director since 2016

Takeshi Kubota⁽⁵⁾⁽⁶⁾

Director since 2012

Tracey L. McVicar⁽²⁾⁽³⁾

Director since 2014

Sheila A. Murray⁽⁴⁾⁽⁵⁾

Director since 2018

Kenneth W. Pickering⁽³⁾⁽⁵⁾⁽⁶⁾

Director since 2015

Una M. Power⁽²⁾⁽⁶⁾

Director since 2017

Timothy R. Snider⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾

Director since 2015

Notes:

(1) Member of the Executive Committee

(2) Member of the Audit Committee

(3) Member of the Compensation Committee

(4) Member of the Corporate Governance and Nominating Committee

(5) Member of the Safety and Sustainability Committee

(6) Member of the Reserves Committee

⁶ Directors listed as at February 12, 2019. More information on our directors and officers can be found in our most recent Annual Information Form or in our Management Proxy Circular, which are available on our website at www.teck.com, under our profile at www.sedar.com, and on the EDGAR section of the United States Securities and Exchange Commission website at www.sec.gov.





Teck's 2018 Board of Directors: (Left to right) Eiichi Fukuda, Tracey McVicar, Sheila Murray, Takeshi Kubota, Mayank Ashar, Laura Dottori-Attanasio, Edward Dowling, Donald Lindsay, Dominic Barton, Norman B. Keevil, Timothy Snider, Una Power, Norman Keevil III, Warren Seyffert, Quan Chong, Kenneth Pickering

Officers⁷

Dominic S. Barton

Chair of the Board

Norman B. Keevil III

Vice Chair of the Board

Donald R. Lindsay

President and Chief Executive Officer

Dale E. Andres

Senior Vice President, Base Metals

Alex N. Christopher

Senior Vice President, Exploration, Projects and Technical Services

Andrew J. Golding

Senior Vice President, Corporate Development

Kieron McFadyen

Senior Vice President, Energy

Ronald A. Millos

Senior Vice President, Finance and Chief Financial Officer

Andrew K. Milner

Senior Vice President, Technology and Innovation

H. Fraser Phillips

Senior Vice President, Investor Relations and Strategic Analysis

Peter C. Rozee

Senior Vice President, Commercial and Legal Affairs

Robin B. Sheremeta

Senior Vice President, Coal

Marcia M. Smith

Senior Vice President, Sustainability and External Affairs

Andrew A. Stonkus

Senior Vice President, Marketing and Logistics

Dean C. Winsor

Senior Vice President and Chief Human Resources Officer

Shehzad Bharmal

Vice President, North America Operations, Base Metals

Greg J. Brouwer

Vice President, Technology and Innovation

Anne J. Chalmers

Vice President, Risk and Security

Amparo Cornejo

Vice President, Chile Sustainability and Corporate Affairs

Larry M. Davey

Vice President, Planning and Development, Coal

Christopher J. Dechert

Vice President, South America

Sepanta Dorri

Vice President, Corporate Development

Mark Edwards

Vice President, Community and Government Relations

Réal Foley

Vice President, Marketing, Coal and Base Metals

John F. Gingell

Vice President, Financial Systems

C. Jeffrey Hanman

Vice President, Corporate Affairs

M. Colin Joudrie

Vice President, Business Development

Ralph J. Lutes

Vice President, Asia

Scott E. Maloney

Vice President, Environment

Karla L. Mills

Vice President, Project Development

Douglas J. Powrie

Vice President, Tax

Crystal J. Prystai

Vice President and Corporate Controller

Amanda R. Robinson

Corporate Secretary

Kalev Ruberg

Vice President, Teck Digital Systems and Chief Information Officer

Keith G. Stein

Vice President, Major Projects

Lawrence A. Watkins

Vice President, Health and Safety

Scott R. Wilson

Vice President and Treasurer

⁷ Officers listed as at February 12, 2019. More information on our directors and officers can be found in our most recent Annual Information Form or in our Management Proxy Circular, which are available on our website at www.teck.com, under our profile at www.sedar.com, and on the EDGAR section of the United States Securities and Exchange Commission website at www.sec.gov.

Corporate Information

2018 Share Prices and Trading Volume

Class B subordinate voting shares–TSX–CAD\$/share

		High		Low		Close	Volume
Q1	\$	38.89	\$	31.65	\$	33.18	124,748,669
Q2	\$	39.08	\$	31.33	\$	33.49	107,685,079
Q3	\$	34.49	\$	27.94	\$	31.13	82,725,568
Q4	\$	32.49	\$	23.90	\$	29.39	120,520,736
							435,680,052

Class B subordinate voting shares–NYSE–US\$/share

		High		Low		Close	Volume
Q1	\$	30.79	\$	24.49	\$	25.76	55,372,507
Q2	\$	30.11	\$	24.04	\$	25.45	41,938,069
Q3	\$	26.38	\$	21.24	\$	24.10	33,182,352
Q4	\$	25.33	\$	18.18	\$	21.54	49,795,198
							180,288,126

Class A common shares–TSX–CAD\$/share

		High		Low		Close	Volume
Q1	\$	38.90	\$	31.80	\$	33.25	335,596
Q2	\$	39.00	\$	31.42	\$	32.76	166,472
Q3	\$	34.99	\$	27.93	\$	31.24	137,185
Q4	\$	32.03	\$	23.89	\$	29.44	128,919
							768,172

Stock Exchanges

Our Class A common shares and Class B subordinate voting shares are listed on the Toronto Stock Exchange under the symbols TECK.A and TECK.B, respectively.

Our Class B subordinate voting shares are also listed on the New York Stock Exchange under the symbol TECK.

Dividends Declared on Class A and B Shares

Amount per share	Payment Date
\$ 0.05	March 29, 2018
\$ 0.05	June 29, 2018
\$ 0.05	September 28, 2018
\$ 0.15	December 31, 2018

These dividends are eligible for both the Canadian federal and provincial enhanced dividend tax credits. The December 31, 2018 dividend included \$0.05 per share for the regular quarterly dividend and \$0.10 per share as a supplemental dividend, in accordance with our dividend policy.

Shares Outstanding at December 31, 2018

Class A common shares	7,768,304
Class B subordinate voting shares	562,925,342

Shareholder Relations

Amanda Robinson, Corporate Secretary

Annual Meeting

Our annual meeting of shareholders will be held at 11:00 a.m. on Wednesday, April 24, 2019, in the British Columbia Ballroom, Fairmont Hotel Vancouver, 900 West Georgia Street, Vancouver, British Columbia V6C 2W6.

Transfer Agents

Inquiries regarding change of address, stock transfers, registered shareholdings, dividends or lost certificates should be directed to our Registrar and Transfer Agent:

AST Trust Company (Canada)

1600 – 1066 West Hastings Street,
Vancouver, British Columbia V6E 3X1

AST Trust Company (Canada) provides an AnswerLine Service for the convenience of shareholders:

Toll-free in Canada and the United States
+1.800.387.0825

Outside Canada and the United States
+1.416.682.3860

Email: inquiries@astfinancial.com

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6201 – 15th Avenue,

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Website: www.astfinancial.com

TTY: +1.866.703.9077 or +1.718.921.8386

Auditors

PricewaterhouseCoopers LLP

Chartered Professional Accountants

Suite 700, 250 Howe Street,

Vancouver, British Columbia V6C 3S7

Annual Information Form

We prepare an Annual Information Form that is filed with the securities commissions or similar bodies in all the provinces of Canada. Copies of our Annual Information Form and annual and quarterly reports are available on request or on our website at www.teck.com, under our profile on SEDAR at www.sedar.com, and on the EDGAR section of the SEC website at www.sec.gov.

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Setting Possibilities in Motion