

Management's Discussion and Analysis

For the year ended December 31, 2019



This Management's Discussion and Analysis ("MD&A") should be read in conjunction with the audited consolidated financial statements of First Quantum Minerals Ltd. ("First Quantum" or "the Company") for the year ended December 31, 2019. The Company's results have been prepared in accordance with International Financial Reporting Standards ("IFRS") as issued by the International Accounting Standards Board ("IASB") and are presented in United States dollars, tabular amounts in millions, except where noted.

For further information on First Quantum, reference should be made to its public filings (including its most recently filed AIF) which are available on SEDAR at www.sedar.com. Information is also available on the Company's website at www.first-quantum.com. This MD&A contains forward-looking information that is subject to risk factors, see "*Cautionary statement on forward-looking information*" for further discussion. Information on risks associated with investing in the Company's securities and technical and scientific information under National Instrument 43-101 concerning the Company's material properties, including information about mineral resources and reserves, are contained in its most recently filed AIF. This MD&A has been prepared as of February 13, 2020.

OVERVIEW

2019 has been a transformative year for the Company as its largest development project to date, Cobre Panama, reached commercial production in September, less than seven months after first introduction of ore to the milling circuit. Following the first ore to the Cobre Panama processing plant in the first quarter, operations ramped up with the commissioning of three milling trains, comprising seven mills, and an eighth mill introduced in December. In June, the first shipment of concentrate was dispatched from the operation's port. For the full year, Cobre Panama contributed 147,480 tonnes of copper, of which 79,776 tonnes were commercial production, and 60,074 ounces of gold, of which 35,954 ounces was commercial production, and post-commercial production revenues of \$524 million.

The start of commercial operations at Cobre Panama has accelerated several of First Quantum's strategic objectives. The Company's vision to be a leading copper-focused metals and mining company is greatly advanced. Copper production in 2019 was the highest in its history, with 702,148 contained tonnes of copper produced. This is expected to increase to between 830,000 and 880,000 tonnes next year. In 2020, the Company's geographic production base will begin to shift, with a third of the Company's expected copper production to come from Panama in the next two years reflecting the addition and scale of Cobre Panama.

The Company continuously manages its capital structure and assesses its liquidity and financing sources regularly. Pricing, covenant flexibility and prevailing market conditions are all among considerations that are analyzed when assessing the Company's funding sources. Consistent with these efforts, in February 2019, the Company signed a new \$2.7 billion Term Loan and Revolving Credit Facility, replacing the previous \$1.5 billion Revolving Credit Facility. The new Facility was used to repay \$821 million of the 7.00% Senior Notes due February 2021 with the remainder used for general corporate purposes. More recently, in January 2020, the Company issued \$750 million in Senior Notes, using the proceeds to repay and cancel the remaining \$300 million 7.00% Senior Notes due February 2021, and to repay but not cancel \$450 million due under the senior Revolving Credit Facility. Additionally, with its forecasted reduction in capital expenditures, compared to the previous seven years, the Company expects that it will be in a position to begin executing on its stated commitment of deleveraging its balance sheet.

The Company utilizes a hedge program to manage operational and commodity price risk and ensure stability of cash flows while maintaining financial covenant compliance. The market price for copper fluctuated during the year from a low of \$2.51 per lb to a high of \$2.98 per lb on the London Metal Exchange ("LME"). The average copper price for the year was \$2.72 per lb, 8% lower than 2018.

In the first quarter of 2020, the Company's Ravensthorpe nickel mine is planned to restart operations. Production of between 15,000 to 20,000 tonnes of nickel is expected for the full year 2020 increasing to between 25,000 to 28,000 for the following two years.

Effective January 1, 2019, a new Zambian fiscal regime was introduced which included increased mineral royalties, removal of their associated tax deductibility and imposed export levies on precious metals. Two other elements of the 2019 National Budget, the abolition of the value-added ("VAT") and implementation of a goods and services tax were not enacted during the year and later abandoned in the 2020 National Budget in favour of amending the existing VAT regime.

An amicable settlement agreement was reached with the Zambian Revenue Authority ("ZRA") in July 2019, with respect to the assessment claim on Kalumbila duties, in line with the Company's expectations.

FULL YEAR HIGHLIGHTS

Operational and Financial

- Copper production for the year was a record 702,148 tonnes, an increase of 16% or 96,295 tonnes from 2018, and within guidance range, reflecting a contribution of 147,480 tonnes from Cobre Panama, of which 79,776 tonnes were commercial.
- Cobre Panama achieved a successful ramp-up in the year, including the declaration of commercial production from September 1, 2019 and the eighth mill coming on line in mid-December, which will increase annualized milling capacity to approximately 85 million tonnes.
- Copper production at Las Cruces and Kansanshi was lower in the year compared with 2018. At Las Cruces, production was impacted by an interruption to mining activity until July from a land slippage in January 2019 and a ball mill failure in September. Lower Kansanshi copper production was attributable to lower oxide ore grades and recoveries.
- The Kansanshi smelter processed 1,317,826 dry metric tonnes ("DMT") of copper concentrate, produced 324,281 tonnes of copper anode and 1,236,000 tonnes of sulphuric acid and maintained a 97% recovery rate for the year, which included a planned two-week maintenance shutdown of the smelter acid plant in the third quarter.
- Total gold production of 256,913 ounces was 39% higher than in 2018, reflecting Cobre Panama's contribution of 60,074 ounces and higher gold production at Kansanshi following operational enhancements.
- Gross profit of \$790 million and comparative EBITDA⁷ of \$1,609 million for the full year 2019 include the contribution of \$92 million and \$203 million, respectively, from Cobre Panama subsequent to the declaration of commercial production. Also reflected are a 5% decrease in the realized copper price compared with 2018 and a \$44 million gain realized by the corporate copper sales hedge program.
- Following finalization of the Las Cruces post-land slippage mine plan, 2020 is expected to be the final year of production for the open-pit operation. As a result, and with the volatility in the short-term copper price, an impairment charge of \$97 million has been recognized.
- Financial results include comparative earnings of \$249⁷ million (\$0.36 per share⁷), net loss attributable to shareholders of the Company of \$57 million (\$0.08 per share), and cash flows from operating activities of \$889 million (\$1.29 per share). Comparative earnings include net interest expense of \$250 million, of which a significant proportion would previously have been eligible for capitalization but is now expensed following declaration of commercial production at Cobre Panama on September 1, 2019. Net loss attributable to shareholders includes a \$182 million charge for the discounting of Zambian VAT balances as well as the \$97 million impairment charge recognized on Las Cruces.

- Copper all-in sustaining cost ("AISC") was \$1.78 per lb and cash cost of copper production ("C1") was \$1.31 per lb for the year, a \$0.04 per lb and \$0.03 per lb increase, respectively, compared to 2018. The AISC and C1 cash cost reflects four months of commercial production at Cobre Panama as well as the impact of lower production at Las Cruces and Kansanshi.

Consolidated Operational Information	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper production (tonnes) ^{1,2}	204,270	192,510	158,304	702,148	605,853
Copper sales (tonnes) ^{2,4}	205,964	203,827	156,212	689,386	596,513
Cash cost of copper production (C1)(per lb) ^{5,6}	\$1.24	\$1.36	\$1.23	\$1.31	\$1.28
Total cost of copper production (C3)(per lb) ^{5,6}	\$2.07	\$2.20	\$2.04	\$2.16	\$2.11
All-in sustaining cost (AISC)(per lb) ^{5,6}	\$1.73	\$1.86	\$1.68	\$1.78	\$1.74
Realized copper price (per lb) ²	\$2.62	\$2.62	\$2.83	\$2.70	\$2.84
Gold production (ounces) ²	77,789	70,120	48,039	256,913	185,414
Gold sales (ounces) ^{2,3}	79,409	71,664	53,221	254,785	193,072

	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper production (tonnes) – commercial	204,270	155,727	158,304	634,444	605,853
Copper production (tonnes) – pre-commercial	-	36,783	-	67,704	-
Copper production (tonnes)	204,270	192,510	158,304	702,148	605,853
Gold production (ounces) – commercial	77,789	56,550	48,039	232,793	185,414
Gold production (ounces) – pre-commercial	-	13,570	-	24,120	-
Gold production (ounces)	77,789	70,120	48,039	256,913	185,414

Consolidated Financial Information	Q4 2019	Q3 2019	Q4 2018	2019	2018
Sales revenues	1,284	987	1,054	4,067	3,966
Gross profit	259	150	280	790	978
Net earnings (loss) attributable to shareholders of the Company	(115)	(73)	198	(57)	441
Basic and diluted earnings (loss) per share	(\$0.17)	(\$0.11)	\$0.29	(\$0.08)	\$0.64
Comparative EBITDA ^{7,8}	511	354	481	1,609	1,737
Comparative earnings ⁷	35	32	182	249	487
Comparative earnings per share ⁷	\$0.05	\$0.05	\$0.26	\$0.36	\$0.71

	Q4 2019	Q3 2019	Q4 2018	2019	2018
Net earnings (loss) attributable to shareholders of the Company	(115)	(73)	198	(57)	441
Adjustments attributable to shareholders of the Company:					
Finance charge on discounting Zambian VAT	22	160	5	182	5
(Gain) loss on debt instruments	4	(3)	-	23	-
Total adjustments to comparative EBITDA excluding depreciation ⁸	152	21	(3)	228	64
Tax and minority interest relating to foreign exchange revaluation and comparative adjustments	(28)	(73)	(18)	(127)	(23)
Comparative earnings	35	32	182	249	487

¹ Production is presented on a contained basis, and is presented prior to processing through the Kansanshi smelter.

² Copper production volumes includes production from Cobre Panama of 60,338 tonnes and 147,480 tonnes for the three months and year ended December 31, 2019, respectively (nil production to December 31, 2018). Copper sales volumes include sales from Cobre Panama of 48,841 tonnes and 132,864 tonnes for the three months and year ended December 31, 2019, respectively (nil sales to December 31, 2018). Gold production volumes include production from Cobre Panama of 28,040 ounces and 60,074 ounces for the three months and year ended December 31, 2019, respectively (nil production to December 31, 2018). Gold sales volumes include sales from Cobre Panama of 23,336 ounces and 55,069 ounces for the three months and year ended December 31, 2019, respectively (nil sales to December 31, 2018).

The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019, therefore, revenue and operating costs at Cobre Panama have been recorded for the period September 1, 2019, to December 31, 2019, in the Company's Consolidated Statement of Earnings (Loss). Consequently, production and sales at Cobre Panama that are pre-commercial production are excluded from earnings, C1 cash cost, AISC and C3 total cost and net realized copper price. Please see Cobre Panama operation summary on page 21 below for further discussion.

³ Excludes purchased gold delivered to Franco-Nevada Corporation ("Franco-Nevada") under precious metal streaming arrangement.

⁴ Copper sales exclude the sale of copper anode produced from third-party concentrate purchased at Kansanshi. Sales of copper anode attributable to third-party concentrate purchases were nil and 1,182 tonnes for the three months and year ended December 31, 2019, respectively, (5,884 tonnes and 7,349 tonnes for the three months and year ended December 31, 2018, respectively). There were no sales of copper anode attributable to third-party concentrate purchases in the three months to September 30, 2019.

⁵ C1 cash cost, C3 total cost, AISC exclude third-party concentrate purchased at Kansanshi.

⁶ C1 cash cost, C3 total cost, AISC are not recognized under IFRS. These measures are disclosed as they reflect those used by the Company's management in reviewing operational performance. A reconciliation of these measures to the costs disclosed in the Company's Consolidated Statement of Earnings (Loss) is included within the "Regulatory Disclosures" section from page 44.

⁷ Net earnings (loss) attributable to shareholders of the Company has been adjusted to exclude items which are not considered by management to be reflective of underlying performance to arrive at comparative earnings. Comparative earnings, comparative earnings per share, comparative EBITDA and cash flows per share are not measures recognized under IFRS and do not have a standardized meaning prescribed by IFRS. The Company has disclosed these measures to assist with the understanding of results and to provide further financial information about the results to investors. See "Regulatory Disclosures" from page 44 for a reconciliation of comparative EBITDA and comparative earnings to the IFRS measures. The use of comparative earnings and comparative EBITDA represents the Company's adjusted earnings metrics.

⁸ Adjustments to comparative EBITDA relate principally to foreign exchange, impairments, write-off of assets and costs associated with the land slippage at Las Cruces, and also include other losses on disposal of assets, and movements in restoration provision estimates at closed sites.

FULL YEAR FINANCIAL SUMMARY

Cobre Panama boosts sales revenues

- Sales revenues of \$4,067 million in the year exceeded the 2018 level by \$101 million. Gold sales revenues drove the increase on account of a 22% increase in commercial gold sales volumes, due principally to the declaration of commercial production at Cobre Panama, and a higher realized gold price. Copper sales revenues were broadly in line with 2018, with 7% higher commercial copper sales volumes mitigating the lower realized copper price.
- The Company's realized price for copper of \$2.70 per lb for 2019 was 5% lower than in 2018. This compares to a decrease of 8% in the average LME price of copper for the same period. The Company's copper sales hedge program contributed \$44 million, \$0.03 per lb, to sales revenues in the year compared to a \$110 million sales hedge loss, \$0.08 per lb in 2018.

Comparative EBITDA of \$1,609 million

- Comparative EBITDA was \$1,609 million compared to \$1,737 million in 2018. This result excludes impairments and write-off of assets and other costs of \$112 million, foreign exchange losses of \$96 million, loss on disposal of assets and associated costs of \$12 million and revisions in estimates of restoration provisions at closed sites of \$8 million.

Gross profit – Cobre Panama contribution offset mostly by lower realized copper prices and Las Cruces

Gross profit in 2018	978
Lower realized metal prices	(258)
Movement in hedge program	154
Change in sales volumes mix	(88)
Lower by-product contribution	(14)
Cobre Panama contribution (excluding depreciation)	205
Las Cruces movement (excluding depreciation)	(136)
Movement in cash costs (excluding Zambian royalties)	(11)
Increase in depreciation	(43)
Increase in Zambian royalty rate	(40)
Ravensthorpe restart preparations	(15)
Positive impact of foreign exchange on operating costs	58
Gross profit in 2019 ¹	790

¹ Gross profit is reconciled to comparative EBITDA by including exploration costs of \$19 million, general and administrative costs of \$82 million, other income of \$13 million, adding back depreciation of \$907 million (*a reconciliation of comparative EBITDA is included on page 50*).

Comparative earnings of \$249 million

- Comparative earnings for 2019 of \$249 million compares to \$487 million in 2018. A reconciliation of comparative metrics is included on pages 50 and 51. The principal driver for the reduction was net interest cost included within comparative earnings totalling \$250 million for the year, following the cessation of capitalization of interest expense upon the declaration of commercial production at Cobre Panama on September 1, 2019. \$549 million was capitalized to the Cobre Panama project with respect to interest expense incurred by the Company during the year ended December 31, 2019 (\$653m for the year ended December 31, 2018).
- Net loss attributable to shareholders of \$57 million for the year compared to net earnings attributable to shareholders of \$441 million in 2018. The 2019 result included \$182 million with respect to the discounting of Zambian VAT balances, \$101 million in impairments and \$11 million write-off of assets and other costs, \$96 million in foreign exchange losses, \$23 million in debt modification and extinguishment losses, \$12 million losses on disposal of assets, \$8 million in closed property restoration costs and \$127 million in tax and minority interest adjustments relating to foreign exchange revaluation and other comparative adjustments.

FOURTH QUARTER FINANCIAL SUMMARY

- Sales revenues of \$1,284 million were 22% higher than the same period in 2018 reflecting a \$314 million contribution from Cobre Panama in its first full quarter of commercial production.

Gross profit of \$259 million

Gross profit in Q4 2018	280
Lower realized metal prices	(31)
Movement in hedge program	(26)
Change in sales volumes mix	(14)
Lower by-product contribution	(7)
Panama contribution (excluding depreciation)	137
Las Cruces movement (excluding depreciation)	(1)
Movement in cash costs (excluding Zambian royalties)	(3)
Increase in depreciation	(66)
Increase in Zambian royalty rate	(10)
Ravensthorpe restart preparations	(13)
Positive impact of foreign exchange on operating costs	13
Gross profit in Q4 2019 ¹	259

¹ Gross profit is reconciled to comparative EBITDA by including exploration costs of \$7 million, general and administrative costs of \$25 million, other expenses of \$6 million, adding back depreciation of \$290 million (*a reconciliation of comparative EBITDA is included on page 50*).

Comparative earnings of \$35 million

- Comparative earnings for the quarter ended December 31, 2019, of \$35 million compared to \$182 million in the comparable period of 2018. A reconciliation of comparative metrics to the consolidated financial statements is included on pages 50 and 51. The decrease was largely attributable to a net interest expense of \$183 million that was expensed in the current quarter rather than capitalized following the declaration of commercial production at Cobre Panama on September 1, 2019.
- Net loss attributable to shareholders of \$115 million for the quarter compared to net earnings attributable to shareholders of \$198 million in the same period in 2018. The 2019 result included impairments of \$101 million, discounting of Zambian VAT balances of \$22 million, foreign exchange losses of \$47 million and a \$4 million modification loss on the senior Revolving Credit Facility, \$5 million closed property restoration expense and a \$28 million tax and minority interest adjustment relating to foreign exchange revaluation and other comparative adjustments.

FINANCIAL POSITION AND OPERATING CASH FLOW

- The Company ended the year with \$523 million of net unrestricted cash and cash equivalents in addition to \$250 million of committed undrawn senior debt facilities and was in full compliance with all financial covenants.
- On January 13, 2020, the Company issued an additional \$500 million aggregate principal amount of 7.25% Senior Notes due 2023 (the "2023 New Notes") and an additional \$250 million aggregate principal amount of 7.50% Senior Notes due 2025 (the "2025 New Notes", collectively the "Notes"). The 2023 New Notes were priced at 102.50%, representing a yield to maturity of 6.373%, and the 2025 New Notes were priced at 103.00%, representing a yield to maturity of 6.804%. The Notes represent an additional offering to the Company's existing \$1.1 billion of Senior Notes due 2023 (the "Existing 2023 Notes"), and the existing \$1.1 billion of Senior Notes due 2025 (the "Existing 2025 Notes") issued under the same indentures.

The Company intends to use the proceeds from the issuance of the Notes to redeem in full the outstanding \$300 million of 7.00% Senior Notes due February 15, 2021, including the payment of accrued and unpaid interest, and to repay (but not cancel commitments) \$450 million of amounts outstanding under the Company's revolving credit facility. On January 16, 2020, the Company issued notice of redemption of the 7.00% Senior Notes due 2021.

- At December 31, 2019, the Company had 80,000 tonnes of unmargined zero cost copper collar sales contracts with weighted average prices of \$2.65 to \$2.91 per lb outstanding with maturities to December 2020, 30,000 tonnes of outstanding unmargined copper forward sales contracts at an average price of \$2.81 per lb at December 31, 2019, with maturities to June 2020, and unmargined nickel forward sales contracts for 12,046 tonnes at an average price of \$6.77 per lb outstanding with maturities to February 2021.
- Taking into account forecast operating cash inflows, capital expenditure outflows and available committed facilities, the Company expects to have sufficient liquidity through the next 12 months to carry out its operating and capital expenditure plans and remain in full compliance with financial covenants. The Company continues to take action to manage operational and price risk and further strengthen the balance sheet.

OTHER DEVELOPMENTS

Changes to the Zambian tax regime

Following the 2020 National Budget, presented on September 27 2019, the Government of the Republic of Zambia ("GRZ") has enacted the proposed changes into law, with effect from January 1, 2020. No material changes have been made to the provisions previously announced. The preliminary estimated impact of these changes on Group C1 and AISC is approximately \$0.04 per lb.

Further guidance on these changes is still expected and the Company is continuing to refine its assessment of the estimated impact of the proposed changes.

The Company's Zambian operations have continued to accrue VAT receivable amounts during the quarter with no cash refunds received and limited offsets to other tax liabilities approved. The Company considers that the outstanding VAT claims are fully recoverable and has reclassified all VAT balances due to the Zambian operations as non-current. A finance charge of \$182 million has been recognized in the year-ended December 31, 2019, representing the discounting over the expected timeframe to repayment. The Minister reaffirmed that the GRZ remains committed to settling outstanding VAT claims and the Company continues to engage in regular discussions with the relevant government authorities. See additional disclosure *Liquidity and Capital Resources* on page 32. The total amount of discounted VAT accrued by the Company's Zambian operations at December 31, 2019, was \$398 million, of which \$233 million is related to Kansanshi.

Zambian power supply

Low water levels in the Kariba Dam have resulted in the country's state-owned power company ("ZESCO") implementing load shedding for domestic users, however, no restrictions are currently in place for the Company's mining operations.

Dividends

First Quantum has declared a final dividend of CDN\$0.005 per share, in respect of the financial year ended December 31, 2019. The final dividend together with the interim dividend of CDN\$0.005 per share is a total of CDN\$0.01 per share for the 2019 financial year.

For the year ended December 31, 2019, 10,000 common shares (7,000 common shares for the year ended December 31, 2018) were issued through the Company's Dividend Reinvestment Plan.

MATERIAL LEGAL PROCEEDINGS

Panama constitutional proceedings

In February 1996, the Republic of Panama and Minera Panama SA ("MPSA"), now a Panamanian subsidiary of the Company, entered into a mining concession contract in respect of the Cobre Panama project.

On February 26, 1997, Contract-Law No. 9 ("Law 9") was passed by the Panamanian National Assembly. Law 9 granted the status of national law to the mining concession contract, establishing a statutory legal and fiscal regime for the development of the Cobre Panama project. On December 30, 2016, the Government of Panama signed and issued Resolution No. 128 by which it extended the mining concession contract held by MPSA for a second 20-year term commencing March 1, 2017 up to February 28, 2037. The Company remains eligible for consideration of a third 20-year term of the MPSA mining concession contract commencing March 1, 2037.

In September 2018, the Company became aware of a ruling of the Supreme Court of Panama ("Supreme Court") in relation to the constitutionality of Law 9. The Company understands that the ruling of the Supreme Court with respect to the constitutionality of Law 9 relates to the enactment of Law 9 and does not affect the legality of the MPSA mining concession contract itself, which remains in effect, and allows continuation of the development and operation of the Cobre Panama project by MPSA.

In respect of the Supreme Court ruling on Law 9, which remains subject to various procedural processes, the Company notes the following:

- The ruling is not yet in effect.
- The Supreme Court decision was in respect of ongoing legal filings made since 2009 with regard to specific environmental petitions.
- In reviewing the process of approval of Law 9 of 1997, the Supreme Court found that the National Assembly had failed to consider whether Law 9 complied with applicable legislation at the time, namely Cabinet Decree 267 of 1969.
- The applicable Cabinet Decree of 1969, which was repealed in 1997 by Law 9, required the Ministry of Commerce and Industry ("MICI") to issue a request for proposals before awarding the Law 9 mining concession.
- The Attorney General of Panama has provided two formal opinions favourable to the constitutionality of Law 9 as required in this type of proceedings by Panamanian law.
- The Supreme Court ruling did not make a declaration as to the annulment of the MPSA mining concession contract.

Subsequently, MPSA has submitted filings to the Supreme Court for ruling, which it has accepted, prior to the ruling in relation to the constitutionality of Law 9 taking effect. On September 26, 2018, the Government of Panama issued a news release affirming support for Cobre Panama. The release confirmed that MICI considers that the MPSA mining concession contract, and its extension, remains in effect in all its parts while the Company seeks to clarify the legal position. (The MICI release is available at www.twitter.com/MICIPMA/status/1044915730209222657).

The newly elected Government of Panama, inaugurated on July 1, 2019, has established a multidisciplinary high-level commission including the Minister of Commerce and Industries (mining regulator), Minister of Environment, and Minister of Employment to discuss the Law 9 matter and seek resolution. Based on support from the Government of Panama, the Chamber of Commerce and Industries of Panama, the Panamanian Mining Chamber, other Panamanian business and industry chambers and its legal advice, the Company is confident of resolving the Law 9 matter in the near-medium term.

Zambian power

In June 2018, without any warning, ZESCO reduced power supply to the Kansanshi operation. The reduction was due to Kansanshi and Sentinel's rejection of ZESCO's demand for payment of higher tariffs, contrary to the existing contractual agreements between the parties.

On June 26, 2018, Kansanshi sought an injunction against ZESCO before the English courts, as the contracts on tariff are governed by English law. On June 28, 2018, ZESCO resisted the application and requested an extension to respond. On July 6, 2018, the Court awarded Kansanshi's request by way of a sanctioned consent order ("Order") which requires ZESCO to restore the full capacity as demanded by Kansanshi. In turn, Kansanshi is required to deposit the difference between the contractual tariff and the disputed higher tariff into a segregated account until an arbitration between Kansanshi and ZESCO on these facts are concluded. The Order continues to apply as ZESCO is restrained from making any reductions without incurring further sanction from the Court.

On August 22, 2018, Kansanshi served on ZESCO a Notice of Arbitration in respect of these facts. A procedural timetable of the arbitration has been agreed, with the merits hearing set for summer 2020. Pursuant to the Procedural Order, Kansanshi has submitted its Statement of Claim and ZESCO has submitted its response and the parties have exchanged evidence. Following exchange of documents, witness statements were submitted on January 31, 2020 and expert evidence is planned to be submitted on February 21, 2020. A hearing on the merits is scheduled for the week of June 15, 2020.

Despite this dispute, the Company's operations generally maintain a constructive relationship with ZESCO, particularly with regards to the management of technical and supply issues. Operational and technical dialogue between the parties is expected to continue in the normal course.

Kansanshi minority partner

In October 2016, the Company, through its subsidiary Kansanshi Holdings Limited, received a Notice of Arbitration from ZCCM International Holdings PLC ("ZCCM") under the Kansanshi Mining PLC ("KMP") Shareholders Agreement. ZCCM is a 20% shareholder in KMP and filed the Notice of Arbitration against Kansanshi Holdings Limited ("KHL"), the 80% shareholder, and against KMP. The Company also received a Statement of Claim filed in the Lusaka High Court naming additional defendants, including the Company, and certain directors and an executive of the named corporate defendants. Aside from the parties, the allegations made in the Notice of Arbitration and the High Court for Zambia were the same. The Company is firmly of the view that the allegations are in their nature inflammatory, vexatious and untrue.

The dispute was stated as a request for a derivative action, requiring ZCCM to obtain permission to proceed in each forum of the Arbitration and the Lusaka High Court. The dispute arose from facts originating in 2007, and concerned the rate of interest paid on select deposits by KMP with the Company. The deposits were primarily retained for planned investment by KMP in Zambia. In particular, KMP deposits were used to fund a major investment program at Kansanshi, including the successful construction and commissioning of the Kansanshi smelter and expansion of the processing plant and mining operations. The entirety of the deposit sums has been paid down from the Company to KMP, with interest. The interest was based on an assessment of an arm's length fair market rate, which is supported by independent third-party analysis. ZCCM disputed that interest rate paid to KMP on the deposits was sufficient.

In July 2019, the Arbitral Tribunal issued a final award in favour of KMP. The parties have reached an agreement on costs, in total exceeding \$1 million payable by ZCCM, bringing this particular matter to an end.

In parallel, several preliminary procedural applications to dismiss the High Court Action were lodged on behalf of the Company, and other defendants, in the Lusaka High Court. By a decision dated January 25, 2018, the Lusaka High Court used its discretion to rectify ZCCM's procedural errors. The Court granted leave to the Company, FQM Finance, a wholly-owned subsidiary of the Company, and the individual defendants to appeal against this decision and the litigants have agreed to a stay pending the appeal. The appeal hearing took place on November 21, 2018, with submissions made by all parties. The Court of Appeal delivered judgment on January 11, 2019, dismissing the appeal. An appeal to the Supreme Court of Zambia was heard on April 24, 2019, and has been dismissed. The High Court was scheduled to resume hearing two further procedural applications, including whether ZCCM is allowed to maintain the derivative action. However, before these hearings could take place the defendants brought an application requesting dismissal of the case on grounds of abuse of process/ *res judicata*, on the basis that the action cannot be allowed to continue for risk of producing conflicting judgment from the London arbitration, which has already adjudicated the facts of this particular complaint. ZCCM objected to the defendants' application. ZCCM also tried to bring an application to set aside the registration of the Arbitral award in Zambia. The defendants have resisted this application. Both applications have now had an oral hearing, in October 2019, and the parties are awaiting a decision of the High Court.

DEVELOPMENT ACTIVITIES

Cobre Panama Project, Panama

Please also see Cobre Panama operating review on page 21 below.

The final mill in Cobre Panama (the eighth mill), came on line in mid-December, providing additional capacity on the third milling train. Annual milling throughput can now ramp up to 85 million tonnes. Milled throughput for the month of December was 6.6 million tonnes.

Key milestones achieved through the fourth quarter of 2019 include:

- Completed flotation upgrades to support 100 million tonnes per annum (“mtpa”) operation,
- Achieved daily peak mill throughput of 251,000 tonnes per day,
- Tailings management facility sand embankment building is now operational, and
- Mine trolley assist line commissioned and operational.

Project construction and commissioning is essentially complete. The molybdenum plant is expected to be commissioned in 2020 and associated capital expenditure of approximately \$12 million is included in total capital expenditure guidance. There was significant demobilization of the construction workforce during the quarter.

The operational workforce is in place, of which approximately 82% has been contracted as permanent employees with the remainder providing supplementary skills and labour from construction and commissioning assisting with initial operations. Approximately 88% of the current workforce is Panamanian.

The total project capital expenditure for the year ended December 31, 2019 was \$697 million (First Quantum’s share \$662 million). Project spending to completion amounted to \$6.77 billion, including \$2.1 billion contributed by third parties. The Company’s share of project capital expenditure increased following the acquisition from LS-Nikko of its 50% share in Korea Panama Mining Corporation (“KPMC”) in November 2017.

Further to these capital expenditures, \$549 million was capitalized to the Cobre Panama project with respect to interest expense incurred by the Company during the year ended December 31, 2019. Subsequent to the declaration of commercial production on September 1, 2019, capitalization of interest to the project ceased. The net interest expense recognized by the Company in the income statement for the year was \$248 million.

EXPLORATION

A global exploration program continues to be focused on identifying high quality porphyry and sediment hosted copper deposits in prospective belts around the world. This program includes work at advanced stage exploration projects at Taca Taca in Argentina and Haquira in Peru as well as near-mine resource expansion around Las Cruces and Kansanshi.

In recent years, early stage exploration has expanded to cover systematic investigation of properties throughout the Andean belt in Argentina, Chile, Peru, Ecuador and Colombia but also includes evaluation of high priority targets in several other jurisdictions. Exploration in the fourth quarter of 2019 included drill programs to test greenfield targets in Argentina, Chile, Zambia, Ireland and Papua New Guinea. Some encouraging results from prospects in Argentina and Papua New Guinea in particular, will require more detailed follow up drilling during 2020.

At Taca Taca, located in the Salta province of Argentina, the Company is continuing with the project pre-development and feasibility activities, focusing on confirming the mineral resource, metallurgical sampling and test work, and other technical work required to increase the definition of project engineering, cost and operating estimates. Confirmatory work for project water supply is continuing with additional drilling and pump testing of bore holes, and aquifer modeling and bore field simulation. The primary Environmental and Social Impact Assessment for the project, which covers the principal proposed project sites, was submitted to the Secretariat of Mining of Salta Province in February 2019.

At the Haquira project, located in the Apurímac region of Peru, the focus remains on community and environmental aspects. The environmental Impact Assessment studies continue and formal negotiations with the communities with respect to their resettlement have now commenced.

Near-mine exploration programs are planned to continue at Las Cruces, in Spain, as well as on satellite targets around Kansanshi, in Zambia.

HEALTH & SAFETY

The health and safety of all of the Company's employees and contractors is our top priority and the Company is focused on the continual strengthening and improvement of the safety culture at all of our operations. The Lost Time Injury Frequency Rates ("LTIFR") is an area of continued focus and a key performance metric for the Company, our rolling 12-month LTIFR is 0.05 per 200,000 hours worked on average over the 12-month period to December 31, 2019 (2018: 0.06).

GUIDANCE

Guidance for the three years following is given once a year as part of year-end reporting. On a quarterly basis, guidance for the current year will be updated as necessary or reaffirmed.

Guidance provided below is based on a number of assumptions and estimates as of December 31, 2019, including among other things, assumptions about metal prices and anticipated costs and expenditures. Guidance involves estimates of known and unknown risks, uncertainties and other factors which may cause the actual results to be materially different.

Production guidance

000's	2020	2021	2022
Copper (tonnes)	830 – 880	800 – 850	800 – 850
Gold (ounces)	280 – 300	280 – 300	280 – 300
Nickel (tonnes)	15 – 20	25 – 28	25 – 28

Production guidance by operation

Copper

000's tonnes	2020	2021	2022
Cobre Panama	285 – 310	310 – 330	310 – 340
Kansanshi	220 – 235	220 – 235	220 – 230
Sentinel	230 – 240	240 – 255	250 – 260
Las Cruces	52	-	-
Other sites	43	30	20

Gold

000's ounces	2020	2021	2022
Cobre Panama	120 – 130	125 – 135	135 – 145
Kansanshi	120 – 130	120 – 130	120 – 130
Other sites	40	35	25

Nickel

000's tonnes	2020	2021	2022
Ravensthorpe	15 – 20	25 – 28	25 – 28

Cash cost and all-in sustaining cost

Copper	2020	2021	2022
C1 (per lb)	\$1.20 - \$1.40	\$1.20 - \$1.40	\$1.20 - \$1.40
AISC (per lb)	\$1.70 - \$1.85	\$1.70 - \$1.85	\$1.70 - \$1.85

Nickel

Production at Ravensthorpe is expected to ramp-up through 2020. In the first two full years of production, 2021 and 2022, C1 and all-in sustaining costs are expected to be between \$4.60 per lb to \$4.80 per lb, and \$5.10 per lb to \$5.40 per lb, respectively.

Capital expenditure	2020	2021	2022
Capitalized stripping	250	250	250
Sustaining capital and other projects	600	600	600
Total capital expenditure	850	850	850

Guidance for the Company's sustaining capital and other projects includes expenditure relating to Cobre Panama for the completion of construction and commissioning of the molybdenum plant, continuation of construction work for the tailings management facility and ongoing development work associated with the expansion to 100 mtpa capacity. Other projects in 2020 include: the fourth crusher at Sentinel and construction work on the Shoemaker Levy deposit at Ravensthorpe. Underlying sustaining capital expenditure is expected to average approximately \$250 million per annum.

Interest

Interest has largely been capitalized in the period prior to declaration of commercial production at Cobre Panama. Interest expense of \$549 million was capitalized to the Cobre Panama project for the eight months ended August 31, 2019. From September 1, 2019, the date of declaration of commercial production at Cobre Panama, all interest was expensed to the income statement rather than capitalized. Net interest expense for the year ended December 31, 2019, was \$248 million. The majority of the Company's interest expense is incurred by Canadian entities, where no tax credit is recognized. Interest expense for the full year 2020 is expected to range between \$770 million and \$810 million, this includes interest accrued on related party loans to Cobre Panama and a finance cost accreted on the precious metal streaming arrangement.

Tax

Excluding Cobre Panama, the impact of the changes to the Zambian mining tax regime, and the impact of interest expense, the effective tax rate for 2020 is expected to be approximately 30%. Excluding these items but including Cobre Panama it is expected to be approximately 15%.

Including the impact of the changes to the Zambian mining tax regime, which increased mineral royalties by 1.5% and made them non-deductible for tax purposes, and excluding the impact of interest being expensed following the declaration of commercial production at Cobre Panama, the expected effective rate is approximately 20%.

Depreciation

Depreciation expense for the year ended December 31, 2019 was \$907 million, including Cobre Panama. The full year 2020 depreciation expense is expected to range between \$1,300 million and \$1,350 million. The increase from 2019 reflects a full twelve months of depreciation expense from Cobre Panama.

Cobre Panama depreciation expense commenced in September 2019 following the declaration of commercial production. The depreciation expense was \$113 million for the year ended December 31, 2019 and is expected to be approximately \$500 million for the full year 2020.

Other

The recent coronavirus outbreak in China has affected short term LME commodity prices, though the Company has not experienced any disruption to the sale of metals. The Company will continue to monitor the impact of the coronavirus outbreak.

OPERATING REVIEW

Production summary	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper production (tonnes)¹					
Kansanshi	60,808	58,888	61,780	232,243	251,522
Sentinel	50,874	56,439	60,840	220,006	223,656
Cobre Panama	60,338	19,438	-	79,776	-
Las Cruces	17,611	9,479	18,470	48,090	70,738
Guelb Moghrein	8,220	6,203	8,319	29,620	28,137
Çayeli	4,725	3,218	5,931	16,706	19,896
Pyhäsalmi	1,694	2,062	2,964	8,003	11,904
Total copper production (tonnes) – commercial	204,270	155,727	158,304	634,444	605,853
Cobre Panama – pre-commercial	-	36,783	-	67,704	-
Total copper production (tonnes) - including pre-	204,270	192,510	158,304	702,148	605,853
Total gold production (ounces) – commercial²	77,789	56,550	48,039	232,793	185,414
Cobre Panama – pre-commercial	-	13,570	-	24,120	-
Total gold production (ounces) - including pre-commercial	77,789	70,120	48,039	256,913	185,414
Total zinc production (tonnes)	2,462	4,429	7,687	17,332	26,807

¹ Production is presented on a contained basis, and is presented prior to processing through the Kansanshi smelter.

² Commercial gold production for the year ended December 31, 2019, includes 35,954 ounces from Cobre Panama, which was declared in commercial production September 1, 2019.

Full year

The Company achieved record copper production in the year of 702,148 tonnes, 16% higher than 2018 and including 147,480 tonnes from Cobre Panama, of which 79,776 tonnes were commercial. Following first production in March 2019, Cobre Panama completed a successful ramp-up to commercial production, which was declared effective September 1, 2019. Lower production at Las Cruces and Kansanshi was mitigated by the contribution from Cobre Panama.

Copper production at Las Cruces was 32% lower than the prior year, as a result of continued processing of lower grade ore stockpiles until July, following the land slippage that halted mining in January 2019. This was followed by a ball mill failure in September 2019 that resulted in the loss of several days of production. Fourth quarter production was close to pre-land slippage levels of the comparable quarter of 2018.

Higher sulphide grade ore mined at Kansanshi in 2019 was accompanied by lower oxide grade ore and lower recoveries on the oxide and mixed ore circuits. These combined with the processing of higher acid-consuming ores, and resulted in 8% lower copper production in the year compared with 2018.

Copper production at Sentinel was 2% below the prior year, mainly due to lower grade and recoveries resulting from the mining of transitional ore in the fourth quarter. Lower copper production at Çayeli was attributable to decreased throughput and grade. At Pyhäsalmi, production was impacted by lower copper grade, throughput and copper recoveries.

Gold production was 39% higher than the prior year due to Cobre Panama, which contributed 60,074 ounces to total gold production in the year, and the benefits from operational enhancements at Kansanshi.

Ravensthorpe remained on care and maintenance throughout the year following the suspension of operations at the mine in October 2017. Operational readiness works began in the third quarter and the mining contract was awarded in the fourth quarter, in preparation for restart of operations planned for the first quarter of 2020.

Fourth quarter

Copper production was 29% higher than the comparable period of 2018 reflecting the contribution from Cobre Panama in the quarter, which more than offset lower production at Sentinel. Production at Cobre Panama continued to ramp-up, with copper production of 60,338 tonnes in its first full quarter of commercial production, following the declaration effective September 1, 2019.

Las Cruces and Kansanshi production in the quarter recovered from lower copper production earlier in the year, and copper production volumes were broadly in line with the same period in 2018. This reflected mining and processing being fully operational at Las Cruces in the fourth quarter, and, at Kansanshi, higher sulphide grade ore and recoveries and higher mixed ore grade were limited by lower oxide grade and recoveries compared to the same period in 2018.

Sentinel copper production was 16% below that of the same period in 2018, due to lower grade ore from the areas mined as well as lower recoveries due to a higher volume of transitional ore mined from the east cutback.

Copper production at Çayeli was affected by lower throughput and ore grade and copper recoveries.

Gold production was 62% higher than the comparable quarter in 2018. Cobre Panama produced 28,040 ounces of gold in the quarter while Kansanshi benefited from operational enhancements.

Sales Volume Summary	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper sales volume (tonnes)					
Kansanshi ¹	73,986	47,138	56,330	235,381	229,832
Sentinel	53,272	58,201	60,257	218,282	238,211
Cobre Panama	48,841	35,056	-	83,897	-
Las Cruces	16,284	10,405	18,345	48,244	71,523
Guelb Moghrein	6,010	5,969	9,099	28,046	27,366
Çayeli	5,553	2,934	9,153	18,118	17,397
Pyhäsalmi	2,018	1,699	3,028	8,451	12,184
Total copper sales (tonnes) – commercial	205,964	161,402	156,212	640,419	596,513
Cobre Panama – pre-commercial	-	42,425	-	48,967	-
Total copper sales volume (tonnes) – including pre-commercial	205,964	203,827	156,212	689,386	596,513
Total gold sales volume (ounces) – commercial^{2,3}	79,409	55,632	53,221	236,126	193,072
Cobre Panama – pre-commercial ³	-	16,032	-	18,659	-
Total gold sales volume (ounces) – including pre-commercial³	79,409	71,664	53,221	254,785	193,072
Total zinc sales volume (tonnes)	2,979	2,297	8,268	16,372	26,112

¹ Copper sales exclude the sale of copper anode produced from third-party concentrate purchased at Kansanshi. Sales of copper anode attributable to third-party concentrate purchases were nil and 1,182 tonnes for the three months and year ended December 31, 2019, respectively, (5,884 tonnes and 7,349 tonnes for the three months and year ended December 31, 2018, respectively). There were no sales of copper anode attributable to third-party concentrate purchases in the three months to September 30, 2019.

² Commercial gold sales for the three months and year ended December 31, 2019, includes 23,336 ounces and 36,410 ounces, respectively, from Cobre Panama that was declared in commercial production September 1, 2019.

³ Excludes purchased gold delivered to Franco-Nevada under precious metal streaming arrangement.

Full year

Commercial copper sales volumes were 7% higher for the year compared with 2018, primarily reflecting the sales volumes from Cobre Panama. Cobre Panama recorded copper and gold sales volumes of 83,897 tonnes and 36,410 ounces, respectively, in the four-month period September to December 2019, following the declaration of commercial production effective September 1, 2019.

Sales volumes from Las Cruces and Sentinel were below 2018 due to lower copper production at both operations.

Fourth quarter

Copper sales volumes were 32% higher than in the same period of 2018, reflecting the contribution from Cobre Panama.

Unit Cost Summary	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper C1¹ cash cost (\$ per lb)					
Kansanshi ²	\$1.03	\$1.10	\$1.04	\$1.13	\$1.03
Sentinel	\$1.71	\$1.58	\$1.55	\$1.61	\$1.70
Cobre Panama ³	\$1.28	\$1.34	-	\$1.29	-
Las Cruces	\$0.73	\$1.46	\$0.94	\$1.17	\$0.90
Other sites ⁴	\$1.16	\$1.23	\$1.23	\$1.05	\$0.96
Total copper C1 cash cost (\$ per lb)²	\$1.24	\$1.36	\$1.23	\$1.31	\$1.28
Copper AISC¹ (\$ per lb)					
Kansanshi ²	\$1.48	\$1.74	\$1.61	\$1.65	\$1.55
Sentinel	\$2.22	\$2.12	\$2.02	\$2.12	\$2.22
Cobre Panama ³	\$1.85	\$1.56	-	\$1.78	-
Las Cruces	\$0.91	\$1.74	\$1.16	\$1.35	\$1.16
Other sites ⁴	\$1.51	\$1.60	\$1.40	\$1.33	\$1.26
Total copper AISC (\$ per lb)²	\$1.73	\$1.86	\$1.68	\$1.78	\$1.74

¹ Copper production for the year ended December 31, 2019 includes 67,704 tonnes of pre-commercial production from Cobre Panama, which is not included in C1, C3 and AISC calculations.

² Copper C1 cash cost and AISC for Kansanshi and total copper exclude purchases of copper concentrate from third parties treated through the Kansanshi smelter.

³ Copper C1 cash cost and AISC for Cobre Panama are calculated from the date of commercial production, September 1, 2019.

⁴ Other sites include Guelb Moghrein, Çayeli and Pyhäsalmi.

Full year

Total C1 cash cost of \$1.31 per lb in the year was \$0.03 per lb higher than the prior year, and includes the impact of four months of commercial production at Cobre Panama from September 1, 2019 of \$1.29 per lb. The higher C1 cash cost reflects lower production at Las Cruces, which resulted in an increase to its C1 cash cost of \$0.27 per lb in the year and increased total C1 cash cost by \$0.04 per lb. Lower copper production resulted in an increase of \$0.10 per lb to the Kansanshi C1 cash cost compared to 2018 and which resulted in an increase of \$0.04 per lb to total C1 cash cost. These increases were mitigated by a \$0.09 per lb decrease in Sentinel C1 cash cost due to various cost improvements mainly in fuel, consumables and employee costs.

Total AISC of \$1.78 per lb includes AISC at Cobre Panama of \$1.78 per lb from the date of commercial production. Total AISC was \$0.04 per lb higher compared to 2018, reflecting the higher C1 cash cost. Total AISC for 2019 also includes a \$0.01 per lb increase with respect to lease payments following the adoption of IFRS 16 *Leases*, which is matched by a corresponding decrease to C1 cash cost.

Fourth quarter

Total copper C1 cash cost of \$1.24 per lb in the fourth quarter includes the impact of a full quarter of commercial production at Cobre Panama of \$1.28 per lb. Total C1 cash cost was \$0.01 per lb higher than the same period in 2018, reflecting the impact of lower copper production at Sentinel, mitigated by lower C1 cash cost at Las Cruces, attributed to cost reduction efforts.

Total AISC of \$1.73 per lb includes AISC for Cobre Panama of \$1.85 per lb for the quarter. Total AISC was \$0.05 per lb higher than the same period in 2018, reflecting the higher total C1 cash cost and the deferred stripping activity at Cobre Panama. Lower sustaining capital expenditure at Kansanshi and Las Cruces as well as lower deferred stripping costs at Las Cruces, reduced total AISC.

Total AISC for the fourth quarter of 2019 includes a \$0.01 per lb increase with respect to lease payments following the adoption of IFRS 16 *Leases*, which is matched by a corresponding decrease to C1 cash cost.

OPERATIONS

Kansanshi	Q4 2019	Q3 2019	Q4 2018	2019	2018
Sulphide ore milled (000's tonnes) ¹	3,211	3,301	3,301	12,908	12,978
Sulphide ore grade processed (%)	0.95	0.86	0.81	0.89	0.78
Sulphide copper recovery (%)	93	92	88	91	91
Mixed ore milled (000's tonnes) ¹	1,900	1,939	2,165	7,699	8,186
Mixed ore grade processed (%)	1.11	1.02	1.08	1.05	1.06
Mixed copper recovery (%)	79	81	76	77	82
Oxide ore milled (000's tonnes) ¹	1,893	1,918	1,668	7,201	6,916
Oxide ore grade processed (%)	1.07	1.04	1.33	1.12	1.44
Oxide copper recovery (%)	79	85	92	82	89
Copper production (tonnes) ²	60,808	58,888	61,780	232,243	251,522
Copper smelter					
Concentrate processed (DMT) ³	342,550	281,800	349,424	1,317,826	1,381,637
Copper anode produced (tonnes) ³	86,690	69,952	89,894	324,281	347,037
Smelter copper recovery (%)	97	97	97	97	97
Acid tonnes produced (000's)	327	264	320	1,236	1,255
Copper sales (tonnes) ^{4,5}	73,986	47,138	56,330	235,381	229,832
Gold production (ounces)	36,105	38,925	33,465	145,386	130,019
Gold sales (ounces)	45,342	32,022	35,616	146,363	134,890
All-in sustaining cost (AISC) (per lb) ^{6,7}	\$1.48	\$1.74	\$1.61	\$1.65	\$1.55
Cash costs (C1) (per lb) ^{6,7}	\$1.03	\$1.10	\$1.04	\$1.13	\$1.03
Total costs (C3) (per lb) ^{6,7}	\$1.68	\$1.84	\$1.71	\$1.84	\$1.74
Sales revenues	495	314	417	1,581	1,672
Gross profit	166	74	140	472	623
Comparative EBITDA ⁶	232	126	198	705	859

¹ DMT

² Production presented on a copper concentrate basis, i.e. mine production only. Production does not include output from the smelter.

³ Concentrate processed in smelter and copper anodes produced are disclosed on a 100% basis, inclusive of Sentinel and third-party concentrate processed. Concentrate processed is measured in DMT. For the three months and year ended December 31, 2019, nil and 1,881 DMT of third-party purchased copper concentrate was treated, respectively (9,402 DMT and 11,682 DMT for the three months and year ended December 31, 2018, respectively). There was no third-party purchased concentrate treated for the three months ended September 30, 2019.

⁴ Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded. For the three months and year ended December 31, 2019, sales of copper anode produced from purchased concentrate were nil and 1,182 tonnes, respectively, (5,884 tonnes and 7,349 tonnes for the three months and year ended December 31, 2018, respectively). There were no sales of copper anode attributable to third-party concentrate purchases in the three months to September 30, 2019.

⁵ Sales include third-party sales of concentrate, cathode and anode attributable to Kansanshi (excluding copper anode sales attributable to Sentinel).

⁶ AISC, C1 cash cost, and C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

⁷ Excluding purchases of copper concentrate from third parties treated through the Kansanshi smelter.

Kansanshi Mining Operations

Full year

Copper production during the year was 8% lower compared to 2018, mainly due to lower grade ore processed through the oxide circuit and lower plant recoveries in the oxide and mixed ore circuits, reflecting high acid-consuming ore mined and the restriction of acid consumption to the acid available from the smelter. Higher grade ore on the sulphide circuit mitigated some of the impact to production.

Gold production was 12% higher than the same period of 2018, reflecting the impact of operational enhancements achieved through projects commissioned during the second quarter of 2019.

AISC of \$1.65 per lb was \$0.10 per lb higher than 2018, due to higher C1 cash costs. C1 cash cost was \$0.10 per lb higher than the same period in 2018, reflecting the impact of lower copper production and movements in the value of ore stockpiles processed during the current year. Higher by-product credits and lower fuel costs mitigated some of the impact of the above.

Sales revenues of \$1,581 million were 5% lower year-over-year, reflecting lower realized copper prices, excluding the impact of the corporate sales hedge program. Higher gold sales volumes and realized gold prices provided some mitigation to the above.

Gross profit of \$472 million was 24% below 2018, reflecting the decrease in sales revenues, the negative impact of the higher royalty rates introduced by the Zambian government from January 1, 2019, of \$21 million, and movements in the value of ore stockpiles processed in the period.

Fourth quarter

Copper production was 2% below that of the comparable period in 2018, mainly due to lower ore grade and plant recoveries on the oxide circuit, and lower throughput on the mixed ore and sulphide circuits, though higher ore grade and recoveries on the sulphide and mixed ore circuits limited the impact. The decline in the oxide ore grade was expected due to the depletion of higher-grade areas as the mine ages. Lower oxide ore grade combined with high acid-consuming ore impacted the leach efficiencies and circuit recovery on the oxide circuit. The high-pressure leach unit was in partial use during the quarter with one autoclave in operation.

Gold production was 8% higher than the fourth quarter of 2018, reflecting the impact of operational enhancements achieved through projects commissioned during the second quarter.

AISC of \$1.48 per lb was \$0.13 per lb below that of the same period in 2018, due to lower sustaining capital expenditure.

Sales revenues of \$495 million were 19% above the same period in 2018, reflecting higher copper and gold sales volumes and higher realized gold prices.

Gross profit of \$166 million was 19% above the same period in 2018, reflecting higher sales revenues. The increase was in spite of the \$5 million impact of the higher royalty rates introduced by the Zambian government from January 1, 2019.

Kansanshi Copper Smelter

Full year

The smelter treated 1,317,826 DMT of concentrate, produced 324,281 tonnes of copper in anode and 1,236,000 tonnes of sulphuric acid and maintained a consistent overall copper recovery rate of 97%. The volume of concentrate was 5% lower than 2018 on account of a two-week shutdown in the third quarter of 2019.

Fourth quarter

The smelter treated 342,550 DMT of concentrate, 2% lower than the same period of 2018, and produced 86,690 tonnes of copper anode and 327,000 tonnes of sulphuric acid. The concentrate grade treated in the quarter was 25.2%.

Outlook

Production in 2020 is expected to be between 220,000 and 235,000 tonnes of copper, and between 120,000 and 130,000 ounces of gold.

Sentinel	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper ore processed (000's tonnes) ¹	12,385	13,005	12,434	48,858	48,750
Copper ore grade processed (%)	0.47	0.47	0.53	0.50	0.50
Copper recovery (%)	87	91	92	91	91
Copper production (tonnes)	50,874	56,439	60,840	220,006	223,656
Copper sales (tonnes)	53,272	58,201	60,257	218,282	238,211
All-in sustaining cost (AISC) (per lb) ²	\$2.22	\$2.12	\$2.02	\$2.12	\$2.22
Cash cost (C1) (per lb) ²	\$1.71	\$1.58	\$1.55	\$1.61	\$1.70
Total cost (C3) (per lb) ²	\$2.45	\$2.29	\$2.26	\$2.34	\$2.42
Sales revenues	281	303	344	1,199	1,454
Gross profit	25	40	72	176	288
Comparative EBITDA ²	86	110	141	423	553

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Full year

Sentinel achieved record throughput in 2019. The mining of transitional ore in the fourth quarter, however, resulted in lower grade ore and recoveries, resulting in full year copper production that was 2% lower than 2018.

AISC of \$2.12 per lb was \$0.10 per lb below 2018, despite higher royalties, reflecting lower C1 cash cost and sustaining capital expenditure. C1 cash cost was \$0.09 per lb lower than 2018, due to cost improvements mainly in fuel, consumables, employee and contractor costs.

Sales revenues of \$1,199 million were 18% below 2018 due to both lower realized copper prices, excluding the impact of the corporate sales hedge program, and lower sales volumes. Sales revenues comprised sales of both concentrate and anode, with a higher proportion of revenue realized from copper anode. The lower sales revenues together with the negative impact of higher royalty rates introduced by the Zambian government from January 1, 2019, of \$19 million resulted in a 39% decrease in gross profit.

Fourth quarter

Copper production was 16% lower than the comparable 2018 quarter as a result of lower processed feed ore grade and recoveries. The lower feed ore grade resulted from mining of the south east extent of the main pit while recoveries were impacted by the increased transitional ore feed from the east cutback. Mill throughput was in line with the comparable period of 2018 despite the non-availability of secondary crushing during periods of competent ore treatment.

AISC of \$2.22 per lb was \$0.20 per lb above the same period of 2018, reflecting higher C1 cash cost and increased Zambian royalty rate, though sustaining capital expenditure was lower. C1 cash cost was \$0.16 per lb higher than the comparable period of 2018 due to the lower production and higher selling costs attributable to an increased proportion of third party copper concentrate in the sales ratio.

Sales revenues of \$281 million were 18% lower than the same period in 2018 due to lower realized copper prices, excluding the impact of the corporate sales hedge program, and lower sales volumes. Sales revenues comprised sales of both concentrate and anode, with a higher proportion of revenue realized from copper anode. Gross profit was 65% lower than the same period in 2018, reflecting the decrease in sales revenues and a \$5 million negative impact of the higher royalty rates enacted as of January 1, 2019.

Outlook

Copper production in 2020 is expected to be between 230,000 and 240,000 tonnes.

Cobre Panama production during 2020 is expected to benefit from increased and consistent ore supply from the east cutback as well as improved ore grades during the second half of the year, and improved process operations and treatment of transitional ore. Mining will continue to focus on operational improvements with expansion of the trolley assist program planned, as well as improved fleet availability and reliability. The remaining secondary crusher is expected to be re-commissioned during the second quarter.

A five-day planned maintenance shutdown has been scheduled for July 2020.

Cobre Panama	Q4 2019	Q3 2019	Q3 2019	Q4 2018	2019	2019	2018
		Post-commercial production	Pre-commercial production		Post-commercial production	Pre-commercial production	
Copper ore processed (000's tonnes) ¹	16,493	4,437	8,375	-	20,930	17,653	-
Copper ore grade processed (%)	0.41	0.49	0.51	-	0.43	0.47	-
Copper recovery (%)	89	89	86	-	89	85	-
Copper production (tonnes)	60,338	19,438	36,783	-	79,776	67,704	-
Copper sales (tonnes)	48,841	35,056	42,425	-	83,897	48,967	-
Gold production (ounces)	28,040	7,914	13,570	-	35,954	24,120	-
Gold sales (ounces) ²	23,336	13,074	16,032	-	36,410	18,659	-
Silver production (ounces)	452,663	152,243	269,800	-	604,906	527,341	-
Silver sales (ounces) ²	354,689	271,774	350,982	-	626,463	406,135	-
All-in sustaining cost (AISC) (per lb) ³	\$1.85	\$1.56	-	-	\$1.78	-	-
Cash cost (C1) (per lb) ³	\$1.28	\$1.34	-	-	\$1.29	-	-
Total cost (C3) (per lb) ³	\$2.12	\$2.28	-	-	\$2.15	-	-
Sales revenues	314	210	-	-	524	-	-
Gross profit	56	36	-	-	92	-	-
Comparative EBITDA ³	136	67	-	-	203	-	-

¹ DMT

² Excludes purchased gold delivered to Franco-Nevada under precious metal streaming arrangement.

³ AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Full year

Cobre Panama achieved a successful ramp-up to commercial production in the year, following first copper production in March 2019. Commercial production was declared from September 1, 2019, with 79,776 tonnes and 35,954 ounces of commercial copper and gold production, respectively, to December 31, 2019.

Cobre Panama's eighth and final mill came on line in mid-December, providing additional capacity on the third milling train. Mill throughput can now ramp up to annualized throughput of 85 million tonnes. Mill throughput for the month of December was 6.6 million tonnes.

Revenue and operating costs have been recorded for the period from September 1, 2019 to December 31, 2019, in the Statement of Earnings. Comparative financial information has not been presented as all pre-commercial production revenue and costs have been capitalized.

AISC and C1 cash cost for the post-commercial production period to December 31, 2019 were \$1.78 and \$1.29 per lb, respectively, in line with expectations.

Sales revenues for the period September 1 to December 31, 2019, post-declaration of commercial production, amounted to \$524 million. Gross profit for the same period was \$92 million, with comparative EBITDA of \$203 million. Cobre Panama successfully dispatched 20 concentrate shipments during 2019, reflecting a total of 132,864 tonnes of contained copper sold, including 83,897 tonnes in the post-commercial production period.

Fourth quarter

Production at Cobre Panama continued to ramp up during the fourth quarter, with copper and gold production of 60,338 tonnes and 28,040 ounces, respectively. During the quarter, 16.5 million tonnes of ore with a grade of 0.41% were processed, and recoveries of 89% were achieved.

AISC and C1 cash cost of \$1.85 per lb and \$1.28 per lb, respectively, for the three months ended December 31, 2019 were in line with expectations.

Sales revenues for the three months ended December 31, 2019, were \$314 million. Gross profit for the same period was \$56 million, with comparative EBITDA of \$136 million. A total of 48,841 tonnes of contained copper were sold in the fourth quarter.

Outlook

Production ramp-up and reliability is expected to progress through the first quarter of 2020 and across the first half of 2020 according to plan, and throughput rates are expected to reach steady state consistency by the second half of 2020. Cobre Panama remains on track to achieve the expected annual production of between 285,000 and 310,000 tonnes of copper and between 120,000 and 130,000 ounces of gold in 2020.

The National Instrument 43-101 technical report released in March 2019 includes the plan for expansion of Cobre Panama from 85 Mtpa to 100 Mtpa starting in 2023. There has been no change in this development plan and the assumptions used in the National Instrument 43-101 technical report, including the provisions for development capital. A final decision to proceed with the capital deployment and upgrades to the mobile fleet and equipment is expected within the timeframe required to meet the 2023 project schedule. At the 100 Mtpa throughput rate Cobre Panama is expected to reach estimated copper production of over 350,000 tonnes per year.

Las Cruces	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper ore processed (000's tonnes) ¹	364	305	400	1,354	1,544
Copper ore grade processed (%)	5.71	3.73	5.00	4.17	4.95
Copper recovery (%)	85	83	93	85	93
Copper cathode production (tonnes)	17,611	9,479	18,470	48,090	70,738
Copper cathode sales (tonnes)	16,284	10,405	18,345	48,244	71,523
All-in sustaining cost (AISC) (per lb) ²	\$0.91	\$1.74	\$1.16	\$1.35	\$1.16
Cash cost (C1) (per lb) ²	\$0.73	\$1.46	\$0.94	\$1.17	\$0.90
Total cost (C3) (per lb) ²	\$2.43	\$3.61	\$2.28	\$3.08	\$2.25
Sales revenues	97	61	113	291	470
Gross profit (loss)	7	(20)	19	(38)	116
Comparative EBITDA ²	71	29	76	167	326

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Full year

Copper production for 2019 decreased by 32% compared to 2018 as a result of the interruption to mining from the land slippage in January. Mining activities recommenced in July following the receipt of the required regulatory approvals. A remediation plan was implemented during the suspension of mining activities and plant production continued using available low-grade stockpiles until August, when fresh ore was available from the mine. Plant throughput, grade and recoveries were further impacted by problems caused by sticky ore feed and the ball mill failure in September caused by wearing in its cylinder, which is planned to be replaced in the first quarter of 2020.

AISC of \$1.35 per lb was \$0.19 per lb higher compared to same period in 2018, mainly due to higher C1 cash cost driven by lower production. This was caused by the land slippage and the ball mill failure in September which had a \$0.26 per lb impact on C1 cash cost, with some mitigation provided by cost reduction efforts.

Sales revenues of \$291 million was 38% below that of 2018, due to lower sales volumes and realized copper prices, excluding the impact of the corporate sales hedge program. The lower revenues contributed to a gross loss of \$38 million for the year.

A \$97 million impairment charge was recognized in 2019 as well as a \$11 million charge relating to the write-off of specific assets and other costs associated with the land slippage.

Fourth quarter

Copper production decreased by 5% compared to the 2018 quarter. Following the repair of the ball mill cylinder and the resumption of mining fresh ore in August, production in the fourth quarter was close to design capacity and benefited from higher grade ore processed. However, plant throughput and recoveries in the quarter continued to be impacted by challenges of processing sticky ore.

AISC of \$0.91 per lb for the quarter was \$0.25 per lb below the comparative 2018 quarter reflecting lower C1 cash cost driven by cost reduction efforts and lower deferred stripping and sustaining capital expenditure.

Sales revenues of \$97 million were 14% lower compared with same period in 2018 due to lower realized copper prices, excluding the impact of the corporate sales hedge program, and lower copper sales volumes. Gross profit of \$7 million in the quarter compared to \$19 million in same period in 2018 reflects the lower sales revenue. An impairment of \$97 million was recognized as

Las Cruces enters its expected final year of open-pit mining following finalization of the post-land slippage mine plan and the short-term volatility in the copper price

Outlook

2020 is expected to be the final year of production for the open-pit. Copper production guidance for 2020 is 52,000 tonnes.

Ongoing remediation of the mine and cost optimization are expected to be the focus in 2020. Remediation activities in the pit are expected to be finalized in the first quarter of 2020.

Research on the technical and economic feasibility of the polymetallic refinery project is progressing, as well as permits required to carry out this project in the medium term.

Guelb Moghreïn	Q4 2019	Q3 2019	Q4 2018	2019	2018
Sulphide ore milled (000's tonnes) ¹	1,029	810	983	3,851	3,684
Sulphide ore grade processed (%)	0.89	0.88	0.93	0.87	0.85
Sulphide copper recovery (%)	89	87	91	89	90
Copper production (tonnes)	8,220	6,203	8,319	29,620	28,137
Copper sales (tonnes)	6,010	5,969	9,099	28,046	27,366
Gold production (ounces)	12,027	8,187	12,236	44,673	45,974
Gold sales (ounces)	8,415	9,074	14,224	44,946	48,195
Magnetite concentrate production (WMT) ²	152,202	106,634	97,052	541,560	425,389
Magnetite concentrate sales (WMT) ²	90,032	123,274	85,914	525,699	376,956
All-in sustaining cost (AISC) (per lb) ³	\$1.37	\$1.62	\$1.95	\$1.36	\$1.93
Cash costs (C1) (per lb) ³	\$0.98	\$1.11	\$1.73	\$1.00	\$1.50
Total costs (C3) (per lb) ³	\$1.78	\$1.93	\$2.79	\$1.87	\$2.46
Sales revenues	50	52	70	243	235
Gross profit	9	12	1	45	30
Comparative EBITDA ³	16	19	13	87	66

¹ DMT

² Magnetite concentrate production and sales volumes are measured in wet metric tonnes ("WMT").

³ AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Full year and fourth quarter

Copper production for the year and three months ended December 31, 2019 was 5% higher and 1% lower, respectively, than the same periods in 2018. Higher copper production for the year resulted from improvements in plant throughput and higher feed grade. The lower production in the fourth quarter was due to lower ore grade and copper recovery, despite higher throughput.

Gold production for the year and three months ended December 31, 2019, decreased by 3% and 2%, respectively, compared to the same periods in 2018, primarily due to lower gold circuit recovery and, for the fourth quarter, lower ore grade. The lower recoveries resulted from higher magnetite content in the ore.

The magnetite plant produced 541,560 WMT in the year and 152,202 WMT in the quarter, representing a 27% and 57% increase, respectively, over the comparable periods of 2018. The higher production reflected higher magnetite ore grade and overall improvements in the magnetite plant performance.

AISC for the year and three months ended December 31, 2019, were \$0.57 per lb and \$0.58 per lb lower, respectively, than the same periods in 2018, primarily reflecting lower C1 cash cost, although there were higher deferred stripping costs relating to waste development of the Oriental pit, and for the year, increased mineral royalty costs. C1 cash cost for the year and three months ended December 31, 2019, were \$0.50 per lb and \$0.75 per lb lower, respectively, than the same periods in 2018, due to higher magnetite by-product credits and lower fuel and personnel costs, as well as other cost improvement initiatives including mining sequencing, fleet reduction and productivity improvements.

Sales revenues for the year and three months ended December 31, 2019, were 3% higher and 29% lower, respectively, than the comparable periods of 2018. Sales revenues were higher for the year despite lower realized copper prices, excluding the impact of the corporate copper sales hedge program, due to higher copper and magnetite sales volumes. Lower sales revenues in the quarter were impacted by lower copper and gold sales volumes, and lower realized copper prices. Gross profit of \$45 million and \$9 million for the year and three months ended December 31, 2019, respectively, were higher than the same periods in 2018, with the quarter benefiting from lower costs.

Outlook

Production in 2020 is expected to be 25,000 tonnes of copper, 40,000 ounces of gold, and 500,000 WMT of concentrate of magnetite.

The focus for the year will be on optimizing plant operations, improving gold recovery, mining cost reductions and productivity improvement.

Çayeli	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper ore milled (000's tonnes) ¹	236	207	252	916	1,007
Copper ore grade processed (%)	2.29	1.78	2.64	2.07	2.26
Copper recovery (%)	87	87	89	88	88
Zinc ore grade processed (%)	1.94	1.37	1.50	1.51	1.40
Zinc recovery (%)	42	41	27	38	29
Copper production (tonnes)	4,725	3,218	5,931	16,706	19,896
Copper sales (tonnes)	5,553	2,934	9,153	18,118	17,397
Zinc production (tonnes)	1,896	1,176	1,034	5,252	4,091
Zinc sales (tonnes)	2,046	-	2,154	3,879	4,313
All-in sustaining cost (AISC) (per lb) ²	\$1.51	\$2.12	\$1.28	\$1.65	\$1.48
Cash cost (C1) (per lb) ²	\$1.11	\$1.82	\$1.09	\$1.35	\$1.21
Total cost (C3) (per lb) ²	\$1.60	\$2.83	\$1.75	\$2.16	\$2.03
Sales revenues	32	13	52	95	100
Gross profit (loss)	11	(1)	19	22	23
Comparative EBITDA ²	16	4	30	55	51

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Full year and fourth quarter

Copper production for the year and three months ended December 31, 2019, was 16% and 20% lower, respectively, compared to the same periods in 2018 due to lower throughput as a result of production from fewer mining locations and smaller stope dimensions, as well as lower copper ore grade. Lower copper recovery further impacted production in the fourth quarter.

Zinc production for the year and three months ended December 31, 2019 was 28% and 83% higher, respectively, compared to the same periods in 2018, reflecting higher zinc grades and recovery. Continuous operation of the zinc circuit has yielded improved zinc recovery rates for the year and three months ended December 31, 2019, compared with 2018.

AISC for the year and three months ended December 31, 2019, increased by \$0.17 per lb and \$0.23 per lb, respectively, compared to the same periods in 2018, mainly driven by higher C1 cash cost, and higher sustaining capital expenditure for the year. C1 cash cost was higher by \$0.14 per lb and \$0.02 per lb, respectively, for the year and quarter ended December 31, 2019, compared to the same periods in 2018 mainly due to impact of lower copper production.

Sales revenues of \$95 million for the year ended December 31, 2019 and \$32 million in the fourth quarter were 5% and 38% lower compared to the same periods in 2018, mainly due to lower realized metal prices excluding the impact of the corporate sales hedge program, though copper sales volumes were higher for the year ended December 31, 2019. For the quarter, the 38% lower sales revenues was a result of approximately 60% of the prior years sales occurring in the fourth quarter combined with the lower realized metal prices in 2019, excluding the impact of the corporate sales hedge program.

Gross profit for the year and quarter ended December 31, 2019, was below the same periods in 2018, mainly due to the lower sales revenues.

Outlook

Production for 2020 is expected to be 15,000 tonnes of copper and 6,000 tonnes of zinc, reflecting a declining number of work areas as the mine approaches reserve depletion in 2023.

Production is expected to be challenging due to poor ground conditions in the areas planned to be mined, therefore ground stabilization will continue to be critical to achieving the expected production levels.

Pyhäsalmi	Q4 2019	Q3 2019	Q4 2018	2019	2018
Copper ore milled (000's tonnes) ¹	230	248	312	1,066	1,248
Copper ore grade processed (%)	0.77	0.90	0.98	0.83	0.99
Copper recovery (%)	95	94	97	91	96
Zinc ore grade processed (%)	0.33	1.50	2.35	1.27	2.01
Zinc recovery (%)	75	88	91	89	91
Copper production (tonnes)	1,694	2,062	2,964	8,003	11,904
Copper sales (tonnes)	2,018	1,699	3,028	8,451	12,184
Zinc production (tonnes)	566	3,253	6,653	12,080	22,716
Zinc sales (tonnes)	933	2,297	6,114	12,493	21,799
Pyrite production (tonnes)	120,687	127,960	168,881	553,644	645,885
Pyrite sales (tonnes)	110,823	90,619	124,109	423,330	445,181
All-in sustaining cost (AISC) (per lb) ²	\$2.11	\$0.64	(\$0.59)	\$0.55	(\$0.46)
Cash cost (C1) (per lb) ²	\$2.02	\$0.61	(\$0.59)	\$0.51	(\$0.46)
Total cost (C3) (per lb) ²	\$2.17	\$1.62	\$1.57	\$1.77	\$1.70
Sales revenues	17	16	34	90	144
Gross profit	5	3	9	24	40
Comparative EBITDA ²	5	7	23	45	94

¹ DMT

² AISC, C1 cash cost, C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Full year and fourth quarter

Copper production decreased by 33% and 43% in the year and three months ended December 31, 2019, respectively, compared to the same periods in 2018, mainly due to lower copper grade, throughput and copper recovery. Zinc production was lower in the year and three months ended December 31, 2019, compared to the same periods in 2018 due to lower zinc grade and recovery. The lower throughput and grades in 2019 reflect the nearly depleted mineral reserve and the constraint on available work areas at this stage of the mine life.

AISC of \$0.55 per lb and \$2.11 per lb for the year and three months ended December 31, 2019, respectively, were higher than the comparable periods in 2018 mainly due to higher C1 cash cost, which reflected lower by-product credits and lower copper production.

Sales revenues of \$90 million and \$17 million were 38% and 50% lower, respectively, for the year and three months ended December 31, 2019. Lower copper and zinc sales volumes and realized metal prices, excluding the impact of the corporate sales hedge program, were the main drivers of lower sales revenues. Gross profit of \$24 million and \$5 million for the year and fourth quarter were lower than the same periods in 2018, mainly reflecting the lower sales revenues.

Outlook

The life of the mine has been extended into June 2021 with an assumed lower copper cut-off grade. Production guidance for the year 2020 is 3,000 tonnes of copper, 2,000 ounces of gold and 1,000 tonnes of zinc. The operation is also expected to produce 450,000 tonnes of pyrite.

Throughput is expected to be 700,000 tonnes in 2020 in line with the anticipated depletion of economic ore.

A total of 167 days of shutdown time is planned for 2020 to optimize plant throughput, reflecting two weeks of shutdown each month.

Ravensthorpe

Ravensthorpe remained on care and maintenance during the year, and continued operational readiness works during the fourth quarter in preparation for the restart of operations in the first quarter of 2020. During the quarter, the mining contract was awarded, and commissioning works on crushing, beneficiation and acid leaching circuits continued. Also, recruitment of personnel commenced. Costs in the fourth quarter and twelve months of 2019 were \$18 million and \$38 million, respectively, reflecting the increase in operational readiness work and activities.

Outlook

The mining contractor mobilized and commenced mine production early in the first quarter of 2020. On the process plant, commissioning works and recruitment of operations personnel are planned to continue to ramp up ahead of expected first nickel and cobalt production during the quarter. The first two shipments of sulphur, a critical process reagent, were received in January 2020.

Following restart, Ravensthorpe is expected to produce between 15,000 and 20,000 tonnes of nickel in 2020.

Engineering design and the relevant governmental approval process for development of the Shoemaker Levy orebody is ongoing ahead of a capital works program, expected to commence in 2020, to bring Shoemaker Levy into production, with first ore to the plant scheduled for early 2021.

SALES REVENUES

		Q4 2019	Q3 2019	Q4 2018	2019	2018
Kansanshi	- copper	424	265	371	1,363	1,491
	- gold	65	45	41	197	160
	- acid	6	4	5	21	21
Sentinel	- copper	281	303	344	1,199	1,454
Cobre Panama ²	- copper	253	178	-	431	-
	- gold	53	26	-	79	-
	- other	8	6	-	14	-
Las Cruces	- copper	97	61	113	291	470
Guelb Moghrein	- copper	30	30	48	145	154
	- gold	12	12	17	58	58
	- magnetite	8	10	5	40	23
Çayeli	- copper	26	13	44	85	87
	- zinc, gold and silver	6	-	8	10	13
Pyhäsalmi	- copper	10	9	17	45	70
	- zinc	1	2	11	22	45
	- pyrite, gold and silver	6	5	6	23	29
Corporate ¹		(2)	18	24	44	(109)
Sales revenues ²		1,284	987	1,054	4,067	3,966
	Copper	1,120	877	963	3,603	3,616
	Gold	132	86	61	342	228
	Zinc	4	2	15	28	53
	Other	28	22	15	94	69
		1,284	987	1,054	4,067	3,966

¹ Corporate sales include sales hedges (see "Hedging programs" for further discussion).

² The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019. Pre-commercial sales revenues attributable to Cobre Panama are capitalized and are excluded from earnings.

Full year

Total sales revenues were 3% higher than 2018, including sales at Cobre Panama, following declaration of commercial production on September 1, 2019, which contributed \$431 million and \$79 million in copper and gold sales revenues, respectively, in the year. Copper sales revenues were in line with 2018, reflecting the contribution by Cobre Panama notwithstanding the impact of a 5% decrease in the realized copper price. Included within copper sales revenues is \$44 million realized gain on the corporate copper sales hedge program, compared with a \$110 million loss in 2018.

Gold revenues, which include Cobre Panama, increased by \$114 million compared to 2018 and benefited from a 23% increase to the realized gold price which increased gold sales revenues by \$63 million compared to 2018. The higher gold sales volumes, inclusive of Cobre Panama, represented \$51 million of the increased gold sales revenues.

Fourth quarter

Total sales revenues were \$230 million higher than the comparable period of 2018 benefiting from the first full quarter of commercial production at Cobre Panama, which contributed \$314 million.

Copper sales volumes for the quarter were 32% higher than the same period of 2018 which resulted in a \$260 million increase to copper sales revenues, despite a 7% decrease in the realized copper price which reduced copper sales revenues by \$101 million. Included within copper sales revenues was a \$1 million loss of the copper sales hedge program, compared with a \$25 million gain in 2018.

Gold sales revenues were \$71 million higher than the comparable period of 2018, reflecting a 49% increase in gold sales volumes, mainly attributable to Cobre Panama which contributed \$53 million, as well as the impact of higher realized gold prices in the period compared to 2018.

REALIZED PRICES

Copper selling price (per lb)	Q4 2019	Q3 2019	Q4 2018	2019	2018
Average LME cash price	\$2.67	\$2.63	\$2.80	\$2.72	\$2.96
Realized copper price	\$2.62	\$2.62	\$2.83	\$2.70	\$2.84
Treatment/refining charges ("TC/RC") and freight	(\$0.15)	(\$0.16)	(\$0.14)	(\$0.15)	(\$0.13)
Net realized copper price	\$2.47	\$2.46	\$2.69	\$2.55	\$2.71

Given the volatility in copper prices, significant variances can arise between average LME cash price and net realized prices due to the timing of sales during the period.

The copper sales hedging program added \$44 million to the full year, an impact of \$0.03 per lb on the net realized copper price. The impact on the quarter was a hedge loss of \$1 million but with a modest impact on the net realized copper price achieved.

Details of the Company's hedging program and the contracts held are included on page 34.

SUMMARY FINANCIAL RESULTS¹

	Q4 2019	Q3 2019	Q4 2018	2019	2018
Gross profit (loss)					
Kansanshi	166	74	140	472	623
Sentinel	25	40	72	176	288
Cobre Panama	56	36	-	92	-
Las Cruces	7	(20)	19	(38)	116
Guelb Moghrein	9	12	1	45	30
Çayeli	11	(1)	19	22	23
Pyhäsalmi	5	3	9	24	40
Ravensthorpe	(18)	(8)	(4)	(38)	(16)
Corporate ²	(2)	14	24	35	(126)
Total gross profit	259	150	280	790	978
Exploration	(7)	(4)	(7)	(19)	(26)
General and administrative	(25)	(21)	(19)	(82)	(74)
Impairment	(101)	-	-	(101)	-
Other income (expense)	(57)	(17)	6	(114)	(69)
Net finance expense	(187)	(59)	(1)	(248)	(13)
Loss on partial redemption of senior notes	-	-	-	(25)	-
Finance charge on discounting of					
Zambian VAT	(22)	(160)	(5)	(182)	(5)
Income tax credit (expense)	17	33	(41)	(70)	(283)
Net earnings (loss)	(123)	(78)	213	(51)	508
Net earnings (loss) attributable to:					
Non-controlling interests	(8)	(5)	15	6	67
Shareholders of the Company	(115)	(73)	198	(57)	441
Comparative earnings	35	32	182	249	487
Earnings (loss) per share					
Basic	(\$0.17)	(\$0.11)	\$0.29	(\$0.08)	\$0.64
Diluted	(\$0.17)	(\$0.11)	\$0.29	(\$0.08)	\$0.64
Comparative	\$0.05	\$0.05	\$0.26	\$0.36	\$0.71
Basic weighted average number of shares (in 000's)	688,083	688,425	687,074	687,596	686,747

¹ The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019. Pre-commercial production operating results attributable to Cobre Panama are capitalized and are excluded from earnings.

² Corporate gross profit (loss) relates primarily to the sales hedge contracts.

Full year

Gross profit, inclusive of a \$92 million contribution from Cobre Panama, was 19% lower than the comparable period of 2018 due principally to lower realized copper prices and lower sales volumes at Las Cruces and Sentinel, and increased Zambian mineral royalty rates. These were mitigated by the positive contribution of Cobre Panama, gains on the copper sales hedge program and a positive impact of foreign exchange on operational costs.

In 2018 there was a sell-down of Sentinel inventory resulting in a comparatively lower copper sales volume in 2019, although aligned to production levels. Lower copper sales volumes at Las Cruces were due to the interruption to mining from January until July 2019, as well as the ball mill failure in September that impacted production.

An impairment charge of \$101 million was recognized which includes \$97 million at Las Cruces resulting from volatility in the short-term copper price, reflecting production for 2020 following finalization of the post-land slippage mine plan, which is expected to be the final year of production for the open-pit operation. This is in addition to specific asset write-offs and associated costs of \$11 million, included in other expenses, that were recognized following the land slippage that occurred in January 2019.

Other expense for 2019 includes a foreign exchange loss of \$96 million, primarily due to the depreciation of the Zambian kwacha against the US dollar and the impact on the VAT balances due to Kansanshi and Sentinel. This compared with a \$64 million loss in the same period of 2018. In 2019, an \$11 million loss representing the equity share of earnings from the KPMC joint venture has been included in other expense, this represents the share of earnings from the Cobre Panama mine.

Following declaration of commercial production at Cobre Panama on September 1, 2019, the Company ceased capitalization of interest costs to the project and a net interest expense of \$248 million was reported in the statement of earnings, compared with \$13 million in 2018. Interest expense for 2019 also includes a modification gain of \$3 million on the senior Revolving Credit Facility, as a result of adjustments to the timings of drawdowns on the facility.

A \$25 million loss on partial redemption of the Company's 7.00% Notes due February 2021, was recognized in the first quarter of 2019.

Included within the net loss of \$51 million for the year is a finance charge of \$182 million with respect to the discounting of Zambian VAT balances. The tax expense of \$70 million reflects the applicable statutory tax rates, which range from 20% to 35% for the Company's operations. No tax charge has been recognized with respect to the gain realized on the Company's copper sales hedge program, the modification gain on the senior Revolving Credit Facility, or the loss on partial redemption of the senior notes.

The effective tax rate, excluding the sales hedge program, comparative finance charges, and the impact of Zambian mining tax regime changes effective January 1, 2019, which increased mineral royalties by 1.5% and made them non-deductible for tax, and the impact of interest that would previously have been eligible for capitalization but is now expensed following declaration of commercial production at Cobre Panama on September 1, 2019, was approximately 15%. The effective tax rate, including the impact of the Zambian mining tax regime changes effective January 1, 2019, and excluding interest expense for the four months ended December 31, 2019, was approximately 30%.

Fourth quarter

Gross profit for the quarter of \$259 million including Cobre Panama, which contributed \$56 million following the declaration of commercial production on September 1, 2019, was 8% lower than the comparable quarter of 2018, as a result of a lower realized copper price and increased Zambian mineral royalty rates.

A \$97 million impairment charge was recognized at Las Cruces, resulting from volatility in the short-term copper price, reflecting production for 2020 following finalization of the post-land slippage mine plan, which is expected to be the final year of production for the open-pit operation. A \$4 million impairment charge with respect to Ecuadorean exploration assets was also recognized in the period. Included within other expense is a \$47 million foreign exchange loss, mainly attributable to the depreciation of the Zambian kwacha against the US dollar and the impact on the locally denominated VAT balances due to Kansanshi and Sentinel, compared with a \$13 million gain in the comparable period of 2018. A \$4 million modification loss was recognized in the quarter on the senior revolving credit facility, as a result of adjustments to the timings of drawdowns on the senior Revolving Credit Facility.

Net loss of \$123 million included a finance charge of \$22 million with respect to the discounting of Zambian VAT balances and net interest expense of \$187 million. Also included is a tax credit of \$17 million reflecting applicable statutory tax rates, which range from 20% to 35% for the Company's operations. No tax charge has been recognized with respect to the gain realized on the Company's copper sales hedge program or the modification loss on the senior revolving credit facility.

LIQUIDITY AND CAPITAL RESOURCES

	Q4 2019	Q3 2019	Q4 2018	2019	2018
Cash flows from operating activities	400	151	338	889	1,980
Cash flows from (used by) investing activities					
Payments and deposits for property, plant and equipment	(325)	(270)	(606)	(1,455)	(2,143)
Capitalized borrowing costs paid in cash	-	(101)	(49)	(388)	(441)
Acquisition of KPMC	(100)	-	(80)	(100)	(185)
Other investing activities	9	2	6	23	17
Cash flows from (used by) financing activities					
Net movement in debt and trading facilities	203	(122)	413	883	948
Early redemption costs on senior notes	-	-	-	(14)	-
Other financing activities	(70)	(56)	19	(103)	(68)
Exchange gains (losses) on cash and cash equivalents	-	-	(6)	-	(22)
Net cash inflow (outflow)	117	(396)	35	(265)	86
Cash balance	523	406	788	523	788
Total assets	24,747	24,453	23,537	24,747	23,537
Total current liabilities	2,523	2,081	1,644	2,523	1,644
Total long-term liabilities	11,562	11,614	11,171	11,562	11,171
Net debt ¹	7,675	7,579	6,497	7,675	6,497
Cash flows from operating activities per share ¹	\$0.58	\$0.22	\$0.49	\$1.29	\$2.88

¹ Cash flows per share and Net debt are not recognized under IFRS. See "Regulatory Disclosures" for further information.

Cash flows from operating activities in the year were \$1,091 million lower than 2018. The prior period included receipts from Franco-Nevada of \$630 million under the precious metal stream arrangement. Comparative EBITDA was \$128 million lower in 2019 compared to 2018 which flowed through to operating activities and working capital outflows were \$294 million higher, due to VAT claims in Zambia and higher trade receivables from increased revenue in the respective final quarters. Cashflows used by investing activities included \$100 million instalment paid with respect to the acquisition of KPMC in 2017.

The total VAT receivable accrued by the Company's Zambian operations at December 31, 2019, was \$398 million, of which \$233 million relates to Kansanshi. A finance charge of \$160 million had previously been recognized in the nine months ended September 30, 2019, to reflect the impact of discounting the balance over the expected timeframe to repayment. A further \$22 million finance charge was recognized in the quarter ended December 31, 2019, representing the discounting of all Zambian VAT balances over the expected timeframe to repayment, using a Zambian kwacha risk-free rate. As at December 31, 2018, the impact of discounting non-current VAT was \$25 million. In February 2015, the GRZ implemented a change in the Statutory Instrument regarding VAT. Claims totalling Zambian kwacha 1,585 million (currently equivalent to \$113 million) made by Kansanshi prior to this date remain outstanding. Cash totalling \$99 million has been received to date for claims subsequent to February 2015. The accrual for historical VAT receivables stems from the application of discretionary rules established and applied by the Commissioner General relating to exports from Zambia. The Company is in regular discussions with the relevant government authorities and continues to consider that the outstanding claims are fully recoverable.

	December 31, 2019	December 31, 2018
Zambian VAT		
Receivable at date of claim	847	645
Impact of depreciation of Zambian kwacha against US\$	(242)	(177)
	605	468
Impact of discounting non-current portion	(207)	(25)
Total receivable	398	443
<i>Comprising:</i>		
Current portion, included within trade and other receivables	2	334
Non-current VAT receivable	396	109

Cash flows used by investing activities in 2019 included capital expenditure of \$1,455 million compared to \$2,143 million for the same period in 2018, mostly related to bringing the Cobre Panama operation into commercial production. Interest paid and capitalized to property, plant and equipment of \$388 million compares to \$441 million in 2018. Following the declaration of commercial production at Cobre Panama, effective September 1, 2019, and the cessation of capitalization, interest paid is included within cash flows from financing activities.

Cash inflows from financing activities of \$766 million (2018: \$880 million) included net proceeds from debt of \$726 million and interest paid of \$181 million compared with \$1,022 million and \$22 million in 2018, respectively.

Liquidity outlook

At December 31, 2019, the Company had \$250 million of committed undrawn senior debt facilities, \$523 million in net unrestricted cash, and current working capital of \$994 million. These, together with expected future cash flows, support the Company's belief in its ability to meet current obligations as they become due. The Company was in full compliance with all its financial covenants at December 31, 2019, and expects to remain in compliance throughout the next 12 months.

On January 13, 2020, the Company issued an additional \$500 million aggregate principal amount of 7.25% Senior Notes due 2023 (the "2023 New Notes") and an additional \$250 million aggregate principal amount of 7.50% Senior Notes due 2025 (the "2025 New Notes", collectively the "Notes"). The 2023 New Notes were priced at 102.50% and the 2025 New Notes were priced at 103.00%. The Notes represent an additional offering to the Company's existing \$1.1 billion of Senior Notes due 2023 (the "Existing 2023 Notes"), and the existing \$1.1 billion of Senior Notes due 2025 (the "Existing 2025 Notes") issued under the same indentures.

Interest on the 2023 New Notes will accrue from October 1, 2019 at a rate of 7.25% per annum and will be payable semi-annually. Interest on the 2025 New Notes will accrue from October 1, 2019 at a rate of 7.50% per annum and will be payable semi-annually. The Notes will be senior unsecured obligations of the Company and will be guaranteed by certain of the Company's subsidiaries.

The Company intends to use the proceeds from the issuance of the Notes to redeem in full the outstanding \$300 million of 7.00% Senior Notes due February 15, 2021, including the payment of accrued and unpaid interest, and to repay (but not cancel commitments) \$450 million of amounts outstanding under the Company's revolving credit facility. On January 16, 2020, the Company issued notice of redemption of the 7.00% Senior Notes due 2021.

On July 18, 2019, Fitch Ratings ("Fitch") reaffirmed a B rating with a stable outlook for both the Long-Term Issuer Default Rating and Senior Unsecured Rating. On September 6, 2019, Standard & Poor's ("S&P") lowered the rating from B to B- with a stable outlook following a downgrade in the sovereign credit rating from CCC+ as the Company's rating is currently capped at one notch above the Zambia sovereign rating. The rating of the Company published by Moody's is unsolicited and non-participating.

At December 31, 2019, the Company had total commitments of \$137 million, all of which related to the 12 months following the period end.

Contractual and other obligations as at December 31, 2019, are as follows:

	Carrying value	Contractual cashflows	< 1 year	1 – 3 years	3 – 5 years	Thereafter
Debt – principal repayments	7,936	8,004	804	3,150	1,950	2,100
Debt – finance charges	-	2,014	544	901	425	144
Trading facilities	262	262	262	-	-	-
Trade and other payables	637	637	637	-	-	-
Derivative instruments	31	31	31	-	-	-
Liability to joint venture ¹	1,238	2,312	-	-	-	2,312
Joint venture consideration	182	200	100	100	-	-
Current taxes payable	141	141	141	-	-	-
Deferred payments	42	42	4	8	8	22
Leases	36	41	14	13	8	6
Commitments	-	137	137	-	-	-
Restoration provisions	699	1,103	9	81	51	962

¹ Refers to distributions to KPMC, a joint venture that holds a 20% non-controlling interest in MPSA of which the Company has joint control, and not scheduled repayments.

Hedging programs

The Company has hedging programs in respect of future copper sales and provisionally priced sales contracts. Below is a summary of the fair values of unsettled derivative financial instruments for commodity contracts recorded on the consolidated balance sheet.

	December 31, 2019	December 31, 2018
Commodity contracts		
Asset position	9	43
Liability position	(31)	(3)

The Company has entered into derivative contracts to ensure that the exposure to the price of copper on future sales is managed to ensure stability of cash flows as the Company expects to be in a position to begin deleveraging its balance sheet, while maintaining compliance with financial covenants.

At February 13, 2020, the Company has 160,000 tonnes of unmargined zero cost copper collar sales contracts with maturities to January 2021 at weighted average prices of \$2.66 per lb to \$2.92 per lb. In addition, the Company has 55,000 tonnes of unmargined copper forward sales contracts at an average price of \$2.81 per lb outstanding with periods of maturity to January 2021. The Company also has unmargined nickel forward sales contracts for 12,046 tonnes at an average price of \$6.77 per lb outstanding with maturities to February 2021.

Approximately a third of expected copper sales in the first half of 2020, are hedged to unmargined forward and zero cost collar sales contracts, at an average floor price of \$2.71 per lb.

During the year ended December 31, 2019, a gain for settled hedges of \$44 million was realized through sales revenues. Fair value gains on outstanding contracts of \$8 million have been recognized as a derivative asset at December 31, 2019.

Provisional pricing and derivative contracts

A portion of the Company's metal sales is sold on a provisional pricing basis whereby sales are recognized at prevailing metal prices when title transfers to the customer and final pricing is not determined until a subsequent date, typically two months later.

The difference between final price and provisional invoice price is recognized in net earnings. In order to mitigate the impact of these adjustments on net earnings, the Company enters into derivative contracts to directly offset the pricing exposure on the provisionally priced contracts. The provisional pricing gains or losses and offsetting derivative gains or losses are both recognized as a component of cost of sales. Derivative assets are presented in other assets and derivative liabilities are presented in other liabilities with the exception of copper and gold embedded derivatives which are included within accounts receivable.

As at December 31, 2019, the following derivative positions in provisionally priced sales and commodity contracts not designated as hedged instruments were outstanding:

	Open positions (tonnes/ozs)	Average contract price	Closing market price	Maturities through
Embedded derivatives in provisionally priced sales contracts:				
Copper	119,336	\$2.71/lb	\$2.79/lb	April 2020
Gold	28,333	\$1,502/oz	\$1,523/oz	April 2020
Commodity contracts:				
Copper	119,550	\$2.71/lb	\$2.79/lb	April 2020
Gold	28,336	\$1,502/oz	\$1,523/oz	April 2020

As at December 31, 2019, substantially all of the Company's metal sales contracts subject to pricing adjustments were hedged by offsetting derivative contracts.

EQUITY

At the date of this report, the Company had 689,401,007 shares outstanding.

JOINT VENTURE

On November 8, 2017, the Company completed the purchase of a 50% interest in KPMC from LS-Nikko Copper Inc. KPMC is jointly owned and controlled with Korea Resources Corporation ("KORES") and holds a 20% interest in Cobre Panama. The purchase consideration of \$664 million comprised the acquisition consideration of \$635 million and the reimbursement of cash advances of \$29 million with \$179 million paid on closing. Consideration of \$100 million was paid in the year ended December 31, 2019 (year ended December 31, 2018: \$185 million). The remaining consideration is payable in two instalments to November 2021. \$100 million is included within trade and other payables and \$82 million within other non-current liabilities (note 11).

A \$589 million investment in the joint venture representing the discounted consideration value and the Company's proportionate share of the loss in KPMC of \$11 million (note 22) is recognized. The earnings in KPMC relate to the 20% equity accounted share of loss reported by MPSA, a subsidiary of the Company. The material assets and liabilities of KPMC are an investment in MPSA of \$359 million, shareholder loans receivable from the Company (note 11b) and shareholder loans payable of \$1,238 million due to the Company and its joint venture partner KORES.

FRANCO-NEVADA STREAM

The Company, through its subsidiary, MPSA, has a precious metal streaming arrangement with Franco-Nevada. The arrangement comprises two tranches, the first of which ("Tranche 1") was finalized on October 5, 2015. Under the terms of Tranche 1, Franco-Nevada, through a wholly owned subsidiary, agreed to provide a \$1 billion deposit to be funded on a pro-rata basis of 1:3 with the Company's 80% share of the capital costs of Cobre Panama in excess of \$1 billion. The full Tranche 1 deposit amount has been fully funded to MPSA. The second tranche ("Tranche 2") was finalized on March 16, 2018, and \$356 million was received on completion. Proceeds received from Franco-Nevada under the terms of the precious metals streaming arrangement are accounted for as deferred revenue.

The amount of precious metals deliverable under both tranches is indexed to total copper-in-concentrate sold by Cobre Panama. Under the terms of Tranche 1 the ongoing payment of the Fixed Payment Stream is fixed per ounce payments of \$430.91 per oz gold and \$6.46 per oz silver subject to an annual inflation adjustment for the first 1,341,000 ounces of gold and 21,510,000 ounces of silver (approximately the first 20 years of expected deliveries). Thereafter the greater of \$430.91 per oz for gold and \$6.46 per oz for silver, subject to an adjustment for inflation, and one half of the then prevailing market price. Under Tranche 2 the ongoing price per ounce for deliveries is 20% of the spot price for the first 604,000 ounces of gold and 9,618,000 ounces of silver (approximately the first 25 years of production), and thereafter the price per ounce rises to 50% of the spot price of gold and silver.

Although the market price feature represents an embedded derivative, the value of this derivative is not material. In all cases the amount paid is not to exceed the prevailing market price per ounce of gold and silver.

The Company commenced the recognition of delivery obligations to Franco-Nevada under the terms of the arrangement in June 2019 following the first sale of copper concentrate. Deferred revenue will continue to be recognized as revenue over the life of the mine, which is expected to be 35 years.

SUMMARY OF RESULTS

The following unaudited tables set out a summary of quarterly and annual results for the Company:

Consolidated operations	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
<i>Sales revenues</i>											
Copper	\$2,802	\$798	\$951	\$904	\$963	\$3,616	\$770	\$836	\$877	\$1,120	\$3,603
Nickel	148	-	-	-	-	-	-	-	-	-	-
Gold	236	61	59	47	61	228	57	67	86	132	342
Zinc and other elements	124	26	39	27	30	122	30	36	24	32	122
Total sales revenues	3,310	885	1,049	978	1,054	3,966	857	939	987	1,284	4,067
Gross profit	335	181	271	246	280	978	185	196	150	259	790
Comparative EBITDA	1,154	363	466	427	481	1,737	368	376	354	511	1,609
Net earnings (loss) attributable to shareholders of the Company	(316)	47	135	61	198	441	53	78	(73)	(115)	(57)
Comparative earnings (loss)	(111)	49	128	128	182	487	95	87	32	35	249
Basic earnings (loss) per share	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64	\$0.08	\$0.11	(\$0.11)	(\$0.17)	(\$0.08)
Comparative earnings (loss) per share	(\$0.16)	\$0.07	\$0.19	\$0.19	\$0.26	\$0.71	\$0.14	\$0.13	\$0.05	\$0.05	\$0.36
Diluted earnings (loss) per share	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64	\$0.08	\$0.11	(\$0.11)	(\$0.17)	(\$0.08)
Dividends declared per common share (CDN\$ per share)	\$0.010	\$0.005	-	\$0.005	-	\$0.010	\$0.005	-	\$0.005	-	\$0.010
Basic weighted average shares ('000's) ¹	685,936	686,387	686,423	687,108	687,074	686,747	687,100	687,130	688,425	688,083	687,596
Cash flows per share from operating activities	\$1.33	\$1.16	\$0.59	\$0.64	\$0.49	\$2.88	\$0.23	\$0.26	\$0.22	\$0.58	\$1.29
<i>Copper statistics</i>											
Total copper production (tonnes) ³	573,963	145,358	150,950	151,241	158,304	605,853	136,969	168,399	192,510	204,270	702,148
Total copper sales (tonnes) ³	580,130	138,021	152,403	149,877 ²	156,212 ²	596,513 ²	130,262 ²	149,333	203,827	205,964	689,386 ²
Realized copper price (per lb)	\$2.33	\$2.74	\$2.95	\$2.84	\$2.83	\$2.84	\$2.79	\$2.80	\$2.62	\$2.62	\$2.70
TC/RC (per lb)	(0.09)	(0.07)	(0.08)	(0.09)	(0.09)	(0.08)	(0.09)	(0.10)	(0.12)	(0.12)	(0.11)
Freight charges (per lb)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)	(0.04)	(0.04)	(0.04)	(0.03)	(0.04)
Net realized copper price (per lb)	\$2.19	\$2.62	\$2.83	\$2.71	\$2.69	\$2.71	\$2.66	\$2.66	\$2.46	\$2.47	\$2.55
Cash cost – copper (C1) (per lb) ³	\$1.23	\$1.27	\$1.28	\$1.31	\$1.23	\$1.28	\$1.34	\$1.32	\$1.36	\$1.24	\$1.31
All-in sustaining cost (AISC) (per lb) ³	\$1.65	\$1.72	\$1.76	\$1.80	\$1.68	\$1.74	\$1.77	\$1.77	\$1.86	\$1.73	\$1.78
Total cost – copper (C3) (per lb) ³	\$2.06	\$2.16	\$2.11	\$2.11	\$2.04	\$2.11	\$2.21	\$2.17	\$2.20	\$2.07	\$2.16
<i>Nickel statistics</i>											
Nickel produced (contained tonnes)	17,837	-	-	-	-	-	-	-	-	-	-
Nickel sales (contained tonnes)	18,683	-	-	-	-	-	-	-	-	-	-
Nickel produced (payable tonnes)	13,694	-	-	-	-	-	-	-	-	-	-
Nickel sales (payable tonnes)	14,338	-	-	-	-	-	-	-	-	-	-
Realized nickel price (per payable lb)	\$4.67	-	-	-	-	-	-	-	-	-	-
TC/RC (per payable lb)	-	-	-	-	-	-	-	-	-	-	-
Net realized price (per payable lb)	\$4.67	-	-	-	-	-	-	-	-	-	-
Cash cost – (C1) (per lb)	\$4.45	-	-	-	-	-	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$5.29	-	-	-	-	-	-	-	-	-	-
Total cost – nickel (C3) (per lb)	\$6.17	-	-	-	-	-	-	-	-	-	-
<i>Gold statistics</i>											
Total gold production (ounces)	199,736	45,929	46,467	44,979	48,039	185,414	49,357	59,647	70,120	77,789	256,913
Total gold sales (ounces) ⁴	201,376	48,815	48,172	42,864	53,221	193,072	46,790	56,922	71,664	79,409	254,785
Net realized gold price (per ounce)	\$1,174	\$1,249	\$1,227	\$1,086	\$1,151	\$1,181	\$1,226	\$1,235	\$1,388	\$1,380	\$1,318
<i>Zinc statistics</i>											
Zinc production (tonnes)	20,723	5,227	6,545	7,348	7,687	26,807	6,318	4,123	4,429	2,462	17,332
Zinc sales (tonnes)	21,851	4,810	6,856	6,178	8,268	26,112	6,646	4,450	2,297	2,979	16,372

¹ Fluctuations in average weighted shares between quarters reflects shares issued and changes in levels of treasury shares held for performance share units.

² Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded.

³ The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019. Copper production for the three and twelve months ended December 31, 2019, includes commercial production from Cobre Panama of 60,338 tonnes and 79,776 tonnes, respectively. Copper sales for the three and twelve months ended December 31, 2019, includes commercial sales from Cobre Panama of 48,841 tonnes and 83,897 tonnes, respectively. Pre-commercial production and sales volumes and operating results at Cobre Panama are not included in earnings or C1, C3 and AISC calculations.

⁴ Excludes purchased gold delivered to Franco-Nevada under precious metal streaming arrangement.

Kansanshi statistics	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
<i>Mining</i>											
Waste mined (000's tonnes)	55,255	10,941	14,692	13,175	9,911	48,719	10,249	12,210	17,232	13,077	52,768
Ore mined (000's tonnes)	36,603	9,846	10,082	9,631	8,922	38,481	7,363	11,252	8,995	8,715	36,325
<i>Processing</i>											
Sulphide ore processed (000's tonnes)	12,970	3,182	3,105	3,390	3,301	12,978	3,084	3,312	3,301	3,211	12,908
Sulphide ore grade processed (%)	0.75	0.79	0.81	0.72	0.81	0.78	0.90	0.85	0.86	0.95	0.89
Sulphide ore recovery (%)	91	88	91	95	88	91	89	91	92	93	91
Sulphide concentrate grade (%)	22.2	22.5	23.2	23.3	22.1	22.8	21.5	21.7	23.3	23.3	22.5
Mixed ore processed (000's tonnes)	7,997	2,009	1,930	2,082	2,165	8,186	1,870	1,990	1,939	1,900	7,699
Mixed ore grade processed (%)	1.05	1.16	0.93	1.04	1.08	1.06	1.00	1.06	1.02	1.11	1.05
Mixed ore recovery (%)	85	81	87	86	76	82	75	74	81	79	77
Mixed concentrate grade (%)	30.4	30.3	25.7	31.2	29.9	29.3	25.7	26.5	28.8	28.0	27.3
Oxide ore processed (000's tonnes)	6,916	1,791	1,708	1,749	1,668	6,916	1,534	1,856	1,918	1,893	7,201
Oxide ore grade processed (%)	1.51	1.59	1.53	1.31	1.33	1.44	1.14	1.24	1.04	1.07	1.12
Oxide ore recovery (%)	87	88	92	95	92	89	87	76	85	79	82
Oxide concentrate grade (%)	31.3	32.2	28.9	27.8	28.5	29.4	25.0	26.3	27.7	24.5	25.9
Copper cathode produced (tonnes)	78,742	22,514	18,528	16,303	15,049	72,394	10,705	11,325	11,526	11,490	45,046
Copper in concentrate produced (tonnes)	172,059	41,071	43,942	47,384	46,731	179,128	43,208	47,309	47,362	49,318	187,197
Total copper production (tonnes)	250,801	63,585	62,470	63,687	61,780	251,522	53,913	58,634	58,888	60,808	232,243
Gold produced (ounces)	140,595	32,080	33,536	30,938	33,465	130,019	34,743	35,613	38,925	36,105	145,386
<i>Smelting¹</i>											
Concentrate processed (DMT) ¹	1,211,74	350,591	326,187	355,435	349,424	1,381,63	342,307	351,169	281,800	342,550	1,317,826
Copper anodes produced (tonnes) ¹	297,553	86,777	80,097	90,269	89,894	347,037	83,134	84,505	69,952	86,690	324,281
Smelter copper recovery (%)	96	97	97	97	97	97	97	97	97	97	97
Acid tonnes produced (000's)	1,128	325	291	319	320	1,255	322	323	264	327	1,236
<i>Cash Costs (per lb)</i>											
Mining	\$0.54	\$0.56	\$0.58	\$0.52	\$0.53	\$0.55	\$0.64	\$0.64	\$0.68	\$0.59	\$0.64
Processing	0.49	0.49	0.49	0.47	0.49	0.49	0.58	0.49	0.50	0.45	0.51
Site administration ²	-	0.08	0.09	0.10	0.11	0.09	0.11	0.10	0.10	0.14	0.11
TC/RC and freight charges	0.18	0.14	0.14	0.14	0.14	0.14	0.16	0.18	0.14	0.14	0.15
By-product credits	(0.27)	(0.36)	(0.38)	(0.27)	(0.33)	(0.34)	(0.38)	(0.38)	(0.46)	(0.43)	(0.41)
Total smelter costs	0.11	0.09	0.10	0.10	0.10	0.10	0.13	0.12	0.14	0.14	0.13
Cash cost (C1) (per lb)	\$1.05	\$1.00	\$1.02	\$1.06	\$1.04	\$1.03	\$1.24	\$1.15	\$1.10	\$1.03	\$1.13
All-in sustaining cost (AISC) (per lb)	\$1.54	\$1.46	\$1.55	\$1.59	\$1.61	\$1.55	\$1.73	\$1.66	\$1.74	\$1.48	\$1.65
Total cost (C3) (per lb)	\$1.71	\$1.82	\$1.70	\$1.73	\$1.71	\$1.74	\$1.98	\$1.87	\$1.84	\$1.68	\$1.84
<i>Revenues (\$ millions)</i>											
Copper cathodes	\$481	\$145	\$128	\$97	\$82	\$452	\$57	\$71	\$65	\$78	\$271
Copper anode	972	194	251	295	289	1,029	245	252	200	346	1,043
Copper in concentrates	121	10	-	-	-	10	17	32	-	-	49
Gold	166	42	41	36	41	160	39	48	45	65	197
Acid	-	2	8	6	5	21	6	5	4	6	21
Total sales revenues	\$1,740	\$393	\$428	\$434	\$417	\$1,672	\$364	\$408	\$314	\$495	\$1,581
Copper cathode sales (tonnes)	79,735	21,334	19,172	16,461	13,698	70,665	9,452	12,160	11,412	13,285	46,309
Copper anode sales (tonnes) ³	163,560	28,846	37,828	48,357	42,632	157,663	40,220	42,610	35,726	60,701	179,257
Copper in concentrate sales (tonnes)	24,405	1,504	-	-	-	1,504	3,361	6,454	-	-	9,815
Total copper sales (tonnes)	267,700	51,684	57,000	64,818	56,330	229,832	53,033	61,224	47,138	73,986	235,381
Gold sales (ounces)	139,735	33,666	32,902	32,706	35,616	134,890	31,082	37,917	32,022	45,342	146,363

¹ Concentrate processed in smelter and copper anodes produced are disclosed on a 100% basis, inclusive of Sentinel and third-party concentrate processed.

² Includes movements in previously recognized operational provisions in 2017 that are not expected to continue in future periods.

³ Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded.

Sentinel statistics	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
Mining											
Waste mined (000's tonnes)	88,495	21,611	23,744	25,931	24,321	95,607	19,335	23,609	24,970	24,912	92,826
Ore mined (000's tonnes)	44,644	10,172	11,996	11,334	12,016	45,518	11,507	12,017	12,704	14,035	50,263
Processing											
Copper ore processed (000's tonnes)	42,087	11,735	11,979	12,602	12,434	48,750	11,581	11,887	13,005	12,385	48,858
Copper ore grade processed (%)	0.52	0.47	0.51	0.49	0.53	0.50	0.54	0.50	0.47	0.47	0.50
Recovery (%)	87	91	92	91	92	91	92	92	91	87	91
Copper in concentrate produced (tonnes)	190,683	50,310	56,080	56,426	60,840	223,656	57,716	54,977	56,439	50,874	220,006
Concentrate grade (%)	24.4	24.9	25.6	25.3	24.5	25.0	26.9	26.5	26.3	26.6	26.6
Cash Costs (per lb)											
Mining	\$0.67	\$0.71	\$0.62	\$0.61	\$0.42	\$0.58	\$0.55	\$0.51	\$0.47	\$0.53	\$0.52
Processing	0.62	0.68	0.66	0.65	0.68	0.67	0.61	0.61	0.61	0.70	0.63
Site administration	0.05	0.10	0.10	0.10	0.10	0.10	0.09	0.09	0.13	0.12	0.11
TC/RC and freight charges	0.22	0.21	0.23	0.25	0.24	0.23	0.23	0.23	0.28	0.27	0.25
Total smelter costs	0.14	0.13	0.13	0.11	0.11	0.12	0.12	0.11	0.09	0.09	0.10
Cash cost (C1) (per lb)	\$1.70	\$1.83	\$1.74	\$1.72	\$1.55	\$1.70	\$1.60	\$1.55	\$1.58	\$1.71	\$1.61
All-in sustaining cost (AISC) (per lb)	\$2.19	\$2.36	\$2.29	\$2.25	\$2.02	\$2.22	\$2.07	\$2.06	\$2.12	\$2.22	\$2.12
Total cost (C3) (per lb)	\$2.45	\$2.60	\$2.46	\$2.39	\$2.26	\$2.42	\$2.34	\$2.29	\$2.29	\$2.45	\$2.34
Revenues (\$ millions)											
Copper anode	\$851	\$328	\$321	\$254	\$266	\$1,169	\$237	\$251	\$198	\$190	\$876
Copper in concentrates	\$175	\$57	\$71	\$79	\$78	\$285	\$59	\$68	\$105	\$91	\$323
Total sales revenues	\$1,026	\$385	\$392	\$333	\$344	\$1,454	\$296	\$319	\$303	\$281	\$1,199
Copper anode sales (tonnes)	142,394	48,227	47,947	42,557	44,641	183,372	38,815	42,410	35,087	32,974	149,286
Copper concentrate sales (tonnes)	34,966	10,115	12,596	16,512	15,616	54,839	12,372	13,212	23,114	20,298	68,996

in United States dollars, tabular amounts in millions, except where noted

Cobre Panama statistics	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19 ¹	Q3 19 ¹	Q4 19	2019
						Pre-commercial production	Post- commercial production		
<i>Mining</i>									
Waste mined (000's tonnes)	-	-	-	18,815	18,590	9,579	3,636	15,950	66,570
Ore mined (000's tonnes)	-	-	-	8,841	11,580	7,767	5,252	18,439	51,879
<i>Processing</i>									
Copper ore processed (000's tonnes)	-	-	-	1,055	8,223	8,375	4,437	16,493	38,583
Copper ore grade processed (%)	-	-	-	-	0.43	0.51	0.49	0.41	0.44
Copper Recovery (%)	-	-	-	-	82	86	89	89	86
Concentrate grade (%)	-	-	-	-	21.5	22.0	21.8	22.1	21.9
Copper in concentrate produced (tonnes)	-	-	-	25	30,896	36,783	19,438	60,338	147,480
Gold produced (ounces)	-	-	-	-	10,550	13,570	7,914	28,040	60,074
Silver produced (ounces)	-	-	-	175	257,366	269,800	152,243	452,663	1,132,247
<i>Cash Costs (per lb)</i>									
Mining	-	-	-	-	-	-	\$0.44	\$0.33	\$0.36
Processing	-	-	-	-	-	-	0.46	0.57	0.54
Site administration	-	-	-	-	-	-	0.38	0.29	0.31
TC/RC and freight charges	-	-	-	-	-	-	0.32	0.36	0.34
By-product credits	-	-	-	-	-	-	(0.26)	(0.27)	(0.26)
Cash cost (C1) (per lb)	-	-	-	-	-	-	\$1.34	\$1.28	\$1.29
All-in sustaining cost (AISC) (per lb)	-	-	-	-	-	-	\$1.56	\$1.85	\$1.78
Total cost (C3) (per lb)	-	-	-	-	-	-	\$2.28	\$2.12	\$2.15
<i>Revenues (\$ millions)</i>									
Copper in concentrates	-	-	-	-	-	-	\$178	\$253	\$431
Gold	-	-	-	-	-	-	26	53	79
Silver	-	-	-	-	-	-	6	8	14
Total sales revenues	-	-	-	-	-	-	\$210	\$314	\$524
Copper sales (tonnes)	-	-	-	-	6,542	42,425	35,056	48,841	132,864
Gold sales (ounces) ²	-	-	-	-	2,627	16,032	13,074	23,336	55,069
Silver sales (ounces) ²	-	-	-	-	55,153	350,982	271,774	354,689	1,032,598

¹ The Company determined that commercial production at Cobre Panama commenced effective September 1, 2019.

² Excludes purchased gold and silver delivered to Franco-Nevada under precious metal streaming arrangement.

Las Cruces statistics	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
<i>Mining</i>											
Waste mined (000's tonnes)	14,589	1,631	4,835	6,268	2,202	14,936	460	-	2,082	342	2,884
Ore mined (000's tonnes)	2,422	648	368	410	256	1,682	96	-	355	446	897
<i>Processing</i>											
Copper ore processed (000's tonnes)	1,619	390	416	338	400	1,544	325	360	305	364	1,354
Copper ore grade processed (%)	5.07	5.07	4.87	4.84	5.00	4.95	3.75	3.35	3.73	5.71	4.17
Recovery (%)	90	92	93	93	93	93	87	86	83	85	85
Copper cathode produced (tonnes)	73,664	18,238	18,849	15,181	18,470	70,738	10,634	10,366	9,479	17,611	48,090
<i>Cash Costs (per lb)</i>											
Cash cost (C1) (per lb)	\$0.86	\$0.86	\$0.83	\$1.02	\$0.94	\$0.90	\$1.31	\$1.51	\$1.46	\$0.73	\$1.17
All-in sustaining cost (AISC) (per lb)	\$1.06	\$1.03	\$1.09	\$1.41	\$1.16	\$1.16	\$1.46	\$1.65	\$1.74	\$0.91	\$1.35
Total cost (C3) (per lb)	\$2.15	\$2.15	\$2.11	\$2.50	\$2.28	\$2.25	\$3.19	\$3.59	\$3.61	\$2.43	\$3.08
<i>Revenues (\$ millions)</i>											
Copper cathode	\$461	\$131	\$133	\$93	\$113	\$470	\$71	\$62	\$61	\$97	\$291
Copper cathode sales (tonnes)	74,664	18,771	19,269	15,138	18,345	71,523	11,443	10,112	10,405	16,284	48,244

Guelb Moghrein statistics	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
<i>Mining</i>											
Waste mined (000's tonnes)	14,052	3,961	2,737	4,277	4,087	15,062	3,581	3,107	2,528	1,917	11,133
Ore mined (000's tonnes)	3,104	97	296	445	752	1,590	953	1,345	1,265	1,561	5,124
<i>Processing</i>											
Sulphide ore processed (000's tonnes)	3,389	861	938	902	983	3,684	994	1,018	810	1,029	3,851
Sulphide ore grade processed (%)	0.93	0.79	0.73	0.94	0.93	0.85	0.85	0.84	0.88	0.89	0.87
Recovery (%)	92	90	85	94	91	90	88	90	87	89	89
Copper produced (tonnes)	28,791	6,135	5,781	7,902	8,319	28,137	7,447	7,750	6,203	8,220	29,620
Gold produced (ounces)	49,213	11,740	10,354	11,644	12,236	45,974	12,498	11,961	8,187	12,027	44,673
Magnetite concentrate produced (WMT)	-	93,472	123,100	111,765	97,052	425,389	119,169	163,555	106,634	152,202	541,560
<i>Cash Costs (per lb)</i>											
Mining	\$0.66	\$0.51	\$1.11	\$0.66	\$1.02	\$0.82	\$0.78	\$0.57	\$0.52	\$0.38	\$0.55
Processing	0.93	1.07	1.23	1.10	0.98	1.09	0.87	1.00	1.06	0.96	0.97
Site administration	0.18	0.19	0.24	0.17	0.17	0.19	0.18	0.18	0.22	0.16	0.18
TC/RC and freight charges	0.51	0.61	0.41	0.66	0.52	0.54	0.49	0.35	0.35	0.58	0.44
Gold and magnetite credit	(1.00)	(1.39)	(1.24)	(1.02)	(0.96)	(1.14)	(1.21)	(1.19)	(1.04)	(1.10)	(1.14)
Cash cost (C1) (per lb)	\$1.28	\$0.99	\$1.75	\$1.57	\$1.73	\$1.50	\$1.11	\$0.91	\$1.11	\$0.98	\$1.00
All-in sustaining cost (AISC) (per lb)	\$1.65	\$1.84	\$2.16	\$1.93	\$1.95	\$1.93	\$1.37	\$1.19	\$1.62	\$1.37	\$1.36
Total cost (C3) (per lb)	\$2.13	\$1.86	\$2.84	\$2.42	\$2.79	\$2.46	\$2.22	\$1.65	\$1.93	\$1.78	\$1.87
<i>Revenues (\$ millions)</i>											
Copper in concentrates	\$150	\$39	\$40	\$27	\$48	\$154	\$42	\$43	\$30	\$30	\$145
Gold	60	16	16	9	17	58	16	18	12	12	58
Magnetite concentrate	7	5	8	5	5	23	6	16	10	8	40
Total sales revenues	\$217	\$60	\$64	\$41	\$70	\$235	\$64	\$77	\$52	\$50	\$243
Copper sales (tonnes)	28,999	6,387	6,772	5,108	9,099	27,366	7,924	8,143	5,969	6,010	28,046
Gold sales (ounces)	50,453	13,008	12,863	8,100	14,224	48,195	13,301	14,156	9,074	8,415	44,946
Magnetite concentrate sold (WMT)	-	79,560	150,167	61,315	85,914	376,956	89,631	222,762	123,274	90,032	525,699

in United States dollars, tabular amounts in millions, except where noted

Çayeli statistics	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
<i>Mining</i>											
Ore mined (000's tonnes)	941	259	250	242	249	1,000	242	236	218	234	930
<i>Processing</i>											
Ore milled (000's tonnes)	943	257	255	243	252	1,007	241	232	207	236	916
Copper ore grade processed (%)	1.96	1.88	2.13	2.39	2.64	2.26	2.25	1.92	1.78	2.29	2.07
Copper ore recovery (%)	89	88	86	87	89	88	90	87	87	87	88
Zinc ore grade processed (%)	1.05	1.05	1.37	1.69	1.50	1.40	1.19	1.55	1.37	1.94	1.51
Zinc ore recovery (%)	34	26	30	32	27	29	26	40	41	42	38
Copper produced (tonnes)	16,523	4,225	4,684	5,056	5,931	19,896	4,891	3,872	3,218	4,725	16,706
Zinc produced (tonnes)	3,326	701	1,051	1,305	1,034	4,091	752	1,428	1,176	1,896	5,252
<i>Cash Costs (per lb)</i>											
Cash cost – Copper (C1) (per lb)	\$1.50	\$1.31	\$1.29	\$1.18	\$1.09	\$1.21	\$1.42	\$1.32	\$1.82	\$1.11	\$1.35
All-in sustaining cost (AISC) (per lb)	\$1.75	\$1.56	\$1.59	\$1.45	\$1.28	\$1.48	\$1.68	\$1.54	\$2.12	\$1.51	\$1.65
Total cost – Copper (C3) (per lb)	\$2.37	\$2.14	\$2.15	\$2.05	\$1.75	\$2.03	\$2.32	\$2.25	\$2.83	\$1.60	\$2.16
<i>Revenues (\$ millions)</i>											
Copper	\$87	(\$1)	\$31	\$13	\$44	\$87	\$18	\$28	\$13	\$26	\$85
Zinc	9	-	4	-	4	8	-	3	-	3	6
Other	2	-	1	-	4	5	-	1	-	3	4
Total sales revenues	\$98	(\$1)	\$36	\$13	\$52	\$100	\$18	\$32	\$13	\$32	\$95
Copper sales (tonnes)	17,716	-	5,491	2,753	9,153	17,397	3,814	5,817	2,934	5,553	18,118
Zinc sales (tonnes)	4,435	-	2,159	-	2,154	4,313	-	1,833	-	2,046	3,879
Pyhäsalmi statistics	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
<i>Mining</i>											
Ore mined (000's tonnes)	1,315	323	299	318	297	1,237	292	267	264	213	1,036
<i>Processing</i>											
Ore milled (000's tonnes)	1,260	301	315	320	312	1,248	303	285	248	230	1,066
Copper ore grade processed (%)	1.11	0.98	1.02	0.98	0.98	0.99	0.91	0.74	0.90	0.77	0.83
Copper ore recovery (%)	97	97	96	95	97	96	85	90	94	95	91
Zinc ore grade processed (%)	1.55	1.66	1.94	2.07	2.35	2.01	2.04	1.05	1.50	0.33	1.27
Zinc ore recovery (%)	89	91	90	91	91	91	90	90	88	75	89
Copper produced (tonnes)	13,501	2,865	3,086	2,989	2,964	11,904	2,343	1,904	2,062	1,694	8,003
Zinc produced (tonnes)	17,397	4,526	5,494	6,043	6,653	22,716	5,566	2,695	3,253	566	12,080
Pyrite produced (tonnes)	692,124	145,975	159,674	171,355	168,881	645,885	152,475	152,522	127,960	120,687	553,644
<i>Cash Costs (per lb)</i>											
Cash cost – Copper (C1) (per lb)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)	(\$0.39)	\$0.21	\$0.61	\$2.02	\$0.51
All-in sustaining cost (AISC) (per lb)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)	(\$0.39)	\$0.25	\$0.64	\$2.11	\$0.55
Total cost – Copper (C3) (per lb)	\$2.06	\$1.24	\$2.23	\$1.67	\$1.57	\$1.70	\$1.67	\$1.75	\$1.62	\$2.17	\$1.77
<i>Revenues (\$ millions)</i>											
Copper	\$74	\$16	\$21	\$16	\$17	\$70	\$16	\$10	\$9	\$10	\$45
Zinc	37	12	12	10	11	45	12	7	2	1	22
Pyrite	16	6	3	4	4	17	4	3	3	3	13
Other	16	4	2	4	2	12	4	1	2	3	10
Total sales revenues	\$143	\$38	\$38	\$34	\$34	\$144	\$36	\$21	\$16	\$17	\$90
Copper sales (tonnes)	13,691	2,837	3,328	2,991	3,028	12,184	2,861	1,873	1,699	2,018	8,451
Zinc sales (tonnes)	17,416	4,810	4,697	6,178	6,114	21,799	6,646	2,617	2,297	933	12,493
Pyrite sales (tonnes)	418,743	120,572	99,606	100,894	124,109	445,181	124,667	97,221	90,619	110,823	423,330

in United States dollars, tabular amounts in millions, except where noted

Ravensthorpe statistics	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018	Q1 19	Q2 19	Q3 19	Q4 19	2019
<i>Processing</i>											
Beneficiated ore (000's tonnes)	2,211	-	-	-	-	-	-	-	-	-	-
Beneficiated ore grade (%)	1.11	-	-	-	-	-	-	-	-	-	-
Nickel recovery – leach feed to Nickel produced (%)	79	-	-	-	-	-	-	-	-	-	-
Nickel produced (contained tonnes)	17,837	-	-	-	-	-	-	-	-	-	-
Nickel produced (payable tonnes)	13,694	-	-	-	-	-	-	-	-	-	-
<i>Cash Costs (per lb)</i>											
Mining	\$1.12	-	-	-	-	-	-	-	-	-	-
Processing	3.25	-	-	-	-	-	-	-	-	-	-
Site administration	0.37	-	-	-	-	-	-	-	-	-	-
TC/RC and freight charges	0.27	-	-	-	-	-	-	-	-	-	-
Cobalt credit	(0.56)	-	-	-	-	-	-	-	-	-	-
Cash cost (C1) (per lb)	\$4.45	-	-	-	-	-	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$5.29	-	-	-	-	-	-	-	-	-	-
Total cost (C3) (per lb)	\$6.17	-	-	-	-	-	-	-	-	-	-
<i>Revenues (\$ millions)</i>											
Nickel	\$146	-	-	-	-	-	-	-	-	-	-
Cobalt	17	-	-	-	-	-	-	-	-	-	-
Total sales revenues	\$163	-	-	-	-	-	-	-	-	-	-
Nickel sales (contained tonnes)	18,683	-	-	-	-	-	-	-	-	-	-
Nickel sales (payable tonnes)	14,338	-	-	-	-	-	-	-	-	-	-

REGULATORY DISCLOSURES

Seasonality

The Company's results as discussed in this MD&A are subject to seasonal aspects, in particular the wet season in Zambia. The wet season in Zambia generally starts in November and continues through April, with the heaviest rainfall normally experienced in the months of December, January, February and March. As a result of the wet season, pit access and the ability to mine ore is lower in the first quarter of the year than other quarters and the cost of mining is higher.

Off-balance sheet arrangements

The Company had no off-balance sheet arrangements as of the date of this report.

Non-GAAP financial measures

This document refers to cash cost (C1), all-in sustaining cost (AISC) and total cost (C3) per unit of payable production, operating cash flow per share, comparative EBITDA, Net debt and comparative earnings, which are not measures recognized under IFRS, do not have a standardized meaning prescribed by IFRS and are not necessarily comparable to similar measures presented by other issuers. These measures are used internally by management in measuring the performance of the Company's operations and serve to provide additional information and should not be considered in isolation to measures prepared under IFRS.

C1, AISC and C3 are measures based on production and sales volumes for which there is no directly comparable measure under IFRS, though a reconciliation from the cost of sales, as stated in the Company's financial statements, and which should be read in conjunction with this Management Discussion and Analysis, to C1, AISC and C3 can be found on the following pages. These reconciliations set out the components of each of these measures in relation to the cost of sales for the Company as per the consolidated financial statements.

The calculation of these measures is described below, and may differ from those used by other issuers. The Company discloses these measures in order to provide assistance in understanding the results of the operations and to provide additional information to investors.

Calculation of cash cost, all-in sustaining cost, total cost, sustaining capital expenditure and deferred stripping costs capitalized

The consolidated cash cost (C1), all-in sustaining cost (AISC) and total cost (C3) presented by the Company are measures that are prepared on a basis consistent with the industry standard definitions but are not measures recognized under IFRS. In calculating the C1 cash cost, AISC and C3 total cost for each segment, the costs are measured on the same basis as the segmented financial information that is contained in the financial statements.

C1 cash cost includes all mining and processing costs less any profits from by-products such as gold, silver, zinc, pyrite, cobalt, sulphuric acid, or iron magnetite and is used by management to evaluate operating performance. TC/RC and freight deductions on metal sales, which are typically recognized as a component of sales revenues, are added to C1 cash cost to arrive at an approximate cost of finished metal.

AISC is defined as cash cost (C1) plus general and administrative expenses, sustaining capital expenditure, deferred stripping, royalties and lease payments and is used by management to evaluate performance inclusive of sustaining expenditure required to maintain current production levels.

C3 total cost is defined as AISC less sustaining capital expenditure, deferred stripping and general and administrative expenses net of insurance, plus depreciation and exploration. This metric is used by management to evaluate the operating performance inclusive of costs not classified as sustaining in nature such as exploration and depreciation.

Sustaining capital expenditure is defined as capital expenditure during the production phase, incurred to sustain and maintain the existing assets to achieve constant planned levels of production, from which future economic benefits will be derived. This includes expenditure for assets to retain their existing productive capacity, and to enhance assets to minimum reliability, environmental and safety standards.

Deferred stripping costs capitalized are defined as waste material stripping costs in excess of the strip ratio, for the production phase, and from which future economic benefits will be derived from future access to ore. Deferred stripping costs are capitalized to the mineral property, and will be depreciated on a units-of-production basis.

	Q4 2019	Q3 2019	Q4 2018	2019	2018
Purchase and deposits on property, plant and equipment	325	270	606	1,455	2,143
Sustaining capital expenditure and deferred stripping excluding Cobre Panama	65	87	32	262	320
Sustaining capital expenditure and deferred stripping – Cobre Panama	58	6	-	150	-
Project capital expenditure – Cobre Panama development	143	183	212	697	1,332
Project capital expenditure – other ¹	59	131	255	437	384
Pre-commercial costs	-	(137)	107	(91)	107
Total capital expenditure	325	270	606	1,455	2,143

¹ Represents other project capital expenditure at all sites including expenditure at Cobre Panama to enable commencement of the expansion to 100mtpa capacity, including the initial development and engineering work allowing mining to proceed to the Colina pit.

The following tables provide a reconciliation of C1, C3 and AISC to the consolidated financial statements:

For the three months ended December 31, 2019	Kansanshi	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales¹	(329)	(256)	(258)	(90)	(41)	(21)	(12)	(1,007)	-	(18)	(1,025)
Adjustments:											
Depreciation	70	62	81	61	7	6	1	288	-	2	290
By-product credits	71	-	61	-	20	6	7	165	-	-	165
Royalties	29	22	6	1	2	1	-	61	-	-	61
Treatment and refining charges	(11)	(15)	(23)	-	(4)	(3)	(2)	(58)	-	-	(58)
Freight costs	1	(10)	(2)	(1)	-	(2)	-	(14)	-	-	(14)
Finished goods	39	2	(29)	(2)	(4)	3	1	10	-	-	10
Other	2	9	4	3	-	(1)	(2)	15	-	16	31
Cash cost (C1)	(128)	(186)	(160)	(28)	(20)	(11)	(7)	(540)	-	-	(540)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(59)	(59)	(96)	(64)	(10)	(4)	-	(292)	-	(2)	(294)
Royalties	(29)	(22)	(6)	(1)	(2)	(1)	-	(61)	-	-	(61)
Other	(3)	(1)	(4)	(2)	(1)	-	-	(11)	-	-	(11)
Total cost (C3)	(219)	(268)	(266)	(95)	(33)	(16)	(7)	(904)	-	(2)	(906)
Cash cost (C1)	(128)	(186)	(160)	(28)	(20)	(11)	(7)	(540)	-	-	(540)
Adjustments:											
General and administrative	(6)	(9)	(7)	(2)	(1)	-	-	(25)	-	-	(25)
Sustaining capital expenditure and deferred stripping	(29)	(26)	(58)	(4)	(3)	(3)	-	(123)	-	-	(123)
Royalties	(29)	(22)	(6)	(1)	(2)	(1)	-	(61)	-	-	(61)
Lease payments	(1)	(1)	(1)	-	-	-	-	(3)	-	-	(3)
AISC	(193)	(244)	(232)	(35)	(26)	(15)	(7)	(752)	-	-	(752)
AISC (per lb)	\$1.48	\$2.22	\$1.85	\$0.91	\$1.37	\$1.51	\$2.11	\$1.73	-	-	
Cash cost – (C1) (per lb)	\$1.03	\$1.71	\$1.28	\$0.73	\$0.98	\$1.11	\$2.02	\$1.24	-	-	
Total cost – (C3) (per lb)	\$1.68	\$2.45	\$2.12	\$2.43	\$1.78	\$1.60	\$2.17	\$2.07	-	-	

¹ Total cost of sales per the Consolidated Statement of Earnings (Loss) in the Company's annual audited financial statements.

in United States dollars, tabular amounts in millions, except where noted

For the year ended December 31, 2019	Kansanshi ¹	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales²	(1,109)	(1,023)	(432)	(329)	(198)	(73)	(66)	(3,230)	(9)	(38)	(3,277)
Adjustments:											
Depreciation	244	252	113	198	44	27	21	899	2	6	907
By-product credits	218	-	93	-	98	10	45	464	-	-	464
Royalties	108	88	9	4	8	2	-	219	-	-	219
Treatment and refining charges	(38)	(57)	(37)	-	(16)	(10)	(6)	(164)	-	-	(164)
Freight costs	(3)	(34)	(2)	(1)	-	(6)	(1)	(47)	-	-	(47)
Finished goods	15	8	34	1	(3)	1	-	56	-	-	56
Other	7	14	6	3	1	1	-	32	7	32	71
Cash cost (C1)	(558)	(752)	(216)	(124)	(66)	(48)	(7)	(1,771)	-	-	(1,771)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(240)	(250)	(131)	(198)	(44)	(26)	(21)	(910)	-	(6)	(916)
Royalties	(108)	(88)	(9)	(4)	(8)	(2)	-	(219)	-	-	(219)
Other	(7)	(5)	(6)	(2)	(2)	-	-	(22)	-	-	(22)
Total cost (C3)	(913)	(1,095)	(362)	(328)	(120)	(76)	(28)	(2,922)	-	(6)	(2,928)
Cash cost (C1)	(558)	(752)	(216)	(124)	(66)	(48)	(7)	(1,771)	-	-	(1,771)
Adjustments:											
General and administrative	(26)	(35)	(10)	(6)	(3)	(2)	-	(82)	-	-	(82)
Sustaining capital expenditure and deferred stripping	(124)	(115)	(64)	(8)	(9)	(6)	-	(326)	-	-	(326)
Royalties	(108)	(88)	(9)	(4)	(8)	(2)	-	(219)	-	-	(219)
Lease payments	(4)	(3)	(1)	(1)	(2)	-	-	(11)	-	-	(11)
AISC	(820)	(993)	(300)	(143)	(88)	(58)	(7)	(2,409)	-	-	(2,409)
AISC (per lb)	\$1.65	\$2.12	\$1.78	\$1.35	\$1.36	\$1.65	\$0.55	\$1.78	-	-	
Cash cost – (C1) (per lb)	\$1.13	\$1.61	\$1.29	\$1.17	\$1.00	\$1.35	\$0.51	\$1.31	-	-	
Total cost – (C3) (per lb)	\$1.84	\$2.34	\$2.15	\$3.08	\$1.87	\$2.16	\$1.77	\$2.16	-	-	

¹ C1 cash cost, C3 total cost and AISC exclude third-party concentrate purchased at Kansanshi.

² Total cost of sales per the Consolidated Statement of Earnings (Loss) in the Company's annual audited financial statements.

in United States dollars, tabular amounts in millions, except where noted

For the three months ended December 31, 2018	Kansanshi ¹	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales²	(277)	(272)	-	(94)	(69)	(33)	(25)	(770)	-	(4)	(774)
Adjustments:											
Depreciation	60	69	-	53	16	11	13	222	1	1	224
By-product credits	46	-	-	-	22	8	19	95	-	-	95
Royalties	23	22	-	4	1	-	-	50	-	-	50
Treatment and refining charges	(6)	(15)	-	-	(5)	(6)	(2)	(34)	-	-	(34)
Freight costs	6	(8)	-	(2)	-	(3)	-	(7)	-	-	(7)
Finished goods	(19)	3	-	1	4	7	(2)	(6)	-	-	(6)
Other ¹	29	1	-	-	1	1	1	33	(1)	3	35
Cash cost (C1)	(138)	(200)	-	(38)	(30)	(15)	4	(417)	-	-	(417)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(62)	(68)	-	(52)	(17)	(8)	(13)	(220)	(1)	(1)	(222)
Royalties	(23)	(22)	-	(4)	(1)	-	-	(50)	-	-	(50)
Other	(2)	(2)	-	2	(1)	-	-	(3)	1	-	(2)
Total cost (C3)	(225)	(292)	-	(92)	(49)	(23)	(9)	(690)	-	(1)	(691)
Cash cost (C1)	(138)	(200)	-	(38)	(30)	(15)	4	(417)	-	-	(417)
Adjustments:											
General and administrative expenses	(7)	(9)	-	(1)	(1)	(1)	-	(19)	-	-	(19)
Sustaining capital expenditure and deferred stripping	(43)	(31)	-	(5)	(2)	(2)	-	(83)	-	-	(83)
Royalties	(23)	(22)	-	(4)	(1)	-	-	(50)	-	-	(50)
AISC	(211)	(262)	-	(48)	(34)	(18)	4	(569)	-	-	(569)
AISC (per lb)	\$1.61	\$2.02	-	\$1.16	\$1.95	\$1.28	(\$0.59)	\$1.68	-	-	
Cash cost – (C1) (per lb)	\$1.04	\$1.55	-	\$0.94	\$1.73	\$1.09	(\$0.59)	\$1.23	-	-	
Total cost – (C3) (per lb)	\$1.71	\$2.26	-	\$2.28	\$2.79	\$1.75	\$1.57	\$2.04	-	-	

¹ C1 cash cost, C3 total cost and AISC exclude third-party concentrate purchased at Kansanshi.

² Total cost of sales per the Consolidated Statement of Earnings (Loss) in the Company's annual audited financial statements.

in United States dollars, tabular amounts in millions, except where noted

For the year ended December 31, 2018	Kansanshi ¹	Sentinel	Cobre Panama	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales²	(1,049)	(1,166)	-	(354)	(205)	(77)	(104)	(2,955)	(17)	(16)	(2,988)
Adjustments:											
Depreciation	250	276	-	203	45	30	54	858	1	5	864
By-product credits	181	-	-	-	81	13	76	351	-	-	351
Royalties	105	88	-	9	6	2	-	210	-	-	210
Treatment and refining charges	(24)	(59)	-	-	(16)	(11)	(8)	(118)	-	-	(118)
Freight costs	(11)	(27)	-	(2)	-	(5)	(1)	(46)	-	-	(46)
Finished goods	(53)	61	-	1	(4)	(3)	(2)	-	-	-	-
Other ¹	40	4	-	2	2	1	(2)	47	16	11	74
Cash cost (C1)	(561)	(823)	-	(141)	(91)	(50)	13	(1,653)	-	-	(1,653)
Adjustments:											
Depreciation (excluding depreciation in finished goods)	(263)	(252)	-	(201)	(49)	(31)	(54)	(850)	(1)	(5)	(856)
Royalties	(105)	(88)	-	(9)	(6)	(2)	-	(210)	-	-	(210)
Other	(7)	(6)	-	1	(2)	-	-	(14)	1	-	(13)
Total cost (C3)	(936)	(1,169)	-	(350)	(148)	(83)	(41)	(2,727)	-	(5)	(2,732)
Cash cost (C1)	(561)	(823)	-	(141)	(91)	(50)	13	(1,653)	-	-	(1,653)
Adjustments:											
General and administrative expenses	(26)	(36)	-	(6)	(4)	(2)	-	(74)	-	-	(74)
Sustaining capital expenditure and deferred stripping	(141)	(130)	-	(27)	(15)	(7)	-	(320)	-	-	(320)
Royalties	(105)	(88)	-	(9)	(6)	(2)	-	(210)	-	-	(210)
AISC	(833)	(1,077)	-	(183)	(116)	(61)	13	(2,257)	-	-	(2,257)
AISC (per lb)	\$1.55	\$2.22	-	\$1.16	\$1.93	\$1.48	(\$0.46)	\$1.74	-	-	
Cash cost – (C1) (per lb)	\$1.03	\$1.70	-	\$0.90	\$1.50	\$1.21	(\$0.46)	\$1.28	-	-	
Total cost – (C3) (per lb)	\$1.74	\$2.42	-	\$2.25	\$2.46	\$2.03	\$1.70	\$2.11	-	-	

¹ C1 cash cost, C3 total cost and AISC exclude third-party concentrate purchased at Kansanshi.

² Total cost of sales per the Consolidated Statement of Earnings (Loss) in the Company's annual audited financial statements.

Comparative EBITDA and comparative earnings

Comparative EBITDA and comparative earnings are the Company's adjusted earnings metrics, and are used to evaluate operating performance by management. The Company believes that the comparative metrics presented are useful as the adjusted items do not reflect the underlying operating performance of its current business and are not necessarily indicative of future operating results.

Calculation of operating cash flow per share, net debt, comparative EBITDA and comparative earnings

In calculating the operating cash flow per share, the operating cash flow calculated for IFRS purposes is divided by the basic weighted average common shares outstanding for the respective period.

Net debt comprises unrestricted cash and cash equivalents, bank overdrafts and total debt. Comparative EBITDA, comparative earnings and comparative earnings per share are non-GAAP measures which measure the performance of the Company. Comparative EBITDA, comparative earnings and comparative earnings per share exclude certain impacts which the Company believes are not reflective of the Company's underlying performance for the reporting period. These include impairment and related charges, foreign exchange gains and losses, gains and losses on disposal of assets and liabilities, one-time costs related to acquisitions, dispositions, restructuring and other transactions, revisions in estimates of restoration provisions at closed sites, debt extinguishment and modification gains and losses, and discounting of non-current VAT.

	Q4 2019	Q3 2019	Q4 2018	2019	2018
Operating profit	69	108	260	474	809
Depreciation	290	225	224	907	864
Other adjustments					
Impairment charges, write-off of assets and other costs associated with the mine interruption at Las Cruces	99	-	-	112	-
Foreign exchange loss (gain)	47	12	(13)	96	64
(Gain) loss on disposal of assets and liabilities	1	8	2	12	(6)
Other expense	-	-	8	-	8
Revisions in estimates of restoration provisions at closed sites	5	1	-	8	(2)
Total adjustments excluding depreciation	152	21	(3)	228	64
Comparative EBITDA	511	354	481	1,609	1,737

	Q4 2019	Q3 2019	Q4 2018	2019	2018
Net earnings (loss) attributable to shareholders of the Company	(115)	(73)	198	(57)	441
Adjustments attributable to shareholders of the Company:					
Finance charge on discounting Zambian VAT	22	160	5	182	5
(Gain) loss on debt instruments	4	(3)	-	23	-
Total adjustments to comparative EBITDA excluding depreciation	152	21	(3)	228	64
Tax and minority interest relating to foreign exchange revaluation and comparative adjustments	(28)	(73)	(18)	(127)	(23)
Comparative earnings	35	32	182	249	487
Earnings (loss) per share as reported	(\$0.17)	(\$0.11)	\$0.29	(\$0.08)	\$0.64
Comparative earnings per share	\$0.05	\$0.05	\$0.26	\$0.36	\$0.71

Adoption of new standards

IFRS 16 Leases

The Company has adopted *IFRS 16 – Leases* (IFRS 16) as of January 1, 2019. In accordance with the transitional provisions within IFRS 16, the Company has elected to apply the modified transition approach and therefore the comparative information has not been restated and continues to be reported under IAS 17 and IFRIC 4. The details of accounting policies under IAS 17 and IFRIC 4 are disclosed separately if they are different from those under IFRS 16.

The details and quantitative impact of the changes in accounting policies are disclosed below.

Policy applicable from January 1, 2019

At inception of a contract, the Company assesses whether a contract is, or contains, a lease. A contract is, or contains a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether a contract conveys the right to control the use of an identified asset, the Company assesses whether:

- The contract involves the use of an identified asset – this may be specified explicitly or implicitly, and should be physically distinct or represent substantially all of the capacity of a physically distinct asset. If the supplier has a substantive substitution right, the asset is not identified.
- The Company has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use.
- The Company has the right to direct the use of the asset (such as the decision-making rights).

Policy applicable before January 1, 2019

For contracts entered into before January 1, 2019, the Company determined whether the arrangement was or contained a lease based on the assessment of whether:

- Fulfilment of the arrangement was dependent on the use of a specific asset or assets.
- The arrangement had conveyed a right to use the asset. An arrangement conveyed the right to use the asset if one of the following was met:

- The Company had the ability or right to operate the asset while obtaining or controlling more than an insignificant amount of the amount; or
- The Company had the ability or right to control physical access to the asset while obtaining or controlling more than an insignificant amount of the output.

(i) Measurement of leases

All leases are accounted for by recognizing a right-of-use asset and a lease liability with the exception of short-term leases and low-value assets. If the Company deems a lease to be short-term or low-value, the Company recognizes the lease payments associated with these leases as an expense on either a straight-line basis over the lease term or another systematic basis.

The lease liabilities are measured at the present value of the contractual payments due to the lessor over the lease term, with the discount rate determined by reference to the rate inherent in the lease. If that rate cannot be determined, the Company's incremental borrowing rate is used. Variable lease payments are only included in the measurement of the lease liability if they depend on an index or rate. In such cases, the initial measurement of the lease liability assumes the variable element will remain unchanged throughout the lease term. Other variable lease payments are expensed in the period to which they relate.

Right-of-use assets are initially measured at the amount of the lease liability, reduced for any lease incentives received, and increased for:

- Lease payments made at or before commencement of the lease;
- Initial direct costs incurred, and
- The amount of any provision recognized where the Company is contractually required to dismantle, remove or restore the leased asset.

Subsequent to initial measurement lease liabilities increase as a result of interest charged at a constant rate on the balance outstanding and are reduced for lease payments made. The interest rate used to calculate the interest charged is determined by the jurisdiction of the lease and the length of the lease. Right-of-use assets are amortized on a straight-line basis over the remaining term of the lease or over the remaining economic life of the asset if, rarely, this is judged to be shorter than the lease term. When the Company revises its estimate of the term of any lease (because, for example, it re-assesses the probability of a lessee extension or termination option being exercised), it adjusts the carrying amount of the lease liability to reflect the payments to make over the revised term, which are discounted at the same discount rate that applied on lease commencement. The carrying value of lease liabilities is similarly revised when the variable element of future lease payments dependent on a rate or index is revised. In both cases an equivalent adjustment is made to the carrying value of the right-of-use asset, with the revised carrying amount being amortized over the remaining (revised) lease term.

(ii) Quantitative analysis

The details and quantitative impact of the changes in accounting policy are disclosed below:

- The Company has recognized lease liabilities in relation to leases which had previously been classified as 'operating leases' under the principle of IAS 17. The Company has elected to apply practical expedients of IFRS 16 in relation to applying the same discount rate to leases with reasonably similar characteristics, relying on previous assessments of onerous leases, not recognizing leases for which the lease term ended within 12 months of the date of initial application, and by excluding initial direct costs from the measurement of right-of-use assets at the date of initial application. Through the adoption of IFRS 16, an extensive detailed review of the Company's leases resulted in increases to property, plant and equipment (note 6) and provisions and other liabilities (note 11) on 1 January, 2019 of \$20 million.
- The total cash outflow for leases in the year ended December 31, 2019 was \$29 million.
- Additions to right-of-use assets in the year ended December 31, 2019 was \$27 million, inclusive of the \$20 million recognized on adoption of IFRS 16. The weighted average incremental borrowing rate for lease liabilities initially recognized as of December 31, 2019 is 8.8%.

Operating lease commitments disclosed in the financial statements for the year ending December 31, 2018 of \$32 million are different to the lease liabilities recognized on the initial application of \$20 million due to non-inclusion of short-term leases, non-

capital payments and payments for low value assets, and are after the impact of discounting at the incremental borrowing rate, or if readily available, the interest rate implicit in the lease.

Significant judgments, estimates and assumptions

Many of the amounts disclosed in the financial statements involve the use of judgments, estimates and assumptions. These judgments and estimates are based on management's knowledge of the relevant facts and circumstances at the time, having regard to prior experience, and are continually evaluated.

(i) Significant judgments

- Determination of ore reserves and resources

Judgments about the amount of product that can be economically and legally extracted from the Company's properties are made by management using a range of geological, technical and economic factors, history of conversion of mineral deposits to proven and probable reserves as well as data regarding quantities, grades, production techniques, recovery rates, production costs, transport costs, commodity demand, commodity prices and exchange rates. This process may require complex and difficult geological judgments to interpret the data. The Company uses qualified persons (as defined by the Canadian Securities Administrators' National Instrument 43-101) to compile this data.

Changes in the judgments surrounding proven and probable reserves may impact the carrying value of property, plant and equipment (note 6), restoration provisions included in provisions and other liabilities (note 11), recognition of deferred income tax amounts (note 13) and depreciation (note 6).

- Achievement of commercial production

Once a mine or smelter reaches the operating levels intended by management, depreciation of capitalized costs begins. Significant judgment is required to determine when certain of the Company's assets reach this level.

Management considers several factors, including, but not limited to the following:

- completion of a reasonable period of commissioning;
- consistent operating results achieved at a pre-determined level of design capacity and indications exist that this level will continue;
- mineral recoveries at or near expected levels;
- and the transfer of operations from development personnel to operational personnel has been completed.

During the year ended December 31, 2019, the Company concluded that the Cobre Panama mine, was operating in a manner intended by management and commercial production was achieved from September 1, 2019.

- Taxes

Judgment is required in determining the recognition and measurement of deferred income tax assets and liabilities on the balance sheet. In the normal course of business, the Company is subject to assessment by taxation authorities in various jurisdictions. These authorities may have different interpretations of tax legislation or tax agreements than those applied by the Company in computing current and deferred income taxes. These different judgments may alter the timing or amounts of taxable income or deductions. The final amount of taxes to be paid or recovered depends on a number of factors including the outcome of audits, appeals and negotiation. Amounts to be recovered and the timings of recoveries with respect to indirect taxes, such as VAT, are subject to judgment which, in the instance of a change of circumstances, could result in material adjustments.

The Company operates in a specialized industry and in a number of tax jurisdictions. As a result, its income is subject to various rates of taxation. The breadth of its operations and the global complexity and interpretation of tax regulations require assessment and judgement of uncertainties and of the taxes that the Company will ultimately pay. These are dependent on many factors, including negotiations with tax authorities in various jurisdictions, outcomes of tax litigation and resolution of disputes. The resolution of these uncertainties may result in adjustments to the Company's tax assets and liabilities.

Management assesses the likelihood and timing of taxable earnings in future periods in recognizing deferred income tax assets on unutilized tax losses. Future taxable income is based on forecast cash flows from operations and the application of existing tax laws in each jurisdiction. Forecast cash flows are based on life of mine projections.

To the extent that future cash flows and taxable income differ significantly from forecasts, the ability of the Company to realize the net deferred income tax assets recorded at the balance sheet date could be impacted. In addition, future

changes in tax laws could limit the ability of the Company to obtain tax deductions in future periods from deferred income tax assets are disclosed in note 13.

- Precious metal stream arrangement

On October 5, 2015, the Company finalized an agreement with Franco-Nevada Corporation ("Franco-Nevada") for the delivery of precious metals from the Cobre Panama project. Franco-Nevada have provided \$1 billion deposit to the Cobre Panama project against future deliveries of gold and silver produced by the mine. A further stream was completed on March 26, 2018, with an additional \$356 million received from Franco-Nevada.

Management has determined that the under the terms of the agreement the Company meets the 'own-use' exemption criteria under *IFRS 9: Financial Instruments*. The Company also retains significant business risk relating to the operation of the mine and as such has accounted for the proceeds received as deferred revenue.

Management has exercised judgement in determining the appropriate accounting treatment for the Franco-Nevada streaming agreement. Management has determined, with reference to the agreed contractual terms in conjunction with the Cobre Panama reserves and mine plan, that funds received from Franco-Nevada constitute a prepayment of revenues deliverable from future Cobre Panama production.

Following the first sale of copper concentrate by Cobre Panama in June 2019, the Company commenced deliveries of gold and silver to Franco-Nevada under the terms of the arrangement.

- Assessment of impairment indicators

Management applies significant judgement in assessing each cash-generating units and assets for the existence of indicators of impairment at the reporting date. Internal and external factors are considered in assessing whether indicators of impairment are present that would necessitate impairment testing. Significant assumptions regarding commodity prices, production, operating costs, capital expenditures and discount rates are used in determining whether there are any indicators of impairment. These assumptions are reviewed regularly by senior management and compared, where applicable, to relevant market consensus views.

The Company's most significant CGUs are longer-term assets and therefore their value is assessed on the basis of longer-term pricing assumptions. Shorter-term assets are more sensitive to short term commodity prices assumptions that are used in the review of impairment indicators.

The carrying value of property, plant and equipment and goodwill at the balance sheet date is disclosed in note 6 and note 7 respectively, and by mine location in note 23.

Asset impairments are disclosed in note 20.

- Derecognition of financial liabilities

Judgment is required when determining if an exchange of instruments or modification of debt constitute an extinguishment of the original financial liability and establishment of a new financial liability. In 2019, qualitative factors such as new terms and changes to the existing lending group were considered for the Company's senior debt facility and were judged to constitute an extinguishment of the previous \$1.5 billion RCF (see note 10).

- (ii) Significant accounting estimates

Estimates are inherently uncertain and therefore actual results may differ from the amounts included in the financial statements, potentially having a material future effect on the Company's consolidated financial statements. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below:

- Determination of ore reserves and life of mine plan

Reserves are estimates of the amount of product that can be economically and legally extracted from the Company's properties. Estimating the quantity and/or grade of reserves requires the size, shape and depth of ore bodies or fields to be determined by analyzing geological data such as drilling samples. Following this, the quantity of ore that can be extracted in an economical manner is calculated using data regarding the life of mine plans and forecast sales prices (based on current and long-term historical average price trends).

The majority of the Company's property, plant and equipment are depreciated over the estimated lives of the assets on a units-of-production basis. The calculation of the units-of-production rate, and therefore the annual depreciation

expense could be materially affected by changes in the underlying estimates which are driven by the life of mine plans. Changes in estimates can be the result of actual future production differing from current forecasts of future production, expansion of mineral reserves through exploration activities, differences between estimated and actual costs of mining and differences in the commodity prices used in the estimation of mineral reserves.

Management made significant estimates of the strip ratio for each production phase. Waste material stripping costs in excess of this ratio, and from which future economic benefit will be derived from future access to ore, will be capitalized to mineral property and depreciated on a units-of-production basis.

Changes in the proven and probable reserves estimates may impact the carrying value of property, plant and equipment (note 6), restoration provisions (note 11), recognition of deferred income tax amounts (note 13) and depreciation (note 6).

- Review of asset carrying values and impairment charges

The Company reviews the carrying value of assets each reporting period to determine whether there is any indication of impairment using both internal and external sources of information. The Company has determined that each mining operation and smelter is a cash-generating unit.

External sources of information regarding indications of impairment include considering the changes in market, economic and legal environment in which the Company operates that are not within its control and affect the recoverable amount of, or the timing of economic benefits from mining assets. Internal sources of information include changes to the life of mine plans and economic performance of the assets.

Management's determination of recoverable amounts includes estimates of mineral prices, recoverable reserves, and operating, capital and restoration costs are subject to certain risks and uncertainties that may affect the recoverability of mineral property costs. The calculation of the recoverable amount can also include assumptions regarding the appropriate discount rate and inflation and exchange rates. Although management has made its best estimate of these factors, it is possible that changes could occur in the near term that could adversely affect management's estimate of the net cash flow to be generated from its projects.

An impairment was recognized on Las Cruces at December 31, 2019. A 5% change in the production and short-term copper price would result in a \$24 million change to the impairment value recognized.

- Estimation of the amount and timing of restoration and remediation costs

Accounting for restoration provisions requires management to make estimates of the future costs the Company will incur to complete the restoration and remediation work required to comply with existing laws, regulations and agreements in place at each mining operation and any environmental and social principles the Company is in compliance with. The calculation of the present value of these costs also includes assumptions regarding the timing of restoration and remediation work, applicable risk-free interest rate for discounting those future cash outflows, inflation and foreign exchange rates and assumptions relating to probabilities of alternative estimates of future cash outflows. Actual costs incurred may differ from those amounts estimated. Also, future changes to environmental laws and regulations could increase the extent of restoration work required to be performed by the Company. Increases in future costs could materially impact the amounts charged to operations for restoration. A 10% increase in costs would result in an increase to restoration provisions of \$90 million at December 31, 2019.

The provision represents management's best estimate of the present value of the future restoration and remediation costs. The actual future expenditures may differ from the amounts currently provided; any increase in future costs could materially impact the amounts included in the liability disclosed in the consolidated balance sheet. The carrying amount of the Company's restoration provision is disclosed in note 11c.

- Estimation and assumptions relating to the timing of VAT receivables in Zambia

In addition to the recoverability of VAT receivables being a key judgment, calculating the present value of these recoveries also includes assumptions regarding the timing of recoveries. Changes to the timings could materially impact the amounts charged to finance costs. The impact of repayments being one year later than estimated at December 31, 2019 would lead to a decrease to the carrying value and an increase to finance costs of \$43 million. The carrying amount of the Company's VAT receivables is disclosed in note 4b.

Financial instruments risk exposure

The Company's activities expose it to a variety of risks arising from financial instruments. These risks, and management's objectives, policies and procedures for managing these risks are disclosed as follows:

Credit risk

The Company's credit risk is primarily attributable to cash and bank balances, short-term deposits, derivative instruments and trade and other receivables. The Company's exposure to credit risk is represented by the carrying amount of each class of financial assets, including commodity contracts, recorded in the consolidated balance sheet.

The Company limits its credit exposure on cash held in bank accounts by holding its key transactional bank accounts with highly rated financial institutions. The Company manages its credit risk on short-term deposits by only investing with counterparties that carry investment grade ratings as assessed by external rating agencies and spreading the investments across these counterparties. Under the Company's risk management policy, allowable counterparty exposure limits are determined by the level of the rating unless exceptional circumstances apply. A rating of investment grade or equivalent is the minimum allowable rating required as assessed by international credit rating agencies. Likewise, it is the Company's policy to deal with banking counterparties for derivatives who are rated investment grade or above by international credit rating agencies and graduated counterparty limits are applied depending upon the rating.

Exceptions to the policy for dealing with relationship banks with ratings below investment grade are reported to, and approved by, the Audit Committee. As at December 31, 2019, substantially all cash and short-term deposits are with counterparties of investment grade.

The Company's credit risk associated with trade accounts receivable is managed through establishing long-term contractual relationships with international trading companies using industry-standard contract terms. 36% of the Company's trade receivables are outstanding from three customers together representing 23% of the total sales for the year. No amounts were past due from these customers at the balance sheet date. The Company continues to trade with these customers. Revenues earned from these customers are included within the Kansanshi and Sentinel segments. Other accounts receivable consist of amounts owing from government authorities in relation to the refund of value-added taxes applying to inputs for the production process and property, plant and equipment expenditures and prepaid taxes.

Liquidity risk

The Company manages liquidity risk by maintaining cash and cash equivalent balances and available credit facilities to ensure that it is able to meet its short-term and long-term obligations as and when they fall due. Company-wide cash projections are managed centrally and regularly updated to reflect the dynamic nature of the business and fluctuations caused by commodity price and exchange rate movements.

In addition, the Company was obligated under its corporate revolving credit and term loan facility to maintain liquidity and satisfy various covenant ratio tests on a historical cash flow basis. These ratios were in compliance during the year ended December 31, 2019, and December 31, 2018. If the Company breaches a covenant in its Financing Agreements, this would be an event of default which, if un-addressed, would entitle the lenders to make the related borrowings immediately due and payable and if made immediately due and payable all other borrowings would also be due and payable.

Market risks

Commodity price risk

The Company is subject to commodity price risk from fluctuations in the market prices of copper, gold, nickel, zinc and other elements.

As part of the hedging program, the Company has elected to apply hedge accounting for a portion of copper and nickel sales. For the year ended December 31, 2019, a fair value gain of \$8 million (2018: fair value gain of \$27 million) has been recognized on derivatives designated as hedged instruments through accumulated other comprehensive income and a fair value gain of \$44 million (2018: fair value loss of \$110 million) has been recognized through sales revenues.

For the year ended December 31, 2018, the Company had unmargined copper forward sales contracts for 30,000 tonnes at an average price of \$2.81 per lb outstanding with periods of maturity to June 2020. In addition, the Company has zero cost collar unmargined sales contracts for 80,000 tonnes at weighted average prices of \$2.65 per lb to \$2.91 per lb outstanding with maturities to December 2020. The Company also had unmargined nickel forward sales contracts for 12,046 tonnes at an average price of \$6.77 per lb outstanding with maturities to February 2021.

The Company is also exposed to commodity price risk on diesel fuel required for mining operations and sulphur required for acid production. The Company's risk management policy allows for the management of these exposures through the use of derivative financial instruments. As at December 31, 2019, and December 31, 2018, the Company had not entered into any diesel or sulphur derivatives.

The Company's commodity price risk related to changes in fair value of embedded derivatives in accounts receivable reflecting copper, nickel, gold and zinc sales provisionally priced based on the forward price curve at the end of each quarter.

Interest rate risk

The majority of the Company's interest expense is fixed however it is also exposed to an interest rate risk arising from interest paid on floating rate debt and the interest received on cash and short-term deposits. The majority of interest charges were capitalized in 2019 until commencement of commercial production in Panama on September 1, 2019, and therefore the risk exposure is primarily on cash, and net earnings in relation to the depreciation of capitalized interest charges.

Deposits are invested on a short-term basis to ensure adequate liquidity for payment of operational and capital expenditures. To date, no interest rate management products are used in relation to deposits.

The Company manages its interest rate risk on borrowings on a net basis. The Company has a policy allowing floating-to-fixed interest rate swaps targeting 50% of exposure over a five-year period. As at December 31, 2019, and December 31, 2018, the Company held no floating-to-fixed interest rate swaps.

Foreign exchange risk

The Company's functional and reporting currency is USD. As virtually all of the Company's revenues are derived in USD and the majority of its business is conducted in USD, foreign exchange risk arises from transactions denominated in currencies other than USD. Commodity sales are denominated in USD, the majority of borrowings are denominated in USD and the majority of operating expenses are denominated in USD. The Company's primary foreign exchange exposures are to the local currencies in the countries where the Company's operations are located, principally the Zambian kwacha ("ZMW"), Australian dollar ("A\$") Mauritanian ouguiya ("MRU"), the euro ("EUR") and the Turkish lira ("TRY"); and to the local currencies suppliers who provide capital equipment for project development, principally the A\$, EUR and the South African rand ("ZAR").

The Company's risk management policy allows for the management of exposure to local currencies through the use of financial instruments at a targeted amount of up to 100% for exposures within one year down to 50% for exposures in five years.

Disclosure Controls and Procedures

The Company's disclosure controls and procedures are designed to provide reasonable assurance that all relevant information is communicated to senior management, to allow timely decisions regarding required disclosure.

An evaluation of the effectiveness of the Company's disclosure controls and procedures, as defined under the rules of the Canadian Securities Administration, was conducted as of December 31, 2019, under the supervision of the Company's Audit Committee and with the participation of management. Based on the results of the evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of the end of the period covered by this report in providing reasonable assurance that the information required to be disclosed in the Company's annual filings, interim filings or other reports filed or submitted by it under securities legislation is recorded, processed, summarized and reported in accordance with the securities legislation.

Since the December 31, 2019 evaluation, there have been no adverse changes to the Company's controls and procedures and they continue to remain effective.

Internal Control over Financial Reporting

Internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of the Company's financial reporting and the preparation of financial statements in compliance with IFRS. The Company's internal control over financial reporting includes policies and procedures that:

- pertain to the maintenance of records that accurately and fairly reflect the transactions of the Company;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with IFRS;

- ensure the Company's receipts and expenditures are made only in accordance with authorization of management and the Company's directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized transactions that could have a material effect on the annual or interim financial statements.

An evaluation of the effectiveness of the Company's internal control over financial reporting was conducted as of December 31, 2019 by the Company's management, including the Chief Executive Officer and Chief Financial Officer, based on the Control - Integrated Framework (2013) established by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Based on this evaluation, management has concluded that the Company's internal controls over financial reporting were effective.

There were no changes in the Company's business activities during the year-ended December 31, 2019, that have materially affected, or are reasonably likely to materially affect, its internal controls over financial reporting.

Limitations of Controls and Procedures

The Company's management, including the Chief Executive Officer and Chief Financial Officer, believe that any disclosure controls and procedures or internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable and not absolute assurance that the objectives of the control system are met. Further, the design of a control system reflects the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, they cannot provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been prevented or detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by unauthorized override of the control. The design of any systems of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Accordingly, because of the inherent limitations in a cost effective control system, misstatements due to error or fraud may occur and not be detected.

Cautionary statement on forward-looking information

Certain statements and information herein, including all statements that are not historical facts, contain forward-looking statements and forward-looking information within the meaning of applicable securities laws. The forward-looking statements include estimates, forecasts and statements as to the Company's expectations of production and sales volumes, and expected timing of completion of project development at Enterprise and post completion of construction activity at Cobre Panama and are subject to the impact of ore grades on future production, the potential of production disruptions (including at Cobre Las Cruces as a result of the land slippage in January 2019), capital expenditure and mine production costs, the outcome of mine permitting, other required permitting, the outcome of legal proceedings which involve the Company, information with respect to the future price of copper, gold, silver, nickel, zinc, pyrite, cobalt, iron and sulphuric acid, estimated mineral reserves and mineral resources, First Quantum's exploration and development program, estimated future expenses, exploration and development capital requirements, the Company's hedging policy, and goals and strategies. Often, but not always, forward-looking statements or information can be identified by the use of words such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate" or "believes" or variations of such words and phrases or statements that certain actions, events or results "may", "could", "would", "might" or "will" be taken, occur or be achieved.

With respect to forward-looking statements and information contained herein, the Company has made numerous assumptions including among other things, assumptions about continuing production at all operating facilities, the price of copper, gold, silver, nickel, zinc, pyrite, cobalt, iron and sulphuric acid, anticipated costs and expenditures and the ability to achieve the Company's goals. Forward-looking statements and information by their nature are based on assumptions and involve known and unknown risks, uncertainties and other factors which may cause the actual results, performance or achievements, or industry results, to be materially different from any future results, performance or achievements expressed or implied by such forward-looking statements or information. These factors include, but are not limited to, future production volumes and costs, the temporary or permanent closure of uneconomic operations, costs for inputs such as oil, power and sulphur, political stability in Zambia, Peru, Mauritania, Finland, Spain, Turkey, Panama, Argentina and Australia, adverse weather conditions in Zambia,

Finland, Spain, Turkey, Mauritania and Panama, labour disruptions, potential social and environmental challenges (including the impact of climate change), power supply, mechanical failures, water supply, procurement and delivery of parts and supplies to the operations, the production of off-spec material and events generally impacting global economic, political and social stability.

See the Company's Annual Information Form for additional information on risks, uncertainties and other factors relating to the forward-looking statements and information. Although the Company has attempted to identify factors that would cause actual actions, events or results to differ materially from those disclosed in the forward-looking statements or information, there may be other factors that cause actual results, performances, achievements or events not to be anticipated, estimated or intended. Also, many of these factors are beyond First Quantum's control. Accordingly, readers should not place undue reliance on forward-looking statements or information. The Company undertakes no obligation to reissue or update forward-looking statements or information as a result of new information or events after the date hereof except as may be required by law. All forward-looking statements and information made herein are qualified by this cautionary statement.