

# Management's Discussion and Analysis

## For the year ended December 31, 2018



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, 2018. 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](http://www.sedar.com). Information is also available on the Company's website at [www.first-quantum.com](http://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 14, 2019.

### OVERVIEW

The Company continued to deliver solid operational and financial results in 2018. The Company's continued focus on operational improvements resulted in strong production in the year, with a record 605,853 tonnes of copper produced in 2018. This was driven by Sentinel, which increased production by 17%, benefiting from improvements to the quality of the concentrate and process optimization, resulting in increased throughput and recoveries.

The Company issued \$1.85 billion in senior notes in March 2018, repaid and cancelled the \$175 million Kansanshi senior term loan in February 2018 and completed a \$400 million term facility under the Kalumbila subsidiary, which owns the Sentinel mine, in March 2018.

The Company made considerable progress with the Cobre Panama development project during the year, largely completing construction, ahead of phased commissioning and expected first production in 2019. The Company's hedge program, which commenced in 2015 to support the capital intensive phase of Cobre Panama's development, continued at a reduced level in 2018 and into 2019.

In February 2019, the Company announced first introduction of ore to the processing plant at Cobre Panama. On February 7, 2019, ore was introduced through primary crushing and onto the stockpile, and on February 11, ore was introduced through to the first milling circuit. Operation on ore continues and remains on an efficient ramp-up for Cobre Panama.

Reduced use of unmarginated copper forward contracts and an increased use of zero cost collar unmarginated sales contracts and forward copper purchase options saw the Company's realized copper price for 2018 increase to \$2.84 per lb compared with \$2.33 per lb in 2017. The average LME copper price for the year was \$2.96 per lb, 6% higher than 2017.

Changes were announced to the Zambian mining tax regime in September 2018 and took effect January 1, 2019. The new regime includes increased mineral royalties and removal of their tax deductibility and imposed export levies on precious metals. Furthermore, VAT is to be abolished and replaced with a non-refundable sales tax, which is expected to be implemented from April 1, 2019. Together, these changes are expected to result in increases to the Company's all-in-sustaining-cost ("AISC") and effective tax rate. The Company remains engaged with the Government of the Republic of Zambia ("GRZ") on the transition and implementation of the new regime.

### FULL YEAR HIGHLIGHTS

#### Operational and Financial

- The Company achieved record annual copper production of 605,853 tonnes, 6% higher than 2017 and ahead of guidance, reflecting higher output from Sentinel. Sentinel copper production of 223,656 tonnes was 17% higher than the prior year, driven by higher throughput and recoveries.

- The Kansanshi smelter achieved record annual production of 347,037 tonnes of copper anode and treated a record 1,381,637 dry metric tonnes (“DMT”) of concentrate in the year.
- Gold production of 185,414 ounces was 7% lower than 2017, mainly reflecting reduced gold feed grade at Kansanshi and Guelb Moghrein.
- Gross profit of \$978 million and comparative EBITDA of \$1,737 million were 192% and 51% higher, respectively, than 2017, mainly reflecting higher sales revenues driven by higher copper sales volumes and realized copper prices achieved in the Company’s corporate sales hedge program.
- Comparative earnings of \$487 million (\$0.71 per share), net earnings attributable to shareholders of the Company of \$441 million (\$0.64 per share), and cash flows from operating activities of \$1,980 million (\$2.88 per share) were achieved in 2018. These results were significantly higher than those achieved in 2017 and include a \$110 million loss realized by the corporate sales hedge program.
- Copper all-in sustaining cost (“AISC”) was \$1.74 per lb and cash cost of copper production (“C1”) was \$1.28 per lb for the year. In 2017, cash cost and AISC benefited from the impact of a review of previously recognized operational provisions. Excluding this impact, AISC in 2018 was \$0.04 per lb higher than, and C1 cash cost was in line with, the prior year. The increase in underlying AISC reflects higher Zambian royalties and sustaining capital expenditure, while C1 cash cost reflects the impact of higher copper production and increased by-product credits.
- On February 6, 2019, the Company signed a new \$2.7 billion Term Loan and Revolving Credit Facility underwritten by three core relationship banks. This new Facility replaces the existing \$1.5 billion Revolving Credit Facility. The new \$2.7 billion Facility (with an accordion feature to increase it up to \$3.0 billion before the end of 2019) comprises a \$1.5 billion Term Loan Facility and a \$1.2 billion Revolving Credit Facility (which can be upsized to \$1.5 billion if the accordion feature is activated), maturing on December 31, 2022. This financing includes revised financial covenants, extends the debt maturity profile of the business, demonstrates the Company’s access to a diverse range of capital markets, and improves the financial flexibility of the Company through the added liquidity. The Facility will be used for the redemption of the \$1,121 million senior notes due February 2021 in full or in part and for general corporate purposes.

## Cobre Panama Development

- At year-end, the focus for the Cobre Panama project was commissioning the 150MW set 2 of the power station, and commissioning of the process plant ready for introduction of first ore to the mill in the first quarter of 2019, which occurred on February 11, 2019. The process plant is in the water commissioning phase, and power station set 2 had successfully completed steam blows. Set 2 of the power station was successfully synchronized to the Panamanian grid in January 2019 and is now running.

## Consolidated Operating Information

	Q4 2018	Q3 2018	Q4 2017	2018	2017
Copper production (tonnes) <sup>1</sup>	158,304	151,241	154,319	605,853	573,963
Copper sales (tonnes) <sup>2</sup>	156,212	149,877	151,905	596,513	580,130
Cash cost of copper production (C1)(per lb) <sup>3,4</sup>	\$1.23	\$1.31	\$1.30	\$1.28	\$1.23
Total cost of copper production (C3)(per lb) <sup>3,4</sup>	\$2.04	\$2.11	\$2.16	\$2.11	\$2.05
All-in sustaining cost (AISC)(per lb) <sup>3,4</sup>	\$1.68	\$1.80	\$1.76	\$1.74	\$1.65
Realized copper price (per lb)	\$2.83	\$2.84	\$2.50	\$2.84	\$2.33
Gold production (ounces)	48,039	44,979	51,904	185,414	199,736
Gold sales (ounces)	53,221	42,864	50,723	193,072	201,376

Consolidated Financial Information	Q4 2018	Q3 2018	Q4 2017	2018	2017
Sales revenues	1,054	978	885	3,966	3,310
Gross profit	280	246	117	978	335
Net earnings (loss) attributable to shareholders of the Company	198	61	(115)	441	(316)
Basic and diluted earnings (loss) per share	\$0.29	\$0.09	(\$0.17)	\$0.64	(\$0.46)
Comparative EBITDA	481	427	318	1,737	1,154
Comparative earnings (loss) <sup>5</sup>	182	128	(36)	487	(111)
Comparative earnings (loss) per share <sup>5</sup>	\$0.26	\$0.19	(\$0.05)	\$0.71	(\$0.16)

<sup>1</sup> Production is presented on a copper contained basis, and is presented prior to processing through the Kansanshi smelter.

<sup>2</sup> 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 5,884 tonnes and 7,349 tonnes for the three months and year ended December 31, 2018, respectively. Q3 2018 copper sales have been adjusted to exclude copper anode sales of 1,465 tonnes attributable to third-party concentrate purchased.

<sup>3</sup> C1 cash cost, C3 total cost, AISC exclude third-party concentrate purchased at Kansanshi. C1 cash cost, C3 total cost and AISC for Q3 2018 have been revised from amounts previously disclosed to exclude the \$0.03 per lb impact of third-party concentrate purchased.

<sup>4</sup> C1 cash cost, C3 total cost, AISC are not recognized under IFRS. See "Regulatory disclosures" on page 40 for further information.

<sup>5</sup> Net earnings (loss) attributable to shareholders of the Company has been adjusted to exclude items which are not reflective of underlying performance to arrive at comparative earnings (loss). Comparative earnings (loss), comparative earnings (loss) 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" on pages 40-46 for a reconciliation of comparative EBITDA and comparative earnings. The use of comparative earnings and comparative EBITDA represents the Company's adjusted earnings metrics.

	2018	2017
Net earnings (loss) attributable to shareholders of the Company	441	(316)
Adjustments attributable to shareholders of the Company		
Loss on extinguishment of debt	-	84
Finance expense on discounting of non-current VAT	5	20
Total adjustments to comparative EBITDA excluding depreciation <sup>6</sup>	64	77
Tax and minority interest relating to foreign exchange revaluation and comparative adjustments	(23)	24
Comparative earnings (loss)	487	(111)

<sup>6</sup> Adjustments to comparative EBITDA relate principally to foreign exchange but also include gains and losses on disposal of assets and liabilities, other expenses, mine closure costs and movements in restoration provision estimates at closed sites.

## FULL YEAR FINANCIAL SUMMARY

### Sales revenues increased due to higher copper sales volumes and higher realized metal prices

- Sales revenues of \$3,966 million in the year increased by \$656 million compared to 2017, due to an increase in copper revenues of \$814 million reflecting higher realized copper prices and sales volumes, partially offset by the absence of nickel sales revenues and lower gold sales revenues. The increase in copper sales volumes was mainly from Sentinel, which contributed revenues of \$1,454 million in the year. Lower gold sales revenues were driven by lower gold sales volumes, due principally to lower gold grades, compared to 2017.
- The realized price for copper of \$2.84 per lb in 2018 was \$0.51 per lb higher than the prior year, however below the average LME price of \$2.96 per lb on account of the Company's copper sales hedge program, which reduced revenues by \$110 million in the year and the net realized copper price by \$0.08 per lb. In the prior year, revenues were reduced by a \$570 million loss on the copper sales hedge program, which lowered the 2017 net realized copper price by \$0.45 per lb. The average LME price of copper increased by 6% in the year compared to 2017 to \$2.96 per lb.

### Comparative EBITDA higher than 2017

- Comparative EBITDA was \$1,737 million compared to \$1,154 million in 2017. Comparative EBITDA excludes \$64 million of foreign exchange losses, which includes a \$75 million unrealized loss relating to the revaluation of Zambian kwacha denominated VAT balances, a \$6 million gain on disposal of assets and liabilities, \$8 million relating to a retrenchment provision recognized at Las Cruces and a \$2 million gain for closed site restoration provisions.

### Gross profit higher than 2017 from higher realized copper prices and sales volumes

Gross profit in 2017	335
Higher realized metal prices (net of hedges)	665
Higher sales volumes	16
Higher by-product contribution	21
Higher cash costs (excluding Zambian royalties)	(21)
Decrease in depreciation	30
Movement in previously recognized operational provisions in 2017 <sup>1</sup>	(56)
Increase in Zambian royalty rate and volume	(38)
Foreign exchange gain	26
<b>Gross profit in 2018<sup>2</sup></b>	<b>978</b>

<sup>1</sup>The movement in previously recognized operational provisions in 2017 resulted in a reduction in C1 of \$0.05 per lb.

<sup>2</sup>Gross profit is reconciled to comparative EBITDA by including exploration costs of \$26 million, general and administrative costs of \$74 million, other expense of \$69 million, adding back depreciation of \$864 million, and excluding a foreign exchange loss of \$64 million, gain on disposal of assets and liabilities of \$6 million, other expense of \$8 million, and revisions in estimates of restoration provisions at closed sites of \$2 million (a reconciliation of comparative EBITDA is included on page 46).

### Increase in comparative earnings to \$487 million

- Comparative earnings for the year ended December 31, 2018 of \$487 million compares to comparative loss of \$111 million in 2017. A reconciliation of comparative metrics is included on page 46.
- Net earnings attributable to shareholders of \$441 million for the year compared to a net loss attributable to shareholders of \$316 million in 2017. The 2018 result includes \$110 million in sales hedge losses, \$64 million in foreign exchange losses, a \$6 million gain on disposal of assets and liabilities, \$8 million relating to a retrenchment provision recognized at Las Cruces, \$5 million with respect to the discounting of non-current VAT balances, a \$2 million gain for closed site restoration provisions, and \$23 million in tax credits and minority interest relating to foreign exchange revaluation and comparative adjustments.

## FOURTH QUARTER FINANCIAL SUMMARY

- Sales revenues of \$1,054 million were 19% higher than the same period in 2017, reflecting higher copper and gold sales volumes and higher realized metals prices, partially offset by the absence of nickel sales revenues at Ravensthorpe. Sentinel contributed \$344 million in revenues, a \$63 million increase over the same period in 2017. Revenues were higher by \$25 million related to the corporate sales hedge program, which increased the net realized copper price by \$0.07 per lb.

**Gross profit higher than 2017 from higher realized copper prices**

Gross profit in Q4 2017	117
Higher realized metal prices (net of hedges)	123
Sales mix variance	(6)
Higher by-product contribution	15
Higher cash costs (excluding Zambian royalties)	(7)
Decrease in TC/RCS	4
Decrease in depreciation	4
Decrease in Zambian royalty	8
Foreign exchange gain	22
<b>Gross profit in Q4 2018<sup>1</sup></b>	<b>280</b>

<sup>1</sup>Gross profit is reconciled to comparative EBITDA by including exploration costs of \$7 million, general and administrative costs of \$19 million, other income of \$6 million, adding back depreciation of \$224 million, and excluding a foreign exchange gain of \$13 million, other expense of \$8 million and loss on disposal of assets of \$2 million (a reconciliation of comparative EBITDA is included on page 46).

**Comparative earnings of \$182 million**

- Comparative EBITDA was \$481 million compared to \$318 million in the same period of 2017. Comparative earnings for the quarter of \$182 million compares to a comparative loss of \$36 million in 2017. A reconciliation of comparative metrics is included on page 46.
- Net earnings attributable to shareholders of \$198 million compared with a net loss attributable to shareholders of \$115 million for the same period in 2017. The fourth quarter includes \$25 million in sales hedge gains, a \$13 million foreign exchange gain, \$2 million loss on disposal of assets, \$8 million relating to a retrenchment provision recognized at Las Cruces, \$5 million with respect to the discounting of non-current VAT balances, and \$18 million in tax credits and minority interest relating to foreign exchange revaluation and comparative adjustments.

**FINANCIAL POSITION AND OPERATING CASH FLOW**

- On February 6, 2019, the Company signed a new \$2.7 billion Term Loan and Revolving Credit Facility underwritten by three core relationship banks. This new Facility replaces the existing \$1.5 billion Revolving Credit Facility. The new \$2.7 billion Facility (with an accordion feature to increase it up to \$3.0 billion before the end of 2019) comprises a \$1.5 billion Term Loan Facility and a \$1.2 billion Revolving Credit Facility (which can be upsized to \$1.5 billion if the accordion feature is activated), maturing on December 31, 2022.

This financing includes revised financial covenants, extends the debt maturity profile of the business, demonstrates the Company's access to a diverse range of capital markets, and improves the financial flexibility of the Company through the added liquidity. The Net Debt to EBITDA covenant ratio is 5.75x until December 2019. The ratio will then reduce to 5.25x until June 2020, then to 4.75x until December 2020, then to 4.0x until June 2021, and then to 3.5x until final maturity.

The Facility will be used for the redemption of the \$1,121 million senior notes due February 2021 in full or in part and for general corporate purposes. The Company intends to issue a call notice to redeem \$821 million of the February 2021 notes at a price of 101.75 plus accrued interest by the end of February. On 12th February 2019 the syndication was launched to a broad group of relationship banks. BNP Paribas, ING Bank and Societe Generale are acting as Underwriters and Bookrunners on the Facility.

- The Company ended the quarter with \$788 million of net unrestricted cash and cash equivalents in addition to \$700 million of committed undrawn facilities and was in compliance with all financial covenants.
- At December 31, 2018, 30,000 tonnes of unmarginued zero cost copper collar sales contracts at weighted average prices of \$3.10 to \$3.48 per lb were outstanding with maturities to June 2019.
- 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

### Land slippage at Cobre Las Cruces

On January 23, 2019, a land slippage occurred at the Cobre Las Cruces open pit mine. Prior to the incident, mine personnel identified a risk and immediately implemented safety protocols. Following the incident, the pit was evacuated and no injuries occurred. Production at the hydrometallurgical plant was suspended immediately following the incident and copper production resumed on February 1, 2019, with the processing of lower-grade stockpiled ore. The stockpiled ore is expected to provide feed for the next several months while the Company obtains the necessary regulatory approvals to begin mining of Phase 6, an area unaffected by the incident.

### Changes to the Zambian tax regime

Changes to the Zambian mining tax regime, announced by the GRZ in September 2018, were implemented from January 1, 2019.

- The sliding scale mineral royalty rate on copper has been increased by 1.5% to between 5.5% and 7.5% dependent on the LME monthly average price. New mineral royalty rates of 8.5% and 10% are applicable if the LME monthly average price exceeds \$7,500 and \$9,000 per tonne, respectively. Mineral royalties are no longer deductible for corporation tax.
- An export levy on precious metals, including gold, of 15%.
- An import duty of 5% on copper and cobalt concentrates.

Further to the above measures, the Minister of Finance of Zambia also announced the abolition of VAT and the proposed introduction of a non-refundable sales tax. A sales tax is expected to be effective April 1, 2019. The Minister reaffirmed that the GRZ remains committed to settling outstanding VAT claims.

The Company's Zambian operations have continued to accrue value-added tax ("VAT") receivable amounts during the quarter with minimal cash refunds received or offsets to other tax liabilities approved. The total amount of VAT accrued by the Company's Zambian operations at December 31, 2018, was \$443 million, of which \$282 million related to Kansanshi. Management of the Company continues to engage in regular discussions with the relevant government authorities and considers that the outstanding VAT claims are fully recoverable. See additional disclosure *Liquidity and Capital Resources* on page 30.

### Assessment by Zambia Revenue Authority

On March 19, 2018, Kalumbila Minerals Ltd ("KML") (a subsidiary of the Company) received a letter of preliminary findings following an audit by the Zambia Revenue Authority ("ZRA") for ZMW 76.5 billion (approximately \$7.6 billion at the date of receipt of the letter, comprising \$5.5 billion in interest and \$2.0 billion in penalties on the \$150 million assessment claim on duties). The preliminary findings letter covers circa 22,700 import transactions relating to the import of capital items, consumables, and spare parts for use at Sentinel from January 2013 to December 2017.

A process for provision of relevant documentation was agreed between KML and the ZRA. KML, together with an external international accounting firm and a shipping agent completed a review of the documentation relating to the audited areas over the relevant period. KML's internal findings and relevant supporting documentation, which was voluminous, have been provided to the ZRA with discussions progressing on the documentation provided. KML continues to refute the preliminary assessment and the Company's view on the final value of the claim remains unchanged from that disclosed in the first quarter. KML remains engaged with the ZRA and committed to ensuring transparency in all discussions between the parties to bring the matter to a just and prompt resolution.

### Dividends

First Quantum has declared a final dividend of CDN\$0.005 per share, in respect of the financial year ended December 31, 2018. 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 2018 financial year.

For the year ended December 31, 2018, 7,000 common shares (10,000 common shares for the year ended December 31, 2017) were issued through the Company's Dividend Reinvestment Plan.

## LEGAL PROCEEDINGS

### Panama constitutional proceedings

In February 1996, the Republic of Panama and Minera Panama SA (“MPSA”), 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 Minera Panama SA 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 in 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 the Cobre Panama project. The release confirmed that MICI considers that the MPSA mining concession contract, and its extension, remains in effect in all its parts. Construction and commissioning are continuing while the Company seeks to clarify the legal position. (The MICI release is available at [www.mici.gob.pa/detalle.php?cid=16&sid=53&id=5347](http://www.mici.gob.pa/detalle.php?cid=16&sid=53&id=5347)).

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 clarification in the near-medium term.

### Zambian power

In June 2018, without any warning, the state-owned power company (“ZESCO”) reduced power supply to the Kansanshi projects. 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 to Summer 2020.

Despite this dispute our 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, the 80% shareholder, and against KMP. The Company also received a Statement of Claim filed in the Lusaka High Court naming additional defendants, including FQM Finance Ltd. (“FQM Finance”), 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’s treasury entity FQM Finance. 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 FQM Finance 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.

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 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, and an appeal to the Supreme Court of Zambia has been requested.

The Arbitration required ZCCM to petition the Arbitral Tribunal for permission to maintain the derivative action. A three-day hearing on the Arbitration on whether permission is granted or denied took place in January 2018. On February 22, 2018, the Arbitral Tribunal issued a ruling denying ZCCM permission to continue the proceedings. On March 21, 2018, ZCCM served an application seeking to challenge the Arbitral Tribunal’s ruling through the English court. On June 1, 2018, despite being severely out of time, ZCCM sought to amend its application for additional grounds on which to challenge the Arbitral Tribunal’s ruling, to which KMP objected. KMP’s objection was heard in a hearing in July 2018 and deferred to a fuller hearing to take place in March 2019.

Cooperative discussions between the parties, including representatives of the Zambian Government, took place in May 2017 and are expected to be repeated.

## **DEVELOPMENT ACTIVITIES**

### **Cobre Panama Project, Panama**

Cobre Panama project’s focus remains on construction completion, commissioning of the process plant and commissioning and ramp-up of the power station. The first 150MW power station set underwent a reliability and ramp-up program, which was completed in January 2019. The second 150MW set has successfully completed steam blows and steam purity, has been run on coal, and full commissioning is well underway with synchronization to the grid having taken place in January 2019. The process plant is in the water commissioning phase, with the first ore circuits currently being tested on water.

Engineering and procurement were both essentially complete by year-end, with the only outstanding items being remaining spares and construction consumables. The focus is on delivering these final items to site.

Additional key milestones achieved through 2018 include: construction completion of the first in-pit primary crusher; mill commissioning commenced with rotation of Semi-Autogenous Grinding (“SAG”) mill 1 and ball mill 1 and the respective mill lining completed; water commissioning is underway in the areas of milling, rougher flotation, cleaner flotation, water services and tailings; air circuits are active, and demobilization of site labour commenced after achieving a peak of over 13,000 personnel in 2018.

Key status of the construction of the project includes the project pre-strip which is 100% complete, and the tailings management facility earthworks which are 87% complete. Construction of both of the 150MW power station sets was 100% complete and sets 1 and 2 were 100% and 94% commissioned, respectively, at year-end. Extensive process plant commissioning and testing is underway. There are 2,133 designated operations personnel currently engaged including all key management staff. The operations readiness plan includes establishment of operating systems, procedures, tooling and spares, and training of Panamanian employee skills. By December 2018 the mine, port and set 1 of the power station was running under operational employee control. The project remains scheduled for ramp-up over 2019 and 2020.

In February 2019, the Company announced first introduction of ore to the processing plant at Cobre Panama. On February 7, 2019, ore was introduced through primary crushing and onto the stockpile with initial feed rates between 4,000 and 5,000 tonnes per hour, and on February 11, ore was introduced through to the first milling circuit. Operation on ore continues, and will move into all other sections of the processing plant including the production of copper concentrate. Focus is now on an efficient ramp-up for Cobre Panama.

The total project capital expenditure in 2018 was \$1,332 million (First Quantum's share \$907 million). Project spending to date amounts to \$6.1 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 KPMC.

Further to the above capital expenditure, \$653 million was capitalized to the Cobre Panama project with respect to interest costs incurred by the Company during 2018 (2017: \$485 million).

### Enterprise Project, Zambia

The Enterprise nickel project is designed to produce approximately 38,000 tonnes of nickel in concentrate per annum with scope to increase to 60,000 tonnes per annum when market conditions are considered suitable. Given the operational and infrastructure synergies with the Sentinel copper mine, located 12 kilometres away, Enterprise is expected to be a low-cost mine. Environmental approval has been granted and preparatory works around the project have been undertaken to allow pre-stripping to commence when market conditions improve. Construction of the process plant was completed in 2016, and some sections of the plant were incorporated into the Sentinel process circuit to provide additional processing flexibility in the short-term should conditions permit. These areas are flotation, concentrate thickening and filtration and reagent composition. Enterprise continues to be on hold with pre-strip mining activities deferred.

## EXPLORATION

The Company's exploration strategy includes work at advanced stage exploration projects at Haquira in Peru and Taca Taca in Argentina, near-mine resource expansion around Las Cruces, Pyhäsalmi and Kansanshi as well as an early stage exploration program concentrated on the search of high quality porphyry deposits in the Andean and Tethyan Cordilleras and sediment-hosted copper deposits in the basins of Central Africa and Australia.

At the Haquira project in Peru, the focus continues on the community and environmental aspects. The Environmental Impact Assessment ("EIA") studies continued during the period. Various access agreements with communities to maintain activities have now been successfully renegotiated.

At Taca Taca, a detailed environmental and social baseline study is at an advanced stage of preparation, and communication with communities and relevant authorities is ongoing. Water supply studies are progressing well, including a field program which commenced in September 2018 to develop boreholes for pump testing sustainable groundwater resources in the area. It is anticipated that formal environmental and social impact assessments will be filed with the authorities in 2019 for potential development of a mine, processing plant, and associated infrastructure for the Taca Taca project.

During 2018, near-mine exploration programs were active at Las Cruces in Spain and on satellite targets near Kansanshi in Zambia. In the fourth quarter, first stage drilling was completed on a small oxide target near Kansanshi with resource definition work proposed for 2019. At Las Cruces, further drilling is planned to test near mine geophysical targets delineated from seismic and electromagnetic surveys.

A modest global exploration program continued through 2018 focused on identifying high quality porphyry and sediment hosted copper deposits around the world. In recent times this program has expanded to include reconnaissance exploration on properties throughout the Andean belt in Argentina, Chile, Peru, Ecuador and Columbia but has also included evaluation of high priority targets in several other jurisdictions. In the fourth quarter of 2018, drill programs were active on targets in Chile, Peru and Zambia.

## HEALTH & SAFETY

The health and safety of all of our 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. Tragically, despite this, there have been two fatal incidents at the Company's operations in 2018, at Cobre Panama in August and at Sentinel in October. All fatalities are subject to internal and external investigation, as well as Board review. These unfortunate incidents are being thoroughly analyzed and the Company is committed to learning from the findings and taking appropriate actions. 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 0.06 per 200,000 hours worked on average over the 12 month period to December 31, 2018, a 45% improvement from 2017.

## MARKET GUIDANCE

Guidance is based on a number of assumptions and estimates as of December 31, 2018, including among other things, assumptions about metal prices and anticipated costs and expenditures, and involve known and unknown risks, uncertainties and other factors which may cause the actual results to be materially different.

### *Cobre Panama milestones and continued ramp-up expectations*

The following milestones are expected in 2019:

- Successful completion of the inching and lining of both ball mills 1 and 2 in January 2019;
- First ore to SAG mills 1 and 2, startup of rougher trains 1 and 2 and first concentrate production to be completed within the first quarter of 2019. Train 3, the gold plant and completion of outstanding infrastructure will occur within the second and third quarters of 2019. Completion of the molybdenum plant is expected in the fourth quarter of 2019;
- Total 2019 copper production will vary according to the impact of known upsides, mitigated by as yet unknown ramp-up factors and final project completion. A range of 140,000 to 175,000 tonnes of copper production is considered achievable. Note that limited copper production is expected in the first half of 2019 whilst the process plant continues in commissioning and startup. The second half of 2019 is expected to provide approximately 80% of the total copper production for the full 2019 year;
- Commercial production will be declared in arrears at a date yet to be determined and according to a number of factors – including performance of key assets, achievement of steady state production at a material proportion of nameplate plant capacity, and factors which indicate the mine is operating as intended by management. At this stage, while difficult to predict exactly, it is assumed that commercial production will be declared in the final quarter of the year.

By the end of 2019 the Cobre Panama mine is expected to be running at an annualized throughput rate of 72 mtpa and will reach the 85 mtpa throughput rate by 2020. Contained copper production is estimated at between 140,000 tonnes and 175,000 tonnes in 2019, between 270,000 tonnes and 300,000 tonnes in 2020, approximately 300,000 tonnes in 2021 increasing to approximately 350,000 tonnes in 2022. In 2022, the C1 unit cost of production is estimated at \$1.20 per lb and \$1.50 per lb all-in sustaining. Both estimates are net of an assumed by-product credit principally gold as well as some molybdenum and silver, of approximately \$0.25 per lb. Gold production in 2020 and 2021 is estimated at approximately 100,000 ounces.

### *Production guidance*

000's	2019	2020	2021
Total copper (tonnes)	700 - 735	840 - 870	820
Copper (tonnes) - Cobre Panama	140 - 175	270 - 300	300
Copper (tonnes) – excluding Cobre Panama	560	570	520
Gold (ounces) – excluding Cobre Panama	185	180	170
Zinc (tonnes)	12	2	-

Production guidance for Las Cruces reflects the land slippage in January 2019, with lost production currently estimated at 25,000 tonnes in 2019. Production at Las Cruces for 2020 has also been reduced by a further 25,000 tonnes from amounts previously disclosed as certain high grade ore is no longer expected to be mined as part of the open pit operation. The open pit mining operations are expected to be completed in the fourth quarter of 2020. (See page 21 for further detail included in the Las Cruces outlook.)

There has been some small reduction to Sentinel, Guelb Moghrein and Çayeli production guidance, largely reflecting lower grade.

In terms of quarterly phasing of annual production, it is expected production at Zambian operations will be at its lowest in the first quarter. The first and second quarters will also be impacted by lower production at Las Cruces following the land slippage.

### *Seasonality*

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.

**Production guidance by operation (excluding Cobre Panama)**

**Copper**

<b>000's tonnes</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Kansanshi	235	235	235
Sentinel	230	250	250
Las Cruces	45	45	-
Guelb Moghrein	28	25	20
Çayeli	17	15	15
Pyhäsalmi	5	-	-

**Gold**

<b>000's ounces</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Kansanshi	135	135	135
Guelb Moghrein	47	45	35
Pyhäsalmi	3	-	-

**Zinc**

<b>000's tonnes</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
Çayeli	2	2	-
Pyhäsalmi	10	-	-

**Cash cost and all-in sustaining cost**

Cash costs and AISC guidance in the tables below does not include any costs in respect of Cobre Panama.

<b>Copper</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
C1 (per lb) – excluding Zambian sales tax	\$1.20 - \$1.40	\$1.20 - \$1.40	\$1.20 - \$1.40
AISC (per lb) – excluding Zambian sales tax	\$1.70 - \$1.85	\$1.70 - \$1.85	\$1.70 - \$1.85

Increase in AISC guidance reflects higher Zambian royalty and gold sales levy rates effective January 1, 2019. This has increased AISC by \$0.05 per lb in all three years.

It is expected that a Zambian sales tax will be introduced from April 1, 2019, and that this will result in increased C1 and AISC unit costs. However, guidance given excludes the impact of sales tax as the rate to be introduced has not yet been confirmed by the GRZ.

### Capital expenditure<sup>1</sup>

	2019	2020	2021
Total Cobre Panama project <sup>2</sup>	230	-	-
Third-party contribution <sup>3</sup>	(35)	-	-
First Quantum's share of Cobre Panama project <sup>4</sup>	195	-	-
Capitalized stripping	200	250	250
Sustaining capital and other projects	650	600	600
<b>Total net capital expenditure</b>	<b>1,045</b>	<b>850</b>	<b>850</b>

<sup>1</sup> Excludes capitalization of any net pre-commercial production costs, revenue and interest.

<sup>2</sup> Reflects total capital expenditure estimate of \$6.3 billion.

<sup>3</sup> Third-party contributions are from KORES' 10% indirect interest in the project.

<sup>4</sup> Based on the current 90% ownership.

Guidance on total Cobre Panama project capital expenditure is \$6.3 billion.

Guidance for the Company's sustaining capital and other projects includes expenditure relating to Cobre Panama and also includes expenditure relating to other development projects. Underlying sustaining capital expenditure is expected to average approximately \$250 million per annum from 2020.

### Interest

Due to the current level of project capital expenditure, interest has largely been capitalized in 2018 and previous years. This is expected to continue until declaration of commercial production at Cobre Panama and, in the absence of any major project capital expenditure, interest would then be expensed.

### Tax

Excluding the impact of the changes to the Zambian mining tax regime, which were effective January 1, 2019, the effective tax rate for 2019, excluding the sales hedge program, is expected to be in line with 2018, at approximately 31%. Including the impact of the changes to the Zambian mining tax regime, the expected effective rate excluding the sales hedge program, is approximately 45%.

## OPERATING REVIEW

Production Summary <sup>1</sup>	Q4 2018	Q3 2018	Q4 2017	2018	2017
<b>Copper production (tonnes)<sup>2</sup></b>					
Kansanshi	61,780	63,687	64,800	251,522	250,801
Sentinel	60,840	56,426	57,190	223,656	190,683
Las Cruces	18,470	15,181	18,700	70,738	73,664
Guelb Moghrein	8,319	7,902	7,155	28,137	28,791
Çayeli	5,931	5,056	3,284	19,896	16,523
Pyhäsalmi	2,964	2,989	3,190	11,904	13,501
<b>Total copper production (tonnes)</b>	<b>158,304</b>	<b>151,241</b>	<b>154,319</b>	<b>605,853</b>	<b>573,963</b>
<b>Total gold production (ounces)</b>	<b>48,039</b>	<b>44,979</b>	<b>51,904</b>	<b>185,414</b>	<b>199,736</b>
<b>Total zinc production (tonnes)</b>	<b>7,687</b>	<b>7,348</b>	<b>3,556</b>	<b>26,807</b>	<b>20,723</b>
<b>Total nickel production (contained tonnes)</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>17,837</b>

<sup>1</sup> Operating performance measures for 2017 include Ravensthorpe. On October 1, 2017, Ravensthorpe was placed on care and maintenance.

<sup>2</sup> Production is presented on a copper contained basis, and is presented prior to processing through the Kansanshi smelter.

### Full year

The Company achieved record annual copper production of 605,853 tonnes in 2018, representing a 6% increase compared to 2017 and exceeding market guidance. This increase reflected higher production at Sentinel, which achieved record production of 223,656 tonnes of copper anode in 2018, an increase of 17% compared to 2017, and Çayeli where production was 20% higher than the prior year due to higher throughput and grades mined. This increase was partially offset by lower copper production at Las Cruces, where planned and unplanned shutdowns reduced equipment availability by 18 days in 2018, and Pyhäsalmi which was impacted by lower grades, throughput and recovery.

The Kansanshi smelter continued to perform well, having achieved record throughput of 1.38 million DMT of concentrate processed, reflecting a 15% increase over design capacity, and produced 1,255,000 tonnes of sulphuric acid in 2018. The smelter produced a record 347,037 tonnes of copper anode in the year, including 7,349 tonnes produced from copper concentrate purchased from third parties.

Gold production of 185,414 ounces was 7% lower than the prior year mainly due to reduced gold feed grade at Kansanshi and Guelb Moghrein.

Ravensthorpe remained on care and maintenance throughout 2018 following the suspension of operations at the mine in October 2017 due to the low nickel price.

### Fourth quarter

Copper production in the fourth quarter was 3% higher than the comparable period of 2017, reflecting higher production at Sentinel, Çayeli and Guelb Moghrein, attributable to increased throughput, higher grade at Çayeli and Guelb Moghrein and improved recoveries at Sentinel. The increase was partially offset by lower copper production at Kansanshi due to reduced throughput and grade on the oxide circuit, as well as lower recoveries on the sulphide and mixed ore circuits.

The Kansanshi smelter produced 89,894 tonnes of copper anode in the fourth quarter, including 5,884 tonnes of copper anode produced from copper concentrate purchased from third parties. The smelter processed 349,424 DMT of copper concentrate with a copper recovery of 97%. Sulphuric acid production for the quarter was 320,000 tonnes.

Gold production of 48,039 ounces was 7% lower than the same period of 2017, reflecting lower gold production at Kansanshi and Guelb Moghrein due to lower gold feed grade.

Sales Summary <sup>1</sup>	Q4 2018	Q3 2018	Q4 2017	2018	2017
<b>Copper sales (tonnes)</b>					
Kansanshi <sup>2</sup>	56,330	64,818	74,974	229,832	267,700
Sentinel	60,257	59,069	44,767	238,211	177,360
Las Cruces	18,345	15,138	17,903	71,523	74,664
Guelb Moghrein	9,099	5,108	6,811	27,366	28,999
Çayeli	9,153	2,753	4,266	17,397	17,716
Pyhäsalmi	3,028	2,991	3,184	12,184	13,691
<b>Total copper sales (tonnes)<sup>2</sup></b>	<b>156,212</b>	<b>149,877</b>	<b>151,905</b>	<b>596,513</b>	<b>580,130</b>
<b>Total gold sales (ounces)</b>	<b>53,221</b>	<b>42,864</b>	<b>50,723</b>	<b>193,072</b>	<b>201,376</b>
<b>Total zinc sales (tonnes)</b>	<b>8,268</b>	<b>6,178</b>	<b>3,282</b>	<b>26,112</b>	<b>21,851</b>
<b>Total nickel sales (contained tonnes)</b>	<b>-</b>	<b>-</b>	<b>865</b>	<b>-</b>	<b>18,683</b>

<sup>1</sup> Operating performance measures for 2017 include Ravensthorpe. On October 1, 2017, Ravensthorpe was placed on care and maintenance.

<sup>2</sup> 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 5,884 tonnes and 7,349 tonnes for the three months and year ended December 31, 2018, respectively. Q3 2018 copper sales have been adjusted to exclude copper anode sales of 1,465 tonnes attributable to third-party concentrate purchased.

#### Full year

The Company achieved record copper sales for the year ended December 31, 2018, 3% higher than 2017 mainly reflecting higher sales volumes at Sentinel. Sentinel copper sales were 60,851 tonnes higher than 2017, offset by lower copper sales volumes at Kansanshi resulting from the timing of sales of copper anode. Sales of copper anode were 11% higher in the year, partially offset by 8% and 5% decreases to the volumes of copper cathode and copper concentrate sold.

#### Fourth quarter

Copper sales volumes for the quarter of 156,212 tonnes were 3% higher than the comparable quarter of 2017. Increased sales volumes at Sentinel, Çayeli and Guelb Moghrein were offset by reduced sales volumes at Kansanshi in the period compared with 2017.

## Unit Cost

Unit Cost Summary	Q4 2018	Q3 2018	Q4 2017	2018	2017
<b>Copper C1 cash cost (\$ per lb)</b>					
Kansanshi <sup>1</sup>	\$1.04	\$1.06	\$1.16	\$1.03	\$1.05
Sentinel	\$1.55	\$1.72	\$1.67	\$1.70	\$1.70
Las Cruces	\$0.94	\$1.02	\$0.93	\$0.90	\$0.86
Other sites <sup>2</sup>	\$1.23	\$0.83	\$0.82	\$0.96	\$0.85
<b>Total copper C1 cash cost (\$ per lb)<sup>1</sup></b>	\$1.23	\$1.31	\$1.30	\$1.28	\$1.23
<b>Copper AISC (\$ per lb)</b>					
Kansanshi <sup>1</sup>	\$1.61	\$1.59	\$1.55	\$1.55	\$1.54
Sentinel	\$2.02	\$2.25	\$2.36	\$2.22	\$2.19
Las Cruces	\$1.16	\$1.41	\$1.12	\$1.16	\$1.06
Other sites <sup>2</sup>	\$1.40	\$1.09	\$1.28	\$1.26	\$1.18
<b>Total copper AISC (\$ per lb)<sup>1</sup></b>	\$1.68	\$1.80	\$1.76	\$1.74	\$1.65

<sup>1</sup> Copper C1 cash cost and AISC for Kansanshi and total Group exclude purchases of copper concentrate from third parties treated through the Kansanshi smelter. Kansanshi and total copper C1 cash cost and AISC for Q3 2018 have been revised from amounts previously disclosed to exclude the following impacts of third-party concentrate purchased: \$0.06 per lb for Kansanshi C1 cash cost, \$0.05 per lb for Kansanshi AISC, and \$0.03 per lb for total Group C1 cash cost and AISC.

<sup>2</sup> Other sites include Guelb Moghreïn, Çayeli and Pyhäsalmi.

### Full year

Copper C1 cash cost for 2017 benefited from the impact of a review of operational provisions at Kansanshi and Sentinel, which reduced site administration costs by \$0.05 per lb. Excluding this impact, underlying C1 cash cost for 2018 was in line with 2017. Underlying C1 cash costs for Kansanshi and Sentinel were \$0.10 per lb and \$0.04 per lb lower, respectively, in the year compared with 2017. Higher by-product credits at Kansanshi from the sale of sulphuric acid as well as maintenance costs related to the smelter shutdown in 2017 that did not recur in 2018 contributed to the decrease in C1 cash cost. At Sentinel, C1 cash cost benefited from the impact of higher copper production and lower consumable costs. These were partially offset by higher fuel costs at both Zambian operations along with the larger weighting of Sentinel's C1 cost, which resulted in a \$0.05 per lb increase in the Group C1 cash cost.

Excluding the impact of the review of operational provisions at the Zambian operations, AISC for the year was \$0.04 per lb higher than 2017 reflecting higher royalties in Zambia due to the increased LME average copper in the year as well as increased sustaining capital expenditure at Kansanshi and Sentinel.

### Fourth quarter

Copper C1 cash cost decreased by \$0.07 per lb in the quarter compared with the same period of 2017. This was driven by the impact of higher copper production volumes and increased by-product credits at Kansanshi from the sale of sulphuric acid as well as zinc sales at Çayeli and Pyhäsalmi.

Copper AISC reflected the lower C1 cash cost and reduced royalties in Zambia, due to a lower average LME copper price in the quarter compared with the same period of 2017, partially offset by higher sustaining capital expenditure.

## OPERATIONS

Kansanshi	Q4 2018	Q3 2018	Q4 2017	2018	2017
Sulphide ore tonnes milled (000's)	3,301	3,390	3,298	12,978	12,970
Sulphide ore grade processed (%)	0.81	0.72	0.76	0.78	0.75
Sulphide copper recovery (%)	88	95	94	91	91
Mixed ore tonnes milled (000's)	2,165	2,082	2,012	8,186	7,997
Mixed ore grade processed (%)	1.08	1.04	0.99	1.06	1.05
Mixed copper recovery (%)	76	86	88	82	85
Oxide ore tonnes milled (000's)	1,668	1,749	1,811	6,916	6,916
Oxide ore grade processed (%)	1.33	1.31	1.51	1.44	1.51
Oxide copper recovery (%)	92	95	89	89	87
Copper production (tonnes) <sup>1</sup>	61,780	63,687	64,800	251,522	250,801
<b>Copper smelter</b>					
Concentrate processed (DMT) <sup>2</sup>	349,424	355,435	348,283	1,381,637	1,211,740
Copper anodes produced (tonnes) <sup>2</sup>	89,894	90,269	83,281	347,037	297,553
Smelter copper recovery (%)	97	97	97	97	96
Acid tonnes produced (000's)	320	319	325	1,255	1,128
Copper sales (tonnes) <sup>3, 4</sup>	56,330	64,818	74,974	229,832	267,700
Gold production (ounces)	33,465	30,938	36,363	130,019	140,595
Gold sales (ounces)	35,616	32,706	35,910	134,890	139,735
All-in sustaining cost (AISC) (per lb) <sup>5, 6</sup>	\$1.61	\$1.59	\$1.55	\$1.55	\$1.54
Cash costs (C1) (per lb) <sup>5, 6</sup>	\$1.04	\$1.06	\$1.16	\$1.03	\$1.05
Total costs (C3) (per lb) <sup>5, 6</sup>	\$1.71	\$1.73	\$1.86	\$1.74	\$1.71
Sales revenues	417	434	525	1,672	1,740
Gross profit	140	146	218	623	636
Comparative EBITDA <sup>5</sup>	198	210	294	859	915

<sup>1</sup> Production presented on a copper concentrate basis, i.e. mine production only. Production does not include output from the smelter.

<sup>2</sup> 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 dry metric tonnes ("DMT"). 11,682 DMT of third-party purchased copper concentrate was treated for the year-ended December 31, 2018 and 9,402 DMT for the fourth quarter.

<sup>3</sup> Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded. For the year and quarter ended December 31, 2018, sales of copper anode produced from purchased concentrate were 7,349 tonnes and 5,884 tonnes, respectively. Q3 2018 copper sales have been adjusted to exclude copper anode sales of 1,465 tonnes attributable to third-party concentrate purchased.

<sup>4</sup> Sales include third-party sales of concentrate, cathode and anode attributable to Kansanshi (excluding copper anode sales attributable to Sentinel).

<sup>5</sup> AISC, C1 cash cost, and C3 total cost and comparative EBITDA are not recognized under IFRS. See "Regulatory Disclosures" for further information.

<sup>6</sup> Excluding purchases of copper concentrate from third parties treated through the Kansanshi smelter. C1 cash cost, C3 total cost and AISC for Q3 2018 have been revised from amounts previously disclosed to exclude the following impacts of third-party concentrate purchased: \$0.06 per lb for C1 and C3 cash cost and \$0.05 per lb for AISC.

### Kansanshi Mining Operations

#### Full year

Copper production for the year was in line with the prior year, driven by higher throughput and grade on the sulphide and mixed ore circuits, as well as higher recoveries on the oxide circuit due to higher acid availability from the smelter compared to 2017, in which there was a smelter maintenance shutdown year. This was partially offset by lower recoveries on the mixed ore circuit primarily due to the processing of tarnished sulphide material. No concentrate was processed through the High Pressure Leach ("HPL") plant from the second quarter of 2018 due to sufficient internal and external smelting capacity. Major autoclave maintenance was performed during 2018 in preparation for future concentrate treatment.

Gold production of 130,019 ounces was 8% lower than the prior year resulting primarily from lower gold feed grades. Gold plant improvements, including new sorting tables, commenced during the fourth quarter and will continue during the first quarter of 2019.

Excluding the impact of a review of operational provisions which reduced C1 cash cost by \$0.08 per lb in 2017, C1 cash cost excluding third-party concentrate purchases was \$0.10 per lb lower than 2017. Cash costs were reduced due to acid sales and there being no major smelter shutdown in 2018, partially offset by higher fuel costs. On the same basis, AISC of \$1.55 per lb was \$0.07 per lb lower than the prior year, reflecting lower C1 cash cost and deferred stripping, partially offset by higher sustaining capital expenditures and royalty costs.

Sales revenues of \$1,672 million were 4% lower than 2017, reflecting lower copper sales volumes partially offset by higher realized metal prices, excluding the impact of the corporate sales hedge program. Gross profit of \$623 million was lower than the prior year, reflecting lower sales revenues.

#### *Fourth quarter*

Copper production in the fourth quarter was 5% lower than the comparable period in 2017 due primarily to lower throughput and grade on the oxide circuit, as well as lower recoveries on the sulphide and mixed ore circuits due to the processing of tarnished sulphide material. Partially offsetting this impact were higher sulphide and mixed ore grades, higher throughput on the mixed ore circuit and higher oxide circuit recoveries. No ore was processed through the HPL plant in the fourth quarter due to there being sufficient internal and external smelting capacity.

Gold production was 8% lower than the same period of 2017 resulting primarily from lower gold feed grades.

AISC of \$1.61 per lb was \$0.06 per lb higher than the same period in 2017, due to the impact of lower copper production volume and higher sustaining capital expenditures, partially offset by lower C1 cash cost, primarily reflecting higher by-product credits from the sale of sulphuric acid.

Sales revenues of \$417 million were 21% lower compared to the same period in 2017, reflecting lower copper sales volumes and realized metal prices, excluding the impact of the corporate sales hedge program. Sales of copper anode attributable to anode produced from third-party purchased concentrate contributed revenues of \$36 million. Gross profit of \$140 million was 36% lower than the same period in 2017, reflecting the decrease in sales revenues.

### **Kansanshi Copper Smelter**

#### *Full year*

In 2018, the smelter achieved an annual record of 1,381,637 DMT of concentrate treated and produced 347,037 tonnes of copper in anode and 1,255,000 tonnes of sulphuric acid. Smelter throughput was 14% higher than the prior year, exceeding design capacity of 1.2 million DMT by 15%. Smelter throughput in 2017 was lower due to a major maintenance shutdown, which occurs every two to three years. During the year, the smelter processed 11,682 DMT of concentrate purchased from third parties to ensure the smelter maintains maximum feed rate and acid production levels during the wet season. The smelter achieved an overall copper recovery rate of 97%.

#### *Fourth quarter*

In the fourth quarter of 2018, the smelter treated 349,424 DMT of concentrate, including 9,402 DMT purchased externally, and produced 89,894 tonnes of copper in anode and 320,000 tonnes of sulphuric acid.

### **Outlook**

Production in 2019 is expected to be approximately 235,000 tonnes of copper, and approximately 135,000 ounces of gold.

A two week smelter shutdown is planned for the third quarter of 2019 to perform work on the acid plant catalyst screening.

Sentinel	Q4 2018	Q3 2018	Q4 2017	2018	2017
Copper ore processed (000's tonnes)	12,434	12,602	11,834	48,750	42,087
Copper ore grade processed (%)	0.53	0.49	0.54	0.50	0.52
Copper recovery (%)	92	91	90	91	87
Copper production (tonnes)	60,840	56,426	57,190	223,656	190,683
Copper sales (tonnes)	60,257	59,069	44,767	238,211	177,360
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	\$2.02	\$2.25	\$2.36	\$2.22	\$2.19
Cash cost (C1) (per lb) <sup>1</sup>	\$1.55	\$1.72	\$1.67	\$1.70	\$1.70
Total cost (C3) (per lb) <sup>1</sup>	\$2.26	\$2.39	\$2.49	\$2.42	\$2.45
Sales revenues	344	333	281	1,454	1,026
Gross profit	72	55	51	288	166
Comparative EBITDA <sup>1</sup>	141	116	110	553	385

<sup>1</sup> 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, recoveries and production in 2018. Copper production was 17% higher than 2017, reflecting further improvement in ore supply with higher mill throughput and recoveries, attributable to mining of fresher ore as well as continued optimization of the milling and flotation circuit, including grind size, reagent dosing and circuit control. Copper grades were slightly lower than 2017.

Excluding the impact of a review of operational provisions which reduced C1 cash cost by \$0.04 per lb in 2017, C1 cash cost was \$0.04 per lb lower than the same period in 2017 reflecting lower consumables and the impact of higher copper production volume, partially offset by higher fuel and contractor costs. On the same basis, AISC of \$2.22 per lb was \$0.01 per lb lower than the prior year, reflecting the decrease in C1 cash cost, partially offset by higher royalties and sustaining capital expenditures.

Sales revenues of \$1,454 million were 42% higher than 2017 due to both higher sales volumes and realized copper prices, excluding the impact of the corporate sales hedge program. Sales revenues comprised sales of both concentrate and anode, with a higher proportion of revenue realized from copper anode. The increase in sales revenues flowed through to gross profit, which was 73% higher than 2017.

#### Fourth quarter

Sentinel achieved record quarterly copper production of 60,840 tonnes in the fourth quarter, reflecting continued improvement in ore supply contributing to higher mill throughput and record copper recoveries with continued optimization of the milling and flotation circuits. Copper production was 6% higher than the comparable period in 2017. The increases in throughput and recoveries were partially offset by lower copper grades.

AISC of \$2.02 per lb was \$0.34 per lb lower than the same period in 2017, reflecting the impact of higher copper production, as well as lower C1 cash cost, royalties, and sustaining capital expenditures, partially offset by higher deferred stripping costs. The decrease in C1 cash cost was mainly due to lower mining, consumables, and contractor costs. Royalties were lower as a result of the timing of sales by the mine in the quarter.

Sales revenues of \$344 million were 22% higher than the comparable period in 2017 due to higher copper sales volumes, partially offset by lower realized copper prices excluding the impact of the corporate sales hedge program. A higher proportion of revenues were realized from copper anode in the quarter. Gross profit of \$72 million was 41% higher than the comparable period in 2017, reflecting the increase in sales revenues.

#### Outlook

Production in 2019 is expected to be approximately 230,000 tonnes of copper. In terms of quarterly phasing of annual production, it is expected that production will be at its lowest in the first quarter.

Copper production is expected to continue to benefit from consistent ore supply, higher feed grades and recoveries with continued optimization of the milling and flotation circuits. Mining is expected to continue to focus on optimization of drilling and blasting as well as loading and hauling practices, improved ore feed grades as well as the expansion of the trolley-assist program. Waste stripping in the east cutback is planned to continue throughout 2019.

Forthcoming projects at Sentinel in 2019 are expected to include additions to the secondary crusher and pebble conveying circuits to enhance operational flexibility and efficiency, as well as the start of construction of a fourth in-pit crusher.

Las Cruces	Q4 2018	Q3 2018	Q4 2017	2018	2017
Ore tonnes processed (000's)	400	338	420	1,544	1,619
Copper ore grade processed (%)	5.00	4.84	4.99	4.95	5.07
Copper recovery (%)	93	93	89	93	90
Copper cathode production (tonnes)	18,470	15,181	18,700	70,738	73,664
Copper cathode sales (tonnes)	18,345	15,138	17,903	71,523	74,664
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	\$1.16	\$1.41	\$1.12	\$1.16	\$1.06
Cash cost (C1) (per lb) <sup>1</sup>	\$0.94	\$1.02	\$0.93	\$0.90	\$0.86
Total cost (C3) (per lb) <sup>1</sup>	\$2.28	\$2.50	\$2.40	\$2.25	\$2.15
Sales revenues	113	93	122	470	461
Gross profit	19	11	26	116	106
Comparative EBITDA <sup>1</sup>	76	60	91	326	316

<sup>1</sup> 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 2018 decreased by 4% compared to the prior year. The decrease was due to lower throughput caused by a major planned maintenance shutdown and unplanned shutdowns in the grinding thickener during the second half of the year, resulting in reduced equipment availability by 18 days, and lower ore grade of the mined mineral in the year. The decrease was partially offset by higher recoveries, which benefited from lower levels of lead and zinc in the ore processed and improved performance of the pressure filters.

AISC of \$1.16 per lb was higher compared to the prior year due to the impact of lower copper production, higher C1 cash cost, the depreciation of the US dollar against the euro, and higher deferred stripping costs. Increased C1 cash cost was driven by higher processing costs relating to higher utility and reagent prices, labour costs and costs arising from higher water volumes treated, partially offset by lower mining costs.

Sales revenues of \$470 million increased by 2% compared to the prior year due to higher realized copper prices, excluding the impact of the corporate sales hedge program, partially offset by lower copper sales volumes. The increase in revenues flowed through to gross profit, resulting in a 9% increase over the prior year.

#### Fourth quarter

Copper production in the fourth quarter decreased slightly compared to the same period in 2017, as a result of lower throughput due to an unplanned shutdown in November 2018 in the grinding thickener, which reduced equipment availability by four days. The impact of lower throughput was partially offset by higher ore grade processed and recoveries benefiting from lower primary ore dilution and favourable pressure filter performance.

AISC of \$1.16 per lb was higher compared to same period in 2017 due to higher C1 cash cost driven by the impact of lower copper production as well as higher utilities and reagents prices, partially offset by lower mining costs. Higher deferred stripping costs further increased AISC in the quarter.

Sales revenues of \$113 million for the three months ended December 31, 2018 decreased by 7% compared with same period in 2017 due to lower realized copper prices, excluding the impact of the corporate sales hedge program, partially offset by higher copper sales

volumes. The decrease in revenues flowed through to gross profit, resulting in a 27% decrease compared with the same period in 2017.

## Outlook

On January 23, 2019, operations were temporarily suspended following a land slippage on the slope of the northern zone of the open pit mine. There were no injuries or impact on third party facilities or land resulting from the land slippage. The suspension of operations is currently estimated to result in approximately 25,000 tonnes of lost copper production in 2019. Planned production for 2020 has also been reduced by a further 25,000 tonnes from amounts previously disclosed as certain high grade ore is no longer expected to be mined as part of the open pit operation.

Copper production for 2019 is expected to be 45,000 tonnes. The hydrometallurgical plant resumed copper production on February 1, 2019, processing lower grade ore stockpiles. This is expected to provide feed for the next several months while the Company obtains the necessary regulatory approvals for the commencement of mining of Phase 6, which was unaffected by the land slippage.

The open pit mining operations are expected to be completed in the second half of 2020.

Research on the technical and economic feasibility of the polymetallic refinery project is also expected to continue.

Guelb Moghrein	Q4 2018	Q3 2018	Q4 2017	2018	2017
Sulphide ore tonnes milled (000's)	983	902	874	3,684	3,389
Sulphide ore grade processed (%)	0.93	0.94	0.90	0.85	0.93
Sulphide copper recovery (%)	91	94	91	90	92
Copper production (tonnes)	8,319	7,902	7,155	28,137	28,791
Copper sales (tonnes)	9,099	5,108	6,811	27,366	28,999
Gold production (ounces)	12,236	11,644	13,270	45,974	49,213
Gold sales (ounces)	14,224	8,100	12,384	48,195	50,453
Magnetite concentrate production (WMT) <sup>1</sup>	97,052	111,765	-	425,389	-
Magnetite concentrate sales (WMT) <sup>1</sup>	85,914	61,315	-	376,956	-
All-in sustaining cost (AISC) (per lb) <sup>2</sup>	\$1.95	\$1.93	\$1.60	\$1.93	\$1.65
Cash costs (C1) (per lb) <sup>2</sup>	\$1.73	\$1.57	\$1.34	\$1.50	\$1.28
Total costs (C3) (per lb) <sup>2</sup>	\$2.79	\$2.42	\$2.25	\$2.46	\$2.13
Sales revenues	70	41	59	235	217
Gross profit	1	1	12	30	41
Comparative EBITDA <sup>1</sup>	13	7	22	66	83

<sup>1</sup> Magnetite concentrate production and sales volumes are measured in wet metric tonnes ("WMT").

<sup>2</sup> 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 in 2018 decreased slightly compared to the prior year due to lower feed grade and copper recovery, partially offset by a 9% increase in mill throughput. The lower feed grade was due to processing low-grade ore from stockpiles during the first half of 2018 while waste mining progressed. Feed grade and recoveries improved in the second half of 2018 with the processing of softer ore, which had a positive impact on copper production.

Gold in concentrate production for the year ended December 31, 2018, decreased by 7% compared to the same period in 2017, due to lower feed grade, and lower gold circuit recovery.

The magnetite plant produced 425,389 WMT of magnetite concentrate in 2018.

AISC of \$1.93 per lb was \$0.28 per lb higher than the prior year, reflecting an increase in C1 cash cost of \$0.22 per lb as well as higher royalties and deferred stripping costs, partially offset by lower sustaining capital expenditure. The increase in C1 cash cost reflected the impact of lower copper production, increased fuel prices and consumption levels as well as higher mining costs driven by contractor and drilling services, partially offset by higher by-product credits.

Sales revenues of \$235 million were 8% higher than the prior year due to higher realized metals prices, excluding the impact of the corporate sales hedge program, and magnetite revenue of \$23 million, partially offset by lower copper and gold sales volumes. Gross profit of \$30 million was lower than the same period in 2017, with the increase in sales revenues more than offset by higher operating costs.

#### *Fourth quarter*

Copper production was 16% higher than the same period in 2017, mainly due to a 12% increase in throughput and higher feed grade due to the processing of softer ore.

Gold in concentrate production was 8% lower than the same period in 2017, due to lower recovery resulting from lower performance of concentrators and lower gold feed grade.

The magnetite plant produced 97,052 WMT of magnetite concentrate this quarter.

AISC of \$1.95 per lb was \$0.35 per lb higher than the same period in 2017, reflecting a \$0.39 per lb increase in C1 cash cost partially offset by lower royalty costs and sustaining capital expenditures. The increase in C1 cash cost reflected higher mining costs driven by contractor and outsourced drilling services, as well as increased fuel prices and consumption levels, maintenance and consumables costs, partially offset by higher by-product credits.

Sales revenues of \$70 million were 19% higher than the same period of 2017 due to higher copper and gold sales volumes and magnetite revenue of \$5 million, partially offset by lower realized metals prices excluding the impact of the corporate sales hedge program. Gross profit of \$1 million was lower than the same period in 2017, with the increase in sales revenues more than offset by higher operating costs and depreciation.

#### **Outlook**

Production in 2019 is expected to be approximately 28,000 tonnes of copper, 47,000 ounces of gold, and 570,000 WMT of concentrate of magnetite. Magnetite concentrate sales of 320,000 WMT are expected in 2019.

The focus for 2019 will be on improving gold concentrator recoveries, cost reduction through the review of contractors and equipment contracts and increasing mining productivity.

A total of 16 days of shutdown time is planned throughout 2019 for the maintenance of crusher and SAG mill circuits.

Çayeli	Q4 2018	Q3 2018	Q4 2017	2018	2017
Ore tonnes milled (000's)	252	243	212	1,007	943
Copper ore grade processed (%)	2.64	2.39	1.72	2.26	1.96
Copper recovery (%)	89	87	90	88	89
Zinc ore grade processed (%)	1.50	1.69	0.78	1.40	1.05
Zinc recovery (%)	27	32	23	29	34
Copper production (tonnes)	5,931	5,056	3,284	19,896	16,523
Copper sales (tonnes)	9,153	2,753	4,266	17,397	17,716
Zinc production (tonnes)	1,034	1,305	379	4,091	3,326
Zinc sales (tonnes)	2,154	-	-	4,313	4,435
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	\$1.28	\$1.45	\$2.48	\$1.48	\$1.75
Cash cost (C1) (per lb) <sup>1</sup>	\$1.09	\$1.18	\$2.05	\$1.21	\$1.50
Total cost (C3) (per lb) <sup>1</sup>	\$1.75	\$2.05	\$2.06	\$2.03	\$2.37
Sales revenues	52	13	23	100	98
Gross profit (loss)	19	-	11	23	16
Comparative EBITDA <sup>1</sup>	30	5	10	51	43

<sup>1</sup> 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 quarter ended December 31, 2018, were 20% and 81% higher, respectively, than the same periods in 2017 due to higher throughput and copper grade, partially offset by lower recovery due to the mining sequence in which the processing of off-spec ore resulted in less separation of copper and zinc. Copper grade has been positively impacted by the opening of new work areas, which has increased mining flexibility in 2018, as well as ground stability in the areas mined.

Zinc production for the year and quarter ended December 31, 2018 was 23% and 173% higher, respectively, than the comparable periods in 2017, reflecting higher zinc grades and, for the quarter, higher zinc recovery. New higher-grade work areas were opened compared to the low-grade stockwork ore processed in the prior year. The processing of a higher volume of off-spec ore contributed to the decrease in zinc recoveries for the year compared to 2017.

AISC for the year and quarter ended December 31, 2018, decreased by \$0.27 per lb and \$1.20 per lb, respectively, compared to the same periods in 2017, mainly driven by the impact of higher copper production, decreases in C1 cash cost and, for the quarter, lower deferred development costs. C1 cash cost was lower by \$0.29 per lb and \$0.96 per lb, respectively, for the year and quarter ended December 31, 2018, compared to the same periods in 2017 mainly due to lower operating expenditures attributable to the appreciation of the US dollar against the Turkish lira. The decrease in C1 cash cost was partially offset by higher royalties in the year and quarter ended December 31, 2018, as well as higher deferred development costs and sustaining capital expenditures for the year ended December 31, 2018, compared to the same periods in 2017.

Sales revenues of \$100 million for the year ended December 31, 2018 and \$52 million in the fourth quarter were 2% and 126% higher, respectively, than the comparable periods in 2017. For the year 2018, higher realized copper prices, excluding the impact of the corporate sales hedge program, were partially offset by slightly lower sales volumes and lower realized zinc prices. For the quarter, the impact of significantly higher copper and zinc sales volumes compared to the same period in 2017, reflecting eight of the year's 15 fifteen shipments including those that were delayed from the third quarter of 2018, was partially offset by lower realized metals prices, excluding the impact of the corporate sales hedge program. The higher sales revenues contributed to an increase in gross profit for the year and three months ended December 31, 2018.

#### Outlook

Production for 2019 is expected to be 17,000 tonnes of copper and 2,000 tonnes of zinc, reflecting a declining number of work areas as the mine approaches reserve depletion in 2021.

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

Pyhäsalmi	Q4 2018	Q3 2018	Q4 2017	2018	2017
Ore tonnes milled (000's)	312	320	306	1,248	1,260
Copper ore grade processed (%)	0.98	0.98	1.07	0.99	1.11
Copper recovery (%)	97	95	97	96	97
Zinc ore grade processed (%)	2.35	2.07	1.17	2.01	1.55
Zinc recovery (%)	91	91	89	91	89
Copper production (tonnes)	2,964	2,989	3,190	11,904	13,501
Copper sales (tonnes)	3,028	2,991	3,184	12,184	13,691
Zinc production (tonnes)	6,653	6,043	3,177	22,716	17,397
Zinc sales (tonnes)	6,114	6,178	3,282	21,799	17,416
Pyrite production (tonnes)	168,881	171,355	154,855	645,885	692,124
Pyrite sales (tonnes)	124,109	100,894	114,712	445,181	418,743
All-in sustaining cost (AISC) (per lb) <sup>1</sup>	(\$0.59)	(\$0.48)	(\$0.09)	(\$0.46)	(\$0.26)
Cash cost (C1) (per lb) <sup>1</sup>	(\$0.59)	(\$0.48)	(\$0.10)	(\$0.46)	(\$0.26)
Total cost (C3) (per lb) <sup>1</sup>	\$1.57	\$1.67	\$2.35	\$1.70	\$2.06
Sales revenues	34	34	38	144	143
Gross profit	9	9	6	40	24
Comparative EBITDA <sup>1</sup>	23	22	22	94	89

<sup>1</sup> 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

2018 was the final full year of copper production at Pyhäsalmi. Copper production decreased by 12% and 7% in the year and quarter ended December 31, 2018, respectively, compared to the same periods in 2017, mainly due to lower copper grade. Lower throughput and copper recovery also contributed to the decrease for the full year in 2018. Zinc production was 31% and 109% higher in the year and quarter ended December 31, 2018, respectively, compared to the same periods in 2017 due to higher zinc grade and recovery. The lower throughput in 2018 and fluctuation in grades reflect the nearly depleted economic ore reserve and the constraint on available work areas at this stage of the mine life.

AISC of (\$0.46) per lb and (\$0.59) per lb for the year and quarter ended December 31, 2018, were lower than the comparable periods in 2017 mainly due to higher by-product credits, partially offset by the impact of lower copper production.

Sales revenues of \$144 million and \$34 million were slightly higher and 11% lower, respectively, than the same periods of 2017. For the year ended December 31, 2018, higher zinc sales volumes and realized copper prices, excluding the impact of the corporate sales hedge program, were offset by lower copper sales volumes and realized zinc prices. In the fourth quarter, higher zinc sales volumes were more than offset by lower copper sales volumes and realized metals prices, excluding the impact of the corporate copper sales hedge program. Gross profit of \$40 million for the year 2018 and \$9 million in the fourth quarter were 67% and 50% higher, respectively, than the same periods in 2017, mainly reflecting the flow-through of sales revenues and lower depreciation.

#### Outlook

2019 is expected to be the operation's final year of production. Production is forecast at 5,000 tonnes of copper, 3,000 ounces of gold, 10,000 tonnes of zinc and 250,000 tonnes of pyrite.

Throughput is expected to be 800,000 tonnes in 2019 in line with the anticipated depletion of economic ore.

A total of 34 days of shutdown time is planned for 2019, including 11 days in the first quarter, 12 days in the second quarter and 11 days in the third quarter.

### **Ravensthorpe**

Ravensthorpe remained on care and maintenance activities during the year, with the mine at a level ready for a resumption of operations should market conditions improve. Care and maintenance costs in the fourth quarter and full year were \$3 million and \$11 million, respectively. For the year, energy, contracting and maintenance costs were higher than expected due to increased activity on descaling tanks, evaporation of high salinity water, and repair activities within the process plant. These activities, along with improvements to site drainage and roadways, are progressing well utilizing care and maintenance personnel.

Refurbishment of the leaching circuit's atmospheric reactors is well advanced with one reactor completed and the second due to be completed in the first quarter of 2019, with the anticipated capital cost remaining at \$5 million.

### **Outlook**

A logical process of work including resource drilling of the Shoemaker Levy deposit and a capital works program for permitting, design and subsequent construction of the infrastructure requirements to bring Shoemaker Levy online is underway in anticipation of a higher sustained commodity pricing level. A sustained rise in the nickel price would initiate plans that have been developed for employee recruitment, contract mining arrangements, camp reinstatement as well as enhancements to identified process circuit opportunities. Restart costs, should favourable conditions prevail, are estimated at \$10 million.

## SALES REVENUES

	Q4 2018	Q3 2018	Q4 2017	2018	2017
Kansanshi					
- copper	371	392	488	1,491	1,574
- gold	41	36	37	160	166
- acid	5	6	-	21	-
Sentinel					
- copper	344	333	281	1,454	1,026
Las Cruces					
- copper	113	93	122	470	461
Guelb Moghrein					
- copper	48	27	39	154	150
- gold	17	9	13	58	60
- magnetite	5	5	7	23	7
Çayeli					
- copper	44	13	23	87	87
- zinc, gold and silver	8	-	-	13	11
Pyhäsalmi					
- copper	17	16	20	70	74
- zinc	11	10	8	45	37
- pyrite, gold and silver	6	8	10	29	32
Ravensthorpe					
- nickel	-	-	8	-	146
- cobalt	-	-	1	-	17
Corporate <sup>1</sup>	24	30	(172)	(109)	(538)
<b>Sales revenues</b>	<b>1,054</b>	<b>978</b>	<b>885</b>	<b>3,966</b>	<b>3,310</b>
Copper	963	904	785	3,616	2,802
Gold	61	47	53	228	236
Zinc	15	10	8	53	46
Other	15	17	31	69	78
Nickel	-	-	8	-	148
	<b>1,054</b>	<b>978</b>	<b>885</b>	<b>3,966</b>	<b>3,310</b>

<sup>1</sup> Corporate sales include sales hedges (see "Hedging Programs" for further discussion).

### Full year

Sales revenues increased by \$656 million in the year to \$3,966 million reflecting an increase to copper revenues of \$814 million offset by the absence of nickel sales revenues contributed by Ravensthorpe following the operation moving to care and maintenance in October 2017.

The increase in copper revenues was driven by a higher realized copper price for the year as well as increased revenues generated by Sentinel as a result of 34% higher sales volumes, partially offset by a 14% reduction to Kansanshi sales volumes. Sales of copper anode attributable to anode produced from third-party purchased concentrate contributed revenues of \$45 million. The impact of the copper sales hedge program was a reduction in revenues of \$110 million compared with reduced revenues of \$570 million in 2017.

### Fourth quarter

Sales revenues of \$1,054 million in the fourth quarter increased by \$169 million compared to 2017, due to an increase in copper revenues of \$178 million reflecting higher realized copper prices and sales volumes at Sentinel, Guelb Moghrein and Çayeli. Sales of copper anode attributable to anode produced from third-party purchased concentrate contributed revenues of \$36 million. The impact of the sales hedge program was an increase to revenues of \$25 million, compared with a reduction to revenues of \$188 million in the comparable quarter of 2017. There were no nickel revenues in the quarter and reduced other revenues were offset by increased gold revenues at Kansanshi and increased zinc revenues generated by Pyhäsalmi and Çayeli.

**Realized Prices**

<b>Copper selling price (per lb)</b>	<b>Q4 2018</b>	<b>Q3 2018</b>	<b>Q4 2017</b>	<b>2018</b>	<b>2017</b>
Average LME cash price	\$2.80	\$2.77	\$3.09	\$2.96	\$2.79
Realized copper price	\$2.83	\$2.84	\$2.50	\$2.84	\$2.33
Treatment/refining charges ("TC/RC") and freight charges	(\$0.14)	(\$0.13)	(\$0.16)	(\$0.13)	(\$0.14)
Net realized copper price	\$2.69	\$2.71	\$2.34	\$2.71	\$2.19

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

The sales hedge program decreased sales revenues by \$110 million and increased sales revenues by \$25 million for the year-ended and quarter ended December 31, 2018, respectively. The impact on the net realized copper price was an increase of \$0.07 per lb for the quarter and a reduction of \$0.08 per lb for the year, respectively.

Details of the Company's hedging program at December 31, 2018, are included on page 32.

## SUMMARY FINANCIAL RESULTS

	Q4 2018	Q3 2018	Q4 2017	2018	2017
Gross profit (loss)					
Kansanshi	140	146	218	623	636
Sentinel	72	55	51	288	166
Las Cruces	19	11	26	116	106
Guelb Moghrein	1	1	12	30	41
Çayeli	19	-	11	23	16
Pyhäsalmi	9	9	6	40	24
Ravensthorpe	(4)	(5)	(5)	(16)	(57)
Corporate <sup>1</sup>	24	29	(202)	(126)	(597)
Total gross profit	280	246	117	978	335
Exploration	(7)	(6)	(8)	(26)	(18)
General and administrative	(19)	(20)	(19)	(74)	(74)
Impairment and related charges	-	-	(26)	-	(26)
Other income (expense)	6	(79)	(15)	(69)	(34)
Net finance expense	(6)	(5)	(24)	(18)	(39)
Loss on extinguishment of senior notes	-	-	-	-	(84)
Income tax expense	(41)	(66)	(118)	(283)	(299)
Net earnings (loss)	213	70	(93)	508	(239)
Net earnings (loss) attributable to:					
Non-controlling interests	15	9	22	67	77
Shareholders of the Company	198	61	(115)	441	(316)
Comparative earnings (loss)	182	128	(36)	487	(111)
Basic	\$0.29	\$0.09	(\$0.17)	\$0.64	(\$0.46)
Diluted	\$0.29	\$0.09	(\$0.17)	\$0.64	(\$0.46)
Comparative	\$0.26	\$0.19	(\$0.05)	\$0.71	(\$0.16)
Basic weighted average number of shares (in 000's)	687,074	687,108	686,402	686,747	685,936

<sup>1</sup> Corporate gross (profit) loss relates primarily to sales hedge loss

### Full Year

Gross profit was \$643 million higher than the same period in 2017 due to higher realized prices achieved during the year from the sales hedge program together with increased Sentinel contribution of \$288 million compared with \$166 million in 2017, reflecting higher sales volumes. Furthermore the gross loss attributable to Ravensthorpe was lower in the year compared to 2017 as a result of operations moving to care and maintenance in October 2017. A gross loss of \$45 million was recognized in 2017 on Ravensthorpe operation excluding care and maintenance costs.

Exploration expense was \$8 million higher in 2018 compared with 2017, and included \$2 million costs associated with work performed in relation to the Pebble agreement that was terminated in the year. Included within other expenses is a foreign exchange loss of \$64 million, due principally to the devaluation of the Zambian kwacha and the impact on the VAT balances due to the Company's Zambian operations. Also included within other expense is a gain of \$8 million realized on disposal of the asset retirement obligation associated with the Troilus closed property in April 2018.

An impairment charge of \$26 million was recognized in 2017 relating to specific assets at Ravensthorpe, which was placed on care and maintenance in October 2017, and housing assets in Zambia.

Net earnings for 2017 included a loss on extinguishment of senior notes of \$84 million as well as a \$20 million charge included within net finance expense with respect to the discounting of non-current VAT due to Kansanshi. Included within the net finance expense for 2018 is a \$5 million charge relating to the discounting of non-current VAT due to Kansanshi.

2018 net earnings of \$508 million included a tax expense of \$283 million reflecting applicable statutory tax rates, which range from 20% to 35% for the Company's operations. Tax credits with respect to losses realized under the Company's sales hedge program have not been applied. The effective tax rate for the year, excluding the sales hedge program, was 31%.

#### *Fourth quarter*

Gross profit was \$163 million higher than the comparable period of 2017, due to higher sales revenues as a result of improved realized prices achieved under the Company's corporate copper sales hedge program coupled with increased sales volumes.

Other income of \$6 million includes a foreign exchange gain of \$13 million recognized in the quarter following a strengthening of the Zambian kwacha, and an \$8 million restructuring provision at Las Cruces. Other expense of \$15 million in 2017 included a \$10 million foreign exchange loss.

Net earnings for the quarter of \$213 million included a tax expense of \$41 million reflecting applicable statutory tax rates. The statutory tax rates for the Company's operations range from 20% to 35%. No tax charge has been recognized with respect to the \$25 million gain realized on the Company's copper sales hedge program.

## LIQUIDITY AND CAPITAL RESOURCES

	Q4 2018	Q3 2018	Q4 2017	2018	2017
Cash flows from operating activities	338	439	203	1,980	914
Cash flows from (used by) investing activities					
Purchase and deposits for property, plant and equipment	(606)	(523)	(498)	(2,143)	(1,652)
Investment in Pebble project Early Option Price Instalment	-	-	(38)	-	(38)
Capitalized borrowing costs paid in cash	(49)	(198)	(50)	(441)	(365)
Acquisition of KPMC	(80)	-	(179)	(185)	(179)
Other investing activities	6	6	8	17	21
Cash flows from (used by) financing activities					
Net movement in debt and trading facilities	413	318	733	948	1,269
Early redemption costs on senior notes	-	-	-	-	(54)
Other financing activities	19	31	42	(68)	186
Exchange gains (losses) on cash and cash equivalents	(6)	(2)	5	(22)	35
Net cash inflow (outflow)	35	71	226	86	137
Cash balance	788	753	702	788	702
Total assets	23,537	22,864	21,623	23,537	21,623
Total current liabilities	1,644	1,487	2,068	1,644	2,068
Total non-current liabilities	11,171	10,850	9,427	11,171	9,427
Net debt <sup>1</sup>	6,497	6,116	5,575	6,497	5,575
Cash flows from operating activities per share <sup>1</sup>	\$0.49	\$0.64	\$0.30	\$2.88	\$1.33

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

Cash flows from continuing operating activities were \$1,066 million higher than 2017. Higher cash generated from operations, increased stream contributions, and favourable working capital movements were partially offset by an increase in taxes paid.

The total VAT receivable accrued by the Company's Zambian operations at December 31, 2018, was \$443 million, of which \$282 million relates to Kansanshi. In February 2015, the Government of Zambia implemented a change in the Statutory Instrument regarding VAT. Claims totalling Zambian kwacha 1,585 million (currently equivalent to \$134 million) made by Kansanshi prior to this date remain outstanding. A further \$5 million charge was recognized in the year, in addition to the \$20m recognised in the year-ended December 31, 2017, to reflect the impact of discounting the balance over the expected timeframe to repayment. 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.

Zambian VAT	December 31, 2018	December 31, 2017
Receivable at date of claim	645	435
Impact of depreciation of Zambian kwacha against US\$	(177)	(102)
	468	333
Impact of discounting non-current portion	(25)	(20)
<b>Total receivable</b>	<b>443</b>	<b>313</b>
<i>Comprising:</i>		
Current portion, included within trade and other receivables	334	173
Non-current VAT receivable	109	140

Cash flows used by continuing investing activities in 2018 included capital expenditure of \$2,143 million compared to \$1,652 million for the same period in 2017 and is comprised primarily of \$1,332 million of Cobre Panama project capital expenditure. Interest capitalized to property, plant and equipment paid in the year amounted to \$441 million compared with \$365 million in 2017. Two further instalments totalling \$185 million were paid for the acquisition of LS-Nikko's 50% interest in KPMC.

Cash flows from continuing financing activities of \$880 million included proceeds from trading and other debt facilities of \$948 million, partially offset by net payments to KPMC of \$26 million and dividends paid of \$25 million.

### Liquidity outlook

At December 31, 2018, the Company had \$700 million of committed undrawn facilities, \$788 million in net unrestricted cash, and working capital of \$1,039 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 also in full compliance with all its financial covenants at December 31, 2018 and expects to remain in compliance throughout the next 12 months.

At December 31, 2018, the Company had total commitments of \$392 million, of which approximately \$358 million related to the 12 months following the period end.

Contractual and other obligations as at December 31, 2018 are as follows:

	Carrying Value	Contractual Cashflows	< 1 year	1 – 3 years	3 – 5 years	Thereafter
Debt – principal repayments	7,179	7,245	69	2,276	1,950	2,950
Debt – finance charges	-	2,299	516	897	563	323
Trading facilities	106	106	106	-	-	-
Trade and other payables	631	631	631	-	-	-
Derivative instruments	3	3	3	-	-	-
Liability to joint venture <sup>1</sup>	946	1,446	-	-	1,446	-
Joint venture consideration	264	300	100	200	-	-
Current taxes payable	125	125	125	-	-	-
Deferred payments	42	42	-	18	14	10
Finance leases	17	23	3	7	7	6
Operating leases	-	32	25	6	1	-
Commitments	-	392	358	29	5	-
Restoration provisions	585	1,048	5	68	80	895

<sup>1</sup> 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.

<b>Commodity contracts:</b>	<b>December 31, 2018</b>	<b>December 31, 2017</b>
Asset position	43	13
Liability position	(3)	(288)

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 in the current higher capital expenditure phase of the development of the Cobre Panama project while maintaining compliance with financial covenants.

At February 14, 2019, 7,500 tonnes of unmargined copper forward sales contracts at an average price of \$2.81 per lb are outstanding with periods of maturity to June 2019. The Company has zero cost collar unmargined sales contracts for 52,500 tonnes at prices ranging from low side (or put) prices of \$2.70 per lb to high side (or call) prices of \$3.50 per lb with maturities to July 2019.

Approximately 20% of remaining expected copper sales in the first half of 2019 are hedged to unmargined forward and zero cost collar sales contracts, at an average floor price of \$2.90 per lb.

During the year ended December 31, 2018, a loss for settled hedges of \$110 million was realized through sales revenues. Fair value gains on outstanding contracts of \$27 million have been recognized as a derivative asset at December 31, 2018.

### ***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, 2018, the following derivative positions in provisionally priced sales and commodity contracts not designated as hedged instruments were outstanding:

	Open Positions (tonnes/ounces)	Average Contract price	Closing Market price	Maturities Through
<b>Embedded derivatives in provisionally priced sales contracts:</b>				
Copper	90,633	\$2.78/lb	\$2.71/lb	April 2019
Gold	16,069	\$1,235/oz	\$1,282/oz	April 2019
Zinc	2,175	\$1.18/lb	\$1.14/lb	January 2019
<b>Commodity contracts:</b>				
Copper	90,425	\$2.78/lb	\$2.71/lb	April 2019
Gold	16,069	\$1,235/oz	\$1,282/oz	April 2019
Zinc	2,175	\$1.18/lb	\$1.14/lb	January 2019

As at December 31, 2018, 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 689,390,565 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 and holds a 20% interest in Cobre Panama. The purchase consideration was \$664 million, of which the remaining \$300 million has been discounted and is repayable in three instalments to November 2021.

The Company has recognized a \$600 million investment in the joint venture, representing the discounted consideration value, against which the Company's proportionate share of the profit or loss in KPMC is recognized. The assets and liabilities of KPMC are an investment in MPSA, a subsidiary of the Company, a loan receivable from MPSA, and loans due to shareholders. Interest income and expense earned on these loans is on the same terms.

## FRAMEWORK AGREEMENT RELATING TO THE PEBBLE PROJECT

In May 2018, the Company and Northern Dynasty Minerals elected to terminate their framework agreement, announced on December 15, 2017, in accordance with its terms after being unable to reach agreement on the contemplated option and partnership transaction on the Pebble project. The \$38 million Early Option Price Instalment was recognized as a fair value loss in other comprehensive income ("OCI") in the year. The Company has no further obligation in regard to this agreement.

## SUMMARY OF RESULTS

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

Consolidated operations	2016	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018
<i>Sales revenues</i>											
Copper	\$2,138	\$643	\$655	\$719	\$785	\$2,802	\$798	\$951	\$904	\$963	\$3,616
Nickel	182	43	39	58	8	148	-	-	-	-	-
Gold	271	54	66	63	53	236	61	59	47	61	228
Zinc and other elements	82	26	22	37	39	124	26	39	27	30	122
Total sales revenues	2,673	766	782	877	885	3,310	885	1,049	978	1,054	3,966
Gross profit	339	69	66	83	117	335	181	271	246	280	978
Comparative EBITDA	964	265	267	304	318	1,154	363	466	427	481	1,737
Net earnings (loss) attributable to shareholders of the Company											
	222	(114)	(35)	(52)	(115)	(316)	47	135	61	198	441
Comparative earnings (loss)	165	(29)	(18)	(28)	(36)	(111)	49	128	128	182	487
Basic earnings (loss) per share											
	\$0.32	(\$0.17)	(\$0.05)	(\$0.08)	(\$0.17)	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64
Comparative earnings (loss) per share	\$0.24	(\$0.04)	(\$0.03)	(\$0.04)	(\$0.05)	(\$0.16)	\$0.07	\$0.19	\$0.19	\$0.26	\$0.71
Diluted earnings (loss) per share	\$0.32	(\$0.17)	(\$0.05)	(\$0.08)	(\$0.17)	(\$0.46)	\$0.07	\$0.20	\$0.09	\$0.29	\$0.64
Dividends declared per common share (CDN\$ per share)											
	\$0.015	\$0.005	-	\$0.005	-	\$0.010	\$0.005	-	\$0.005	-	\$0.010
Basic weighted average shares (000's) <sup>1</sup>	685,746	685,827	685,845	686,323	686,402	685,936	686,387	686,423	687,108	687,074	686,747
Cash flows per share from operating activities											
	\$1.33	\$0.35	\$0.30	\$0.39	\$0.30	\$1.33	\$1.16	\$0.59	\$0.64	\$0.49	\$2.88
<i>Copper statistics</i>											
Total copper production (tonnes)	539,458	132,356	141,912	145,376	154,319	573,963	145,358	150,950	151,241	158,304	605,853
Total copper sales (tonnes)	535,613	139,810	139,521	148,894	151,905	580,130	138,021	152,403	149,877 <sup>2</sup>	156,212 <sup>2</sup>	596,513 <sup>2</sup>
Realized copper price (per lb)											
	\$2.26	\$2.20	\$2.24	\$2.37	\$2.50	\$2.33	\$2.74	\$2.95	\$2.84	\$2.83	\$2.84
TC/RC (per lb)	(0.12)	(0.08)	(0.09)	(0.12)	(0.08)	(0.09)	(0.07)	(0.08)	(0.09)	(0.09)	(0.08)
Freight charges (per lb)	(0.01)	(0.04)	(0.03)	(0.06)	(0.08)	(0.05)	(0.05)	(0.04)	(0.04)	(0.05)	(0.05)
Net realized copper price (per lb)	\$2.13	\$2.08	\$2.12	\$2.19	\$2.34	\$2.19	\$2.62	\$2.83	\$2.71	\$2.69	\$2.71
Cash cost – copper (C1) (per lb)											
	\$1.06	\$1.26	\$1.12	\$1.21	\$1.30	\$1.23	\$1.27	\$1.28	\$1.31 <sup>3</sup>	\$1.23	\$1.28
All-in sustaining cost (AISC) (per lb)	\$1.46	\$1.59	\$1.50	\$1.75	\$1.76	\$1.65	\$1.72	\$1.76	\$1.80 <sup>3</sup>	\$1.68	\$1.74
Total cost – copper (C3) (per lb)	\$1.83	\$2.05	\$1.95	\$2.03	\$2.19	\$2.06	\$2.16	\$2.11	\$2.11 <sup>3</sup>	\$2.04	\$2.11
<i>Nickel statistics</i>											
Nickel produced (contained tonnes)	23,624	5,592	5,920	6,325	-	17,837	-	-	-	-	-
Nickel sales (contained tonnes)	25,882	5,197	5,522	7,099	865	18,683	-	-	-	-	-
Nickel produced (payable tonnes)											
	17,630	4,291	4,537	4,866	-	13,694	-	-	-	-	-
Nickel sales (payable tonnes)											
	19,535	3,981	4,228	5,455	674	14,338	-	-	-	-	-
Realized nickel price (per payable lb)											
	\$4.25	\$4.93	\$4.17	\$4.77	\$5.37	\$4.67	-	-	-	-	-
TC/RC (per payable lb)	(0.03)	-	-	-	-	-	-	-	-	-	-
Net realized price (per payable lb)	\$4.22	\$4.93	\$4.17	\$4.77	\$5.37	\$4.67	-	-	-	-	-
Cash cost – (C1) (per lb)											
	\$4.66	\$4.84	\$4.43	\$4.16	\$(0.61)	\$4.45	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$5.29	\$5.81	\$5.60	\$4.67	\$(0.51)	\$5.29	-	-	-	-	-
Total cost – nickel (C3) (per lb)	\$6.34	\$6.57	\$6.09	\$5.77	\$(0.51)	\$6.17	-	-	-	-	-
<i>Gold statistics</i>											
Total gold production (ounces)	214,012	50,579	50,040	47,213	51,904	199,736	45,929	46,467	44,979	48,039	185,414
Total gold sales (ounces)	232,783	46,904	52,020	51,729	50,723	201,376	48,815	48,172	42,864	53,221	193,072
Net realized gold price (per ounce)	\$1,165	\$1,161	\$1,268	\$1,209	\$1,055	\$1,174	\$1,249	\$1,227	\$1,086	\$1,151	\$1,181
<i>Zinc statistics</i>											
Zinc production (tonnes)	28,862	6,253	6,538	4,376	3,556	20,723	5,227	6,545	7,348	7,687	26,807
Zinc sales (tonnes)	27,361	7,956	5,234	5,379	3,282	21,851	4,810	6,856	6,178	8,268	26,112

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

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

<sup>3</sup> C1 cash cost, C3 total cost and AISC for Q3 2018 have been revised from amounts previously disclosed to exclude the \$0.03 per pound impact third-party concentrate purchased.

Kansanshi statistics	2016	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018
<i>Mining</i>											
Waste mined (000's tonnes)	<b>74,935</b>	13,656	17,028	15,864	8,707	<b>55,255</b>	10,941	14,692	13,175	9,911	<b>48,719</b>
Ore mined (000's tonnes)	<b>31,679</b>	7,008	10,078	9,039	10,478	<b>36,603</b>	9,846	10,082	9,631	8,922	<b>38,481</b>
<i>Processing</i>											
Sulphide ore processed (000's tonnes)	<b>11,988</b>	3,291	3,202	3,179	3,298	<b>12,970</b>	3,182	3,105	3,390	3,301	<b>12,978</b>
Sulphide ore grade processed (%)	<b>0.79</b>	0.74	0.76	0.74	0.76	<b>0.75</b>	0.79	0.81	0.72	0.81	<b>0.78</b>
Sulphide ore recovery (%)	<b>92</b>	93	90	88	94	<b>91</b>	88	91	95	88	<b>91</b>
Sulphide concentrate grade (%)	<b>21.4</b>	22.8	22.4	21.7	21.8	<b>22.2</b>	22.5	23.2	23.3	22.1	<b>22.8</b>
Mixed ore processed (000's tonnes)	<b>7,953</b>	2,010	1,992	1,983	2,012	<b>7,997</b>	2,009	1,930	2,082	2,165	<b>8,186</b>
Mixed ore grade processed (%)	<b>1.01</b>	1.05	1.08	1.09	0.99	<b>1.05</b>	1.16	0.93	1.04	1.08	<b>1.06</b>
Mixed ore recovery (%)	<b>84</b>	87	86	81	88	<b>85</b>	81	87	86	76	<b>82</b>
Mixed concentrate grade (%)	<b>25.2</b>	31.1	33.4	29.9	27.7	<b>30.4</b>	30.3	25.7	31.2	29.9	<b>29.3</b>
Oxide ore processed (000's tonnes)	<b>7,076</b>	1,650	1,750	1,705	1,811	<b>6,916</b>	1,791	1,708	1,749	1,668	<b>6,916</b>
Oxide ore grade processed (%)	<b>1.50</b>	1.46	1.57	1.49	1.51	<b>1.51</b>	1.59	1.53	1.31	1.33	<b>1.44</b>
Oxide ore recovery (%)	<b>94</b>	93	87	80	89	<b>87</b>	80	92	95	92	<b>89</b>
Oxide concentrate grade (%)	<b>28.6</b>	32.6	32.8	30.0	29.8	<b>31.3</b>	32.2	28.9	27.8	28.5	<b>29.4</b>
Copper cathode produced (tonnes)	<b>79,668</b>	17,882	19,858	17,128	23,874	<b>78,742</b>	22,514	18,528	16,303	15,049	<b>72,394</b>
Copper in concentrate produced (tonnes)	<b>173,604</b>	45,316	44,239	41,578	40,926	<b>172,059</b>	41,071	43,942	47,384	46,731	<b>179,128</b>
Total copper production (tonnes)	<b>253,272</b>	63,198	64,097	58,706	64,800	<b>250,801</b>	63,585	62,470	63,687	61,780	<b>251,522</b>
Gold produced (ounces)	<b>148,220</b>	36,017	34,918	33,297	36,363	<b>140,595</b>	32,080	33,536	30,938	33,465	<b>130,019</b>
<i>Smelting<sup>1</sup></i>											
Concentrate processed (DMT) <sup>1</sup>	<b>1,143,974</b>	327,095	334,269	202,093	348,283	<b>1,211,740</b>	350,591	326,187	355,435	349,424	<b>1,381,637</b>
Copper anodes produced (tonnes) <sup>1</sup>	<b>257,330</b>	83,070	82,383	48,819	83,281	<b>297,553</b>	86,777	80,097	90,269	89,894	<b>347,037</b>
Smelter copper recovery (%)	<b>97</b>	97	95	94	97	<b>96</b>	97	97	97	97	<b>97</b>
Acid tonnes produced (000's)	<b>1,109</b>	307	307	189	325	<b>1,128</b>	325	291	319	320	<b>1,255</b>
<i>Cash Costs (per lb)</i>											
Mining	<b>\$0.65</b>	\$0.66	\$0.46	\$0.55	\$0.54	<b>\$0.54</b>	\$0.56	\$0.58	\$0.52	\$0.53	<b>\$0.55</b>
Processing	<b>0.49</b>	0.50	0.50	0.51	0.46	<b>0.49</b>	0.49	0.49	0.47	0.49	<b>0.49</b>
Site administration	<b>0.07</b>	0.07	(0.10) <sup>2</sup>	(0.06) <sup>2</sup>	0.07	-	0.08	0.09	0.10	0.11	<b>0.09</b>
TC/RC and freight charges	<b>0.11</b>	0.16	0.15	0.23	0.18	<b>0.18</b>	0.14	0.14	0.14	0.14	<b>0.14</b>
By-product credits	<b>(0.30)</b>	(0.25)	(0.34)	(0.32)	(0.21)	<b>(0.27)</b>	(0.36)	(0.38)	(0.27)	(0.33)	<b>(0.34)</b>
Total smelter costs	<b>0.13</b>	0.14	0.08	0.08	0.12	<b>0.11</b>	0.09	0.10	0.10	0.10	<b>0.10</b>
Cash cost (C1) (per lb)	<b>\$1.15</b>	\$1.28	\$0.75	\$0.99	\$1.16	<b>\$1.05</b>	\$1.00	\$1.02	\$1.06 <sup>4</sup>	\$1.04	<b>\$1.03</b>
All-in sustaining cost (AISC) (per lb)	<b>\$1.57</b>	\$1.59	\$1.18	\$1.79	\$1.55	<b>\$1.54</b>	\$1.46	\$1.55	\$1.59 <sup>4</sup>	\$1.61	<b>\$1.55</b>
Total cost (C3) (per lb)	<b>\$1.78</b>	\$1.89	\$1.41	\$1.64	\$1.86	<b>\$1.71</b>	\$1.82	\$1.70	\$1.73 <sup>4</sup>	\$1.71	<b>\$1.74</b>
<i>Revenues (\$ millions)</i>											
Copper cathodes	<b>\$374</b>	\$101	\$115	\$101	\$164	<b>\$481</b>	\$145	\$128	\$97	\$82	<b>\$452</b>
Copper anode	<b>841</b>	285	183	201	303	<b>972</b>	194	251	295	289	<b>1,029</b>
Copper in concentrates	<b>48</b>	14	9	77	21	<b>121</b>	10	-	-	-	<b>10</b>
Gold	<b>186</b>	40	43	46	37	<b>166</b>	42	41	36	41	<b>160</b>
Acid	-	-	-	-	-	-	2	8	6	5	<b>21</b>
Total sales revenues	<b>\$1,449</b>	\$440	\$350	\$425	\$525	<b>\$1,740</b>	\$393	\$428	\$434	\$417	<b>\$1,672</b>
Copper cathode sales (tonnes)	<b>77,084</b>	17,903	20,661	16,511	24,660	<b>79,735</b>	21,334	19,172	16,461	13,698	<b>70,665</b>
Copper anode sales (tonnes)	<b>176,895</b>	51,299	33,250	32,531	46,480	<b>163,560</b>	28,846	37,828	48,357 <sup>3</sup>	42,632 <sup>3</sup>	<b>157,663<sup>3</sup></b>
Copper in concentrate sales (tonnes)	<b>14,480</b>	3,074	2,228	15,269	3,834	<b>24,405</b>	1,504	-	-	-	<b>1,504</b>
Gold sales (ounces)	<b>156,840</b>	33,732	33,039	37,054	35,910	<b>139,735</b>	33,666	32,902	32,706	35,616	<b>134,890</b>

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

<sup>2</sup> Includes movements in previously recognized operational provisions in the second and third quarters that are not expected to continue in future periods

<sup>3</sup> Sales of copper anode attributable to anode produced from third-party purchased concentrate are excluded

<sup>4</sup> C1 cash cost, C3 total cost and AISC for Q3 2018 have been revised from amounts previously disclosed to exclude the following impacts of third-party concentrate purchased: \$0.06 per lb for C1 and C3 cash cost and \$0.05 per lb for AISC

Sentinel statistics	2016	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018
<i>Mining</i>											
Waste mined (000's tonnes)	82,098	16,006	24,382	26,254	21,853	88,495	21,611	23,744	25,931	24,321	95,607
Ore mined (000's tonnes)	37,960	9,272	10,641	12,692	12,039	44,644	10,172	11,996	11,334	12,016	45,518
<i>Processing</i>											
Copper ore processed (000's tonnes)	36,369	8,800	10,019	11,434	11,834	42,087	11,735	11,979	12,602	12,434	48,750
Copper ore grade processed (%)	0.57	0.51	0.52	0.53	0.54	0.52	0.47	0.51	0.49	0.53	0.50
Recovery (%)	68	81	84	89	90	87	91	92	91	92	91
Copper concentrate produced (tonnes)	139,600	36,274	43,686	53,533	57,190	190,683	50,310	56,080	56,426	60,840	223,656
Concentrate grade (%)	26.4	26.4	24.0	23.5	24.2	24.4	24.9	25.6	25.3	24.5	25.0
<i>Cash Costs (per lb)</i>											
Mining	\$0.51	\$0.72	\$0.72	\$0.59	\$0.66	\$0.67	\$0.71	\$0.62	\$0.61	\$0.42	\$0.58
Processing	0.45	0.70	0.66	0.60	0.57	0.62	0.68	0.66	0.65	0.68	0.67
Site administration	0.13	(0.09) <sup>1</sup>	0.12	0.09	0.03	0.05	0.10	0.10	0.10	0.10	0.10
TC/RC and freight charges	0.25	0.20	0.19	0.22	0.27	0.22	0.21	0.23	0.25	0.24	0.23
Total smelter costs	0.13	0.14	0.17	0.12	0.14	0.14	0.13	0.13	0.11	0.11	0.12
Cash cost (C1) (per lb)	\$1.47	\$1.67	\$1.86	\$1.62	\$1.67	\$1.70	\$1.83	\$1.74	\$1.72	\$1.55	\$1.70
All-in sustaining cost (AISC) (per lb)	\$2.13	\$2.07	\$2.29	\$2.05	\$2.36	\$2.19	\$2.36	\$2.29	\$2.25	\$2.02	\$2.22
Total cost (C3) (per lb)	\$2.16	\$2.45	\$2.61	\$2.30	\$2.49	\$2.45	\$2.60	\$2.46	\$2.39	\$2.26	\$2.42
<i>Revenues (\$ millions)</i>											
Copper anode	\$110	\$170	\$239	\$229	\$213	\$851	\$328	\$321	\$254	\$266	\$1,169
Copper in concentrates	\$43	\$19	\$17	\$71	\$68	\$175	\$57	\$71	\$79	\$78	\$285
Total sales revenues	\$153	\$189	\$256	\$300	\$281	\$1,026	\$385	\$392	\$333	\$344	\$1,454
Copper anode sales (tonnes)	20,294	29,929	43,705	36,734	32,026	142,394	48,227	47,947	42,557	44,641	183,372
Copper concentrate sales (tonnes)	10,034	4,362	3,742	14,121	12,741	34,966	10,115	12,596	16,512	15,616	54,839

<sup>1</sup> Includes movements in previously recognized operational provisions

Las Cruces statistics	2016	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018
<i>Mining</i>											
Waste mined (000's tonnes)	13,644	1,870	4,383	5,067	3,269	14,589	1,631	4,835	6,268	2,202	14,936
Ore mined (000's tonnes)	1,330	371	381	802	868	2,422	648	368	410	256	1,682
<i>Processing</i>											
Copper ore processed (000's tonnes)	1,538	398	409	392	420	1,619	390	416	338	400	1,544
Copper ore grade processed (%)	5.18	5.17	5.10	5.04	4.99	5.07	5.07	4.87	4.84	5.00	4.95
Recovery (%)	92	91	90	88	89	90	92	93	93	93	93
Copper cathode produced (tonnes)	73,643	18,793	18,683	17,488	18,700	73,664	18,238	18,849	15,181	18,470	70,738
<i>Cash Costs (per lb)</i>											
Cash cost (C1) (per lb)	\$0.81	\$0.78	\$0.79	\$0.93	\$0.93	\$0.86	\$0.86	\$0.83	\$1.02	\$0.94	\$0.90
All-in sustaining cost (AISC) (per lb)	\$1.01	\$0.93	\$1.00	\$1.20	\$1.12	\$1.06	\$1.03	\$1.09	\$1.41	\$1.16	\$1.16
Total cost (C3) (per lb)	\$1.83	\$1.89	\$2.09	\$2.25	\$2.40	\$2.15	\$2.15	\$2.11	\$2.50	\$2.28	\$2.25
<i>Revenues (\$ millions)</i>											
Copper cathode	\$358	\$119	\$111	\$109	\$122	\$461	\$131	\$133	\$93	\$113	\$470
Copper cathode sales (tonnes)	73,539	20,228	19,484	17,049	17,903	74,664	18,771	19,269	15,138	18,345	71,523

<b>Guelb Moghrein statistics</b>	<b>2016</b>	<b>Q1 17</b>	<b>Q2 17</b>	<b>Q3 17</b>	<b>Q4 17</b>	<b>2017</b>	<b>Q1 18</b>	<b>Q2 18</b>	<b>Q3 18</b>	<b>Q4 18</b>	<b>2018</b>
<i>Mining</i>											
Waste mined (000's tonnes)	<b>12,066</b>	4,041	3,349	3,055	3,607	<b>14,052</b>	3,961	2,737	4,277	4,087	<b>15,062</b>
Ore mined (000's tonnes)	<b>2,700</b>	810	983	792	519	<b>3,104</b>	97	296	445	752	<b>1,590</b>
<i>Processing</i>											
Sulphide ore processed (000's tonnes)	<b>3,898</b>	863	820	832	874	<b>3,389</b>	861	938	902	983	<b>3,684</b>
Sulphide ore grade processed (%)	<b>0.92</b>	0.95	0.97	0.88	0.90	<b>0.93</b>	0.79	0.73	0.94	0.93	<b>0.85</b>
Recovery (%)	<b>91</b>	92	92	92	91	<b>92</b>	90	85	94	91	<b>90</b>
Copper produced (tonnes)	<b>32,818</b>	7,533	7,347	6,756	7,155	<b>28,791</b>	6,135	5,781	7,902	8,319	<b>28,137</b>
Gold produced (ounces)	<b>53,951</b>	12,133	12,375	11,435	13,270	<b>49,213</b>	11,740	10,354	11,644	12,236	<b>45,974</b>
Magnetite concentrate produced (WMT)	-	-	-	-	-	-	93,472	123,100	111,765	97,052	<b>425,389</b>
<i>Cash Costs (per lb)</i>											
Mining	<b>\$0.44</b>	\$0.57	\$0.61	\$0.70	\$0.79	<b>\$0.66</b>	\$0.51	\$1.11	\$0.66	\$1.02	<b>\$0.82</b>
Processing	<b>0.80</b>	0.80	1.01	0.93	0.97	<b>0.93</b>	1.07	1.23	1.10	0.98	<b>1.09</b>
Site administration	<b>0.20</b>	0.16	0.17	0.20	0.19	<b>0.18</b>	0.19	0.24	0.17	0.17	<b>0.19</b>
TC/RC and freight charges	<b>0.45</b>	0.49	0.50	0.51	0.51	<b>0.51</b>	0.61	0.41	0.66	0.52	<b>0.54</b>
Gold and magnetite credit	<b>(0.96)</b>	(0.88)	(1.05)	(0.91)	(1.12)	<b>(1.00)</b>	(1.39)	(1.24)	(1.02)	(0.96)	<b>(1.14)</b>
Cash cost (C1) (per lb)	<b>\$0.93</b>	\$1.14	\$1.24	\$1.43	\$1.34	<b>\$1.28</b>	\$0.99	\$1.75	\$1.57	\$1.73	<b>\$1.50</b>
All-in sustaining cost (AISC) (per lb)	<b>\$1.51</b>	\$1.67	\$1.53	\$1.86	\$1.60	<b>\$1.65</b>	\$1.84	\$2.16	\$1.93	\$1.95	<b>\$1.93</b>
Total cost (C3) (per lb)	<b>\$1.68</b>	\$1.93	\$2.08	\$2.30	\$2.25	<b>\$2.13</b>	\$1.86	\$2.84	\$2.42	\$2.79	<b>\$2.46</b>
<i>Revenues (\$ millions)</i>											
Copper in concentrates	<b>\$140</b>	\$30	\$44	\$37	\$39	<b>\$150</b>	\$39	\$40	\$27	\$48	<b>\$154</b>
Gold	<b>73</b>	11	23	13	13	<b>60</b>	16	16	9	17	<b>58</b>
Magnetite concentrate	-	-	-	-	7	<b>7</b>	5	8	5	5	<b>23</b>
Total sales revenues	<b>\$213</b>	\$41	\$67	\$50	\$59	<b>\$217</b>	\$60	\$64	\$41	\$70	<b>\$235</b>
Copper sales (tonnes)	<b>36,330</b>	6,122	9,301	6,765	6,811	<b>28,999</b>	6,387	6,772	5,108	9,099	<b>27,366</b>
Gold sales (ounces)	<b>63,335</b>	10,293	16,160	11,616	12,384	<b>50,453</b>	13,008	12,863	8,100	14,224	<b>48,195</b>
Magnetite concentrate sold (WMT)	-	-	-	-	-	-	79,560	150,167	61,315	85,914	<b>376,956</b>

Çayeli statistics	2016	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018
<i>Mining</i>											
Ore mined (000's tonnes)	1,267	207	253	279	202	941	259	250	242	249	1,000
<i>Processing</i>											
Ore milled (000's tonnes)	1,285	204	253	274	212	943	257	255	243	252	1,007
Copper ore grade processed (%)	2.26	1.70	2.07	2.24	1.72	1.96	1.88	2.13	2.39	2.64	2.26
Copper ore recovery (%)	87	89	88	90	90	89	88	86	87	89	88
Zinc ore grade processed (%)	1.60	1.09	1.41	0.90	0.78	1.05	1.05	1.37	1.69	1.50	1.40
Zinc ore recovery (%)	39	39	40	27	23	34	26	30	32	27	29
Copper produced (tonnes)	25,330	3,115	4,632	5,492	3,284	16,523	4,225	4,684	5,056	5,931	19,896
Zinc produced (tonnes)	8,062	867	1,427	653	379	3,326	701	1,051	1,305	1,034	4,091
<i>Cash Costs (per lb)</i>											
Cash cost – Copper (C1) (per lb)	\$1.20	\$1.52	\$1.44	\$1.21	\$2.05	\$1.50	\$1.31	\$1.29	\$1.18	\$1.09	\$1.21
All-in sustaining cost (AISC) (per lb)	\$1.37	\$1.64	\$1.73	\$1.41	\$2.48	\$1.75	\$1.56	\$1.59	\$1.45	\$1.28	\$1.48
Total cost – Copper (C3) (per lb)	\$1.86	\$2.53	\$2.34	\$2.50	\$2.06	\$2.37	\$2.14	\$2.15	\$2.05	\$1.75	\$2.03
<i>Revenues (\$ millions)</i>											
Copper	\$97	\$15	\$16	\$33	\$23	\$87	(\$1)	\$31	\$13	\$44	\$87
Zinc	8	4	-	5	-	9	-	4	-	4	8
Other	5	1	-	1	-	2	-	1	-	4	5
Total sales revenues	\$110	\$20	\$16	\$39	\$23	\$98	(\$1)	\$36	\$13	52	\$100
Copper sales (tonnes)	26,795	3,392	3,596	6,462	4,266	17,716	-	5,491	2,753	9,153	17,397
Zinc sales (tonnes)	6,825	2,491	-	1,944	-	4,435	-	2,159	-	2,154	4,313

Pyhäsalmi statistics	2016	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018
<i>Mining</i>											
Ore mined (000's tonnes)	1,430	345	335	319	316	1,315	323	299	318	297	1,237
<i>Processing</i>											
Ore milled (000's tonnes)	1,380	328	311	315	306	1,260	301	315	320	312	1,248
Copper ore grade processed (%)	1.11	1.08	1.15	1.13	1.07	1.11	0.98	1.02	0.98	0.98	0.99
Copper ore recovery (%)	97	97	97	96	97	97	97	96	95	97	96
Zinc ore grade processed (%)	1.67	1.82	1.83	1.34	1.17	1.55	1.66	1.94	2.07	2.35	2.01
Zinc ore recovery (%)	90	90	90	88	89	89	91	90	91	91	91
Copper produced (tonnes)	14,795	3,443	3,467	3,401	3,190	13,501	2,865	3,086	2,989	2,964	11,904
Zinc produced (tonnes)	20,800	5,386	5,111	3,723	3,177	17,397	4,526	5,494	6,043	6,653	22,716
Pyrite produced (tonnes)	490,480	184,464	168,319	184,486	154,855	692,124	145,975	159,674	171,355	168,881	645,885
<i>Cash Costs (per lb)</i>											
Cash cost – Copper (C1) (per lb)	\$0.04	(\$0.59)	(\$0.39)	\$0.03	(\$0.10)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)
All-in sustaining cost (AISC) (per lb)	\$0.07	(\$0.59)	(\$0.39)	\$0.03	(\$0.09)	(\$0.26)	(\$0.81)	(\$0.02)	(\$0.48)	(\$0.59)	(\$0.46)
Total cost – Copper (C3) (per lb)	\$1.99	\$1.57	\$1.92	\$2.43	\$2.35	\$2.06	\$1.24	\$2.23	\$1.67	\$1.57	\$1.70
<i>Revenues (\$ millions)</i>											
Copper	\$61	\$18	\$18	\$18	\$20	\$74	\$16	\$21	\$16	\$17	\$70
Zinc	30	10	12	7	8	37	12	12	10	11	45
Pyrite	16	4	3	3	6	16	6	3	4	4	17
Other	16	4	2	6	4	16	4	2	4	2	12
Total sales revenues	\$123	\$36	\$35	\$34	\$38	\$143	\$38	\$38	\$34	\$34	\$144
Copper sales (tonnes)	14,708	3,501	3,554	3,452	3,184	13,691	2,837	3,328	2,991	3,028	12,184
Zinc sales (tonnes)	20,536	5,465	5,234	3,435	3,282	17,416	4,810	4,697	6,178	6,114	21,799
Pyrite sales (tonnes)	517,922	105,449	107,013	91,569	114,712	418,743	120,572	99,606	100,894	124,109	445,181

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

Ravensthorpe statistics	2016	Q1 17	Q2 17	Q3 17	Q4 17	2017	Q1 18	Q2 18	Q3 18	Q4 18	2018
<i>Processing</i>											
Beneficiated ore (000's tonnes)	2,510	619	800	792	-	2,211	-	-	-	-	-
Beneficiated ore grade (%)	1.26	1.13	1.10	1.10	-	1.11	-	-	-	-	-
Nickel recovery – leach feed to Nickel produced (%)	81	82	79	76	-	79	-	-	-	-	-
Nickel produced (contained tonnes)	23,624	5,592	5,920	6,325	-	17,837	-	-	-	-	-
Nickel produced (payable tonnes)	17,630	4,291	4,537	4,866	-	13,694	-	-	-	-	-
<i>Cash Costs (per lb)</i>											
Mining	\$0.99	\$1.17	\$1.19	\$1.01	-	\$1.12	-	-	-	-	-
Processing	3.21	3.41	3.20	3.17	-	3.25	-	-	-	-	-
Site administration	0.36	0.38	0.36	0.34	-	0.37	-	-	-	-	-
TC/RC and freight charges	0.33	0.34	0.24	0.26	0.10	0.27	-	-	-	-	-
Cobalt credit	(0.23)	(0.46)	(0.56)	(0.62)	(0.71)	(0.56)	-	-	-	-	-
Cash cost (C1) (per lb)	\$4.66	\$4.84	\$4.43	\$4.16	\$(0.61)	\$4.45	-	-	-	-	-
All-in sustaining cost (AISC) (per lb)	\$5.29	\$5.81	\$5.60	\$4.67	\$(0.51)	\$5.29	-	-	-	-	-
Total cost (C3) (per lb)	\$6.34	\$6.57	\$6.09	\$5.77	\$(0.51)	\$6.17	-	-	-	-	-
<i>Revenues (\$ millions)</i>											
Nickel	\$185	\$41	\$39	\$58	\$8	\$146	-	-	-	-	-
Cobalt	10	4	5	7	1	17	-	-	-	-	-
Total sales revenues	\$195	\$45	\$44	\$65	\$9	\$163	-	-	-	-	-
Nickel sales (contained tonnes)	25,882	5,197	5,522	7,099	865	18,683	-	-	-	-	-
Nickel sales (payable tonnes)	19,536	3,981	4,228	5,455	674	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 and serve to provide additional information and should not be considered in isolation to measures prepared under IFRS.

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, 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 and royalties 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.

	2018	2017
Purchase and deposits on property, plant and equipment	2,143	1,652
Sustaining capital expenditure and deferred stripping	320	302
Project capital expenditure – Panama Development	1,332	1,256
Project capital expenditure – Other	384	94
Pre-commercial costs	107	-
<b>Total capital expenditure</b>	<b>2,143</b>	<b>1,652</b>

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

For the three months ended December 31, 2018 <sup>1</sup>	Kansanshi	Sentinel	Las Cruces	Guelb Moghreïn	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales	(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 <sup>1</sup>	29	1	-	1	1	1	33	(1)	3	35
<b>Cash cost (C1)</b>	<b>(138)</b>	<b>(200)</b>	<b>(38)</b>	<b>(30)</b>	<b>(15)</b>	<b>4</b>	<b>(417)</b>	<b>-</b>	<b>-</b>	<b>(417)</b>
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)
<b>Total cost (C3)</b>	<b>(225)</b>	<b>(292)</b>	<b>(92)</b>	<b>(49)</b>	<b>(23)</b>	<b>(9)</b>	<b>(690)</b>	<b>-</b>	<b>(1)</b>	<b>(691)</b>
<b>Cash cost (C1)</b>	<b>(138)</b>	<b>(200)</b>	<b>(38)</b>	<b>(30)</b>	<b>(15)</b>	<b>4</b>	<b>(417)</b>	<b>-</b>	<b>-</b>	<b>(417)</b>
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)
<b>AISC</b>	<b>(211)</b>	<b>(262)</b>	<b>(48)</b>	<b>(34)</b>	<b>(18)</b>	<b>4</b>	<b>(569)</b>	<b>-</b>	<b>-</b>	<b>(569)</b>
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	-	-	

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

For the year ended December 31, 2018 <sup>1</sup>	Kansanshi	Sentinel	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper	Corporate & other	Ravensthorpe	Total
Cost of sales	(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 <sup>1</sup>	40	4	2	2	1	(2)	47	16	11	74
<b>Cash cost (C1)</b>	<b>(561)</b>	<b>(823)</b>	<b>(141)</b>	<b>(91)</b>	<b>(50)</b>	<b>13</b>	<b>(1,653)</b>	<b>-</b>	<b>-</b>	<b>(1,653)</b>
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)
<b>Total cost (C3)</b>	<b>(936)</b>	<b>(1,169)</b>	<b>(350)</b>	<b>(148)</b>	<b>(83)</b>	<b>(41)</b>	<b>(2,727)</b>	<b>-</b>	<b>(5)</b>	<b>(2,732)</b>
<b>Cash cost (C1)</b>	<b>(561)</b>	<b>(823)</b>	<b>(141)</b>	<b>(91)</b>	<b>(50)</b>	<b>13</b>	<b>(1,653)</b>	<b>-</b>	<b>-</b>	<b>(1,653)</b>
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)
<b>AISC</b>	<b>(833)</b>	<b>(1,077)</b>	<b>(183)</b>	<b>(116)</b>	<b>(61)</b>	<b>13</b>	<b>(2,257)</b>	<b>-</b>	<b>-</b>	<b>(2,257)</b>
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	-	-	

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

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

For the three months ended December 31, 2017	Kansanshi	Sentinel	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper continuing	Corporate & other	Ravensthorpe	Total
Cost of sales	(307)	(230)	(96)	(47)	(12)	(32)	(724)	(30)	(14)	(768)
Adjustments:										
Depreciation	79	61	58	11	-	16	225	-	3	228
By-product credits	37	-	-	20	-	18	75	-	1	76
Royalties	30	23	2	1	1	-	57	-	-	57
Treatment and refining charges	(7)	(15)	-	(5)	(2)	(2)	(31)	-	-	(31)
Freight costs	(15)	(7)	-	-	(1)	-	(23)	-	-	(23)
Finished goods	11	(28)	(1)	(1)	1	-	(18)	-	5	(13)
Other	8	3	-	-	(1)	-	10	30	6	46
<b>Cash cost (C1)</b>	<b>(164)</b>	<b>(193)</b>	<b>(37)</b>	<b>(21)</b>	<b>(14)</b>	<b>-</b>	<b>(429)</b>	<b>-</b>	<b>1</b>	<b>(428)</b>
Adjustments:										
Depreciation (excluding depreciation in finished goods)	(69)	(68)	(60)	(12)	-	(16)	(225)	-	(1)	(226)
Royalties	(30)	(23)	(2)	(1)	(1)	-	(57)	-	-	(57)
Other	(2)	(2)	1	(1)	-	-	(4)	-	-	(4)
<b>Total cost (C3)</b>	<b>(265)</b>	<b>(286)</b>	<b>(98)</b>	<b>(35)</b>	<b>(15)</b>	<b>(16)</b>	<b>(715)</b>	<b>-</b>	<b>-</b>	<b>(715)</b>
<b>Cash cost (C1)</b>	<b>(164)</b>	<b>(193)</b>	<b>(37)</b>	<b>(21)</b>	<b>(14)</b>	<b>-</b>	<b>(429)</b>	<b>-</b>	<b>1</b>	<b>(428)</b>
Adjustments:										
General and administrative expenses	(8)	(8)	(1)	(1)	-	-	(18)	-	-	(18)
Sustaining capital expenditure and deferred stripping	(21)	(46)	(5)	(1)	(2)	-	(75)	-	-	(75)
Royalties	(30)	(23)	(2)	(1)	(1)	-	(57)	-	-	(57)
<b>AISC</b>	<b>(223)</b>	<b>(270)</b>	<b>(45)</b>	<b>(24)</b>	<b>(17)</b>	<b>-</b>	<b>(579)</b>	<b>-</b>	<b>1</b>	<b>(578)</b>
AISC (per lb)	\$1.55	\$2.36	\$1.12	\$1.60	\$2.48	(\$0.09)	\$1.76	-	(\$0.51)	
Cash cost – (C1) (per lb)	\$1.16	\$1.67	\$0.93	\$1.34	\$2.05	(\$0.10)	\$1.30	-	(\$0.61)	
Total cost – (C3) (per lb)	\$1.86	\$2.49	\$2.40	\$2.25	\$2.06	\$2.35	\$2.16	-	(\$0.51)	

For the year ended December 31, 2017	Kansanshi	Sentinel	Las Cruces	Guelb Moghrein	Çayeli	Pyhäsalmi	Copper continuing	Corporate & other	Ravensthorpe	Total
Cost of sales	(1,104)	(860)	(355)	(176)	(82)	(119)	<b>(2,696)</b>	(59)	(220)	<b>(2,975)</b>
Adjustments:										
Depreciation	291	224	205	45	30	66	<b>861</b>	1	32	<b>894</b>
By-product credits	166	-	-	67	11	69	<b>313</b>	-	17	<b>330</b>
Royalties	92	63	7	6	2	-	<b>170</b>	-	8	<b>178</b>
Treatment and refining charges	(39)	(47)	-	(19)	(11)	(10)	<b>(126)</b>	-	-	<b>(126)</b>
Freight costs	(39)	(17)	-	-	(4)	(1)	<b>(61)</b>	-	-	<b>(61)</b>
Finished goods	50	(43)	2	(1)	3	(1)	<b>10</b>	-	14	<b>24</b>
Other	16	1	2	-	(1)	4	<b>22</b>	58	15	<b>95</b>
<b>Cash cost (C1)</b>	<b>(567)</b>	<b>(679)</b>	<b>(139)</b>	<b>(78)</b>	<b>(52)</b>	<b>8</b>	<b>(1,507)</b>	-	<b>(134)</b>	<b>(1,641)</b>
Adjustments:										
Depreciation (excluding depreciation in finished goods)	(261)	(231)	(205)	(45)	(29)	(66)	<b>(837)</b>		(41)	<b>(878)</b>
Royalties	(92)	(63)	(7)	(6)	(2)	-	<b>(170)</b>		(8)	<b>(178)</b>
Other	(7)	(5)	1	(1)	-	-	<b>(12)</b>		(3)	<b>(15)</b>
<b>Total cost (C3)</b>	<b>(927)</b>	<b>(978)</b>	<b>(350)</b>	<b>(130)</b>	<b>(83)</b>	<b>(58)</b>	<b>(2,526)</b>		<b>(186)</b>	<b>(2,712)</b>
<b>Cash cost (C1)</b>	<b>(567)</b>	<b>(679)</b>	<b>(139)</b>	<b>(78)</b>	<b>(52)</b>	<b>8</b>	<b>(1,507)</b>		<b>(134)</b>	<b>(1,641)</b>
Adjustments:										
General and administrative expenses	(26)	(30)	(6)	(4)	(2)	-	<b>(68)</b>		(6)	<b>(74)</b>
Sustaining capital expenditure and deferred stripping	(149)	(103)	(20)	(13)	(5)	-	<b>(290)</b>		(12)	<b>(302)</b>
Royalties	(92)	(63)	(7)	(6)	(2)	-	<b>(170)</b>		(8)	<b>(178)</b>
<b>AISC</b>	<b>(834)</b>	<b>(875)</b>	<b>(172)</b>	<b>(101)</b>	<b>(61)</b>	<b>8</b>	<b>(2,035)</b>		<b>(160)</b>	<b>(2,195)</b>
AISC (per lb)	\$1.54	\$2.19	\$1.06	\$1.65	\$1.75	(\$0.26)	<b>\$1.65</b>		\$5.29	
Cash cost – (C1) (per lb)	\$1.05	\$1.70	\$0.86	\$1.28	\$1.50	(\$0.26)	<b>\$1.23</b>		\$4.45	
Total cost – (C3) (per lb)	\$1.71	\$2.45	\$2.15	\$2.13	\$2.37	\$2.06	<b>\$2.05</b>		\$6.17	

### 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 loss and discounting of non-current VAT.

	Q4 18	Q3 18	Q4 17	2018	2017
Operating profit from continuing operations	260	141	49	809	183
Depreciation	224	211	228	864	894
Other adjustments:					
Impairment and related charges	-	-	26	-	26
Foreign exchange loss (gain) and changes in fair value relating to option time value <sup>1</sup>	(13)	74	11	64	35
(Gain) loss on disposal of assets and liabilities	2	-	4	(6)	5
Other expense	8	-	-	8	-
Costs associated with moving Ravensthorpe into care and maintenance	-	-	-	-	7
Revisions in estimates of restoration provisions at closed sites	-	1	-	(2)	4
<b>Total adjustments excluding depreciation</b>	<b>(3)</b>	<b>75</b>	<b>41</b>	<b>64</b>	<b>77</b>
<b>Comparative EBITDA</b>	<b>481</b>	<b>427</b>	<b>318</b>	<b>1,737</b>	<b>1,154</b>

<sup>1</sup> Following the adoption of IFRS 9 on January 1, 2018, the changes in fair value relating to option time value are recognized in OCI.

	Q4 18	Q3 18	Q4 17	2018	2017
Net earnings (loss) attributable to shareholders of the Company	198	61	(115)	441	(316)
Adjustments attributable to shareholders of the Company:					
Loss on extinguishment of senior notes	-	-	-	-	84
Finance expense on discounting non-current VAT	5	-	20	5	20
Total adjustments to comparative EBITDA excluding depreciation	(3)	75	41	64	77
Tax and minority interest relating to foreign exchange revaluation and comparative adjustments	(18)	(8)	18	(23)	24
<b>Comparative earnings (loss)</b>	<b>182</b>	<b>128</b>	<b>(36)</b>	<b>487</b>	<b>(111)</b>
Earnings (loss) per share as reported	\$0.29	\$0.09	(\$0.17)	\$0.64	(\$0.46)
Comparative earnings (loss) per share	\$0.26	\$0.19	(\$0.05)	\$0.71	(\$0.16)

## Adoption of new standards

### *IFRS 9 Financial Instruments*

The Company has adopted *IFRS 9 Financial Instruments* as of January 1, 2018. The requirements of *IFRS 9* represent a significant change from *IAS 39 Financial Instruments: Recognition and Measurement*. Additionally, the Company adopted consequential amendments to *IFRS 7 Financial Instruments: Disclosures*.

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

- *IFRS 9* contains three principal classification categories for financial assets: measured at amortized cost, FVOCI and fair value through profit and loss ("FVTPL"). The standard eliminates the previous *IAS 39* categories of held to maturity, loans and receivables and available for sale. Under *IFRS 9*, financial asset derivatives are never bifurcated. Instead, the hybrid financial instrument as a whole is assessed for classification. Refer to the table below for a summary of the classification changes upon transition to *IFRS 9*.
- Non-substantial modifications of financial liabilities are required to have a modification gain or loss recognized. This has resulted in an increase in the carrying value of senior debt on transition of \$44 million.
- The Company has elected to present all subsequent changes in the fair value of an investment in an equity instrument within other comprehensive income ("OCI"). These investments were previously held at cost or fair value through profit and loss. A fair value adjustment of \$10 million was recognized within accumulated other comprehensive loss.
- *IFRS 9* replaces the 'incurred loss' model in *IAS 39* with an 'expected credit loss' model. The new impairment model applies to financial assets measured at amortized cost, contract assets and debt investments at FVOCI. Under *IFRS 9*, credit losses are recognized earlier than under *IAS 39*. An assessment was performed to determine the expected credit loss of financial assets. Given that the Company's trading contracts are established long-term contracts with international trading companies, a portion of which are backed by a letter of credit, we have determined the expected credit loss to be not material (December 31, 2017: no impairment recognized). The Company has also adopted consequential amendments to *IAS 1 Presentation of Financial Statements* which requires impairment of financial assets to be presented in a separate line item in the statement of profit or loss and OCI. Previously, the Company's approach was to include any impairment of trade receivables in other expenses.
- *IFRS 9* marks a revised approach to hedge accounting, however this has not significantly impacted the hedge accounting applied by the Company. Under *IAS 39*, the change in fair value of the forward element of the forward exchange contracts ('forward points') was recognized immediately in profit and loss. However, under *IFRS 9* the forward points are separately accounted for as a cost of hedging and are recognized in OCI. On transition, \$12 million has been reclassified between retained earnings and accumulated other comprehensive loss.

The following table shows the original measurement categories under *IAS 39* and the new measurement categories under *IFRS 9* for each class of the Group's financial assets as at January 1, 2018.

	Original classification under IAS 39	New classification under IFRS 9
<b>Financial assets</b>		
Trade and other receivables	Loans and receivables	Amortized cost
Provisionally priced sales included in trade and other receivables	FVTPL	FVTPL
Derivative instruments in designated hedge relationships	FVTPL	FVTPL
Other derivative instruments	FVTPL	FVTPL
Investments		
At cost	Available-for-sale	FVOCI
At fair value	Available-for-sale	FVOCI
<b>Financial liabilities</b>		
Trade and other payables	Other financial liabilities	Amortized cost
Derivative instruments in designated hedge relationships	FVTPL	FVTPL
Other derivative instruments	FVTPL	FVTPL
Finance leases	Other financial liabilities	Amortized cost
Liability to joint venture	Other financial liabilities	Amortized cost
Debt	Other financial liabilities	Amortized cost

*IFRS 15 Revenue from Contracts with Customers*

The Company has adopted *IFRS 15 Revenue from Contracts with Customers* as of January 1, 2018. In accordance with the transition provisions in *IFRS 15*, the Company has elected to apply the new rules retrospectively whereby the transitional adjustment is recognized in retained earnings with no adjustment of comparatives. Therefore, the comparative information continues to be reported under *IAS 18*. The changes have only been applied to contracts that remained in force at the transition date.

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

- The Company recognizes deferred revenue in the event it receives payments from customers before a sale meets criteria for revenue recognition. Proceeds received from Franco-Nevada under the terms of the precious metal stream arrangements were previously accounted for and classified as deferred revenue. As the timing of the transfer of goods does not match the receipt of consideration, *IFRS 15* requires the transaction price to be adjusted to reflect the significant financing component. In accordance with the requirements of *IFRS 15*, deferred revenue has been adjusted for the financing component with an increase recognized in the carrying value of deferred revenue of \$74 million on transition.
- The Company sells a significant proportion of its products on terms whereby the Company is responsible for providing shipping services after the date at which control of the goods passes to the customer. Under *IAS 18*, the Company recognizes such shipping and other freight revenue and accrues the associated costs in full on loading. The impact of treating freight, where applicable, as a separate performance obligation and therefore recognizing revenue over time would not have materially impacted revenue, costs or earnings as at December 31, 2018 or at December 31, 2017.
- The Company's sales are made under pricing arrangements where final prices are set at a specified date based on market prices. Under *IFRS 15*, variable consideration should be estimated by method of expected value or most likely amount, and included in the transaction price, to the extent that it is highly probable a significant reversal in the amount of cumulative revenue recognized will not occur. The changes between the prices recorded upon recognition of revenue and the final price due to fluctuations in metal market prices is recognized as an embedded derivative in the accounts receivable. This embedded derivative is recorded at fair value, with changes in fair value classified as a component of cost of sales. The adoption of *IFRS 15* has not changed the assessment or treatment of the existence of embedded derivatives in these financial statements.

The Company has elected to make use of the following practical expedients:

- Completed contracts under *IAS 18* before the date of transition have not been reassessed.
- The Company applies the practical expedient in paragraph 121 of *IFRS 15* and does not disclose information about remaining performance obligations that have original expected duration of one year or less.

The following table summarizes the impacts of adopting *IFRS 9* and *IFRS 15* on the Company's consolidated financial statements on January 1, 2018.

	As reported December 31, 2017	Transition adjustments	At January 1, 2018
<b>Balance sheet</b>			
Other assets	353	(10)	343
Debt	(6,277)	(44)	(6,321)
Deferred revenue	(726)	(74)	(800)
Retained earnings	(3,612)	106	(3,506)
Accumulated other comprehensive loss	227	22	249

The following table summarizes the impacts of adopting *IFRS 9* and *IFRS 15* on the Company's consolidated financial statements for the year ended December 31, 2018, inclusive of the transition adjustments.

	December 31, 2018	IFRS 9 application	IFRS 15 application	As reported December 31, 2018
<b>Balance sheet</b>				
Property, plant and equipment	19,053	(15)	60	19,098
Other assets	316	(10)	-	306
Debt	(7,260)	(25)	-	(7,285)
Deferred revenue	(1,356)	-	(134)	(1,490)
Retained earnings	(4,048)	32	74	(3,942)
Accumulated other comprehensive loss	17	10	-	27
<b>Income statement</b>				
Cost of sales	2,976	12	-	2,988
Loss on extinguishment of term loan	4	(4)	-	-
<b>Earnings (loss) per share</b>	<b>\$0.65</b>	<b>(\$0.01)</b>	<b>\$0.00</b>	<b>\$0.64</b>

### New standards not yet adopted

#### *IFRS 16 Leases*

Effective for annual periods commencing on or after January 1, 2019, IFRS 16 will replace IAS 17 Leases. The new standard eliminates the classification of leases as either operating or finance leases by the lessee. Classification of leases by the lessor are either classified as operating or finance under IFRS 16, similar to the treatment under IAS 17 Leases. The treatment of leases by the lessee will require capitalization of all leases resulting in accounting treatment similar to finance leases under IAS 17 Leases. Exemptions for leases of very low value or short-term leases are applicable.

The Company has undertaken and completed a detailed review and evaluation exercise of existing contracts against the IFRS 16 criteria as well as completing the calculation of lease liabilities for contracts that have been identified as containing right of use assets. It is expected that the lease liability of \$23 million will be recognised on transition on January 1, 2019. The Company has elected to apply the modified transition approach whereby no restatement of comparative periods is required. Right-of-use assets will be recognized at the amount of the liability on transition. Leases with terms that end within 12 months of the mandatory transition date will be accounted for by the Company as short term leases with payments made under the lease recognized as expenses.

The transition to IFRS 16 will result in increases to assets and liabilities recognized in the balance sheet as well as increases to depreciation and finance costs in the Statement of Earnings and reductions in operating costs.

### 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 (note 12), recognition of deferred income tax amounts (note 14) 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.

- 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 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 14.

- 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 *IFRS9: Financial Instruments*. The Company also retains significant business risk relating to the completion of the project and delivery of produced gold and silver 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 the Franco-Nevada contribution to capital expenditure constitutes a prepayment of revenues deliverable from future Cobre Panama production.

- 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, 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 24.

- Derecognition of financial liabilities

Judgement is required in determining if an exchange of issued listed tradeable bonds results in, amongst other factors, a change to the 'existing lender' and, if so, whether that constitutes an extinguishment of an existing financial liability and recognition of a new financial liability. Judgment that an exchange of such instruments in 2017 was an extinguishment of the existing financial liability resulted in material impacts on the carrying value of debt and finance costs in the year ended December 31, 2017 (note 11).

- (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 12), recognition of deferred income tax amounts (note 14) 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.

The Ravensthorpe mine was placed in care and maintenance in October 2017 and an impairment test was performed as at September 30, 2017. As disclosed in note 8 its value is sensitive to longer term nickel price assumptions and the movements in the discount rate.

- 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 \$63 million at December 31, 2018.

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 12c.

### 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, trade and other receivables and promissory note receivable. 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, 2018, 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. More than 70% of the Company's trade receivables are generated from five customers together representing greater than 25% of the total sales for the year. A total balance of \$36 million was past due from these customers at the balance sheet date and is classified as current receivable. The Company continues to trade with these customers. Revenues earned from these customers are included within the Kansanshi segment. 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 an historical and prospective cash flow basis. These ratios were in compliance during the year ended December 31, 2018, and December 31, 2017. 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, 2018, a fair value loss of \$27 million has been recognized on derivatives designated as hedged instruments through accumulated other comprehensive income and a fair value loss of \$110 million has been recognized through sales revenues. The Company also had zero cost collar unmarginated sales contracts for 30,000 tonnes at prices ranging from low side (or put) prices of \$3.10 per lb to high side (or call) prices of \$3.50 per lb with maturities to June 2019.

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, 2018, and December 31, 2017, 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 Company currently capitalizes the majority of interest charges, 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, such as swaps, 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, 2018, and December 31 2017, 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, 2018, 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, 2018 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, 2018 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 period ended September 30, 2018, 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 Cobre Panama and Enterprise 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, 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, 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, power supply, mechanical failures, water supply, procurement and delivery of parts and supplies to the operations, and the production of off-spec material.

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.