FIRST QUANTUM
MINERALS LTD.

ANNUAL INFORMATION FORM

AS AT DECEMBER 31, 2022
(unless otherwise noted)

DATED: MARCH 28, 2023

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DATE, CURRENCY AND OTHER INFORMATION

Unless otherwise indicated, the information in this annual information form ("AIF") is given as of December 31, 2022. All amounts in this AIF are expressed in United States dollars ("USD or $"), unless otherwise indicated. References to "CAD" or "C$" are to Canadian dollars and to "EUR" or "€" are to Euros and to "GBP" or "£" are to pound sterling and to "AUD" or AUD$ are to Australian dollars where and if applicable. For reference, the following currency average exchange rates for 2022 and rates as at December 31, 2022 should be noted:

Currency	Exchange Rate - 2022 Average	Exchange Rate as at December 31, 2022
CAD - USD	**0.76840**	**0.73943**
EUR - USD	**1.05198**	**1.06770**
GBP - USD	**1.23347**	**1.20399**
AUD - USD	**0.69359**	**0.67980**

Chart data per Bloomberg and Refinitiv

"SEDAR" means the System for Electronic Document Analysis and Retrieval, the publicly accessible database used for the filing of public securities information as required by securities regulatory agencies in Canada. References herein to the "Company" or "First Quantum" may include, collectively or individually, one or more of the direct or indirect subsidiaries of First Quantum Minerals Ltd.

CAUTION WITH RESPECT TO FORWARD-LOOKING STATEMENTS AND 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, statements regarding the approval of the Proposed Concession Contract (as defined herein), including the public consultation process and the approvals required in respect thereof from the Panamánian Cabinet, Comptroller General and National Assembly, the initial term and extension term of the Proposed Concession Contract and the principal terms of the Proposed Concession Contract such as the annual minimum contribution by MPSA (as defined herein), the applicable royalty rate and downside protections for copper price or copper production levels, expected timing for the conversion of ZCCM-IH's (as defined herein) dividend rights at KMP (as defined herein), expectations regarding the S3 Expansion, including the efficiencies and economies of scale resulting therefrom, the timing of its completion and the commencement of deliveries of the mining fleet and the timing of capital expenditures associated with the S3 Expansion, expected timing of completion of project development at Enterprise and post-completion construction activity at Cobre Panamá and are subject to the impact of ore grades on future production, the potential of production disruptions, potential production, operational, labour or marketing disruptions as a result of the COVID-19 global pandemic, 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, silver, iron, cobalt, pyrite, zinc 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; plans, targets and commitments regarding climate change-related physical and transition risks and opportunities (including intended actions to address such risks and opportunities), greenhouse gas emissions, energy efficiency and carbon intensity, use of renewable energy sources, design, development and operation of the Company's projects and future reporting regarding climate change and environmental matters; the Company's expectations regarding increased demand for copper; the Company's project pipeline and development and growth plans. 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, silver, iron, cobalt, pyrite, zinc and sulphuric acid, anticipated costs and expenditures, the receipt of necessary approvals for the Proposed Concession Contract and the ability of the Company to remobilize its workforce and to obtain supplies and services from local Panamánian companies, the success of Company's actions and plans to reduce greenhouse gas emissions and carbon intensity of its operations 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 Panamá, Zambia, Peru, Mauritania, Finland, Spain, Turkey, Argentina and Australia, adverse weather conditions in Panamá, Zambia, Finland, Spain, Turkey, Mauritania, and Australia, labour disruptions, potential social and environmental challenges (including the impact of climate change), power supply, mechanical failures, water supply, procurement and delivery of parts and supplies to the operations, the production of off-spec material and events generally impacting global economic, political and social stability. For mineral resource and mineral reserve figures appearing or referred to herein, varying cut-off grades have been used depending on the mine, method of extraction and type of ore contained in the orebody.

This AIF contains 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 as 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 of this AIF except as may be required by law. All forward-looking statements made and information contained herein are qualified by this cautionary statement.

Presentation of Mineral Reserve and Mineral Resource Estimates

This AIF uses the terms "Mineral", "Measured", "Indicated" and "Inferred" in connection with its mineral resource presentations, as defined in accordance with National Instrument 43-101 - *Standards of Disclosure for Mineral Projects* ("NI 43-101") under guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the "CIM") Standards on Mineral Resources and Mineral Reserves adopted by the CIM Council. While the terms "Mineral", "Measured", "Indicated" and "Inferred" are recognized and required by Canadian regulations, they are not defined terms under standards of the U.S. Securities and Exchange Commission ("SEC"). As such, certain information contained in this AIF concerning descriptions of mineralization and mineral resources under Canadian standards is not comparable to similar information made public by U.S. companies subject to the reporting requirements of the SEC. "Inferred" mineral resources have a great amount of uncertainty as to their existence and as to their economic and legal feasibility. It cannot be assumed that all or any part of an "Inferred" mineral resource will ever be upgraded to a higher category. Under Canadian rules, estimates of "Inferred" mineral resources may not form the basis of feasibility or other economic studies (except in limited circumstances – see 2.3(3) of NI 43-101). Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. United States shareholders are cautioned not to assume that all or any part of "Measured" or "Indicated" mineral resources will ever be converted into "Mineral Reserves". United States shareholders are also cautioned not to assume that all or part of an "Inferred" resource exists, or is economically or legally mineable. In addition, the definitions of "Proven" and "Probable" reserves under CIM standards differ in certain respects from the SEC standards.

Cautionary Note about Production Outlook, Guidance and Estimates

Readers are cautioned that production outlook, guidance and estimates are subject to a variety of factors that are likely to cause actual results to vary from the Company's estimates, and such variations may be material.

Forward-looking information generally involves risks and uncertainties as described above which are, in many instances, beyond the Company's control, including: (i) global and local economic conditions; (ii) pricing and cost factors; (iii) unanticipated events or changes in current development plans, execution of development plans, future operating results, financial conditions or business over time; (iv) the temporary or permanent closure of uneconomic operations and (v) unfavourable regulatory developments, that could cause actual events and results to vary significantly from those included in or contemplated by such statements. The production outlook, guidance and estimates reflect certain assumptions by the Company, which assumptions may differ with respect to future events, economic, competitive and regulatory conditions, financial market conditions and future business decisions, including, without limitation, a continuation of existing business operations on substantially the same basis as currently exists all of which assumptions are difficult to predict and many of which are beyond the Company's control. Accordingly, there is no assurance that the outlook, guidance and estimates are indicative of the Company's future performance or that actual results would not differ materially from those in the outlook, guidance and estimates.

NON-IFRS MEASURES

This AIF includes certain measures and ratios ("non-IFRS measures") that are not measures recognized under International Financial Reporting Standards as issued by the International Accounting Standards Board ("IFRS"). The Company uses non-IFRS measures as supplemental indicators of its operating performance and financial position as well as for internal planning purposes and its business outlook. The Company believes non-IFRS measures provide additional insight into its performance. Non-IFRS measures do not have standardized meanings prescribed by IFRS and therefore are unlikely to be comparable to the calculation of similar measures used by other companies, and should not be viewed as alternatives to measures of financial performance calculated in accordance with IFRS.

Non-IFRS measures included in this AIF include the following:

- "EBITDA" (previously named "Comparative EBITDA", the composition remains the same)
- "C1 cash cost"
- "All-in sustaining cost" or "AISC"
- "Deferred stripping costs capitalized"
- "Sustaining capital"
- "Project capital"
- "Net debt"

Refer to the section of the Company's management discussion and analysis ("MD&A") for the year ended December 31, 2022 entitled "Regulatory Disclosures", which is incorporated by reference in this AIF, for a description of the non-IFRS measures used by the Company and reconciliations of the non-IFRS measures to the most directly comparable financial measures defined under IFRS.

CORPORATE STRUCTURE

Name and Incorporation

First Quantum Minerals Ltd. ("First Quantum", "FQM" or the "Company") was incorporated under the *Company Act* (British Columbia) on December 21, 1983, under the name of Xenium Resources Ltd. The Company changed its name to Xenium Resources Inc. on January 25, 1984, to Zeal Capital Ltd. on November 29, 1989, and to First Quantum Ventures Ltd. on June 16, 1993. On July 18, 1996, the Company changed its name to its current name, First Quantum Minerals Ltd., and was continued into the Yukon Territory, pursuant to the provisions of the *Business Corporations Act* (Yukon). On June 7, 2002, the Company amalgamated with its wholly-owned subsidiary, First Quantum Minerals (Yukon) Ltd., pursuant to the provisions of the *Business Corporations Act* (Yukon). On August 11, 2003, the Company's jurisdiction of incorporation was continued from the Yukon Territory to the federal jurisdiction under the *Canada Business Corporations Act*. The Company was continued to the Province of British Columbia under the *Business Corporations Act* (British Columbia) (the "BCBCA") on June 3, 2005. On June 30, 2014, the Company amalgamated with its wholly-owned subsidiary, 1006197 B.C. Ltd. pursuant to the provisions of the BCBCA.

The address for the registered and records office of the Company is Suite 2600, Three Bentall Centre, 595 Burrard Street, P.O. Box 49314, Vancouver, BC V7X 1L3, Canada. The address for the head office of the Company is 330 Bay Street, Suite 1101, Toronto, Ontario, M5H 2S8, Canada. The Company also maintains corporate and administrative offices in London, Perth and Johannesburg.

Intercorporate Relationships

The following table illustrates the inter-corporate relationships between the Company and its material and certain other subsidiaries and sets out the respective jurisdictions of incorporation of such subsidiaries and the percentage of their voting securities owned, controlled or directed, directly or indirectly, by the Company.

As at March 28, 2023

Name of Subsidiary[(1)]	Percentage of Voting Securities Beneficially Owned, Controlled or Directed by the Company	Jurisdiction of Incorporation/Continuance
Kansanshi Mining PLC[(2)]	80%	Zambia
FQM Trident Limited	100%	Zambia
FQM Trading AG[(3)]	100%	Switzerland
Minera Panamá S.A.[(4)]	90%	Panamá

(1) Does not include certain immaterial subsidiaries whose total assets, as at the financial year ended December 31, 2022, do not exceed 10% of the consolidated assets of the Company individually (or 20% in the aggregate) and whose revenue, as at the financial year ended December 31, 2022, does not exceed 10% of the consolidated revenue of the Company individually (or 20% in the aggregate).

(2) The remaining 20% interest in Kansanshi Mining PLC is held by a subsidiary of ZCCM International Holdings PLC, which is controlled by the Government of the Republic of Zambia. See "Risk Factors – Operational Risk Factors – The Company holds one of its principal producing assets in Zambia jointly with the GRZ (as defined herein), whose interests may conflict with those of the Company".

(3) Metal Corp Trading AG changed its name to FQM Trading AG effective December 27, 2022

(4) Korea Mine Rehabilitation and Mineral Resources Corporation ("KOMIR") indirectly holds a 10% interest in Minera Panamá S.A. through its 50% ownership of Korea Panamá Mining Corp., a 50/50 joint venture between the Company and KOMIR that holds a 20% equity interest in Minera Panamá S.A. See "Risk Factors – Operational Risk Factors – Cobre Panamá is subject to the risks associated with joint venture projects".

GENERAL DEVELOPMENT OF THE BUSINESS

Overview

The Company is an international mining company which has grown through a combination of exploring, developing, operating, and acquiring mining projects or companies with interests in mining activities. The Company produces copper in concentrate, copper anode, copper cathode, nickel, gold, zinc, silver, cobalt, acid and pyrite. The Company's principal activities include mineral exploration, mine engineering and construction, and development and mining operations. A summary of its interests in and the locations of, the Company's operating projects and its development and exploration projects as at December 31, 2022 are set out below.

Operating Projects

Name of Project	Ownership Interest	Location	Material Property
Kansanshi	80%	Zambia	Yes
Cobre Panamá	90%	Panamá	Yes
Trident Project - Sentinel	100%	Zambia	Yes
Las Cruces	100%	Spain	No
Guelb Moghrein	100%	Mauritania	No
Çayeli	100%	Turkey	No
Ravensthorpe	70%	Australia	Yes
Pyhäsalmi	100%	Finland	No

Development and Exploration Projects

Name of Project	Ownership Interest	Location	Material Property
Trident Project - Enterprise	100%	Zambia	Yes
Taca Taca	100%	Argentina	Yes
Haquira	100%	Peru	No

The common shares of the Company (the "Common Shares") are listed and posted for trading on the Toronto Stock Exchange (the "TSX") under the symbol "FM". Equity options of the Company are listed for trading and trade on the Montreal Exchange under the root symbol "FM". In July 2011, the Company also listed Depository Receipts ("ZDR") in Zambia on the Lusaka Stock Exchange under the symbol "FQMZ". As of May 3, 2022, the Company terminated the Deposit Agreement, dated July 12, 2011, between the Company and the Bank of New York Mellon, as depositary for the ZDRs. As a result, the existing ZDR facility was terminated effective May 2, 2022 and the ZDRs were delisted from the Lusaka Stock Exchange.

As at December 31, 2022, the Company had 19,809 employees (on a full or part-time basis), in addition to 8,964 consultants and subcontractors.

Three Year History

The following is a summary of the general development of the Company's business over the last three financial years:

2020

On January 6, 2020 the Company announced that the board of directors of the Company (the "Board") had adopted an advance notice policy in order to provide shareholders, Directors and management of the Company with a clear framework with respect to the nomination of persons for election as Directors of the Company. At the same time, the Company implemented a shareholder rights plan agreement between itself and Computershare Investor Services Inc. as the rights agent. The Board determined it was in the best interests of the Company to adopt a shareholder rights plan to ensure, to the extent possible, that all shareholders of the Company were treated fairly in connection with any takeover bid for the Company. The shareholders rights plan and advance notice provisions were approved by shareholders on May 7, 2020.

On January 9, 2020, the Company announced an initial offering of an additional $300 million principal amount of Senior Notes due 2023 (the "Additional 2023 Notes"). The Additional 2023 Notes were offered under the same indenture as the Company's $1.1 billion of previously outstanding senior notes (the "Existing 2023 Notes"). The Additional 2023 Notes are senior unsecured obligations of the Company and are guaranteed by certain of the Company's subsidiaries. Interest on the Additional 2023 Notes accrues from October 1, 2019 and is payable semi-annually.

Also, on January 9, 2020, the Company announced that it had successfully completed the pricing of its tap issuance of $500 million aggregate principal amount of 7.25% Senior Notes due 2023 (the "2023 New Notes") and together with the Additional 2023 Notes and the Existing 2023 Notes (the "2023 Notes") and an additional tap issuance of $250 million aggregate principal amount of 7.50% Senior Notes due 2025 (the "2025 New Notes"). The original tap offering amount of $300 million was increased to $750 million. The issue price of the 2023 New Notes was 102.50% representing a yield to maturity of 6.373%. The issue price of the 2025 New Notes was 103.00%, representing a yield to maturity of 6.804%.

Interest on the 2025 New Notes accrues from October 1, 2019 at a rate of 7.50% per annum and is payable semi-annually. Settlement occurred on January 13, 2020. The Notes are senior unsecured obligations of the Company and guaranteed by certain of the Company's subsidiaries. The Company used the proceeds from the sale of the 2023 New Notes and the 2025 New Notes to fund the redemption of the remaining $300 million aggregate principal amount of Senior Notes due 2021 and repay (without cancelling) $450 million of amounts outstanding under the Company's revolving credit facility.

On March 30, 2020, the Company published a new NI 43-101 technical report on the Trident Project, comprised of the Sentinel operation and the Enterprise development project in the North West Province of Zambia.

Due to the COVID-19 global pandemic, on March 30, 2020, mining operations at Las Cruces were shut down following an order by the Spanish government, which designated mining as a non-essential operation. The plant continued to process the surface ore stockpile and resumed operations on April 13, 2020, following the end of the government-imposed shutdown of non-essential services on April 9, 2020. Production guidance for Las Cruces was unchanged as a result of the shutdown.

On April 6, 2020, the Ministry of Health of the Republic of Panamá ("MINSA") ordered the temporary suspension of labour activities at the Cobre Panamá operation, as a sanitary control measure due to COVID-19. The Company decided to place the Cobre Panamá operation onto preservation and safe maintenance from April 7, 2020, until MINSA were satisfied that the infection control conditions were appropriate. The heightened quarantine conditions required mining and processing operations to be halted. The port and power plant continued operations in order to supply essential electrical power into the Panamá national grid, and to sustain the preservation and safe maintenance activities. Production guidance for Cobre Panamá for 2020 was reduced

to between 210,000 and 235,000 tonnes of copper and to between 90,000 and 100,000 oz of gold. Market guidance for production at the other operations remained unchanged.

During April and May 2020, two high pressure acid leach circuits were commissioned at the Ravensthorpe operation. The first shipment of nickel was in May 2020, with a successive shipment in June. Nickel production for 2020 was 12,695 contained tonnes of nickel as operations continued to ramp up during the second half of 2020 in preparation of the Shoemaker Levy crusher and conveyor coming online. Full production at Ravensthorpe was achieved in the second half of 2021.

On July 7, 2020, the Company announced that Cobre Panamá could resume normal operations after being placed on preservation and safe maintenance following the temporary suspension of labour activities that had been imposed by MINSA in response to the COVID-19 pandemic. The temporary suspension orders at the operation were lifted on July 3, 2020. Operations successfully ramped up ahead of expectation in August. Copper production at Cobre Panamá was 21,733 tonnes for Q2, when the mine was operating under preservation and safe maintenance, compared to 30,896 tonnes of pre-commercial copper production in the comparable period in 2019.

On September 14, 2020 the Company published a new NI 43-101 technical report on the Kansanshi operations in the North West Province of Zambia. Since the filing of the previous technical report in 2015, the Company expanded drilling coverage across the Kansanshi deposits and had completed over 300 diamond drill holes and over 24,000 reverse circulation holes in four years. This resulted in 1.5 million metres of drilling and assay data providing the basis of a Mineral Resource update that underpins a potential expansion and upgrade to the processing facilities at Kansanshi. Updated Mineral Reserve and Resource estimates show an increase of 70% and 40%, respectively, over Mineral Reserves and Resources reported in the last update in May 2015 and extended the mine life to 24 years.

On September 17, 2020, the Company announced the offering and pricing of $1 billion 6.875% Senior Notes due 2027 the ("2027 Notes"). On the same day, the offering was upsized to $1.5 billion. Settlement occurred on October 1, 2020. Interest on the 2027 Notes accrues from October 1, 2020 at a rate of 6.875% per annum and is payable semi-annually. The 2027 Notes are part of the senior obligations of the Company and are guaranteed by certain subsidiaries of the Company. The Company used the proceeds from the sale of the 2027 Notes to fund the redemption in full of its outstanding 7.250% Senior Notes due 2022 (the "2022 Notes") and repay (but not cancel) the aggregate principal amount outstanding under the 2019 Facility.

On November 27, 2020, the Company partially repaid the unsecured term loan facility (the "FQM Trident Facility"). FQM Trident Limited ("FQM Trident") (formerly Kalumbila Minerals Limited), the owner of the Sentinel copper mine, signed the FQM Trident Facility on February 5, 2018, with an initial termination date of December 31, 2020 (with the right of FQM Trident to request an extension of one or two years subject to lender consent). The Trident Facility was upsized to $400 million in March 2018 in accordance with the accordion feature of the facility agreement. Repayments on the Trident Facility of $57 million were made in each of December 2019 and June 2020. The Trident Facility was partly repaid on November 27, 2020 and a reduced commitment of $111 million was agreed to, with consent from the remaining lenders to extend the loan for one year, to December 31, 2021. FQM Trident had the right to request an extension of one further year, subject to lender consent.

On November 30, 2020, the Company published a new NI 43-101 technical report on the advanced exploration project, Taca Taca, located in the Salta province of northwest Argentina. The report documented an updated Mineral Resource model and a significant maiden Mineral Reserve estimate derived from an open pit mine design and plan which contemplates processing throughput of up to 60 million tonnes per annum through a conventional flotation circuit with a mine life of approximately 32 years. The update increased the Company's total Mineral Reserves to over 29 million tonnes of contained copper which is the fifth-largest copper reserve base globally, and substantially increased the geographic diversification of the Company's copper reserves. A decision to proceed with the construction of Taca Taca is not expected until sometime in 2023 or 2024.

On December 21, 2020, the Company announced changes to its senior management team; as of January 1, 2021, Mr Tristan Pascall was appointed Chief Operating Officer ("COO") and Mr. Clive Newall, co-founder of the Company, transitioned from executive director to director.

2021

On March 29, 2021, the Company published an amended and restated NI 43-101 technical report for the Company's Taca Taca development project.

On May 19, 2021, the Company announced that it had entered into a binding agreement to sell a 30% equity interest in the Ravensthorpe Nickel Operation ("Ravensthorpe") in Western Australia for cash consideration of $240 million to POSCO, one of the world's largest steel producers. The Company retained a 70% interest in Ravensthorpe and continues to be the operator. The proceeds of the sale were used to reduce the Company's debt. In addition to the transaction, POSCO and First Quantum also agreed to evaluate a strategic partnership to produce battery precursor materials from production at Ravensthorpe.

On October 14, 2021, the Company announced that it had signed a new $2.925 billion term loan and revolving credit facility (the "Facility"). This new Facility replaced the Company's previous $2.7 billion term loan and revolving credit facility (the "Previous Facility") which was due to mature in December 2022. The Facility is comprised of a $1.625 billion term loan facility and a $1.3 billion revolving credit facility, matures in 2025 and is syndicated to a group of long-standing relationship banks of First Quantum. As at December 31, 2021, the Company had a balance of $2.17 billion drawn on the Facility. The Facility was used to fully prepay and cancel amounts outstanding on the existing facility to fully prepay and cancel a bilateral bank facility for $175 million and for general corporate purposes. Repayments on the term loan commenced in December 2022. The Facility has a single Net debt to EBITDA ratio covenant set at 3.5 times over the Facility term. For further details, see "*Long-Term Debt - First Quantum Minerals Ltd. senior debt facility*".

The refinancing extends the debt maturity profile of the business and removes all material debt maturities through to April 2023. In addition, the refinancing provides additional liquidity headroom and continues management's practice of proactively addressing debt maturities, and further demonstrates the Company's access to a diverse range of funding sources. The refinancing includes improved financial terms and reduced financial covenants, an extended amortization schedule for the Term Loan Facility that began in December 2022 and improves the financial flexibility of the Company through the added liquidity.

On November 15, 2021, the Company announced that the Board would appoint Tristan Pascall, the Company's COO, to the role of Chief Executive Officer ("CEO"). The appointment took effect at the conclusion of the Annual General Meeting of shareholders held on May 5, 2022, (the "2022 AGM") at which time Philip Pascall, the Company's previous Chairman and CEO, retired from the CEO role but continued to serve as Chairman of the Board. Tristan Pascall was nominated for and elected as a director at the 2022 AGM.

On November 30, 2021, the Company announced that it had issued a notice of partial redemption for $600 million of its outstanding 7.250% Senior Notes due April 2023 (the "2023 Notes") for December 7, 2021 (the "Redemption Date"). On December 7, 2021 the Company redeemed $600 million aggregate principal amount of the 2023 Notes. The portion of the outstanding 2023 Notes redeemed on December 7, 2021 was allocated on a lottery drawing basis at a redemption price (the "Redemption Price") of 101.813% of the principal amount thereof, plus accrued and unpaid interest.

On December 15, 2021, FQM Trident requested, and the lenders under the FQM Trident Facility consented to, an extension of the due date of the FQM Trident Facility to December 31, 2022. The full amount of the principal amount outstanding under the FQM Trident Facility was due by December 31, 2022 and was repaid in two tranches, in June 2022 and in December 2022.

2022

On January 17, 2022, the Company published an updated NI 43-101 technical report for the Company's Cobre Las Cruces project.

Also on January 17, 2022 the Company adopted a new dividend policy (the "Dividend Policy"). Pursuant to the Dividend Policy, the Company intends to pay, on a semi-annual basis, a performance dividend (the "Performance Dividend") that represents, in the aggregate, 15% of available cash flows generated after planned capital spending and distributions to non-controlling interests. It is expected that a minimum annual base dividend (the "Annual Base Dividend") of C$0.10 per Common Share consisting of semi-annual dividends of C$0.05 per Common Share will be part of the Performance Dividend. Dividend payments remain at the discretion of the Board. For further details, see "*Dividends*".

On March 25, 2022, the Company announced that it had issued a notice of partial redemption for $500 million of its outstanding 7.250% Senior Notes due April 2023 (the "2023 Notes") which partial redemption was completed on April 5, 2022. The portion of the outstanding 2023 Notes was redeemed on a lottery drawing basis at a redemption price of 100.000% of the principal amount thereof, plus accrued and unpaid interest.

On March 28, 2022, the Company published an updated NI 43-101 technical report for the Ravensthorpe Nickel Operations ("RNO") in Western Australia. The purpose of this Technical Report was to incorporate updates that reflect the recently completed Mineral Resource and Mineral Reserve estimates and to provide commentary on the status of operations, including recent development work being undertaken to bring the Shoemaker-Levy open pit mine into full production.

On May 5, 2022, the Company announced that the Board of Directors had appointed Tristan Pascall to the role of CEO. The appointment came into effect at the conclusion of the 2022 AGM following his election as a Director of the Company. On the same date, the Company also announced the election of Alison Beckett as an independent director and that Mr. Clive Newall had retired from the Board.

On May 8, 2022, the Company announced that the Board of Directors had approved the S3 Expansion at the Kansanshi mine and the Enterprise nickel project. Work on both projects started immediately. The Company re-commenced detailed engineering works for the S3 Expansion to determine purchase orders for key long-lead items, including the semi-autogeneous ("SAG") mill, ball mill and in-pit crushing station. A mining contractor was mobilized for the Enterprise nickel project in order to commence pre-stripping of the pit in June 2022. The development timeline and capital commitments of both projects remained consistent with the three-year guidance provided by the Company on January 17, 2022. Furthermore, First Quantum and the Government of Zambia successfully resolved all points of contention which had prevented progress on the S3 Expansion and Enterprise nickel project. This includes reaching agreement in respect to the outstanding value-added tax receivable sum and an approach for repayment based on offsets against future mining taxes and royalties. The agreement reached with the Government of the Republic of Zambia ("GRZ") for repayment of the outstanding VAT claims is based on offsets against future corporate income tax and mineral royalty tax payments commencing July 1, 2022. The agreement effectively settled a dispute between the Zambia Revenue Authority ("ZRA") and the Company in respect of VAT refunds related to periods up to February 2015. VAT refunds had been withheld in Zambia as a result of the application of discretionary VAT rules established and applied by the Commissioner General relating to exports from Zambia.

On May 27, 2022, the Company announced that it had issued a further notice of redemption for its 2023 Notes which was completed on June 7, 2022. The 2023 Notes were redeemed in full at a redemption price of 100.000% of the principal amount thereof, plus accrued and unpaid interest.

On September 1, 2022, the Company announced the appointment of Ryan MacWilliam as Chief Financial Officer ("CFO") and Rudi Badenhorst as COO, with immediate effect.

On December 1, 2022, the Company announced that it had agreed with its partner, ZCCM Investments Holdings Plc ("ZCCM-IH"), to convert ZCCM-IH's dividend rights to a 3.1% revenue royalty over the Kansanshi Project. Completion of this transaction is expected during the first half of 2023.

On December 15 and December 16, 2022 the Company provided updates on the status of its negotiations with the Government of Panamá on a framework governing the operation of the Cobre Panamá mine by its subsidiary Minera Panamá, S.A. ("MPSA"). The Government of Panamá and MPSA were unable to reach an agreement by the December 14, 2022 deadline imposed by the government.

On December 28, 2022, the Company provided a further update on the latest developments regarding the Cobre Panamá mine reporting that formal discussions between First Quantum, MPSA and the Government of Panamá resumed on December 26, 2022 regarding the long-term future of the Cobre Panamá mine. These discussions and negotiations continued until early March 2023. On December 28, 2022, the Company also announced that MPSA had received notification from the National Directorate of Mineral Resources of the Ministry of Commerce and Industries ("MICI") on December 21, 2022 of a resolution requiring MPSA to submit a plan within 10 working days of such notification to suspend commercial operations at Cobre Panamá and put the mine under "care and maintenance." The operations continued as normal at that time, and the Company announced that it was working through steps to respond to the resolution and the impact and timing of the resolution remained uncertain.

Recent Developments

On February 6, 2023, the Company announced that copper concentrate loading operations at the Cobre Panamá port, Punta Rincón, had been suspended due to a resolution issued by the Panamá Maritime Authority ("AMP") requiring the recalibration and certification by an accredited company of a scale used at the port. MPSA submitted the required certifications, however copper concentrate loading operations remained halted due to the resolution.

On February 23, 2023, the Company announced that MPSA had suspended ore processing operations at Cobre Panamá. The suspension was the result of the AMP's continued refusal to permit copper concentrate loading operations at Punta Pincón. As a result of the suspension, MPSA undertook a partial demobilisation of its workforce, with a systematic approach to reducing operations aimed at ensuring the safety of its workforce, preventing damage and degradation of equipment and preserving the integrity of the mine.

On March 8, 2023, the Company announced that MPSA had agreed and finalized the draft of a refreshed concession contract (the "Proposed Concession Contract") with the Government of Panamá for the Cobre Panamá mine. The Proposed Concession Contract meets the objectives outlined by the Government of Panamá in January 2022 related to government revenues, environmental protections and labour standards. It also provides legal protections necessary to both parties to ensure durability and stability. On the same day, the AMP lifted the suspension of copper concentrate loading operations at the port, and ship loading and ore processing resumed at Cobre Panamá.

The Proposed Concession Contract is subject to a 30-day public consultation process and approvals by the Panamánian Cabinet, Comptroller General of the Republic and the National Assembly. The Proposed Concession Contract will have an initial 20-year term, with a 20-year extension option and possible additional extensions for the life of mine.

On February 14, 2023, the Company announced that it intended to issue a notice of partial redemption on February 15, 2023 for $450 million of its outstanding 6.500% Senior Notes due March 2024 (the "2024 Notes") to be redeemed on February 25, 2023. The portion of the outstanding 2024 Notes were redeemed on a lottery drawing basis at a redemption price of 100.000% of the principal amount thereof, plus accrued and unpaid interest.

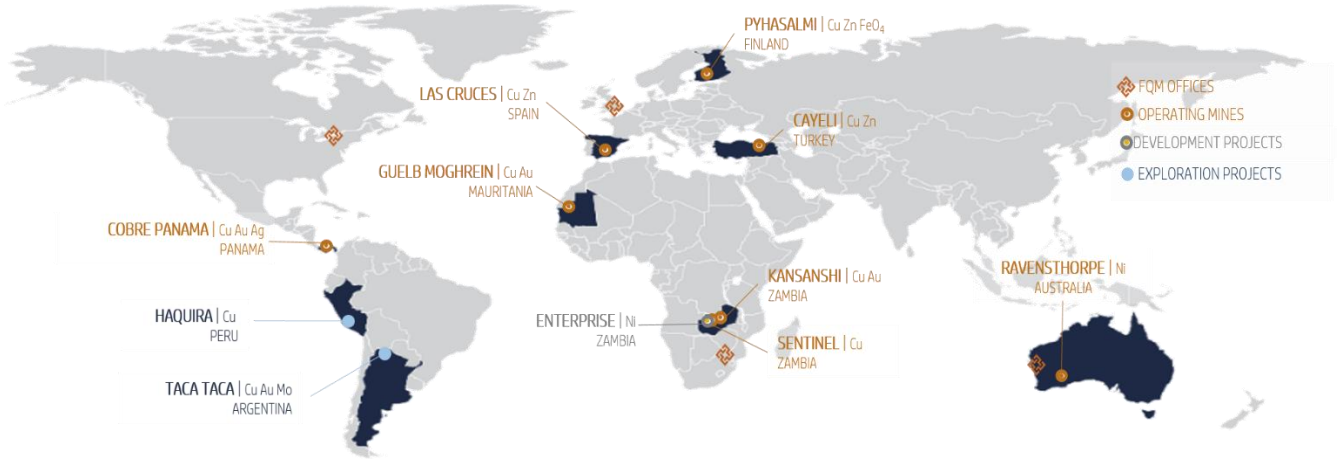
On March 17, 2023, the Company announced that it intended to issue a notice of redemption on March 17, 2023 for the remaining $400 million outstanding 2024 Notes to be redeemed on March 28, 2023. The 2024

Notes will be redeemed in full at a redemption price of 100.000% of the principal amount thereof, plus accrued and unpaid interest.

DESCRIPTION OF THE BUSINESS

Geographic Locations of Company Operations, Development and Advanced Exploration Projects

The Company's operations are located entirely outside of Canada and are currently located in Zambia, Panamá, Mauritania, Finland, Australia, Turkey and Spain. The Company also has advanced exploration projects in Argentina and Peru.



What we produce

Copper

The Company's primary product is copper. The Company produces and markets copper in various forms, including in concentrate form (from the Kansanshi, Sentinel, Cobre Panamá, Guelb Moghrein and Çayeli mines), blister and anode form (from the Kansanshi smelter) and cathode form (from the Kansanshi and Las Cruces mines). In 2022, the Company produced 775,859 tonnes of copper.

Copper has a wide range of applications because of its many useful properties, particularly, its excellent thermal and electrical conductivities, malleability and high resistance to corrosion. Copper is used widely in many different industrial applications, including in construction, in the generation and transmission of electricity, in the production of consumer electronics such as televisions, radios, lighting, computers and mobile phones, in the transport sector, and in the production of industrial machinery.

Within the construction sector, copper is used widely, in the formation of electrical networks (wiring), in plumbing applications and in many heating and cooling systems (tubing), and also to create telecommunication networks and connections.

Copper is used in the generation and transmission of electricity to consumers. As the transition of electricity generation from renewable sources continues to gain pace, the use of copper is expected to increase as electricity generation from most renewable sources, notably wind and solar power, is more copper intensive than thermal electric power generation. The increased network for connecting disperse locations of renewable electricity generating facilities will also lead to increased demand for copper.

In the transportation sector, copper is a vital component in the fabrication of vehicles and various supporting infrastructure for electric vehicles. Copper is used in the production of motor windings, in wiring throughout the vehicle and in some cooling functions. With the accelerating transition to electric vehicles, copper usage is

expected to intensify as copper usage per electric vehicle is approximately 4 times higher than that of an internal combustion engine vehicle, and the additional electrical network and charging infrastructure required for the charging of electric vehicles is expected to lead to an increase in the demand for copper from within this sector.

Copper is traded on many different exchanges, the most prominent of which are the London Metals Exchange ("LME"), Commodity Exchange ("COMEX"), New York Commodity Exchange ("NYMEX") and Shanghai Futures Exchange ("SHFE"). The LME copper cash settlement price decreased from US$4.38 per lb at the beginning of January 2022 to US$3.80 per lb at the end of December 2022, representing a decrease of 13% over the year (copper reached an annual high of US$4.87 per lb on March 7, 2022 and registered an annual low of US$3.18 per lb on July 15, 2022). Overall, the average copper price in 2022 was 6% lower than in 2021.

The price of copper is primarily determined by changes in supply and demand, which are in turn affected and determined by global economic conditions. In recent years, Asian countries, especially China, India, Vietnam and Thailand, have accounted for the majority of the increase in global demand for refined copper. Going forward the demand for copper is expected to be more balanced as policies that support green energy and sustainability are expected to be passed in both Asian and Western countries.

Nickel

Nickel is valued for its resistance to corrosion, propensity to form alloys, and battery-chemical properties. It is utilized in numerous industrial applications. The most prevalent use is in the production of stainless steel, accounting for approximately 64% of first-time nickel use. The accelerated development and increasing rates of adoption of electric vehicles over the next few years should contribute to higher consumption of nickel from within the battery sector. Nickel is used widely in various alloys, and also for plating and as a green tint in some types of glass.

The Company produces and markets a nickel and cobalt intermediate product, Mixed Hydroxide Precipitate ("MHP") from its Ravensthorpe Nickel Operation which is predominantly used for the production of battery precursor products. In 2022, the Company produced 21,529 contained tonnes of nickel. The Company's Enterprise Nickel Project will begin producing a nickel-sulphide concentrate in 2023.

Like copper, nickel is also traded on many different exchanges, with the most prominent being the LME, NYMEX and SHFE. LME nickel price quotations were subject to increased volatility during the year. The LME nickel cash settlement price increased from $9.40 per lb at the beginning of January 2022 to US$13.80 per lb at the end of December 2022, representing an increase of 18.9% over the year (an annual high of US$19.50 per lb was set on March 7, 2022, while an annual low of US$8.66 per lb, was set on July 15, 2022). Overall, the average nickel price in 2022 was 38% higher than in 2021.

Gold

Gold is a precious metal with a universal demand; while its most prominent demand is within the jewelry industry (which is responsible for approximately 51% of global demand), it is utilized widely as an investment asset (this accounts for approximately 28% of demand), in the technology sector (approximately 8%) and also bought and held by Central Banks (13%), according to the World Gold Council (based on 10-year average demand estimates).

The Company produces gold at its Kansanshi, Guelb Moghrein and Cobre Panamá operations. In 2022, the Company produced 283,226 ounces of gold.

Gold is the most ductile metal and is a good conductor of heat and electricity. It is used in computers, telecommunication, digital technology, and has important applications for space exploration.

While gold is traded on many different markets around the world, the London Bullion Market Association ("LBMA") publishes prices that are widely accepted as being benchmark, and as a result, are widely used. The LBMA gold price increased, albeit very slightly, from US$1,809 per troy ounce at the beginning of January 2022

to US$1,812 per troy ounce at the end of December 2022, effectively closing at the same value as at the beginning of the year. Gold reached an annual high of US$2,039 per troy ounce on March 8, 2022, and an annual low of US$1,618 per troy ounce on September 29, 2022. Overall, the average price for gold in 2022 (US$1,800 per troy ounce) was a fraction higher (<0.1%) higher than in 2021.

Zinc

Zinc is used widely in many industrial, chemical and other applications. The majority (approximately 75%) of zinc is used in metal form, mainly in the galvanizing of iron and steel (a process that protects the iron or steel from corrosion), and also as an alloy (especially brass, bronze and zinc-based die casting alloys) and as rolled zinc. Of this, approximately 60% is used in the galvanization of steel, with the balance used in the manufacture of brass, bronze, and other zinc-based alloys, and other applications.

The remaining (25%) non-metal applications for zinc would include use in the rubber, chemical, paint and agricultural industries.

The Company's Çayeli and Pyhäsalmi operations produce zinc concentrates, although output has decreased significantly in recent years as these mines near their ends of life. In 2022, the Company produced 4,000 tonnes of zinc.

Like copper and nickel, zinc is also traded on many different exchanges, with the most prominent being the London Metal Exchange, NYMEX and SHFE. The LME zinc cash settlement price decreased from US$1.63 per lb at the beginning of January 2022 to US$1.37 per pound at the end of December 2022, representing a decrease of 16% over the year (an annual high of US$2.05 per lb, was set on April 19, 2022, while an annual low of US$1.22 per pound, was set on November 3, 2022). Overall, the average cash settlement price for zinc in 2022 was 16% higher than in 2022.

Metals Market Overview 2022

Year Ending	Copper ($/lb)			Nickel ($/lb)			Zinc ($/lb)			Gold ($/ tr. Oz.)		
Dec-31	2022	2021	2020	2022	2021	2020	2022	2021	2020	2022	2021	2020
Average	3.99	4.23	2.80	11.61	8.39	6.25	1.58	1.36	1.03	1,800	1,799	1,771
Opening	4.38	3.59	2.80	9.40	7.87	6.38	1.63	1.26	1.04	1,809	1,931	1,521
Closing	3.80	4.40	3.51	13.80	9.49	7.50	1.37	1.65	1.24	1,812	1,820	1,891
Minimum	3.18	3.52	2.09	8.66	7.22	5.01	1.22	1.15	0.80	1,618	1,684	1,472
Maximum	4.87	4.86	3.61	19.50	9.59	8.01	2.05	1.73	1.29	2,039	1,957	2,067

Operations

Information on production forecasts for each of the Company's producing divisions (Kansanshi, Sentinel, Cobre Panamá, Las Cruces, Guelb Moghrein, Ravensthorpe, Çayeli and Pyhäsalmi) is contained under "Outlook" in the Company's MD&A for the year ended December 31, 2022, which is available for review on SEDAR at www.sedar.com. **Summary of Mineral Resources and Reserves**

				Mineral Resources											
				Measured				Indicated				Total Measured and Indicated			
Mine	Country	Ownership	Metal(s)	Tonnes (Mt)	Cu (%)	Au (g/t)	Ni (%)	Tonnes (Mt)	Cu (%)	Au (g/t)	Ni (%)	Tonnes (Mt)	Cu (%)	Au (g/t)	Ni (%)
Operational															
Kansanshi	Zambia	80%	Copper-Gold	227.1	0.68	0.11	-	777.9	0.60	0.11	-	1,005.0	0.62	0.11	-
Sentinel	Zambia	100%	Copper	471.2	0.47	-	-	333.5	0.38	-	-	804.8	0.44	-	-
Cobre Panamá	Panama	90%	Copper-Gold-Silver-Molybdenum	129.1	0.57	0.14	-	3,246.6	0.36	0.06	-	3,375.6	0.37	0.07	-
Las Cruces	Spain	100%	Copper	19.2	1.49	-	-	25.7	1.10	0.27	-	44.9	1.27	0.15	-
Guelb Moghrein	Mauritania	100%	Copper-Gold	14.9	0.96	0.92	-	8.3	0.87	0.64	-	23.2	0.93	0.82	-
Ravensthorpe	Australia	100%	Nickel-Cobalt	116.7	-	-	0.58	119.4	-	-	0.55	236.1	-	-	0.56
Çayeli	Turkey	100%	Copper-Zinc-Gold	8.2	2.28	0.33	-	2.7	2.08	0.46	-	10.9	2.23	0.36	-
Pyhäsalmi	Finland	100%	Copper-Zinc Pyrite	-	-	-	-	-	-	-	-	-	-	-	-
Development and Exploration															
Enterprise	Zambia	100%	Nickel	9.1	-	-	1.40	28.4	-	-	0.91	37.5	-	-	1.03
Taca Taca	Argentina	100%	Copper-Gold-Molybdenum	421.5	0.60	0.14	-	1,781.8	0.39	0.07	-	2,203.3	0.43	0.08	-
Haquira	Peru	100%	Copper	132.6	0.53	0.02	-	571.1	0.50	0.03	-	703.7	0.51	0.03	-

				Mineral Resources				
				Inferred				
Mine	Country	Ownership	Metal(s)	Tonnes (Mt)	Cu (%)	Au (g/t)	Ni (%)	
Operational								
Kansanshi	Zambia	80%	Copper-Gold	166.5	0.58	0.11	-	
Sentinel	Zambia	100%	Copper	62.2	0.36	-	-	
Cobre Panamá	Panama	90%	Copper-Gold-Silver-Molybdenum	1,087.3	0.26	0.04	-	
Las Cruces	Spain	100%	Copper	7.1	1.23	-	-	
Guelb Moghrein	Mauritania	100%	Copper-Gold	1.8	0.80	1.89	-	
Ravensthorpe	Australia	100%	Nickel-Cobalt	68.2	-	-	0.52	
Çayeli	Turkey	100%	Copper-Zinc	0.8	2.55	-	-	
Pyhäsalmi	Finland	100%	Copper-Zinc Pyrite	-	-	-	-	
Development and Exploration								
Enterprise	Zambia	100%	Nickel	9.3	-	-	0.71	
Taca Taca	Argentina	100%	Copper-Gold-Molybdenum	716.9	0.31	0.05	-	
Haquira	Peru	100%	Copper	683.9	0.40	0.02	-	

				Mineral Reserves											
				Proven				Probable				Total Proven and Probable			
Mine	Country	Ownership	Metal(s)	Tonnes (Mt)	Cu (%)	Au (g/t)	Ni (%)	Tonnes (Mt)	Cu (%)	Au (g/t)	Ni (%)	Tonnes (Mt)	Cu (%)	Au (g/t)	Ni (%)
Operational															
Kansanshi	Zambia	80%	Copper-Gold	222.5	0.65	0.11	-	683.6	0.56	0.10	-	906.1	0.59	0.10	-
Sentinel	Zambia	100%	Copper	424.4	0.48	-	-	276.3	0.38	-	-	700.7	0.44	-	-
Cobre Panamá	Panama	90%	Copper-Gold-Silver-Molybdenum	126.1	0.55	0.14	-	2,717.5	0.37	0.07	-	2,843.6	0.38	0.07	-
Guelb Moghrein	Mauritania	100%	Copper-Gold	3.3	0.57	0.56	-	0.2	0.80	0.58	-	3.5	0.59	0.56	-
Ravensthorpe	Australia	100%	Nickel-Cobalt	103.6	-	-	0.48	85.9	-	-	0.56	189.6	-	-	0.51
Çayeli	Turkey	100%	Copper-Zinc	1.4	2.32	0.30	-	1.2	2.32	0.24	-	2.6	2.32	0.27	-
Pyhäsalmi	Finland	100%	Copper-Zinc Pyrite	-	-	-	-	-	-	-	-	-	-	-	-
Development and Exploration															
Enterprise	Zambia	100%	Nickel	9.5	-	-	1.27	25.1	-	-	0.89	34.6	-	-	0.99
Taca Taca	Argentina	100%	Copper-Gold-Molybdenum	408.3	0.59	0.13	-	1,350.2	0.39	0.08	-	1,758.5	0.44	0.09	-

1. Mineral reserves and mineral resources have been estimated as at December 31, 2022 (unless otherwise noted) in accordance with National Instrument 43-101 as required by Canadian securities regulatory authorities.
2. Mineral resources disclosed by the Company in this AIF have been classified as measured, indicated and inferred in accordance with the Standards on Mineral Resources and Reserves of the Canadian Institute of Mining, Metallurgy and Petroleum (the CIM Guidelines, 2014).

3. Mineral resources that are not mineral reserves do not have to demonstrate economic viability. Mineral resources are subject to infill drilling, permitting, mine planning, mining dilution and recovery losses, among other things, to be converted into mineral reserves. Due to the uncertainty associated with inferred mineral resources, it cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to indicated or measured mineral resources, including as a result of continued exploration.
4. Except as otherwise set out in this AIF, scientific and technical information in this AIF relating to the Company's properties and development projects has been reviewed, approved and verified on behalf of the Company by John Gregory, Group Consultant, Mining, of the Company and a qualified person ("QP") under NI 43-101.
5. Grade represents an average, weighted by reference to tonnes of mineralization where several recovery processes apply.
6. All measured and indicated mineral resource estimates of grade and all proven and probable mineral reserve estimates of grade for Cu %, Ni % and Au g/t are reported to two decimal places.
7. Measured mineral resources are shown inclusive of proven mineral reserves.
8. Indicated mineral resources are shown inclusive of probable mineral reserves.
9. Totals include mineral resources and mineral reserves contained in stockpiles.
10. Totals may not sum due to rounding.
11. Drill samples collected for use in geological modelling and mineral resource estimation are under the direct supervision of the Company's geology department. Sample preparation and analyses are conducted by the Company and by independent laboratories. All drill hole collar, survey and assay information used in modelling and resource estimation are verified and approved by staff geologists prior to entry into the mine-wide database. The quality assurance procedures and assay protocols used in connection with drilling and sampling on each property conform to industry-accepted quality control methods.
12. Mineral Resources at Kansanshi are based upon a 0.2% TCu cut-off grade.
13. Mineral Reserves at Kansanshi are based on $3.00/lb Cu and $1,200/oz gold and reflect a 7.5% Zambian royalty.
14. Mineral Resources at Las Cruces are based upon a 1% TCu and CuEq cut-off grade.
15. Mineral Resources at Guelb Moghrein are based upon a 0.5% TCu and CuEq cut-off grade.
16. Mineral Reserves at Guelb Moghrein are based on $3.00/lb Cu and $1,200/oz gold.
17. Mineral Resources at Ravensthorpe are based upon a 0.3% Ni cut-off grade.
18. Mineral Reserves at Ravensthorpe are based on a 0.3% Ni cut-off grade.
19. Mineral Resources at Sentinel are based upon a 0.13% TCu cut-off grade.
20. Mineral Reserves at Sentinel are based on $3.00/lb Cu and a 7.5% Zambian royalty.
21. Mineral Resources at Pyhäsalmi are reported within the geological limits of the massive sulphides.
22. Mineral Reserves at Pyhäsalmi are based on $3.75/lb Cu and $1.10/lb Zn.
23. Mineral Resources at Çayeli are based upon a $55 NSR value cut-off.
24. Mineral Reserves at Çayeli are based on $55 NSR value cut-off.
25. Mineral Resources at Cobre Panamá are based upon a 0.15% TCu cut-off grade
26. Mineral Reserves at Cobre Panamá are based on $3.00/lb Cu, $13.50/lb Mo, $1,200/oz gold and $16.00/oz silver.
27. Mineral Resources at Taca Taca are based upon a 0.13% CuEq cut-off grade.
28. Mineral Reserves at Taca Taca are based upon $3.00/lb Cu, $12.00/lb Mo, and $1,200/oz gold.
29. Mineral Resources at Enterprise are based upon a 0.15% Ni cut-off grade.
30. Mineral Reserves at Enterprise are based on $7.50/lb Ni.
31. Mineral Resources at Haquira are based upon a 0.2% TCu cut-off grade.

Kansanshi

The information on Kansanshi contained in this AIF is based in part on a Technical Report: "Kansanshi Operations, North West Province, Zambia, NI 43-101 Technical Report" dated as of September 14, 2020 ("the Kansanshi Technical Report") reviewed by J. Gregory (QP) BSc (Hons) Min.Eng., IMMM, CEng., MAusIMM, ARSM and prepared by David Gray (QP) BSc (Hons, Geology), MAusIMM, FAIG, Group Mine and Resource Geologist, FQM (Australia) Pty Ltd., Michael Lawlor (QP) BEng Hons (Mining), MEngSc, FAusIMM, Consultant Mining Engineer, FQM (Australia) Pty Ltd, and Andrew Briggs (QP) BSc(Eng), ARSM, FSAIMM, Group Consultant Metallurgist, FQM (Australia) Pty Ltd of the Company in accordance with the requirements of NI 43-101. All are Qualified Persons under NI 43-101 and have verified the data. The Kansanshi Technical Report is available for review on SEDAR under the Company's profile. Information in this AIF of a scientific or technical nature relating to Kansanshi and arising since the date of the Kansanshi Technical Report has been prepared under the supervision of John Gregory of the Company, who is a "qualified person" under NI 43-101.

History

Kansanshi is the site of one of the oldest copper mines in Zambia and dates back to the fourth century A.D. It has been mined intermittently since that time by various parties including Zambia Consolidated Copper Mines ("ZCCM") which, in 1969, approved the development of an open pit mine to treat high-grade oxide ore. In 1998, ZCCM formally ceased operations at Kansanshi and initiated closure and reclamation activities.

Subsequently, Cyprus Amax Minerals Corporation ("Cyprus Amax") acquired a majority of the ownership of surface leases and selected assets associated with Kansanshi from ZCCM and the GRZ. After completion of metallurgical test work and a feasibility study to determine the potential for a 124,000 tonnes per annum copper production site, Cyprus Amax was acquired by Phelps Dodge Corporation in 1999.

The Company purchased its 80% interest in Kansanshi from Cyprus Amax in August of 2001. Payment by the Company consisted of an initial payment of $2.5 million in cash, together with the issuance of 1.4 million Common Shares in the Company. The market value of the 1.4 million Common Shares was determined 30 days after the commencement of commercial production at Kansanshi and the difference between the value established and $25 million was paid as an additional cash payment to Cyprus Amax. A further amount of $2 million was paid to a subsidiary of ZCCM, namely ZCCM-IH which continues to hold a 20% interest in Kansanshi. The Company also agreed to pay a further $4 million to ZCCM when a decision was reached to proceed with the project. Commercial production at Kansanshi was achieved in April of 2005.

See "Three Year History", "Risk Factors - Geographical/Political Risk Factors - The Company currently derives almost half of its revenue from two operating assets located in Zambia/The Company's operations across several different countries subject it to various political, economic, legal, regulatory and other risks and uncertainties that could negatively impact its operations and financial condition, "Risk Factors – Geographical/Political Risk Factors – The Company is subject to taxation risk" and "Legal Proceedings – Kansanshi Development Agreement".

Geological Setting and Mineralization

The Kansanshi deposit is located in the "Domes Region" of the North-Western Province of Zambia and is hosted within the Katangan Supergroup sediments of the Central African Copper belt ("CAC"). The Kansanshi mine sequence is thought to be recumbently folded Katangan-aged metasediments with a pronounced NW-SE trending antiformal structure, known as the Kansanshi Antiform. Along the strike of the Kansanshi Antiform, re-folding has occurred creating doubly-plunging, domed structures along its crest. It is within these domed structures that the three major ore bodies (NW Pit, Main Pit and SE Dome) of the Kansanshi Mining License are located.

Mineralization within the domed structures at Kansanshi is strongly influenced by structural deformation including dome geometry and proximity to the antiform axis. Mineralization occurs within veins, select lithologies (strata-bound) and occasional fault breccia zones. The styles of mineralization are mainly oxide, secondary sulphide and primary sulphide with distinct zones of mixed oxide and sulphides.

Primary copper sulphide mineralization is dominated by chalcopyrite, with very minor bornite, accompanied by relatively minor pyrite and pyrrhotite. Oxide mineralization is dominated by chrysocolla with malachite, limonite and cupriferous goethite. The mixed zone includes both oxide and primary mineralization but also carries significant chalcocite, minor native copper and tenorite. Some copper appears to be carried in clay and mica minerals, where it is essentially refractory.

Project Description, Location and Access

Kansanshi is located approximately 10 kilometres north of the town of Solwezi, the capital of the Northwestern Province in Zambia, and 18 kilometres south of the border with the Democratic Republic of the Congo. The Solwezi district of Zambia has an estimated population of 330,000, the majority of whom live in rural areas surrounding Solwezi. Chingola, a town located in the Zambian portion of the Copperbelt, is approximately 180 kilometres to the southeast of Kansanshi.

The climate at Kansanshi is temperate humid, with average annual precipitation of approximately 1,400 millimetres. Kansanshi is situated at an elevation of 1,460 metres above sea level. Vegetation includes a mixture of open savannah grassland, tropical dry forest, savannah and marsh.

As a result of the efforts of the Company and others, Kansanshi has access to infrastructure (such as power, water and waste disposal areas) for its operations.

Ownership

The Company has an 80% interest in Kansanshi which it holds through a subsidiary, KMP. The remaining 20% is owned by ZCCM-IH.

In December 2022, an agreement was entered into between KMP and ZCCM-IH to convert ZCCM-IH's dividend rights in KMP into royalty rights. ZCCM-IH will continue to be represented on the KMP Board to ensure full visibility and transparency in respect to KMP's future operations. Completion of this transaction is expected during the first half of 2023.

Rights and Licenses

All surface rights necessary to develop and operate the project have been obtained and include six leases governing in excess of 9,500 hectares, which secure access to active mining areas. The right to mine is governed by a large-scale mining license initially granted in March 1997, which had a term of 25 years. This license was renewed in February 2021 for a further 25 years. It allows for the exploration and mining of copper and various other minerals and applies to an area of approximately 27,337 hectares.

Kansanshi holds all necessary Zambian permits required to conduct its operations and was materially compliant in 2022.

Fiscal regime

In the first half of 2022, the Company and the GRZ have successfully reached an agreement in respect to the outstanding value-added tax receivable sum and an approach for repayment based on offsets against future mining taxes and royalties, which commenced on July 1, 2022.

During 2022 the Company was subject to corporate income tax in Zambia at a fixed rate of 30% of taxable earnings from mining activities and mineral royalty taxes of between 5.5% - 10% (dependent on copper prices) on gross monthly sales. The 2023 Zambian National Budget, announced on September 30, 2022, included a restructuring of the mineral royalty tax regime including an amended to the calculation of mineral royalty tax to be on an incremental basis and revised mineral royalty tax bands of 4%-10% dependent on copper prices. This change was effective from enacted January 1, 2023.

Through its Zambian subsidiary, the Company has a development agreement (the "Kansanshi Development Agreement") with the GRZ that, in the Company's view, provided for stability of certain elements of the fiscal regime. The GRZ purported to unilaterally terminate the Kansanshi Development Agreement in 2008. Since the purported termination of the Kansanshi Development Agreement the fiscal regime in Zambia has been changed a number of times.

Exploration

In recent years FQM has commissioned a number of geophysical surveys to explore for additional copper mineralization as well as help define the limits of the Kansanshi mineralization system. Geophysics including airborne electromagnetic, magnetic and radiometric surveys conducted between 2007 and 2010 were successful in defining anomalies which coincided with domes associated with mineralization. Downhole geophysics, induced polarization and controlled-source audio magnetotellurics surveys were used in an attempt to map out vein swarms which although not conclusive the results of the surveys were useful in mapping out graphitic phyllites.

Other exploration work included soil sampling to improve understanding of pathfinder elements for regional exploration and extensive pit mapping. An ongoing pit mapping program was implemented in 2015. The mapping outputs from this program inform the strategic and shorter range resource, ore control and planning functions. The mapping program adds an additional level of geological detail to resolve local strata and vein volume differences between models and refines local estimates to reduce short-term planning risks.

Drilling

Since 2009, there has been ongoing Mineral Resource definition drilling run by mine geology and company exploration teams. Diamond drilling has focused on defining the extent and continuity of geology and mineralization in sub-horizontal strata and sub-vertical veins. As such multiple drilling directions dipping between 60 to 70 degrees were used to ensure coverage. The majority of drilling is on a 100-metre grid spacing with infill on a 50-metre grid spacing. Downhole surveys, core orientation studies, core recovery analysis and RQD data are routinely collected during diamond drilling.

Since 2013 data from grade control reverse circulation ("RC") drilling has been included in Mineral Resource estimation. A comprehensive quality assurance and quality control ("QAQC") program was implemented in early 2013 providing for accurate and precise sample results with demonstrated control on contamination for the RC drilled samples. RC drilling is done on a 10-metre by 12.5-metre grid spacing with a dip of 60 degrees and a vertical depth of 40 to 60 metres.

Near mine drilling continued to target lateral extensional opportunities at depth below the current pit topography around Main pit and South East Dome. The drilling has successfully verified deeper lateral ore body extensions around Main pits which will be incorporated into future Mineral Resource estimates.

Sampling, Analysis and Data Verification

Kansanshi follows documented protocols for core handling and sample preparation which are carried out by a team of qualified geologists. The drill core is logged and marked in intervals from 0.5 metres to 1.5 metres according to mineralization and geological boundaries. Marked drill core is cut with a diamond saw, with one half submitted to the laboratory for analysis and the other retained in the labelled core tray and securely stored on site.

Grade control RC chip samples are taken in the field via a levelled on-rig cone splitter which delivers a homogenized 12 kilogram sample mass representing each percussed 3 metres. The RC field sample is split further with a riffle Jones splitter to a 3 kilogram mass which is bagged and delivered to the on-site laboratory.

QC samples are routinely inserted for both diamond and RC sampling processes. Certified reference material ("CRM") standards are inserted into the sample numbering sequence at a frequency of one in 50 samples. Diamond drilled coarse crush duplicates are taken on average every 25 samples down the hole. RC QAQC was implemented from 2013 onwards with a CRM insertion rate of around 5% and field duplicates taken every 20th sample. Blanks are entered at the end of each hole with additional inserts following high-grade intervals to monitor contamination.

Sample preparation takes place at the onsite ALS Chemex (ALS) managed sample preparation laboratory. Samples are analyzed for total copper, acid-soluble copper, cyanide leach copper and gold. Approximately 10% of diamond core samples are analyzed for multi-element data. Diamond core samples are analyzed at the on-site ALS managed Chemex laboratory and the ALS Chemex laboratory in Johannesburg. Umpire checks are done at Genalysis lab in Johannesburg. RC grade control samples are analyzed at the on-site laboratory with every fourth sample sent to the ALS Chemex laboratory in Johannesburg.

The Qualified Person ("QP") for the Kansanshi Mineral Resource estimates visited Kansanshi several times prior to this estimate, and has since continued to visit Kansanshi at least once a year. During these visits, verification of drilling, sampling, QAQC, database management and geology modelling is completed in order to

ensure that the available data and interpretations are of adequate quality to represent mineralization and to be used for Mineral Resource estimates.

Mineral Processing and Metallurgical Testing

The ore selection at Kansanshi is governed by the relative proportions of acid soluble copper (AsCu) and acid insoluble copper (AiCu) in the ores, where total copper (TCu) equals AsCu + AiCu. The ore is classified into oxide, sulphide, and mixed ore based upon the AsCu/TCu ratio, and the estimated gangue acid consumption. Sulphide ore is treated by conventional flotation. The oxide and mixed ore types are treated by flotation to recover a proportion of acid insoluble copper minerals, and tails from oxide flotation are directed to leaching, followed by solvent extraction ("SX") and electro winning ("EW") to produce copper cathode. A proportion of the mixed ore float tails is also leached with the oxide ore, depending on the availability of acid from the smelter; the remainder is pumped to final tailings. Gold is recovered by gravity techniques with the balance reporting as gold in the copper concentrates. Recovery equations for each circuit are derived from KMP's analysis of actual production and are updated annually.

Metallurgical test work and mineralogical analysis are important aspects of the Kansanshi optimization process due to the significant variability of ore types and the wide range of copper-hosting minerals. A mineralogy laboratory was established in January 2015, with an Automated Scanning Electron Microscope ("SEM") which is used for quantification of bulk mineralogy, copper and gold deportment to different minerals and particle sizes. This information forms the basis for recovery and concentrate improvement plans.

Metallurgical test work has been focused on achieving the following objectives:

- Upgrading of the final copper concentrate grade to reduce impurity levels which will subsequently enhance the Kansanshi smelter treatment (principally reduction of acid insolubles, pyrite and carbon).
- Optimization of acid consumption and copper recovery of the Leach circuit to maximize profitability associated with acid sales and copper cathode production.
- Increase gold production via circuit optimization.
- Evaluating alternative opportunities to improve the profitability of Kansanshi in line with falling grades over the remaining LOM. Opportunities include options to improve milling throughput.

Extensive use has been made of advanced process control, for example flotation expert systems, to improve recovery and throughput.

Mineral Resources

Additional drilling and geological modelling culminated in the filing of an updated NI 43-101 Technical Report in June 2020. The Mineral Resource estimate reflects enhanced reconciliation data as well as an update of the geological interpretation plus the inclusion of additional drillhole data from in-pit RC drilling. The estimate method used ordinary kriging and localized uniform conditioning. Vein copper and gold grades were estimated into small blocks so as to honour the volume of vein mineralization. Stratigraphic copper and gold grades were estimated into larger blocks and were controlled with geological and oxidation surface boundaries. Mineral Resource classification was guided by confidence in the geological model, the estimation method used to inform the respective volumes of mineralization, the drill hole spacing, the QAQC of the sampling and the confidence in the grade estimates.

A comprehensive reconciliation system has been implemented and will further benefit from the development of the Wenco mine tracking system. The added diamond and RC drilling data plus continued development of detailed 3D geology models will be used in an update to the Kansanshi Mineral Resource estimates.

The Mineral Resource estimate, inclusive of the Mineral Reserves inventory is shown in the following table and reflect the position as at December 31, 2022.

Combined Main, NW and SE Dome deposits – as at December 31, 2022, and reported using a 0.2% TCu cut-off grade.

Classification	Tonnes (Mt)	TCu (%)	ASCu (%)	Au (g/t)
Total Measured	227.1	0.68	0.14	0.11
Total Indicated	617.9	0.65	0.07	0.12
Total Measured and Indicated	**845.0**	**0.66**	**0.09**	**0.12**
Total Inferred	166.5	0.58	0.04	0.11

The current depleted Mineral Resource as at December 31, 2022, was estimated and verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG,(#7323)

The 0.2% TCu cut-off grade for this estimate provides a Mineral Resource inventory which encloses the Mineral Reserve estimate and is consistent with the cut-off grade adopted for the last reported estimate in the Kansanshi Technical Report. Current surface stockpiles at the end of 2022 are given in the table below.

Mineral Resource Statement for Kansanshi stockpiles - as at December 31, 2022

	Leach (float/leach feed)				Mixed (float/leach feed)				Sulphide (float feed)			
Classification / Stockpile	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)
Total Measured	—	—	—	—	—	—	—	—	—	—	—	—
Total Indicated	42.8	0.28	0.10	0.05	46.7	0.57	0.18	0.07	70.4	0.37	0.01	0.08
Total Meas. Plus Ind.	**42.8**	**0.28**	**0.10**	**0.05**	**46.7**	**0.57**	**0.18**	**0.07**	**70.4**	**0.37**	**0.01**	**0.08**

The current stockpile Mineral Resource inventory as at December 31, 2022, was verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG,(#7323)

The classification of the Mineral Resource is based on drill grid spacing, estimate confidences and improved models of copper mineralization. The increased quantity of the gold assays contained within the Kansanshi drillhole database, together with mine reconciliation data, allows for the classification of gold mineralization to be aligned with copper mineralization.

Apart from mining depletions, there has been no change to the Mineral Resource inventory reported in the Kansanshi Technical Report.

Mineral Reserves

The following Mineral Reserve estimate for the Main, NW and SE Dome open pits at Kansanshi existed as at December 31, 2022. This estimate is derived from conventional optimization processes, detailed stage and ultimate pit designs and life of mine production scheduling completed for the Kansanshi Technical Report, and subsequently adjusted to account for mining depletion and stockpile movements to date.

The mine operating cost inputs to the optimization were determined from forward looking ore and waste haulage simulations taking account of trolley-assisted haulage, in pit crushing and conveying and waste backfill where applicable. Other operating costs and metal costs (e.g., processing costs, transport charges, refining charges) are based on a review of actual costs, adjusted for future production levels and efficiencies.

Mining dilution and recovery factors were applied using a routine to account for practical dilution and losses from the mining operations. An algorithm was used to estimate variable planned dilution and losses into the resource model reflecting the different styles of mineralization, mining in different cutback benches and mining in the different deposits. Additional factors for unplanned dilution and losses were applied based upon detailed review of production tracking records.

The Mineral Reserve estimate has been defined using the long-term consensus copper price of $3.00/lb and a gold price of $1,200/oz, and reflects a 7.5% GRZ royalty. By virtue of variable processing recovery relationships, the marginal cut-off grade applicable to the above metal prices varies throughout.

Combined Main, NW and SE Dome pits – as at December 31, 2022, and reported based on a $3.00/lb long-term copper price

Classification / Pit	Leach Ore (float/leach feed)				Mixed Ore (float/leach feed)				Sulphide Ore (float feed)				Total Ore (all feed)			
	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)
Main and North West Pits																
Total Proven	39.6	0.86	0.46	0.13	42.5	0.54	0.16	0.09	83.1	0.71	0.02	0.12	165.2	0.70	0.16	0.12
Total Probable	54.2	0.67	0.36	0.11	51.9	0.57	0.15	0.09	326.6	0.61	0.02	0.12	432.8	0.62	0.08	0.12
Total Mineral Reserves	**93.8**	**0.75**	**0.40**	**0.12**	**94.4**	**0.56**	**0.16**	**0.09**	**409.7**	**0.63**	**0.02**	**0.12**	**598.0**	**0.64**	**0.10**	**0.12**
South East Dome Pits																
Total Proven	—	—	—	—	7.68	0.48	0.14	0.06	47.00	0.51	0.01	0.09	57.36	0.51	0.04	0.09
Total Probable	4.8	0.65	0.32	0.11	16.3	0.57	0.16	0.08	69.9	0.59	0.01	0.11	90.9	0.59	0.05	0.10
Total Mineral Reserves	**7.4**	**0.61**	**0.30**	**0.09**	**24.0**	**0.54**	**0.15**	**0.07**	**116.9**	**0.56**	**0.01**	**0.10**	**148.3**	**0.56**	**0.05**	**0.10**
Combined Pits																
Total Proven	42.3	0.84	0.44	0.12	50.2	0.53	0.16	0.09	130.1	0.63	0.02	0.11	222.5	0.65	0.13	0.11
Total Probable	59.0	0.67	0.36	0.11	68.2	0.57	0.15	0.09	396.5	0.61	0.02	0.12	523.7	0.61	0.07	0.11
Total Mineral Reserves	**101.3**	**0.74**	**0.40**	**0.11**	**118.4**	**0.55**	**0.16**	**0.09**	**526.6**	**0.62**	**0.02**	**0.12**	**746.2**	**0.62**	**0.09**	**0.11**

The current depleted in-pit Mineral Reserve as at December 31, 2022, has been estimated and verified by the Company personnel under the supervision of Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: BEng (Mining)(Hons), MEngSc, FAusIMM.

Mineral Reserve Statement for Kansanshi stockpiles - as at December 31, 2022

Classification / Pit	Leach Ore (float/leach feed)				Mixed Ore (float/leach feed)				Sulphide Ore (float feed)				Total Ore (all feed)			
	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	AsCu (%)	Au (g/t)
Total Proven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Probable	42.8	0.28	0.10	0.05	46.7	0.57	0.18	0.07	70.4	0.37	0.01	0.08	159.9	0.41	0.09	0.07
Total Reserve	**42.8**	**0.28**	**0.10**	**0.05**	**46.7**	**0.57**	**0.18**	**0.07**	**70.4**	**0.37**	**0.01**	**0.08**	**159.9**	**0.41**	**0.09**	**0.07**

The current stockpile Mineral Reserve inventory as at December 31, 2021, has been verified by the Company personnel under the supervision of Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: BEng (Mining)(Hons), MEngSc, FAusIMM.

At the current throughput rate, the remaining life of mine is 22 years.

Based on the Kansanshi Technical Report, the indicative pre-tax undiscounted cash flow for the Mineral Reserve production schedule was $9,748.7 million, with an NPV reflecting a 10% discount rate equal to $3,645.3 million. The indicative pre-tax undiscounted cash flow for the mineral reserve at Kansanshi and other pre-tax economic analyses contained in the Kansanshi Technical Report are pre-tax estimates and are not comparable to after-tax estimates.

Mining Operations

Open pit mining at Kansanshi is based on conventional drill and blast, load and haul mining techniques. Mining has proceeded from initial excavations in two pits (Main and North West) through a sequence of cutbacks, which in the longer term will result in these pits merging. A newly defined, nearby resource at South East Dome will contribute to the longer-term production profile, and may merge with the Main pits. Mining rates at Kansanshi were reduced in 2018 due to the postponement of stripping at the South East Dome pit.

The cutbacks generally comprise wide benches of 200 metres to 300 metres width, providing several mining horizons to satisfy the feed requirements for multiple processing routes. The bench heights within the pits are designed on either 5 metres to 10 metres depending on geotechnical constraints. In general, ore is hauled to a Run of Mine (“ROM”) pad located immediately south of the North West pit where it is either tipped directly into the crushers or stockpiled for future rehandling if required. Waste is hauled to various dumps around the

northern and southern extremities of the Main pit, around the western, northern and eastern extremities of the North West pit, and to the northern, eastern and southern extremities of the future South East Dome pit.

Dewatering of the Main pit is currently carried out by means of a 4.1m diameter vertical raise bored shaft to the east of Main pit which has been effective in lowering the groundwater surface below the level of the current base of the Main pit. A project is currently underway to deepen and expand the current underground dewatering system to cater for the deepening of Kansanshi Main pit. The completion of the dewatering system expansion project is scheduled for the end of Q1 2024. Once the project is completed, water pumped from the new 3.0m diameter vertical raise bored shaft will be piped to a storage dam to supplement the process water demand. Dewatering of the North West pit is currently carried out by means of collection and pumping from in-pit sumps. The Kansanshi mining fleet comprises diesel-powered production drills, various sized hydraulic excavators and electric shovels, diesel-powered and diesel-electric powered haul trucks and various ancillary equipment to support mining operations. Mining is carried out by the Company's equipment fleet.

The prime focus for future mining is to maximize the efficient use of grid electrical power throughout the mining process, coupled with bulk mining systems to ensure that unit costs can be minimized. Initially, this strategy has been met with the installation of trolley-assist equipment for a portion of the truck fleet.

Processing and Recovery Operations

Ore treatment is flexible to allow for variation in ore type either through an oxide sulphide circuit or a transitional ore "mixed float" circuit. Processing operations include facilities to beneficiate excess flotation concentrate to the final cathode via the high-pressure leach ("HPL") circuit.

Sulphide ore is treated via crushing, milling and flotation to produce copper in concentrate. An expansion of the sulphide milling circuit (S2) was commissioned in the fourth quarter of 2008, to maintain finished copper production as oxide ore is depleting and sulphide ore grades begin to fall as the mining horizon deepens. The successful achievement of production goals with the sulphide expansion circuit and successful completion of test work aimed at achieving economic recoveries from transitional mixed ores allowed a switch to mixed ore treatment through the original sulphide circuit (S1), with the dedicated treatment of sulphide ore in the expansion circuit only. This positioned Kansanshi to economically process all significant in situ ore types and significantly reduce the mining costs as transitional ores are no longer moved to stockpile and value is realized immediately. Additional flotation cleaning capacity, in conjunction with added capacity provided by in-circuit crushing for the new mill circuit, was added (to the S1 circuit) in the first quarter of 2010, which further increased capacity, flexibility and efficiency. Additional concentrate cleaning capacity, in the form of two Jameson flotation cells, was added to the Sulphide (S2) circuit in the third quarter of 2017, which improved concentrate quality. This circuit was also equipped in 2018 with two Controlled Potential Sulphidization (CPS) stages allowing the circuit to treat lightly tarnished sulphide ore more effectively. An additional cleaner circuit, consisting of a combination of mechanical and column flotation cells, is being commissioned and is expected to help eliminate process bottlenecks when treating high-grade ores and to further improve concentrate quality and recovery. Oxide ore is treated via crushing, milling, flotation, leaching and the SX/EW process to produce a sulphidic and gold-bearing flotation concentrate as well as electro-won cathode copper. The construction of a fourth electro-winning facility commenced in 2007 and was commissioned early in the third quarter of 2008, and, alongside a third SX train, provides extra capacity to handle the additional copper input from the HPL circuit. The HPL is used to treat a portion of the increased copper concentrate by processing the concentrate in the autoclaves by oxidation and leaching.

In 2009, HPL switched from treating Kansanshi concentrate to Frontier concentrate on a toll treatment basis. The change in processing concentrate from Kansanshi avoided the loss of payable gold in the concentrate treated. After the closure of Frontier operations, test work indicated that gravity gold recovery was possible on HPL residues and 2 acid resistant gravity concentrators were installed.

Gold recovery by gravity was expanded by the addition of four new gravity concentrators in April 2010, thus providing two concentrators per milling train, and increasing gold recovery from all ore types. Gemini tables were installed to treat the gravity concentrates and produce a high-grade concentrate for direct smelting to gold

bullion. Over the years additional gravity concentrators were installed in the milling circuits as well as oxide leach residues with the objective of further improving visible gold recovery to dore. A table tails retreatment plant involving regrinding, gravity concentration with Knelson concentrators was also installed in the gold plant in 2013 to reclaim residual gold in the table tails. This was decommissioned in December 2018 to simplify gold processing operations. Tails from the gold plant are diverted to the smelter after blending with the final copper concentrate and recovered into the anode copper reducing one processing step while maximizing recovery. Dore production is currently at 30% of the total gold production. Two additional triple-deck Deister tables were installed in early 2019, which enabled an increase in gravity recoverable gold via cycle time optimization of gold concentrators in the milling circuits. The hydrometallurgical treatment capacity was increased to 14.5 million tonnes per annum with the installation of equipment from Bwana Mkuba copper SX EW plant in 2012 and the commissioning of additional leach, SX, EW and CCD thickeners during 2013 and 2014.

The S3 Expansion project received Board approval in May 2022. The S3 Expansion is expected to transition Kansanshi away from the current, more selective high-grade, medium-scale operation to a medium-grade, larger-scale mining operation. The Kansanshi Technical Report includes the plan for a 25 Mtpa expansion of the sulphide ore processing facility, increasing annual throughput to 53 Mtpa. The S3 Expansion will also involve a new larger mining fleet and, combined with the new standalone 25 Mtpa processing plant, is expected to create efficiencies and economies of scale. The majority of the capital spend on the S3 Expansion is expected in 2023 and 2024. Following the procurement of long-lead items, including primary crusher, mills and mining fleet, engineering contractors have commenced with detail design incorporating enhancements and efficiencies introduced by the latest generation of preferred equipment and the learnings of the Sentinel and Cobre Panamá operations. The S3 Expansion mining fleet has been procured with deliveries commencing in the second half of 2023. This will enable the mine to transition ahead of the plant commissioning in 2025.

Kansanshi Copper Smelter

Kansanshi smelter commissioning commenced in the third quarter of 2014. The first anodes, from melted cathodes, were poured in December 28, 2014. The first concentrate was smelted on March 10, 2015. The smelter ramped up quickly, achieving commercial production on July 1, 2015.

The Kansanshi smelter has a nominal capacity of 1.2 million tonnes per annum of concentrate to produce over 300,000 tonnes of copper metal annually and more than 1.0 million tonnes per annum of sulphuric acid as a by-product. The main processing steps are smelting, converting, fire refining and casting.

In 2022, the smelter processed 1,304,839 DMT of concentrate, producing 304,914 tonnes of copper in anode and 1,247,459 tonnes of sulphuric acid. The smelter commenced the planned shutdown in June, which lasted the entire month and returned to operation on schedule in early July. Overall copper recovery for the year 2022 was 97%.

The Isaconvert commenced commissioning in 2019 and there were two short runs in 2021: a 14-day run in July and August and a 60-day run from October to December. The Isaconvert achieved 94% of design throughput rates during Q1-2021 and has been put under care and maintenance, to be back in operation post smelter expansion.

In July 2022, the Board approved the expansion of the Kansanshi smelter, which was included in the Company's three-year capital expenditure guidance issued in January 2023. In parallel with the S3 Expansion, the Company plans to increase the throughput capacity of the Kansanshi smelter to 1.6 Mtpa from the current capacity level of 1.38 Mtpa. The capacity increase will be achieved partly through enhancing copper concentrate grades by lowering the carbon and pyrite content of the Kansanshi and Sentinel concentrate feeds. The gas handling circuit will be de-bottlenecked, including modifications to the existing acid plant 5. Concentrate processing capacity is expected to be further expanded through modifications to the existing high-pressure leach circuit. In addition to increased capacity, the smelter expansion is expected to create greater flexibility should smelter capacity constraints in the Zambian Copperbelt arise, as well as reduce downstream Scope 3 greenhouse gas emissions ("GHG") from the transport and refining of copper concentrate at third party

smelters. Engineering has commenced and orders have been placed for key long-lead items associated with the oxygen plant, acid plant, and wet electrostatic precipitation.

Infrastructure, Permitting and Compliance Activities

Prior to commencing construction at Kansanshi, the infrastructure in the Solwezi area was poor. Power supplies were limited and inadequate for the development of the mine. Roads, airports, hospitals and schools were in need of significant upgrades. As a result, the Company undertook a number of measures to improve infrastructure including the signing of a connection agreement with Zambia Electricity Supply Corporation Limited ("ZESCO") for the construction and supply of a new power line to service Kansanshi and the upgrading of the main road from Solwezi to Kansanshi. Both projects were completed in 2004. The main road from Chingola to Solwezi, a paved highway, was repaired in 2002 and is adequate for construction and ongoing operational requirements. An existing airstrip near Solwezi is equipped with a full-time tower and radio control. The airport has been rehabilitated to accommodate increased usage by small charter aircraft.

Kansanshi has in place an approved Consolidated Environmental and Social Management Plan ("CEMP"). All the environmental and social commitments from the various environmental impact assessments have been consolidated into a single document. As of December 2021, a total of 26 various environmental impact assessment documents had been approved by the Zambia Environmental Management Agency ("ZEMA") since the inception of the mine.

The environmental and social impacts have been assessed and appropriate mitigation measures have been implemented. The environmental impact assessments comply with Company policy and host country environmental regulations and have adopted the more comprehensive Equator Principles and International Finance Corporation's ("IFC") Performance Standards, in addition to the World Bank Environmental Health and Safety Guidelines for Mining.

The Company is implementing a number of environmental standards in accordance with the ISO 14001:2015 Environmental Management System standard. The standards provide a structured approach to environmental management including pollution prevention, legal compliance and continued environmental improvement. Kansanshi undergoes regular external compliance audits and has demonstrated year-on-year improvements.

In particular, following the development of a rigorous effluent recycling system in mid-2015, Kansanshi has sustained "zero discharge" of process plant effluent to the receiving environment via the licensed discharge compliance point. The effluent is recycled to the copper process plant for re-use. Other water recycling initiatives are being implemented in various areas of the mine.

Kansanshi's emissions are compliant with the national ambient standards. However, point source emissions from smelter stacks remain non-compliant with the stringent Zambian air quality emissions standards. Studies aimed at achieving compliance are ongoing and have reached an advanced stage. Approval has been given to perform partial basic engineering services and scope that will provide meaningful progress on the Flue Gas Desulphurisation ("FDG") project. Kansanshi continues to liaise closely with the regulator on the issue of stack emissions non-compliance.

To improve ambient air quality monitoring, Kansanshi installed three continuous ambient air quality monitoring stations downwind of the smelter. The stations cover a wider potential fallout area and provide a high level of confidence in our compliance.

Permitting

Kansanshi has in place all applicable environmental and associated permits issued by ZEMA and other authorities. The mining license was renewed in February 2021 for a further 25 years. It allows for the exploration and mining of copper and various other minerals and applies to an area of approximately 27,337 hectares.

Tailings Storage Facilities

Kansanshi currently has two licensed operating tailings storage facilities ("TSF"). TSF1 is a cross-valley type dam sited at the head of a small tributary stream inside the mining license. This dam was originally designed to provide sufficient tailings storage capacity for the first 16 years of mine life at a production rate of between 6 and 8 million tonnes per annum and eventually cover an area of approximately 6.5 square kilometres. The dam wall is raised by upstream methods using cyclone tailings. Indigenous grasses are being established on the tailings and waste rock-clad walls. Supernatant is recycled in the process plant via a pump-out decant and pipeline.

TSF2, a second cross valley dam was commissioned in 2012. To date, no supernatant has been recycled from TSF2. No supernatant is released from TSF2 to surface water. The dam wall is raised by upstream methods using cyclone tailings. At the end of 2022, approximately 269.2 million tonnes of tailings had been deposited in TSF1 and 131.5 million tonnes of tailings in TSF2. Tailings production in 2022 was approximately 2.39 million tonnes per month. Groundwater quality around the TSFs is monitored in thirty-six boreholes. Several lines of piezometers have been installed in the main dam walls for ongoing stability assessment. The TSFs are regularly inspected and subject to two-yearly statutory inspections and reporting by independent engineers. Further, the dams are subject to regular periodic inspections by an appointed independent tailings dam consulting engineer.

Slag Dump

In 2017, Kansanshi was granted a permit to transform the smelter slag dump from a transitional to a permanent dump. The original slag dump was designed as a transitory dump awaiting a retreatment facility to recover the residual contained copper. However, the re-treatment facility is not yet available. Slag deposition for 2022 was 0.8 million tonnes bringing the total slag deposition to date to 6.2 million tonnes.

Notice of Violation, Fines and Penalties

No material environmental incident was reported at Kansanshi and no notice of violation or penalties were imposed by any applicable regulatory authority in 2022.

Capital and Operating Expenses

Kansanshi's estimated capital and operating costs for 2023 are set out in the following table:

Capital costs [(2)]	**2023**
Total capital cost estimate ($m)	**580**
Operating costs [(1) (3)]	
Labour, contractors and maintenance	380
Supplies, power and fuel	410
Other (includes Inventory)	50
Total operating cost estimate ($m)	**840**

(1) Operating costs exclude royalties, treatment/refining charges and transport costs and non-deductible VAT.
(2) Capital costs include growth project costs, site capex and deferred stripping costs capitalized
(3) Kansanshi segment operating costs include costs associated with the Kansanshi smelter

Based on the Kansanshi Technical Report, the total life of mine sustaining[1] cost provisions were reported as $1,487.9 million, split between: $946.6 million for mining, $252.6 million for processing, $182.6 million for smelting and $106.1 million for infrastructure and other. The closure cost provisions are $145.7 million.

The overall average unit mining operating costs were $6.70/bcm ore mining, $6.35/bcm waste mining and $2.70/bcm for stockpile reclaim. The overall average unit processing costs are $11.06/t oxide, $7.37/t mixed, $7.14/t S2, $4.94/t S3 and $1.00/t general and administration (G&A) operating costs.

Exploration, Development and Production

Mining and production statistics for the past three years are set out in the following tables:

	Unit	2022	2021	2020
Waste Mined	'000 Tonnes	75,878	69,758	61,972
Ore Mined	'000 Tonnes	28,205	35,142	34,423
Ore Grade Mined	%Cu	0.86	1.05	1.05
Strip Ratio		2.71	2.34	1.93

	Unit	2022	2021	2020
Sulphide Ore Processed	'000 Tonnes	13,160	13,386	13,527
Mixed Ore Processed	'000 Tonnes	7,713	7,601	8,167
Oxide Ore Processed	'000 Tonnes	7,866	7,164	7,440
Sulphide Copper Grade	%Cu	0.71	0.88	0.83
Mixed Copper Grade	%Cu	0.63	0.96	1.00
Oxide Copper Grade	%Cu	0.57	0.72	0.93
Copper in Concentrate Produced(2)	Tonnes	125,657	162,989	169,534
Copper Cathode Production(2)	Tonnes	20,625	39,170	51,953

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

Smelter production statistics for the past three years are set out in the following table:

	Unit	2022	2021	2020
Concentrate Processed	'000 DMT	1,305	1,260	1,320
Copper Anode Produced	Tonnes	304,914	301,556	323,667
Acid Produced	'000 Tonnes	1,247	1,217	1,262

Sales

Sales from Kansanshi arise from the sale of copper anode and cathode produced on site. Copper cathode production is sold under off-take agreements with two parties, one governing the sale of approximately 75% of production and the other governing the sale of approximately 25% of production. Anodes are sold under a single off-take agreement and excess anode production on a parcel basis.

A summary of the revenues for the past three years attributable to the Kansanshi division is as follows:

Year	Revenue ($ million)
2022	1,706
2021	2,014
2020	1,539

Sentinel

The information on Sentinel is based in part on a Technical Report: "Trident Project, North West Province, Zambia, NI 43-101 Technical Report" dated March 30, 2020, updated from May 31, 2015 (the "Trident Technical Report")prepared by David Gray (QP) BSc(Geology), MAusIMM, FAIG; Michael Lawlor (QP) BEng Hons (Mining), MEngSc, FAusIMM; and Andrew Briggs (QP) BSc(Eng), ARSM, FSAIMM, of the Company in accordance with the requirements of NI 43-101. David Gray, Michael Lawlor, and Andrew Briggs are Qualified Persons under NI 43-101 and have verified the data. The Trident Technical Report is available for review on SEDAR under the Company's profile. Information in this AIF of a scientific or technical nature relating to Trident

and arising since the date of the Trident Technical Report has been prepared under the supervision of John Gregory of the Company who is a "qualified person" under NI 43-101.

Project Description, Location and Access

Sentinel operations, (part of the Trident project comprising the Sentinel Mine and the Enterprise development project) is located in the southern portion of the Trident Project area, in the north-west province of Zambia, approximately 150 kilometres west of the town of Solwezi, with Chingola approximately 180 kilometres to the east of Solwezi.

The local climate is characterized by warm wet summers and cool dry winters, i.e. there is a distinct dry season (April to October) and a wet season (November to March). Rainfall typically occurs as heavy thunderstorms which can record up to 80 millimetres of rainfall, and average total annual precipitation of approximately 1,400 millimetres. Trident is situated at an elevation of 1,230 metres above sea level. Vegetation includes a mixture of miombo woodland, open savannah grassland, and marsh.

FQM Trident is the holder of five large-scale mining licences for which current terms run to April 2036. 15868 HQ-LML covers the Sentinel deposit, processing plant and supporting infrastructure, while 15869 HQ-LML covers the Enterprise deposit. 15870 HQ-LML, 15871 HQ-LML and 15872 HQ-LML cover exploration areas, sites for project infrastructure and safety buffer zones to prevent encroachment of local settlements. These licences confer an exclusive right to mine copper, nickel, cobalt, gold, platinum group minerals, silver, iron and selenium. In October 2013, the GRZ and FQM Trident agreed upon a surface rights area of 383.36 square kilometres for conversion to State land for the mining operations and infrastructure at both Sentinel and Enterprise. This land lies almost entirely within the five LMLs. The issue of the title deeds is awaited.

The Sentinel Environmental and Social Impact Assessment ("ESIA") was approved by ZEMA in July 2011. A Sentinel Addendum ESIA, covering the original project infrastructure as well as amendments to the TSF, waste dump design and process water facilities, was approved by ZEMA in August 2013. The Enterprise ESIA was approved by ZEMA in September 2014. FQM Trident also holds water abstraction rights totalling 190,685m^3/day from two dams constructed for the Trident project.

In the first half of 2022, the Company and the GRZ have successfully reached an agreement in respect to the outstanding value-added tax receivable sum and an approach for repayment based on offsets against future mining taxes and royalties, which commenced on July 1, 2022.

During 2022 the Company was subject to corporate income tax in Zambia at a fixed rate of 30% of taxable earnings from mining activities and mineral royalty taxes of between 5.5% - 10% (dependent on copper prices) on gross monthly sales. The 2023 Zambian National Budget, announced on September 30, 2022, included a restructuring of the mineral royalty tax regime including an amended to the calculation of mineral royalty tax to be on an incremental basis and revised mineral royalty tax bands of 4%-10% dependent on copper prices. This change was effective from January 1, 2023.

See "Three Year History", "Risk Factors — Geographical/Political Risk Factors — The Company currently derives almost half of its revenue from two operating assets located in Zambia/The Company's operations across several different countries subject it to various political, economic, legal, regulatory and other risks and uncertainties that could negatively impact its operations and financial condition" and "The Company is subject to taxation risk".

History

The Trident project area was originally investigated by Roan Selection Trust ("RST") in 1959-1961, Anglo American and Equinox Minerals Ltd in the 1980's and 1990's and FQM Trident in 2007 through 2009. Emphasis has varied from copper (RST) to nickel (Anglo American) and back to copper with FQM Trident over that period. RST completed 31 wide-spaced core holes over the Sentinel area and encountered widespread but relatively

low grade copper mineralization. Anglo American focused on detailed drilling for nickel-copper mineralization around the Kalumbila Fault and generated a limited resource. Between 2007 and 2009, FQM Trident (then owned by Kiwara Resources Limited and LM Engineering) completed the first systematic drilling of the extensive copper mineralization over 8 kilometres of strike extent. Following the acquisition of FQM Trident by the Company, exploration was resumed across the Sentinel deposit area in 2010, resulting in the completion of 677 diamond drilled holes and 229,713 metres of drilling by December 2013.

Geological Setting and Mineralization

Trident includes the Sentinel and Enterprise deposits and is located on the western end of the Lufilian Arc. The Lufilian Arc is a curvilinear structural belt formed during the Lufilian Orogeny (c.590 465Ma), that extends from northern Zambia, across the Katanga Province of the Democratic Republic of Congo, and into northeast Angola.

The Sentinel deposit is a stratabound, sediment hosted Cu-Ni-Co sulphide deposit located to the southeast of the Trident project area, with the deposit hosted within the structurally thickened, northwest dipping carbonaceous meta-pelitic rocks known as 'Kalumbila phyllite'. Copper mineralization at Sentinel is limited to the strongly deformed phyllite unit, with rare low-grade mineralization extending only 1 to 2 metres into the hanging and footwall from the contact. The ore-body strikes approximately east-west for 11 kilometres and mineralized horizons dip 20 to 30 degrees in a northerly direction, generally parallel to the dominant foliation. The dominant copper-bearing mineral is chalcopyrite and typically occurs within bedding/foliation parallel quartz-kyanite-carbonate mm-scale veinlets. The oxidized horizon, up to approximately 70 metres in depth, contains non-primary sulphide copper minerals, predominantly chalcocite, and tarnished chalcopyrite. The top five to 15 metres from the surface is typically leached of copper or contains mixed refractory copper and trace oxide minerals.

Nickel-cobalt mineralization exists as cobalt-pentlandite, and occurs as a discrete horizon which moves between the 'footwall' phyllite and zones of copper mineralization. Nickel-cobalt mineralization is best developed in the NE extents of the deposit, proximal to the Kalumbila Fault.

Exploration

During the exploration phase, a comprehensive soil geochemical sampling program and multiple geophysical surveys were completed along with a continuous program of outcrop mapping. Geophysical surveys contributed to the identification of geological contacts and structures and assisted with planning drilling and sampling phases. Surveys included a combined helicopter-borne magnetic and radiometric survey which was undertaken at 100-metre line spacing, airborne electromagnetic at 200-metre spacing, and three section lines of audio-magnetic tellurics (AMT) proximal to the deposit.

Drilling

First Quantum completed an updated Mineral Resource estimate in late 2019. The estimate was determined from 701 diamond drill holes, of which 38 had been drilled since the May 2015 Technical report. In addition, 17,553 reverse circulation drill holes, for a total of 1,124,522 metres and 452,912 assayed samples were included. Diamond holes were drilled on a 100 metre x 100-metre grid covering the deposit area with some infill drilling down to a 50-metre grid spacing. Reverse circulation holes for grade control purposes were drilled on a 24-metre x 12-metre grid, later changed to 18-metre x 12-metre grid spacing for better delineation of the mineralization limits. These holes were drilled at an inclination of 70 degrees towards the south in order to maximize the angle of intersection to mineralization. Downhole surveys, core orientation studies, core and chip recovery analysis and RQD data were routinely collected during drilling.

Sampling, Analysis and Data Verification

Diamond core was sampled on site by suitably qualified geologists following standard protocols. Core was sampled and marked into 1-metre sample lengths according to prevailing geology contacts. Core was

photographed before being cut in half using a diamond saw and then bagged, sealed and transported to the ALS preparation laboratory facility at Kansanshi mine. Half core samples were crushed, split and pulverized with approximately 250 grams of pulp and submitted to ALS Chemex laboratory for analysis. Since 2011 all samples were analyzed at the ALS Chemex Kansanshi laboratory with umpire checks conducted at ALS laboratory in Johannesburg. Samples were subjected to a four acid digest and followed by ICPES analytical finish.

RC grade control chip samples were taken in the field via a levelled on-rig cone splitter which homogenizes the sample over each percussed 3 metres. The RC field sample is split with a riffle Jones splitter to a 3 kilogram mass which is bagged and delivered to the accredited ALS Kansanshi laboratory

For QAQC, certified reference material (CRM) samples were inserted every 40th sample, coarse crush duplicates every 28th sample and pulp duplicates every 46th sample. Overall QAQC sample insertion rate is 1:20 of the original samples.

The QP responsible for the Sentinel Mineral Resource estimate visited the Sentinel site several times prior to the March 2020 NI 43-101 Technical Report estimate and continues to visit Sentinel at least once a year. During these visits, verification of drilling, sampling, QAQC, database management and geology modelling is completed in order to ensure that the available data and interpretations are of adequate quality to represent the Sentinel mineralization and to be used for Mineral Resource estimation. This latest Mineral Resource estimate was completed by Carmelo Gomez, Principal Resource Geologist for Trident and Kansanshi projects (FQM) under the supervision of the Qualified Person. Mr. Gomez is a qualified person and has worked on site since 2016 and is familiar with the mineralization and operations at Sentinel.

Mineral Processing and Metallurgical Testing

Copper ores at Sentinel are predominantly associated with chalcopyrite, and metallurgical designs have shown that a typical copper concentrator flowsheet is suitable for mineral processing.

Metallurgical test-work at Sentinel was carried out in three phases. Initial scoping test-work was conducted at the Kansanshi Mine. From 2011 to 2014, the second phase of test-work was conducted on whole core recovered from selected metallurgical holes and conducted by SGS Lakefield in Perth, and consisted of flotation test-work, reagent optimizations and locked cycle test-work. A third phase of test-work focusing on the comminution characteristics ore for start-up was conducted by JK Tech in 2013. A full elemental analysis was provided by SGS Lakefield for concentrate samples produced in locked cycle test-work, and indicated low levels of deleterious elements not expected to attract any treatment penalties. Test-work is conducted on a continuous basis by Base Metal Laboratories in Kamloops, Canada, to improve recoveries and concentrate grades. The results are used to refine the copper recovery estimates along with actual production data. Recovery equations are reviewed and updated regularly.

Mineral Resource

The Sentinel Mineral Resource estimate completed in late 2019 was supported by a grid of diamond drilled holes covering the extents of mineralization and a closed spaced grid of reverse circulation drill holes across the mining areas. Ordinary Kriging was used to estimate copper grades into geologically defined domains that honour lithology, structure and oxidation. The assigned block model grades were post processed using localized uniform conditioning in order to provide block estimates relevant to the size of the mining equipment. The Mineral Resource estimate was classified into Measured, Indicated and Inferred Mineral Resource categories according to the continuity of the prevailing geology and mineralization as well as the drill hole spacing, sample QAQC confidence in the panel block grade estimates and the potential of having a reasonable economical extraction.

The Mineral Resource estimate, inclusive of the Mineral Reserve inventory reflects the March 2020 NI 43-101 Technical Report estimate, depleted to December 31, 2022.

Mineral Resource - as at December 31, 2022, and reported using a 0.13% TCu cut-off

Classification	Tonnes (Mt)	TCu (%)
Total Measured	471.2	0.47
Total Indicated	290.4	0.40
Total Meas. plus Ind.	**761.7**	**0.45**
Total Inferred	62.2	0.36

The current depleted Mineral Resource as at December 31, 2022 was estimated and verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG,(#7323).

Mineral Resource Statement for Sentinel Stockpiles - as at December 31, 2022

Classification / Stockpile	Tonnes (Mt)	TCu (%)
Total Measured	—	—
Total Indicated	43.1	0.22
Total Meas. plus Ind.	**43.1**	**0.22**

The current stockpile Mineral Resource inventory as at December 31, 2022 was verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG,(#7323)

Mineral Reserves

The Mineral Reserve estimate for the Sentinel project as listed in the table below has been based on conventional Whittle 4X optimization, followed by detailed life of mine design and planning accounting for staged pit cutbacks to suit in-pit ore crushing and conveying plus trolley-assisted waste haulage, and comprehensive ore and waste mining/production scheduling.

The statement is consistent with depletion from the estimate produced for the March 2020 NI 43-101 Technical Report. The predicted plant recoveries are consistent with, test work and the operating results for the last two years. The estimated marginal cut-off grade is based on the long-term consensus copper price of $3.00/lb Cu.

Mineral Reserve - as at December 31, 2022, and reported based on a long-term $3.00/lb Cu price

Classification	Non-primary Sulphide Ore			Primary Sulphide Ore			Total Ore		
	Ore (Mt)	TCu (%)	AsCu (%)	Ore (Mt)	TCu (%)	AsCu (%)	Ore (Mt)	TCu (%)	AsCu (%)
Total Proven	23.0	0.38	0.06	401.3	0.49	0.01	424.4	0.48	0.01
Total Probable	20.9	0.31	0.05	212.3	0.42	0.01	233.2	0.41	0.02
Total Mineral Reserves	**43.9**	**0.35**	**0.06**	**613.7**	**0.47**	**0.01**	**657.6**	**0.46**	**0.01**

The current depleted in-pit Mineral Reserve as at December 31, 2022 for Sentinel has been estimated and verified by the Company's personnel under the supervision of Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: BEng (Mining)(Hons), MEngSc, FAusIMM.

Mineral Reserve Statement for Sentinel Stockpiles - as at December 31, 2022

Classification	Non-primary Sulphide Ore			Primary Sulphide Ore			Total Ore		
	Ore (Mt)	TCu (%)	AsCu (%)	Ore (Mt)	TCu (%)	AsCu (%)	Ore (Mt)	TCu (%)	AsCu (%)
Total Proven	—	—	—	—	—	—	—	—	—
Total Probable	—	—	—	43.1	0.22	—	43.1	0.22	—
Total Mineral Reserves	**—**	**—**	**—**	**43.1**	**0.22**	**—**	**43.1**	**0.22**	**—**

The current stockpile Mineral Reserve inventory as at December 31, 2022 for Sentinel has been verified by the Company's personnel under the supervision of Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: BEng (Mining)(Hons), MEngSc, FAusIMM.

At planned throughput rates the remaining life of mine is approximately 12 years.

Based on the Trident March 2020 Technical Report, the indicative pre-tax undiscounted cashflow for the Mineral Reserve production schedule was $7,989.8M, with an NPV reflecting an 8.5% discount rate equal to $4,713.9M. The indicative pre-tax undiscounted cashflow for the mineral reserve at Sentinel and other pre-tax economic analyses contained in the Trident Technical Report are pre-tax estimates and are not comparable to after-tax estimates.

Mining Operations

Open pit mining is carried out using conventional methods, with electric face shovels and hydraulic excavators, and a fleet of 360 tonne, 335 tonne and 255 tonne capacity haul trucks. Mining capacity will eventually increase to around 68 million bcm of ore and waste mined per annum. The mining fleet was expanded with an additional face shovel and three 360 tonne trucks during 2022 to support the mining capacity increase. The ultimate 5.7 kilometres long, 1.5 kilometres wide and 390 metres deep pit is being mined in stages, with ore crushed in-pit and conveyed overland to the Sentinel process plant.

Four in-pit crushers and associated in-pit and overland ore conveyors have now been installed and are operational. The surface conveyors extend across to the plant crushed ore stockpile via a surface transfer bin. During 2022, pit expansion has continued eastward and northward in the second pit stage, while vertical development of both active pit stages continued.

Waste dumps on the northern and southern perimeters of the pit have been established and a number of water control and management dams have been constructed around the site. Surface power lines extend around the southern, western and northern pit perimeters, connecting to a number of substations powering drills and shovels, and providing power to pit dewatering bores, in-pit sumps and trolley assist lines. A heavy vehicle workshop, incorporating refueling and wash down facilities, is located on the south side of the pit, adjacent and to the east of the processing plant.

Processing and Recovery Operations

In May 2012, the Company's Board approved construction of the Sentinel copper project. Development and construction activities for the Sentinel plant commenced in the second half of 2012. Construction of the copper processing circuit was substantially completed in late 2014, with commissioning and progressive production ramp-up through 2015. Initial mine development commenced at Sentinel in 2013 to establish in-pit crushing and conveying infrastructure.

The processing plant design is based on a conventional sulphide ore flotation circuit designed to treat 55 million tonne per annum ("Mtpa") of ore, with a separate 4 Mtpa circuit designed to process nickel ore feed from Enterprise. Following debottlenecking and circuit improvements and installation of a fourth in-pit primary crusher. Sentinel reached its target throughput rate of 62 Mtpa in 2022. The Sentinel ore is crushed in-pit and conveyed overland onto a crushed ore stockpile ahead of two milling trains, each comprising a SAG mill and a ball mill. Each train consists of two parallel banks of rougher flotation cells, each comprising seven cells operating in series. Three stages of cleaner flotation, as well as column flotation are operated in a common shared circuit. The cleaner circuit capacity saw an additional two columns added to the flow sheet at the start of 2021, and optimization of the cleaner circuit has increased concentrate grades to 28%. This concentrate is thickened and filtered in a dedicated concentrate handling facility. Based on test work to date, the recommended metallurgical parameters for mine planning are 90% recovery for primary sulphide, and 60-70% recovery for the relatively smaller proportion of near-surface non-primary sulphide.

A TSF has been designed for the life of the Trident project, with a capacity of over a 1,000 million tonnes, and to receive tailings from both of the Sentinel and Enterprise processing circuits. The circular TSF is 5.5 kilometres in diameter and is designed to reach a maximum height of around 40 metres. The upstream raises make use of tailings deposited via raised cyclones, with a central decant system from the designed moat decant system.

The Musangezhi river, which previously flowed over the top of the Sentinel deposit, has been diverted to allow the Sentinel pit to be developed. The river has been dammed upstream of the mine, providing a lake alongside the Kalumbila town site. Water for environmental release and excess lake water can overflow to the northwest via a spillway system flowing into a channel and directing water in a westerly direction around the southern side of the TSF and into the upper catchment of the Kabombo River. An additional earth fill dam has been constructed on the Chisola River to the north of the Enterprise deposit, as a source of process water.

Sustained good ore fragmentation from blasting, running the crushers at reduced operating gaps and treating of softer ore from the higher elevations of the pit extension drove the throughput performance. These achievements were a result of continuous emphasis on plant optimization to improve performance from near surface ore material as the mine expands further to an eastern stage. Planned changes to crusher liner designs are expected to achieve reduced operating gaps for the primary and secondary crushers, reducing the critical size of the ore sent to the SAG mill with an expected increase in throughput.

Infrastructure, Permitting and Compliance Activities

Prior to commencing construction at Trident, the infrastructure in the area was poor. The Company undertook a number of measures to improve infrastructure including construction of a new town with related housing, roads, water and sewerage, electrification, schools, and medical clinic. Additionally, the Company signed a connection agreement with ZESCO for the construction of a new 600 kilometre power line to service Trident. The Company also constructed a new 34 kilometre bitumen sealed road to connect the site with the existing national trunk road linking Solwezi with Mwinilunga. An airstrip was also constructed closer to the Kalumbila town site.

FQM Trident holds all necessary Zambian permits required to carry out its operations and has operated in material compliance during 2022.

During 2022, site environmental performance at Trident continued to show evidence of maturity and improvement from the previous year Environmental management is aligned with ISO14001:2015 Environmental Management System (EMS) and compliance performance improved from 86% in the year 2021 to 92% in 2022. Continual improvements were noted generally in all aspects of environmental management.

Acid Rock Drainage

The principal environmental risk to operations at Sentinel is acid rock drainage (“ARD”) and the potential discharge of non-compliant final effluent to surface waters. Oxidation of supplied minerals in the open pit, waste rock dumps and in ore spillages generates acidic water containing dissolved metals. ARD generation is ongoing and will continue through the life of mine and post mine closure. Sentinel has a dedicated ARD management team who together with an external ARD specialist are constantly reviewing and optimizing the risk mitigation measures. A closure strategy is implemented that prescribes operational planning to ensure realization of risk reduction post mining in 2034. Plans to relocate the effluent treatment plant to a final life of mine location have been approved and are expected to be completed in 2023. The plant is envisaged to optimize effluent treatment and water re-use through its integration into the Sentinel process plant. The risk remains well managed at Sentinel and the proposed upgrades will further reduce potential effluent non-compliances.

Tailings Storage Facilities

Trident has one TSF which is designed for the life of mine with potential tailings storage capacity of over 1,000 million tonnes. The circular TSF is 5.5 kilometres in diameter, consists of 4 paddocks and will attain a maximum height of around 40 metres. In 2022, 58.4 million tonnes of tailings were deposited in the TSF. Tailings are pumped over 8 kilometres and either open end discharged onto the TSF or cycloned to produce a suitable coarse fraction for raising the embankment. The dam wall is raised by the upstream method of construction. The tailings disposal pipeline is inspected daily with an active investigation process that identifies and mitigates potential leakages. The TSF is regularly inspected and subject to regular periodic operational and geotechnical

review by an external dam consultant. The facility is also subject to biennial statutory inspections and reporting by independent engineers. Progressive rehabilitation of the outer wall of the TSF continued in 2022 and the wall slopes are considered stable. Groundwater quality and levels are monitored in peripheral monitoring wells and no water contamination has been detected. Environmental controls remain in place for the TSF.

Notice of Violation, Fines and Penalties

No material environmental incident was reported at Trident in 2022 and there were no notices of violation or penalties imposed by any applicable regulatory authority.

Capital and Operating Expenses

The estimated Sentinel capital and operating costs for 2023 are as follows

Capital costs [2]	**2023**
Total capital cost estimate ($m)	**300**
Operating costs [1] [3]	
Labour, contractors and maintenance	325
Supplies, power and fuel	510
Other (includes Inventory)	55
Total operating cost estimate ($m)	**890**

(1) Operating costs exclude royalties, treatment/refining charges and transport costs and non-deductible VAT.
(2) Capital costs includes growth project costs, site capex and deferred stripping costs capitalized
(3) Sentinel segment operating costs include costs associated with the Kansanshi smelter

Exploration, Development and Production

Certain mining and production statistics for the past three years are set out in the following tables:

	Unit	2022	2021	2020
Waste Mined	'000 Tonnes	95,335	102,445	97,970
Ore Mined	'000 Tonnes	56,219	57,380	60,098
Ore Grade Mined	% Cu	0.51	0.50	0.50

	Unit	2022	2021	2020
Ore Processed	'000 Tonnes	58,868	56,329	56,589
Ore Grade	% Cu	0.46	0.47	0.49
Copper in Concentrate Produced	Tonnes	242,451	232,688	251,216

Sales

A summary of the revenues for the past three years attributable to the Sentinel division are as follows:

Year	Revenue ($ million)
2022	1,980
2021	2,032
2020	1,353

Cobre Panamá

The information on Cobre Panamá contained in this AIF is based in part on a Technical Report: "Cobre Panamá Project, Colón Province, Republic of Panamá, NI 43-101 Technical Report" (the "Cobre Panamá Technical Report") dated March 29, 2019 prepared by David Gray (QP) BSc(Geology), MAusIMM, FAIG, Group Mine and Resource Geologist, FQM (Australia) Pty Ltd, Michael Lawlor (QP) BEng Hons (Mining), MEngSc, FAusIMM, Consultant Mining Engineer, FQM (Australia) Pty Ltd, Robert Stone (QP) BSc(Hons), CEng, ACSM, Technical Manager, FQM (Australia) Pty Ltd, all of whom are qualified persons under NI 43-101. The Cobre Panamá Technical Report has been filed on SEDAR, under the Company's profile.

Project Description, Location and Access

The Cobre Panamá concessions are located 120 kilometres west of Panamá City and 25 kilometres from the Caribbean Sea coast, located in the Donoso and Omar Torrijos Herrera Districts of Colon Province in the Republic of Panamá. Previously the Cobre Panamá Project was located completely within the Donoso District however, following district realignment, the Project now lies partly within each of the amended Districts. It includes four concession zones covering a combined area of 12,955.1 hectares. There is no industrial development in the area of the concessions and the region is sparsely populated. The primary occupation of the local residents is subsistence farming. The nearest community, the village of Coclesito (population approximately 2600), is 12 kilometres southeast of the plant site. The city of Penonomé, which has a population of approximately 25,000, is 49 kilometres southeast of Coclesito.

Access to the Cobre Panamá property is via the southern Pan-American Highway from Panamá City to Penonomé, all-weather roads to La Pintada and then sealed roads from Coclesito to the mine site. Helicopter pads have been retained for occasional use.

The topography in the concession is rugged with considerable local relief which is covered by dense forest. The area to the north is a lowland with minimal relief extending to the Caribbean coast. Climatic conditions are tropical with high precipitation levels, high humidity and relatively high temperatures year-round of 25 to 30 degrees Celsius.

On February 9, 1997, MPSA was granted the mineral concession to explore and exploit the Cobre Panamá Project under Contract-Law No. 9 of February 26, 1997 ("Law 9"). The legal regime established by Law 9 for the development of the Cobre Panamá concession is supplemented by the Mineral Resources Code of Panamá.

On December 30, 2016 the Government of Panamá signed and issued Resolution No. 128 by which it extended the Law 9 mining concession for a second twenty-year term commencing March 1, 2017 up to February 28, 2037.

Under Law 9, MPSA has the rights to explore for, extract, exploit, beneficiate, process, refine, transport, sell and market the gold, copper and other mineral deposits on the Cobre Panamá concession. MPSA is required to pay a 2% royalty on "Negotiable Gross Production" which is defined as "the gross amount received from the buyer due to the sale (of concentrates) after deduction of all smelting costs, penalties and other deductions, and after deducting all transportation costs and insurance incurred in their transfer from the mine to the smelter" to the Government of Panamá. MPSA is entitled to rights of way on state-owned lands and easements to use surface lands on concessions adjacent to the Cobre Panamá concession; the right to build, maintain and use such lands; and easements for use to build, install, maintain and use facilities and installations that MPSA deems convenient for the development of the Cobre Panamá concession.

Corporate income tax under Law 9 is payable at a rate of 25% on taxable earnings which is exempted for the period during which the Company has outstanding debt relating to the construction and development of the

project. Under the mining code in Panamá the royalty rate for copper and molybdenum is 5% and gold and silver is 4%.

In September 2018, the Company became aware of a ruling of the Supreme Court of Panamá ("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 did not affect the legality of the concession contract itself, which remains in effect, and allows continuation of the development and operation of the Cobre Panamá project by MPSA.

In respect of the Supreme Court ruling on Law 9, the Company notes the following:

- The Supreme Court decision was in respect of legal filings made since 2009.
- 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 267 of 1969, repealed in 1997 by Law 9, required the MICI to issue a request for proposals before awarding a mining concession in the concession area.
- Two Attorney Generals of Panamá provided formal opinions favourable to the constitutionality of Law 9 as required in this type of proceedings by Panamánian law.
- The Supreme Court ruling did not make a declaration as to the annulment of the MPSA concession contract.

Despite best efforts the Company announced on December 15, 2022 that it was unable to reach agreement with the Government of Panamá by the December 14, 2022 deadline imposed by the Government of Panamá. On December 21, 2022, MICI served a formal notification of a resolution to require MPSA to submit a plan within 10 working days of the notification to suspend commercial operations at Cobre Panamá and put the mine under care and maintenance. Formal discussions with the Government of Panamá resumed on December 26, 2022 during which time operations at Cobre Panamá continued as normal.

On January 26, 2023 the AMP issued a resolution requiring the suspension of concentrate loading operations at the Cobre Panamá port until evidence was provided of the process of certifications of the calibration of the scales by an accredited company has been initiated. MPSA submitted the proof on February 2023 and the loading operations were suspended pending a response.

On February 23, 2023 ore processing operations were suspended at Cobre Panamá as a result of the AMP's refusal to permit copper concentrate loading operations at the mine's port. Meanwhile, negotiations with the Government of Panamá continued.

On March 8, 2023 agreement on the Proposed Concession Contract was announced and at the same time the AMP issued a resolution for MPSA to resume concentrate loading operations at the port. Ore processing resumed and the mines restored to full production levels.

The Proposed Concession Contract is subject to 30-day public consultation process and approvals by the Panamánian Cabinet, Comptroller General of the Republic and the National Assembly. The Proposed Concession Contract with have an initial 20-year term, with a 20-year extension option and additional extensions for the life of mine.

The Company looks forward to a long and constructive partnership with the Government of Panamá.

History

Cobre Panamá completed construction, phased commissioning and startup during 2019 and the first concentrate sales occurred in June 2019. Cobre Panamá achieved commercial production on September 1, 2019. In 2013 the Company acquired an indirect 80% interest in MPSA, which holds the Cobre Panamá

concession, through its acquisition of Inmet Mining Corporation ("Inmet"). At that time the remaining 20% interest in MPSA was held by Korea Panamá Mining Corp ("KPMC"), a 50/50 joint venture company whose ultimate shareholders were LS-Nikko Copper Inc. and Korean Resources Corporation ("KORES"). On September 10, 2021, South Korea launched a new public agency to oversee metals, minerals and mining affairs, merging two existing entities: KORES and Mine Reclamation Corp. The new entity is called Korea Mine Rehabilitation & Mineral Resources Corporation ("KOMIR").

In August 2012, MPSA entered into a precious metals stream agreement with a subsidiary of Franco-Nevada for the delivery of precious metals based on production from the Cobre Panamá project, the terms of which agreement were amended and restated on November 2, 2015 (the "PSA"). Under the terms of the PSA, a subsidiary of Franco-Nevada provides a $1 billion deposit to MPSA to fund a portion of the capital costs of the development of Cobre Panamá. Funding by the Franco-Nevada subsidiary is pro-rata on a 1:3 ratio of the Company's funding contributions. A first instalment of the deposit was made by the Franco-Nevada subsidiary in November 2015 and the full deposit amount had been received by December 31, 2018.

The amount of precious metals deliverable to the Franco-Nevada subsidiary under the PSA is indexed to the copper in concentrate shipped from the project and approximates 86% of the estimated payable precious metals attributable to the Company's 80% ownership based on the original Inmet 31 year mine plan. Beyond the contemplated mine life, the precious metals deliverable under the PSA will be based on a fixed percentage of the precious metals in concentrate.

In November 2017 the Company increased its effective ownership of MPSA to 90% by acquiring LS-Nikko's 50% holding of KPMC. The purchase consideration of $664 million is payable in six instalments over a five-year period. In March 2018, the Company completed an additional precious metals stream agreement on the Cobre Panamá project with the Franco-Nevada subsidiary with respect to the 20% interest in the Cobre Panamá project owned by KPMC and received a deposit of $356 million. The terms of the additional stream, other than the on-going price, mirror the existing stream on Cobre Panamá, including initially linking precious metals deliveries to copper in concentrate shipped for approximately the first 25 years of production.

On January 19, 2018, Franco-Nevada, through a wholly-owned subsidiary, entered into an amended and restated stream agreement with First Quantum and KOMIR which covers 100% of Cobre Panamá.

Geological Setting and Mineralization

Mineralization at Cobre Panamá consists of several disseminated copper – gold – molybdenum deposits. Known geologically as porphyry copper deposits, these are typical of the Western Cordillera of the Americas and other regions around the Pacific Ocean basin.

During a regional survey in 1968, a United Nations Development Program team discovered the copper, gold and molybdenum porphyry mineralization in the Petaquilla River region of north-central Panamá. A total of 1,813 diamond drill holes totalling 348,775 metres were drilled from discovery through to 2013. Exploration outlined the several porphyry deposits, which developed around granodioritic stocks within and peripheral to the Oligocene Petaquilla batholith. Epithermal gold mineralization has also been identified in the more distal setting to the batholith.

The porphyry deposits occur at the southern margin of a large granodioritic batholith of mid-Oligocene age. The main deposits are Balboa, Botija, Colina and Valle Grande. There are also a number of smaller zones; the most significant being Brazo and Botija Abajo.

The porphyry style mineralization at Cobre Panamá is hosted in granodiorite, feldspar-quartz-hornblende porphyry and adjacent andesitic volcanic rocks. The porphyry at Balboa intruded passively toward the south from a source located northwest of the deposit and is also thought to be influenced by a high angle structure to the west of the deposit. At Botija, a number of north dipping feldspar-quartz-hornblende dykes cut the granodiorite. Two roof pendants of andesitic volcanic rock occur in the central and eastern parts of the deposit.

At Colina, mineralization is associated with an east-southeasterly trending, shallow north dipping, 2.5 kilometre by 1 kilometre feldspar-quartz-hornblende porphyry sill and dyke complex that intrudes granodiorite and andesitic volcanic rocks. The Valle Grande zone is associated with a southeast trending feldspar-quartz-hornblende porphyry lopolith that is bounded to the north and south by andesitic volcanics and minor granodioritic dykes. At Brazo and Botija Abajo the host rock is dominantly feldspar-quartz or feldspar-quartz-hornblende porphyry.

Hydrothermal alteration along the Cobre Panamá mineral trend is primarily silica-chlorite which is interpreted to be a form of propylitic alteration. Potassic alteration, consisting of salmon colored potassium feldspar and secondary biotite is seen in the central parts of Botija. Argillic and phyllic alteration is patchy in the three main deposits, with the latter variety being most prevalent near the tops of the deposits. At Brazo, pervasive sericite, clay and pyrite is associated with well-developed quartz stockworks.

Hypogene sulphides occur as disseminations, micro-veinlets, fracture fillings, and quartz-sulphide stockworks. Chalcopyrite is the dominant copper mineral with lesser bornite. Traces of molybdenite are commonly found in quartz veinlets. There is no significant zone of supergene enrichment at Botija, Colina and Valle Grande. At Brazo, supergene mineralization consisting of chalcocite-coated pyrite and rare native copper occurs to a depth of at least 150 metres.

There has been significant exploration drilling in this region, giving the project a potential life of operations in excess of 35 years. Mineral Resources and Reserves were updated by the Company in December 2018, and the Company filed the Cobre Panamá Technical Report on March 29, 2019.

Exploration

Copper-gold-molybdenum porphyry style mineralization was first explored between 1966 and 1969 via regional soil sampling, with follow up drilling leading to the discovery of Botija East, Colina and Valle Grande Later exploration by several other companies outlined four large deposits and several smaller deposits in the concession zones.

Between 1990 and 1995, soil and auger geochemical sampling was completed across most of the concession zones. Line spacing was 200 metres with more detailed coverage at 50 metres by 100 metres around the known deposits.

Geophysical surveys include a 105.2 kilometre IP survey completed in 2008 on north south orientated lines at a 200 metre spacing using a pole to pole array with 50 metre spacing. The survey demonstrated a well-defined chargeability associated with the Botija deposit and the eastern edge of the Valle Grande deposit, with a number of smaller anomalies occurring along the south eastern trend between Botija and Abajo deposits.

Drilling

Since 1968 a number of drill programs have been conducted. A total of 1,813 diamond drill holes totalling 348,775 metres have been drilled from discovery to February 2018.

The first program from 1967 to 1969 was used to develop geological understanding of the area but assay information has not been used in the Mineral Resource estimation process.

Between 1970 and 1976, some 51 diamond drillholes were completed by Panamá Mineral Resources Development (PMRD) at a spacing of approximately 200 metres at Botija and Valle Grande. No core remains from this drilling campaign but the hole collars were surveyed and the assay and geological information was included in the database.

Between 1992 and 1997 further diamond drilling was completed by Adrian Resources and Teck. Vertical holes were drilled at a spacing down to 100 metres in Botija and 100 metres to 200 metres in Valle Grande and

Colina. Some smaller targets were also tested including Botija Abajo, Brazo and Medio. Holes at Botija and Colina were drilled vertically, and at Valle Grande with an inclination of 50 degrees towards 220 degrees. In 2006, skeleton core from 167 of the 396 Adrian Resources holes were salvaged from damaged core boxes and placed into new core trays for safe storage. While some uncertainty remains as to the correct depth of cores, MPSA re-assayed remaining core and verified the original sample assay results.

Between 2006 and 2008 Petaquilla Copper ("PTC") drilled 308 holes at Botija and Valle Grande to assess the potential for oxide copper mineralization and at Botija Abajo to assess the potential for gold mineralization.

Between 2007 and 2013 MPSA completed a total of 825 HQ diameter holes to increase the drillhole density and to collect metallurgical samples for testwork at Botija, Colina, Valle Grande and Balboa.

In 2019 MPSA commenced additional diamond drilling in the vicinity of the Colina and smaller Medio pits in order to sterilise proposed areas for infrastructure development, and for further resource delineation at Colina.

During 2022, exploration diamond drilling activities focused on extending mineralization in the north, north east and gathering additional geo-metallurgical information from the central portion of the Colina deposit. The current drilling programs are continuing to test the Colina north and central mineralization at depth. This drilling will then progress into the Valle Grande deposit and waste dump sterilization.

In total during 2022, 31 holes for 12,584m were drilled for exploration geology. The total drilling, including the geo metallurgical drilling, was 46 holes for 13,643m.

For all drilling, core recovery is poor in certain weathered intervals but is mostly excellent in fresh rock. Overall average core recovery is 93%.

All MPSA resource holes deeper than 300 metres were downhole surveyed. Prior to 2011 holes were surveyed at 60 metre intervals, but in 2011 MPSA purchased a REFLEX Gyro E596 downhole surveying instrument to negate the effect of magnetic interference and hence subsequent surveys were done at 10 metre intervals.

Hole collars were surveyed at the time of drilling. Collars of holes drilled by PTC were originally surveyed using a hand-held GPS but have since been re-surveyed and validated in the database. In 2014 FQM resurveyed some of the earlier PTC drilling to correct a coordinate conversion discrepancies.

Sampling, Analysis and Data Verification

Since 1992 and throughout the Adrian/Teck, PTA and MPSA drilling campaigns samples were prepared at an on-site facility at Colina. Core was logged and marked up at 1.5 metre intervals. Samples were crushed and split using a Jones rifle splitter and a 500 gram aliquot taken for assay. Samples from Adrian/Teck drilling campaigns were analyzed by TSL Laboratories in Saskatoon. PTC samples were analyzed either by SGS Laboratories in Lima or ALS Chemex in Vancouver. MPSA samples were shipped to ALS Chemex in Lima for analysis. Copper assays were conducted using four acid digestion and AAS finish. Umpire assay checks and secondary assay work was conducted by Acme Santiago in Santiago, Chile.

Check assaying has been undertaken to varying degrees for every drilling campaign, and numerous programs of check analysis were undertaken to compare each program of drilling to historic drilling undertaken by previous owners.

During the Adrian drilling program a small number of check assays were sent to XRAL in Canada for umpire check analysis. In the period 1996 to 1997 Teck began to implement QAQC sampling procedures by inserting CRM standards and conducting umpire assaying by ALS Chemex Vancouver. During the PTC and MPSA drilling programs, CRM standards and blanks were routinely inserted into the assay sample submissions, along with field and coarse crush duplicate samples. Prior to 2006 umpire checks on selected assays were used for data verification.

A detailed review of all the historical and current QAQC practices, QAQC data and historical QAQC reports at Cobre Panamá has been undertaken to determine the accuracy, precision and bias present in the drillhole assay data for the project area, and in order to determine suitability for mineral resource estimation.

The sampling QAQC results and the related studies demonstrate that sample assay data is representative of the mineralization sampled and that it is appropriate for use in the mineral resource estimation. Data verification was completed by the QP during several site visits prior to this estimate. Verification included checks on drillhole collar coordinates, downhole survey methods and data, quality of logging and sampling data as well as checks on the nature and style of the porphyry copper gold mineralization in both outcrops and drill core. The QP has verified that the data available for the Cobre Panamá mineral resource estimate is of good quality and believes that the geological understanding and data is representative of the prevailing mineralization as relevant to the deposit.

Mineral Processing and Metallurgical Testing

The predominantly copper/molybdenum sulphide ore is amenable to conventional differential flotation processing, with lesser gold and silver recovered into the copper concentrate and also separated into a bleed stream gravity concentrate.

Various metallurgical test work programs have been undertaken on the Cobre Panamá Project since 1968, commensurate with the various levels of preliminary feasibility and prefeasibility studies that were completed up until 1998.

In 1997 an extensive program of metallurgical testing was designed to confirm earlier studies on the metallurgical response of the Botija and Colina ores. Work included grinding, flotation, dewatering and mineralogical testing. Further testing was completed, including locked-cycle flotation test work and modal analysis to assist in defining grind requirements for both rougher and cleaner flotation. Copper-molybdenum separation by means of differential flotation was also tested.

Confirmatory batch laboratory flotation test work was conducted during 2014. Based on all of this test work, variable processing recovery relationships were determined for copper and gold, while fixed recovery values were determined for molybdenum and silver. This information is the basis for the life of mine production scheduling and cash flow modelling which supports the Mineral Reserve estimate.

Mineral Resources

The Mineral Resource estimate for each of the Cobre Panamá deposits was generated from the drill hole sample results and an interpretation of the relevant geology that relates to the spatial distribution of copper, molybdenum, gold and silver mineralization. The Botija Mineral Resource estimate was updated in December 2018 with added reverse circulation grade control drilling results. Block grade estimates used ordinary kriging and were post processed by local uniform conditioning of the copper and gold panel estimates considered appropriate to the scale of mining, The Mineral Resource estimate was classified according to the drill hole spacing, sample QAQC, geological confidence and confidence in the grade estimates.

The Mineral Resource estimate for Cobre Panamá, inclusive of the Mineral Reserve inventory, is set out in the following table and reflects the March 2019 NI 43-101 Technical Report estimate, depleted to December 31, 2022.

Mineral Resource - as at December 31, 2022, and reported using a 0.15% Cu cut-off grade

Deposit	Category	Tonnes (Mt)	TCu (%)	Mo (%)	Au (g/t)	Ag (g/t)
Botija	**Measured**	129.1	0.57	0.009	0.14	1.63
Botija	**Indicated**	532.0	0.36	0.007	0.07	1.11
Colina	**Indicated**	1,031.6	0.39	0.007	0.06	1.58
Medio	**Indicated**	63.0	0.28	0.004	0.03	0.96
Valle Grande	**Indicated**	602.1	0.36	0.006	0.04	1.37
Balboa	**Indicated**	647.3	0.35	0.002	0.08	1.37
Botija Abajo	**Indicated**	114.0	0.31	0.004	0.06	0.93
Brazo	**Indicated**	228.3	0.36	0.004	0.05	0.81
Total Measured and Indicated		**3,347.5**	**0.37**	**0.006**	**0.07**	**1.34**
Botija	**Inferred**	188.0	0.23	0.004	0.05	0.87
Colina	**Inferred**	125.1	0.26	0.006	0.05	1.20
Medio	**Inferred**	189.4	0.25	0.005	0.03	1.25
Valle Grande	**Inferred**	362.9	0.29	0.005	0.03	1.14
Balboa	**Inferred**	78.8	0.23	0.003	0.04	0.96
Botija Abajo	**Inferred**	66.7	0.27	0.005	0.06	1.25
Brazo	**Inferred**	76.4	0.21	0.003	0.01	0.73
Total Inferred		**1,087.3**	**0.26**	**0.005**	**0.04**	**1.09**

The current Mineral Resource for Cobre Panamá was estimated and verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG,(#7323)

Mineral Resource Statement for Cobre Panamá Stockpiles - as at December 31, 2022

Deposit	Category	Tonnes (Mt)	TCu (%)	Mo (ppm)	Au (g/t)	Ag (g/t)
Botija	**Stockpile**	37.0	0.19	33.62	0.04	0.82

The current stockpile Mineral Resource inventory for Cobre Panamá was verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG,(#7323)

Mineral Reserves

The Mineral Reserve estimate for Cobre Panamá is entirely within the Measured and Indicated Mineral Resource estimate in the table above. It is consistent with the Mineral Reserve estimate methodology reported in the Cobre Panamá Technical Report. The actual cut-off grade for the estimate varies due to variable processing recovery, but otherwise reflects a longer-term consensus copper price of $3.00/lb, a molybdenum price of $13.50/lb, a gold price of $1,200/oz and a silver price of $16.00/oz.

As at the end of December 2022, the remaining mine life is 32 years.

Mineral Reserve - as at December 31, 2022 and reported based on a $3.00/lb Cu price

Classification / Pit	Saprock Ore					Primary Sulphide Ore					Total Ore				
	Tonnes (Mt)	TCu (%)	Mo (ppm)	Au (ppm)	Ag (ppm)	Tonnes (Mt)	TCu (%)	Mo (ppm)	Au (ppm)	Ag (ppm)	Tonnes (Mt)	TCu (%)	Mo (ppm)	Au (ppm)	Ag (ppm)
Botija															
Total Proven	0.2	0.23	44.56	0.06	0.57	126.0	0.55	89.82	0.14	1.59	126.1	0.55	89.77	0.14	1.59
Total Probable	—	0.00	0.00	0.00	0.00	501.3	0.34	67.67	0.07	1.08	501.3	0.34	67.67	0.07	1.08
Total Mineral Reserve	**0.2**	**0.23**	**44.56**	**0.06**	**0.57**	**627.3**	**0.39**	**72.12**	**0.09**	**1.18**	**627.4**	**0.39**	**72.11**	**0.09**	**1.18**
Colina and Medio															
Total Proven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Probable	28.9	0.34	52.58	0.10	1.45	952.4	0.40	67.41	0.06	1.61	981.3	0.39	66.98	0.06	1.61
Total Mineral Reserve	**28.9**	**0.39**	**66.27**	**0.06**	**1.45**	**952.4**	**0.40**	**67.41**	**0.06**	**1.61**	**981.3**	**0.39**	**66.98**	**0.06**	**1.61**
Valle Grande															
Total Proven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Probable	14.1	0.32	76.24	0.05	1.47	527.0	0.37	67.20	0.05	1.41	541.1	0.37	67.43	0.05	1.42
Total Mineral Reserve	**14.1**	**0.36**	**67.02**	**0.05**	**1.47**	**527.0**	**0.37**	**67.20**	**0.05**	**1.41**	**541.1**	**0.37**	**67.43**	**0.05**	**1.42**
Balboa															
Total Proven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Probable	—	—	—	—	—	437.1	0.35	16.10	0.08	1.36	437.1	0.35	16.10	0.08	1.36
Total Mineral Reserve	**—**	**—**	**—**	**—**	**—**	**437.1**	**0.35**	**16.10**	**0.08**	**1.36**	**437.1**	**0.35**	**16.10**	**0.08**	**1.36**
BABR															
Total Proven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Probable	1.2	0.27	40.38	0.07	0.86	218.6	0.40	41.32	0.07	0.87	219.7	0.40	41.31	0.07	0.87
Total Mineral Reserve	**1.2**	**0.40**	**41.25**	**0.07**	**0.86**	**218.6**	**0.40**	**41.32**	**0.07**	**0.87**	**219.7**	**0.40**	**41.31**	**0.07**	**0.87**
Combined Pits															
Total Proven	0.2	0.23	44.56	0.06	0.57	126.0	0.55	89.82	0.14	1.59	126.1	0.55	89.77	0.14	1.59
Total Probable	44.2	0.33	59.79	0.09	1.44	2,636.3	0.37	56.75	0.06	1.37	2,680.5	0.37	56.80	0.07	1.37
Total Mineral Reserve	**44.3**	**0.33**	**59.74**	**0.09**	**1.44**	**2,762.2**	**0.38**	**58.26**	**0.07**	**1.38**	**2,806.6**	**0.38**	**58.28**	**0.07**	**1.38**

The current in-pit Mineral Reserve for Cobre Panamá has been estimated and verified by the Company personnel under the supervision of, and verified by, Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: BEng (Mining)(Hons), MEngSc, FAusIMM

Mineral Reserve Statement for Cobre Panamá Stockpiles - as at December 31, 2022

Classification / Pit	Saprock Ore					Primary Sulphide Ore					Total Ore				
	Tonnes (Mt)	TCu (%)	Mo (ppm)	Au (ppm)	Ag (ppm)	Tonnes (Mt)	TCu (%)	Mo (ppm)	Au (ppm)	Ag (ppm)	Tonnes (Mt)	TCu (%)	Mo (ppm)	Au (ppm)	Ag (ppm)
Total Proven	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total Probable	—	—	—	—	—	37.0	0.19	33.62	0.04	0.82	37.0	0.19	33.62	0.04	0.82
Total Mineral Reserve	**—**	**—**	**—**	**—**	**—**	**37.0**	**0.19**	**33.62**	**0.04**	**0.82**	**37.0**	**0.19**	**33.62**	**0.04**	**0.82**

The current stockpile Mineral Reserve inventory for Cobre Panamá has been verified by the Company personnel under the supervision of, and verified by, Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: BEng (Mining)(Hons), MEngSc, FAusIMM

Mining Operations

Mining at Cobre Panamá involves ultraclass scaled mining equipment and conventional open pit methods at up to approximately 83 Mbcm of ore and waste mined per annum. The multiple pits will be mined in an optimized sequence and in phases, with ore crushed in-pit and conveyed overland to the nearby processing plant.

At the end of 2021, four rope shovels, three ultraclass loaders and thirty ultraclass trucks were operating in the Botija Pit. A fifth rope shovel and eight additional ultraclass haul trucks were added to the fleet in 2022. Significant progress has been made on the pre-strip work for the Colina pit and earthworks for the associated overland conveyor and in-pit crushing facility. The first crusher at Colina is expected to be commissioned in 2023. The crusher feed reached 86 Mtpa in 2022 and is planned to ultimately ramp up to 100 Mtpa by the end of 2023 at which rate it remains until 2041 before dropping to 75Mtpa between 2042 and 2054. The overall life of mine strip ratio (tonnes) is 1:1.

The Botija Pit is being mined first, followed by the Colina and Medio Pits. Mining in the Valle Grande and BABR Pits will commence towards the end of mining of the Colina Pit, with the Balboa Pit being mined last.

Processing and Recovery Operations

The predominantly copper/molybdenum sulphide ore is amenable to conventional differential flotation processing, with gold and silver recovered into the copper concentrate and also separated into a bleed stream

gravity concentrate for doré. The processing plant design is based upon a conventional sulphide ore flotation circuit, with differential flotation to produce separate copper and molybdenum concentrate products. Plant tailings are directed into the tailings management facility and at a later date into the depleted Botija open pit.

The copper concentrate containing gold and silver byproducts is piped as a slurry to the port site on the northern coast of the country (on the Caribbean Sea), where it is dried in filter presses and stored before being loaded onto vessels for shipping to world markets. The molybdenum concentrate will be delivered to the port by road and shipped in bulk bags.

While design recoveries vary for each deposit the average recoveries are expected to be around 90% for Copper, 53% for Molybdenum and 56% for Gold over the life of mine.

Cobre Panamá achieved a successful ramp-up to commercial production in 2019, following first copper production in March 2019. Commercial production was declared from September 1, 2019.

Cobre Panamá achieved record copper production of 350kt for the year 2022.

Revenue and operating costs have been recorded for the period from January 1, 2022 to December 31, 2022, in the Company's Consolidated Statement of Earnings. AISC[1] and C1[1] cash cost for the year ended December 31, 2022 were $1.91 and $1.56 per lb, respectively. Sales revenues for the period ending December 31, 2022, amounted to $2,959 million. Gross profit for the same period was $1,065 million with EBITDA[1] of $1,665 million.

[1] Non-IFRS ratios. Refer to sections "Non-IFRS Measures" of this AIF and "Regulatory Disclosures" of the Company's MD&A for the year ended December 31, 2022.

Cobre Panamá successfully dispatched 38 concentrate shipments during 2022, reflecting a total of 343,448 tonnes of contained copper sold.
Production guidance for 2023 is expected to be between 350,000 and 380,000 tonnes of copper and between 140,000 and 160,000 ounces of gold.

The Cobre Panamá Technical Report released in March 2019 includes the plan for expansion of Cobre Panamá from 85 Mtpa to 100 Mtpa starting in 2023. Construction is complete for the CP100 Expansion project at Cobre Panamá to achieve a throughput rate of 100 Mtpa. This includes the addition of a sixth ball mill, a screening plan and process water upgrades alongside other process plant facilities and infrastructure upgrades. These facilities are currently in commissioning and ramp up will now continue over the course of the year to achieve a throughput rate of 100 Mtpa by the end of 2023.

Project power is generated by a coal-fired power station at the port site and transmitted to the mine site along an access and transmission line corridor, which also incorporates the concentrate pipeline. Additionally, the power plant is connected to the national grid, in order to sell surplus energy generated to the distribution system. A power purchase agreement was signed in 2022 for incremental electrical supply for the CP100 Expansion, (64MW) from 100% renewable power, sourced from the Panamánian grid.

The molybdenum plant equipment was delivered to site in 2022 and is expected to be installed during 2023. Molybdenum in concentrate production is expected in the range of 3-4 ktpa.

Infrastructure, Permitting and Compliance Activities

The project has two main areas: the mine and plant site within the concession boundaries, and the port and power station at Punta Rincon, approximately 25 kilometres north of the plant site on the Caribbean coast. The port and power plant site consists of a deep water berth for concentrate and coal shipments, a conventional ship landing site and a 300 MW coal-fired power plant. An access road has been constructed between the mine and the power plant site and port area.

From 2015 to date, the port has been operational, with a significant number of project equipment and consumables deliveries having been received directly on Terminal 1. During operation it is used for amongst others receipts of coal, bulk ammonium nitrate for explosives, diesel, reagents, grinding media, lime and major mobile equipment deliveries.

During 2022, 907 kt of coal were successfully discharged at the commodity jetty (Terminal 2) at the Port, and 38 vessels with 1.3 million dry metric tonnes of copper concentrate were successfully embarked at Terminal 2.

Project power is generated by a coal-fired power station at the port site and transmitted via a 230kV transmission line to the Botija substation at the mine site. Power reticulation from the Botija substation is via 14kV arterial powerlines to the mine, process plant, tailing management facilities, accommodation camps and other electric load areas. The Botija substation is also connected to the national Panamá electricity grid via a 230 kV transmission line to the Llano Sanchez substation. In 2018 the first 150MW generator Unit 1 of the power plant was synchronized to the national grid. Unit 2 was synchronized to the national grid in January 2019.

New access roads and improvements to the existing access roads from Penonomé through La Pintada and Coclesito to the site have been constructed to permit safe access to the mine and plant site from the Pan-American Highway via the existing road from Penonomé.

In December 2011, the Government of Panamá, through Ministerio de Ambiente (“MiAmbiente”) (being the Panamánian national environmental authority, former ANAM – Autoridad Nacional del Ambiente), approved the environmental and social impact assessment (“ESIA”) required for the development of the Cobre Panamá copper project, including the mining operations and related infrastructure at Botija, Colina and Valle Grande, the port facility, and the coal-fired power plant. Since then the Project definition and development scope has changed to include additional open pits and aspects that will need to be addressed in a new ESIA. The expected timeframe for submitting the new ESIA is in mid-2024.

During 2022, Cobre Panamá continued to implement its environmental management plans to meet commitments made in the project ESIA and comply with Panamá environmental regulations, international standards including Equator Principles and IFC Performance Standards and Company environmental policy. Cobre Panamá is developing and implementing its environmental management system in accordance with ISO 14001:2015 standard. The mine closure plan and costs were reviewed in 2022. The closure cost present value as at December 31, 2022 was $107.1 million.

Bio-diversity Protection

The Company is implementing its bio-diversity action plan in line with IFC Performance Standard 6 to protect and conserve the sensitive bio-diversity of the project area. To this end and throughout the project permitting construction and operational phase work has continued with key alliances such as Yaguara, Kew Royal Botanical Gardens, Missouri Botanical Gardens, the Smithsonian Tropical Research Institute, Sea Turtle Conservancy, the Peregrine Fund and other specialists with the aim of achieving a net positive impact on bio-diversity over the life of mine. The micro-propagation lab to enhance in-vitro reproduction of non-commercial native flora species started operation at the end 2022. Collaboration with the majority of these organizations has continued into the operational phase of the mine.

Site Water Management

The project is located in the tropics with a high average annual rainfall of around 4.4 metres at the mine site and 5.2 metres at the port. The high rainfall has presented challenges during the project construction phase due to erosion and sediment in runoff. This has been largely mitigated by the construction of sedimentation ponds and the rapid hydro-seeding of disturbed areas. During operations, all drainage and contact water from the open pit, waste dumps and ore stockpiles is being collected and used as process water in the mill whilst non-contact water for environmental flow is released to the Botija river. Furthermore, water is being recycled from the TMF to the plant, whilst excess water decanted off the surface of the TMF is being released to the Del

Medio River, in compliance with local regulations and discharge permits. The sand collection systems and trenches at the TMF designed to collect seepage have been in operation since the end of 2021. The discharged water quality currently meets all local discharge requirements and is expected to continue meeting water quality standards for aquatic biota over the life of mine.

Environmental Audits

The project continues to be audited bi-annually against ESIA commitments by a third party independent auditor and the results provided to the environmental regulator MiAmbiente.

Acid Rock Drainage

("ARD") test work has identified waste rock materials as potentially acid generating (PAG). To mitigate the risk an ARD Management Plan has been implemented and is subject to regular review. Mine dumps are designed and built to encapsulate PAG materials and prevent acid generation, infiltration of rainwater and minimize seepage. Dump seepage and pit drainage contact water is collected, treated as necessary and used in the mill process. An extensive water quality monitoring program is in place across the mine site and the life of mine probabilistic water model indicates compliant water quality at final effluent discharge points.

Permitting and Approvals

In 2018, the Company successfully obtained permits for the power plant water concession and the process plant water concession. In 2020 the process plant water concession received final approval by the Controller General of Panamá.

In 2019, the Company successfully obtained occupation permits for the power plant and the processing plant.

During 2019, the Company also lodged the necessary environmental permits for water discharge from the power plant and the TMF, the permit for operation of the emulsion plant and the occupation permits to operate the power plant and the processing plant. In 2021, the Company reported its compliance with local water discharge parameters to the regulator. After a two year review, the regulator approved the water discharge permits according to local legislation for 1) the TMF and 2) the power plant in September 2022.

Notice of Violation, Fines and Penalties

On July 22, 2021 there was an environmental incident related to a tailings pipeline failure resulting in a limited, short-term impact on natural waters. Despite the limited impact, the event gained significant social media attention. Contingency plans were activated with almost all of the spilled tailings recovered within days of the event. Apart from a minor impact in terms of turbidity, there was no aquatic fauna impact according to tissue and biological monitoring. No fish deaths were observed. A notice of violation regarding this incident was issued in July 2021, followed by a reconsideration motion submitted by MPSA in January 2022.

No other material environmental incident was reported at Cobre Panamá in 2022 and there were no other notices of violation or penalties issued by any applicable authority. Nevertheless, the environmental regulator Mi-Ambiente opened an administrative process due to seven old findings arising from their inspection in July 2021. The Company requested a reconsideration in belief that the findings refer to old issues that have already been resolved.

Social and Community

Since its onset, the Cobre Panamá project has had a clear commitment to its surrounding communities. Five key pillars have been the basis for engagement by the Project in improvement in quality of life for 21 direct impact communities and more than a dozen of indirect communities that have access via the Llano Grande Road, which is the main access road to the mine.

Health, education, community relations, sanitation/infrastructure and economic development have been the pillars for all of the social programs carried out by the Project. A local scholarship program has benefited over 3,500 low income students, helping to reduce the school absentee index to one of the lowest in the country. The integrated school program guarantees one meal a day for students attending the schools of the Districts of Donoso and Omar Torrijos. Moreover, a number of infrastructure projects have helped over 10,000 families in 14 different communities to gain access to potable water.

The economic development efforts focused on sustainable job creation have now yielded the formation of seven new duly registered cooperatives servicing the mine, local markets and other global firms, including NESTLE. The cooperative DONLAP, the Spanish acronym for the Association of Small Farmers of Donoso and La Pintada, reached $3M in sales to Cobre Panamá, NESTLE and local markets from fruits and vegetables grown in our surrounding communities. The cooperative ATUR is now responsible for developing the tourism attractions of the area, like the Omar Torrijos Museum, the agro-farms and the kayak rapid river tours along the San Juan de Turbe river. AGROBUC is the latest cooperative that was established in 2023, which aims to produce authentic buffalo mozzarella cheese from local farm producers.

The Company is on track with its goal of creating more jobs through the economic development programs than the actual number of local personnel employed at Cobre Panamá.

Capital and Operating Expenses

The estimated Cobre Panamá capital and operating costs for 2023 are set out in the following table:

Capital costs (2)	**2023**
Total capital cost estimate ($m)	**560**
Operating costs (1)	
Labour, contractors and maintenance	500
Supplies, power and fuel	470
Other (includes Inventory)	120
Total operating cost estimate ($m)	**1,090**

(1) Operating costs exclude royalties, treatment/refining charges and transport costs and Gold and Silver credit purchases.
(2) Capital costs includes growth project costs, site capex and deferred stripping costs capitalized

Exploration, Development and Production

Mining and production statistics for the past three years are set out in the following tables:

	Unit	2022	2021	2020	2019
Waste Mined	'000 Tonnes	63,860	49,688	34,653	66,570
Ore Mined	'000 Tonnes	100,250	96,426	59,024	51,879
Ore Grade Mined	% Cu	0.40	0.40	0.38	0.39

	Unit	2022	2021	2020	2019
Ore Processed	'000 Tonnes	86,145	80,838	54,457	38,583
Ore Grade	% Cu	0.45	0.45	0.42	0.44
Copper in Concentrate Produced	Tonnes	350,438	331,000	205,548	147,480

Sales

A summary of the revenues for the past three years attributable to Cobre Panamá are as follows:

Year	Revenue ($ million)
2022	2,959
2021	3,160
2020	1,326

Cobre Las Cruces

The information on Cobre Las Cruces contained in this AIF is based in part on the Technical Report: "Cobre Las Cruces: Polymetallic Primary Sulphide Mineral Resources, Andalucía, Spain, NI 43-101 Technical Report" dated effective as of January 17, 2022 (the "CLC Technical Report") prepared by Juan Manuel Escobar Torres (QP) BSc (Hons, Geology) European Geologist (1785), Chief Geologist, Cobre Las Cruces S.A.U., David Gray (QP) BSc(Hons, Geology), MAusIMM, FAIG, Group Mine and Resource Geologist, FQM (Australia) Pty Ltd. and Robert Stone (QP) BSc(Hons), CEng, ACSM, Technical Manager, FQM (Australia) Pty Ltd. all Qualified Persons under NI 43-101 and have verified the data. The CLC Technical Report is available for review on SEDAR under the Company's profile. Information in this AIF of a scientific or technical nature relating to Cobre Las Cruces and arising since the date of the CLC Technical Report has been prepared under the supervision of John Gregory of the Company who is a "qualified person" under NI 43-101.

Project Description, Location and Access

Cobre Las Cruces is located in southern Spain, about 20 kilometres northwest of the city of Seville in the autonomous region known as Andalucía. The regional climate is characterized as Mediterranean and the topography is one of gently rolling hills. Road access to the operation is via the N-630 Highway, which passes 2km east of the mine. Access to the site is via existing sealed roads.

The project has all permits and approvals necessary to operate.

Cobre Las Cruces S.A. ("CLCSA") is the owner and operator of the Cobre Las Cruces mine ("CLC") in Spain. CLCSA is an indirect wholly-owned subsidiary of the Company and is incorporated under the laws of Spain.

CLC currently owns around 1,000 hectares of land for its operations. The mineral and surface rights fully enclose the deposit. The operation also covered some public land, specifically three streams, a livestock trail, and some rural tracks. Some of these were relocated at the request of the authorities. Rights-of-way for associated infrastructure outside the project area, such as the water pipeline from San Jerónimo, water wells and pipelines at the site, a 220-kV substation, and two high voltage electrical transmission lines, comprise an area of about 10 hectares.

CLCSA was granted mining rights for subsurface minerals for an area of 3,032 hectares, through Mining Concession No. 7532, by the Regional Ministry for Employment and Technological Development of the Province of Andalucía. Under this concession, CLCSA owns and operates CLC.

FQM holds a 100% interest in CLCSA. Mining Concession No. 7532 was granted to CLCSA by the Regional Ministry for Employment and Technological Development of the Province of Andalusia on August 6, 2003 and expires on August 6, 2033. For the polymetallic refining ("PMR") project, a modification of the Concession was granted in June 2021. This enables CLC to produce the four metals and to exploit the underground mine as well as the new PMR plant.

The project is subject to a private royalty of 1.5% if the LME copper price is greater than or equal to $0.80 per pound of copper. Under current Spanish legislation, corporate tax is paid on taxable earnings at a rate of 25%.

History

The Cobre Las Cruces deposit was originally discovered by a subsidiary of Rio Tinto plc in 1994. It carried on exploration activity until 1999 and sold the project in that year to MK Resources Company (MK Resources), which established CLCSA, as its local Spanish subsidiary. CLCSA completed two feasibility studies and carried out environmental studies and permitting work prior to becoming an affiliate of Inmet. The Mining Concession was granted in August 2003, after a positive Declaration of Environmental Impact was issued by the Andalucían Regional Ministry of the Environment in May 2002.

On August 22, 2005, Inmet acquired a 70% indirect interest in CLCSA from MK Resources. At that time Leucadia National Corporation, through MK Resources, retained the other 30% interest in CLCSA.

CLCSA completed a revised feasibility study and basic engineering and commenced construction of the project in 2006. Construction of CLC was completed in 2008 and the process plant was completed in February, 2009. On December 15, 2010 Inmet purchased the remaining 30% interest in CLCSA from Leucadia National Corporation, to bring Inmet's ownership to a 100% indirect interest. The Company indirectly acquired 100% of CLCSA as a result of its acquisition of Inmet in March, 2013.

On January 23, 2019, CLC suffered a significant land slippage where approximately 9.5 million cubic metres of earth fell into the open pit from the North Slope. The land slippage was instantaneous and none of the instrumentation in the area detected any signs of instability in advance of the incident. Mining activity was temporarily suspended although feed from surface stockpiles resumed on January 31, 2019, Rehabilitation action plans and permitting was undertaken immediately after the event which allowed mining to restart at the end of July 2019. Due to the landfall, a $97 million impairment was recognized in the Q4 2019 financial statements.

Mining of the secondary orebody in the open pit was completed in August 2020 with the remaining secondary sulfide copper reserves depleted by the end of February 2021.

During 2019, CLC committed to extending its activity by re-processing tailings from the secondary copper ore operation. Laboratory test work was completed on old tailings with Cu grades above 1%. Metallurgical performance for copper recovery and consumables were good enough to consider this material amenable for leach processing in the existing facilities. An economic evaluation was followed by copper cathode production from selected old tailings. Since 2015, CLC has continued to extend and improve confidence in the Polymetallic Primary Sulphide ("PPS") mineralization. Extensive geological drilling, mine planning studies, metallurgical test work and pilot plant studies have provided sufficient detail to support a PPS Mineral Resource estimate.

Geological Setting and Mineralization

Las Cruces is located in the eastern portion of the Iberian Pyrite Belt (IBP) geology, well known for its volcanogenic massive sulfide (VHMS) ore deposits. The IPB extends for some 300 kilometres from southern Portugal into southern Spain and can be up to 80 kilometres wide in places. The Las Cruces mineralization is hosted by volcanic and sedimentary rocks of the late Devonian to early Carboniferous period and were deposited in a narrow and relatively shallow intra-continental submarine setting.

Post depositional secondary copper enrichment occurred in the upper part of the deposit, forming massive secondary sulfide mineralization which was the focus of open pit mining. PPS mineralization and associated semi-massive stockwork mineralization are located immediately below the secondary sulfide mineralization. The Las Cruces deposit is buried under 100 to 150 metres of sandstone and calcareous mudstone (marls) and, as a result, does not outcrop on surface.

Exploration

Exploration was re-initiated by CLC in 2013 with a comprehensive review of all historical work and data. This review initiated further exploration of two targets within the mining concession, namely; El Esparragal and La Fabrica. The two targets were investigated with gravity and electromagnetic surveys to more accurately define their location for targeted drilling. El Esparragal geophysical surveys have identified targets for drilling. In contrast, La Fabrica geophysics and drilling have confirmed the absence of anomalous massive or semi-massive sulfide deposits. Specific to the primary massive sulfide mineralization and related stockworks, further extensional and infill drilling was completed from July 2020 through to July 2021.

Since the restart of exploration in 2013, new investigation permits have also been granted and requested in order to explore for new sulphide deposits.

Exploration has been divided into groups according to its distance to the current process plant. NME (Near Mine Exploration) covers permits that are closest to the process plant. RE (Regional Exploration) encompasses permits that have been granted or requested, and are further afield. The NME permits, Salomé, Faralaes, Patricia, Ana and Alicia, are all granted and located in the province of Seville. The RE permits Alba (Seville) and Eloy, Jimena, Naia and Aurika (Huelva) were granted in 2022.

Drilling

Diamond drilling has continued across the CLC mining concession since its discovery in 1994 by Riomin Exploraciones, S.A. (Rio Tinto). Drilling has focused on defining the extents of the CLC deposit as well as for infill detail to support more accurate estimates. To date, 807 diamond holes have been drilled for 159,100 metres of core. Diamond drilling was on a nominal grid spacing of 100 metres down to 35 metres across zones of mineralization. Mine waste stripping of the overlying marls started in 2006 with first ore exposed mid-2009, which was then followed by a campaign of closer spaced infill drilling. Drill spacing was significantly reduced to around 12 m across key zones of mineralization. Most holes were drilled vertically in order to maximize the angle of intersection with the massive sulphide zone. Around 88% of core was drilled using PQ core diameter, with the remainder drilled using HQ diameter core. Downhole surveys, core orientation studies, and core recovery analysis were routinely conducted during diamond drilling.

In 2018 an exploration adit was developed to the east from the northern slope of the open pit. The adit was developed in order to provide closer drilling access to the PPS mineralization as well as a tighter grid of intercepts. The closer access provided a more accurate position of mineralization and eliminated having to drill through 200 – 400 m of tertiary materials from surface. A total of 12 diamond core holes for 1,280 m (391 samples) were drilled from this underground development.

Sampling, Analysis and Data Verification

Sample preparation and analysis have been managed in a secure manner at both on and off site preparation and laboratory facilities.

Drilling, logging and sampling data were collected from diamond core by reputable companies and suitably trained persons. Core was logged and marked at a nominal one metre length, and core was either submitted whole or cut with a diamond saw, bagged and sealed to be sent to the sample preparation laboratory for crushing, splitting and pulverization. QAQC has been practiced for the duration of the diamond drilling with several successful umpire laboratory check studies completed. A standard was inserted every 15th sample, a blank, a coarse crush and a pulp sample were inserted every 20th sample. Diamond core sample pulp aliquots were typically tested with a four acid digest followed by Inductively Coupled Plasma (“ICP-AES”) analysis techniques. Samples have been analyzed at Anamet Laboratory in England, OMAC Laboratory in Ireland, ALS Geochemistry laboratory in Vancouver and an independently managed non-accredited laboratory on site managed by AGQ.

The QP responsible for the Mineral Resource estimates at CLC has worked as the CLC Chief Geologist since 2012, and has verified that the data available for the CLC Mineral Resource estimate is of good quality and believes that the geological understanding and data is representative of the prevailing mineralization as relevant to the deposit.

Mineral Processing and Metallurgical Testing

Metallurgical test work on PPS mineralization began in 2014 and lasted 5 years. The first stage of test work was aimed at defining the most suited technology to treat the polymetallic sulfides. The primary ore contains copper, zinc, lead and silver in a form that is not currently recoverable in the existing circuit. The test work led to hydrometallurgical routes, including pressure and atmospheric ferric oxidation for copper and zinc leaching as well as chloride leaching for silver and lead.

On the back of this test work, in 2016, CLC completed construction of a pilot plant with the help of European Union funding to validate the technology of processing PPS.

Successful tests were conducted during 2016 and 2017. Against this process background the primary design of the industrial process for the future PMR has been developed.

Mineral Resources

A Mineral Resource estimate of PPS mineralization was updated in January 2022. The estimate used updated drill hole results together with an updated 3D geology model of the spatial distribution of copper, lead, zinc and silver mineralization. Grade interpolation parameters were guided by geology, styles of mineralization, drill hole spacing and geo-statistical analysis of sample data. The Mineral Resource estimate was classified according to geological and grade continuity, QAQC, density data, drill hole grid spacing and confidence in the panel grade estimate.

Mineral Resources are reported in accordance with the guidelines of the Standards on Mineral Resources and Reserves of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines, CIM November 2019). Minor tonnages of secondary sulfide and gossan gold mineralization that remain from open pit mining and stockpiles are tabled for completeness.

Reasonable prospects for eventual economic extraction are based upon the positive economics of surrounding underground operations of similar styles of mineralization together with the recent successful development of new technology related to industrial scale poly metallurgical refining.

The Mineral Resource estimate for CLC presented in the table below is consistent with the estimate produced for the CLC Technical Report.

Mineral Resource - as at December 31, 2022, and reported using a 1% Cu cut-off grade

Classification	Tonnes (Mt)	CuEq (%)	Cu (%)	Au (g/t)	Pb (%)	Ag (g/t)	Zn (%)
Polymetallic Primary sulphide (1% CuEq cutoff grade*)							
Total Measured	18.3	2.81	1.27	-	1.37	33.39	3.11
Total Indicated	17.9	2.20	1.24	-	0.89	25.36	1.87
Subtotal Meas. plus Ind.	**36.2**	**2.51**	**1.26**	**-**	**1.13**	**29.42**	**2.50**
Total Inferred	7.09	1.93	1.23	-	0.73	29.47	1.12
Secondary sulphide (1% Cu cutoff grade)							
Total Measured	0.86	-	6.23	-	-	-	-
Total Indicated	0.06	-	2.51	-	-	-	-
Subtotal Meas. plus Ind.	**0.91**	**-**	**6.01**	**-**	**-**	**-**	**-**
Total Inferred	-	-	-	-	-	-	-
Gossan (1 g/t Au cutoff grade)							
Total Measured	-	-	-	-	-	-	-
Total Indicated	0.01	-	-	1.54	0.83	100.47	-
Subtotal Meas. plus Ind.	**0.01**	**-**	**-**	**1.54**	**0.83**	**100.47**	**-**
Total Inferred	-	-	-	-	-	-	-

The current depleted Mineral Resource as at December 31, 2022, was estimated and verified under the supervision of David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG (#7323).

Mineral Resource Statement for Cobre Las Cruces stockpiles - as at December 31, 2022

Classification	Tonnes (Mt)	CuEq (%)	Cu (%)	Au (g/t)	Pb (%)	Ag (g/t)	Zn (%)
Primary Stockpiles							
Total Measured	-	—	—	—	—	—	—
Total Indicated	5.0	2.46	1.19	-	1.63	29.40	2.21
Total Meas. plus Ind.	**5.0**	**2.46**	**1.19**	**-**	**1.63**	**29.40**	**2.21**
Gossan Stockpiles							
Total Measured	-	-	-	-	-	-	—
Total Indicated	2.7	-	-	2.58	3.30	82.3	—
Total Meas. plus Ind.	**2.7**	**-**	**-**	**2.58**	**3.30**	**82.3**	**—**

The current stockpile Mineral Resource inventory as at December 31, 2022, was verified under the supervision of David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG (#7323).

The CLC secondary sulfide copper reserves were depleted by end of February 2021. Secondary stockpiles at CLC were 141 thousand tonnes at 2.11% Cu. These have now been completely processed.

Detailed economic analysis are yet to be defined for the PPS Mineral Resources as defined in the January 2022 NI 43-101 Technical Report.

Mining Operations

Mining of the secondary orebody in the open pit was completed in August 2020. In 2022 the work mainly focused on rehabilitation activities and mining the tailings installation.

Detail regarding underground mining methods for PPS mineralization to feed the PMR project is dependent on completing Mineral Reserve studies. Preliminary work has considered the style and morphology of PPS mineralization for supporting practically suitable potential underground mining methods.

Processing and Recovery Operations

Reprocessing of high-grade tailings will continue during 2023. Tailings are processed by the plant using existing infrastructure.

The PMR process plant will use the existing CLC operation infrastructure including the ball mill, leaching reactors and filters, copper solvent extraction, copper electro winning and effluent treatment. Additional mills, zinc solvent extraction, zinc electro winning with subsequent melting and casting, as well as lead and silver leaching and recovery areas are to be added.

PPS feed to the plant stockpile will be transported from underground operations via an electrical Railveyor system.

Infrastructure, Permitting and Compliance Activities

The excellent location of the property provides access to all necessary infrastructures: well maintained, paved roads; an international airport in Seville with connections throughout Europe; and port facilities in Huelva, approximately 80 kilometres to the southwest and Seville itself. Power for CLC is provided by the Spanish national grid, water for plant operations comes from both contact water extracted from the pit and from the San Jeronimo (Seville) municipal water treatment facility.

Mining activities in Spain are subject to Spanish national, regional and local laws and regulations, which regulate, amongst other things, air emissions, water discharge, soil contamination, waste management, and management of hazardous substances, protection of natural resources, antiquities, endangered species and reclamation. Spain has adopted European Union Directives pertaining to environmental matters into its domestic legislation. These rules impose strict environmental conditions on the management of, amongst other things, water, wastes and air emissions.

To be able to exploit the mineral resources, numerous administrative procedures have been processed by public bodies with regulatory authority at different levels (local, regional and central).

Amongst the most important permits, concessions and authorizations obtained for the CLC are:

(i) The Declaration of Environmental Impact (the “DEI”), and its subsequent modifications- which is the formal statement from the regional authority that determines the environmental suitability of CLC. The DEI also outlines the environmental conditions for the operation of CLC regarding protective measures, mitigation and monitoring. The DEI is binding and is incorporated into the conditions of the mining concession;

(ii) The Public Water Concession, issued by the Water Authority, which determines the volumes and different uses of water in CLC. This authorization has been modified in 2021 to meet the updated operating needs and the administrative requirements on compensating the deficit of water that CLC extracts from the local aquifer.

(iii) The Integrated Pollution Prevention and Control permit (the “IPPC”) - and its subsequent modifications, which provides for an integrated system of environmental permitting for all media and for the different relevant environmental regimes. The CLC IPPC has very low water discharge emission limits in some cases much lower than the receiving water quality in the nearby Guadalquivir River;

(iv) The dewatering and re-injection (DRS) authorization, issued by the Water Authority, which regulates the extraction and re-injection of ground water surrounding the CLC open pit. The original DRS authorization was modified in October 2013 and again in March 2023. This document contains, amongst other things, the limit values pertaining to re-injected ground water and the artificial aquifer recharge to compensate for the possible extraction deficit, currently in operation.

(v) The resolution issued on November 9, 2006 by the General Directorate for Industry, Energy and Mines, under the Regional Ministry for Innovation, Science and Business of the Andalucian Regional Government, which authorized the construction of the CLC hydrometallurgical plant.

(vi) The resolutions issued by the Mining Authority on April 24, 2020 and August 20, 2020, which authorize the tailings process and the construction of the plant installations for the Tailings Project.

In 2010, CLCSA created the Cobre Las Cruces Foundation (the "Foundation") which is intended to encourage and promote environmental and sustainable development, thereby enabling it to meet its objectives regarding social corporate responsibility.

Since starting, the Foundation has become one of the most active entities of its kind in Andalucía, with more than 500 activities and/or projects performed to date.

The Foundation focuses on two spheres of activity: collaborations with other entities; and its own projects. In the first of these, the Foundation has provided support to other institutions at the regional, provincial and local level to boost education and training, social, charitable work, cultural, sporting and environmental initiatives. The foundation has since inception invested more than €10 million in the local economy.

At CLC, site water management and compliance continues to be the main focus due to the considerable number of commitments and stringent conditions in the various licenses. After several upgrade projects carried out in recent years, the reliability of the neutralization plant has increased markedly and currently the plant produces a very stable high-quality effluent. Therefore, water quality limits for the discharge to the Guadalquivir River are being consistently met and the number of exceedances has reduced to a new historical minimum. Furthermore, the total number of exceedances concerning discharges, emissions and other established limits within the environmental permit areas has also reached its historical minimum.

In 2018, significant progress was made on dump restoration including the new "El Chamorro" marl dump. The established practice of dump profiling, application of previously stored topsoil, sowing with pasture to stabilize the soil and improve soil nutrient content has resulted in improved surface runoff management and erosion control.

Permitting

In 2018, the Company submitted the necessary documents to obtain the permits for the PMR project to exploit the mass of primary Sulphide orebody that lies beneath the secondary ore body that CLC is currently mining. New environmental, mining and water permits were also requested.

Since 2019 the Company has continued to work with the main Public Administration departments to progress the PMR permitting process. The Company has received all permits including the Water Permit for the PMR project which was formally approved on March 8, 2023. No construction permits for the PMR project have yet been granted.

Tailings Storage Facility

At CLC, the TSF is an engineered structure constructed from compacted marl and a synthetic liner. This facility receives dewatered leach residue from the operations for permanent storage. The tailings are passed through vertical press filters to produce a very-low moisture content final tails product. In 2021, the average moisture in the tailings was consistently under 14%, which allowed proper disposal inside the TSF. Tailings deposition commenced in 2009. Tailings production in 2022 was 2.0 million tonnes, and as of the end of 2022 the TSF contains 20.0 million tonnes.

Notice of Violation, Fines and Penalties

CLC has received three notices of violation (each, an "NOV"), served in 2014, 2017 and 2019 regarding loss of underground water and insufficient compensation for the pit dewatering and reinjection system. The first NOV related to the period from May 2010 to February 2014 with an initial fine of € 0.6 million. The fine has been reduced to €326,700 due to our defense, and CLC has paid in advance the sum of €237,600 without any admission of liability for the issue. CLC continues to appeal the entire penalty. The second NOV relates to the period from February 2015 to October 2016 with a proposed fine of €1.5 million. Despite its initial reactivation, this case has been provisionally filed and is pending once again. The third NOV relates to the period from October 2016 to May 2018 and had a proposed fine of €1.6 million. A reduction of €200,000 in the fine was achieved, and CLC paid in advance the sum of €800,000 without any admission of liability for the issue. Recently, CLC has received favorable decision from the Supreme Court of Spain, and consequently the penalty has been declared without effect, taking account of the Company's pleadings. CLC has a reimbursement right for the amounts paid in advance.

Capital and Operating Expenses

The CLC estimated capital and operating costs for 2023 are set out in the following table:

Capital costs [2]	**2023**
Total capital cost estimate ($m)	**15**
Operating costs [1]	
Labour, contractors and maintenance	20
Supplies, power and fuel	25
Other (includes Inventory)	40
Total operating cost estimate ($m)	**85**

(1) Operating costs exclude royalties, treatment/refining charges and transport costs.
(2) Capital costs includes growth project costs, site capex and deferred stripping costs capitalized

Exploration, Development and Production

Certain mining statistics for the past three years are set out in the following tables:

	Unit	2022	2021	2020
Waste Mined	'000 Tonnes	—	—	1,134
Ore Mined	'000 Tonnes	—	125	821
Ore Grade Mined	% Cu	—	1.00	4.52

	Unit	2022	2021	2020
Ore Processed	'000 Tonnes	1,378	1,341	1,462
Ore Grade	% Cu	0.99	1.37	4.35
Copper cathode produced	Tonnes	9,557	13,652	54,352

Sales

A summary of the revenues for the past three years attributable to CLC are as follows:

Year	Revenue ($ million)
2022	85
2021	131
2020	332

Guelb Moghrein

The information on Guelb Moghrein contained in this AIF is based in part on a Technical Report: "Guelb Moghrein Copper Gold Mine, Inchiri, Mauritania, NI 43-101 Technical Report" dated as of March 30, 2016 (the "Guelb Moghrein Technical Report") prepared by David Gray (QP) BSc(Hons, Geology), MAusIMM, PrSciNat (SACNASP), Group Mine and Resource Geologist, FQM (Australia) Pty Ltd. and Anthony Cameron (QP) BEng(Min), Grad Dip Bus, M Comm Law, FAusIMM, Consultant Mining Engineer in accordance with the requirements of NI 43-101 and both have verified the data. The Guelb Moghrein Technical Report is available for review on SEDAR under the Company's profile. Information in this AIF of a scientific or technical nature relating to Guelb Moghrein and arising since the date of the Guelb Moghrein Technical Report has been prepared under the supervision of John Gregory of the Company who is a "qualified person" under NI 43-101.

Project Description, Location and Access

Guelb Moghrein is located 250 kilometres northeast of the nation's capital, Nouakchott, near the town of Akjoujt, and is accessible by paved highway. Akjoujt has a population of approximately 11,000 people.

Guelb Moghrein consists of an open pit copper and gold deposit located 141 metres above sea level. The climate is classed as desert with an average annual precipitation of 106 millimetres.

The mine generates its own electric power from fossil fuels. It has developed reliable sources of fresh and saline water from a well field 120 kilometres distant from the open pit. The operation has three tailings management facilities; two of which are still operational for magnetite and magnetite-free tailings.

The Company currently holds a 100% interest in Guelb Moghrein through its subsidiary, Mauritanian Copper Mines S.A ("MCM"). The Company held an 80% majority interest which it acquired in 2004 until the remaining 20% was acquired in February 2010 from GEMAK SA and General Gold Ltd. The right to mine is mandated by a large scale mining license covering the CM2 concession of 81 square kilometres valid until July 2025 and renewable for a minimum of 10 years per renewal. Additionally, the mining operations are regulated by a Convention d'Establishment (the "Convention") with the Government of Mauritania. This Convention was established in 2005 and renegotiated in 2009 receiving approval from parliament in November 2009 and promulgated on January 7, 2010.

Guelb Moghrein holds all necessary Mauritanian permits required to carry out its operations and operated in material compliance throughout 2022.

Pursuant to the Convention signed with the government of Mauritania, the Company enjoyed a five year corporate tax holiday which ended February 2012 after which corporate tax at a rate of 25% is payable on taxable earnings derived from mining at Guelb Moghrein. A mineral royalty of 3% on copper and 4% on gold of net sales is payable on a quarterly basis by Guelb Moghrein to the government of Mauritania. A mineral royalty of 2.5% on iron of net sales is payable on similar frequency for magnetite (iron concentrate) produced from the operation.

History

Copper tools and arrowheads dating from approximately 4000 to 6000 BC have been found in the Akjoujt area of Mauritania where Guelb Moghrein is located. Although exploitable quantities of copper were recognized in the 1930s it was not until the 1950s when serious development plans were undertaken. After the nation's independence from France in 1960 companies such as Anglo American Corporation attempted development of the Guelb Moghrein deposit. In the early 1970s an open pit was developed and a TORCO (a high temperature oxide roast operation) commenced but had to close in 1977 due to technical difficulties and high fuel prices. The national mining corporation, SNIM, through its subsidiary MORAK attempted to recover gold. In 1999, after

mining law reform, a Mauritanian chartered company (GEMAK) attempted to develop Guelb Moghrein, but did not proceed beyond the production of a feasibility study in 1997.

In November 2004, the Company signed an asset purchase agreement to acquire the property. Site establishment and construction commenced in March 2005. Guelb Moghrein achieved commercial production in October 2006.

Geological Setting and Mineralization

The Guelb Moghrein mineralization is considered to be an example of an Iron Oxide Copper Gold ('IOCG') type deposit that, in terms of structure and mineralogy, has common features with IOCG deposits elsewhere in the world. The deposit may be subdivided into the larger Occidental orebody and a smaller, shallower Oriental orebody. Mineralization is predominantly hosted by Ferromagnesian Carbonates ('FMC'). The copper-gold mineralization is associated primarily with chalcopyrite and pyrrhotite mineralization. Magnetite becomes abundant outside the sulphide rich zones of the FMC. The deposit extends approximately 600 metres along strike and dips to the southeast at 30 to 40 degrees. The eastern and western flanks of the Occidental deposit are fault bounded and the deposit is open at depth.

The Oriental ore body contains mainly complex oxide copper mineralization not amenable to recovery by conventional mineral or hydrometallurgical processing methods. However at depth, Oriental contains sulphide copper mineralization that will be treated in the existing processing facility at Guelb Moghrein.

Exploration

Exploration has been carried out across Guelb Moghrein's deposit since the 1960s. Recent exploration since 2008 includes several campaigns focused on targets in the adjacent areas. Exploration personnel completed studies that have focused on improved understanding of the geological controls of mineralization. Ground and airborne gravity surveys clearly delineated the main Occidental and Oriental lenses, and with the support of soil geochemistry surveys on a 200-metre to 500-metre spacing several other anomalies in the district were identified although subsequent drill testing returned no significant mineralization.

Drilling

Since discovery, the deposit has been drilled using conventional diamond and RC drilling methods. Approximately 208 diamond holes were drilled from 1968 through to 2008. First Quantum exploration and mine personnel have managed drilling since 2008. Holes were drilled, logged and sampled according to First Quantum's standards. Between 2008 and 2015, 138 holes for 27,228 metres were drilled. The diamond drilling grid ranges from 70 metres to 100 metres and drops down to grids of around 20 metres in the active mining areas. RC drilling has been used for grade control purposes and to define the extents of the orebody. RC drilling data has been used in the Guelb Moghrein Mineral Resource estimation. In periods when RC drilling was not employed for grade control, blast hole cones were sampled and analyzed but not used in Mineral Resource estimates.

During 2018, an additional 93 diamond drill holes were completed along the near pit extensional areas and some infill drilling within the pit. MCM also continued with reverse circulation drilling across active areas of the Occidental deposit. Infill drilling focused on improving definition of the position, tonnes and grades of mineralization within the reserves' extents while extensional diamond drilling targeted areas where mineralization was still largely open. Drilling along the western edge of the Occidental deposit has closed off mineralization, while drilling in the south east has realized some extension to the mineralization. Occidental mineralization remains largely open to the south and at depth. In addition, diamond and reverse circulation drilling has been completed across the Oriental deposit in order to determine the base of weathering and acquire fresh samples for metallurgical testing. A total of 66 diamond drilled holes for 14,032 metres were completed.

In 2022 sterilisation drilling was conducted around the perimeters on the open pits.

Sampling, Analysis and Data Verification

Diamond drilling was completed with HQ sized core which was transported to an on-site preparations facility where core was logged and marked at intervals between 0.4 metres and 1.5 metres. The core was cut and samples prepared at the on-mine ALS Chemex laboratory and preparation facilities. Prepared samples were sent to ALS Minerals laboratory in Johannesburg for analysis. RC rig-mounted cyclone samples were riffle split to a sample mass of 2 to 4 kilograms and were similarly sent to the ALS Chemex laboratory.

Analysis of diamond and RC samples was completed by ALS Minerals Laboratory in Johannesburg. Elements were analyzed using a four acid digest followed by an ICP analysis with gold being analyzed using AAS. Oriental samples were also analyzed for single acid soluble copper and cyanide soluble copper.

QAQC has been practiced for the duration of the diamond drilling and umpire laboratory checks have been completed. A standard was inserted every 33rd sample, a blank, a coarse crush and a pulp sample were inserted every 20th sample.

Grade control blast hole samples were prepared on mine and were analyzed using a hand help Niton XRF or were sent off-site to SGS Analabs laboratory in Kayes.

A comparison of the copper grades from six twinned diamond and RC holes completed prior to 2008 showed a good correlation with no evidence of systematic bias.

The QP responsible for the Mineral Resource estimates at Guelb Moghrein visited the property in November 2015 and thereafter at least once a year. During these visits the QP has gained good familiarity and confidence in the quality of the available data and believes the geological understanding and data available for this Mineral Resource estimate is of good quality and representative of the prevailing mineralization.

Mineral Processing and Metallurgical Testing

Three sets of studies and test work assisted in the development of the process flowsheet. Metallurgical studies included comminution, flotation, gravity concentration, leaching and solid/liquid separation testing. Charter Consolidated Service Ltd in 1973 and KSLE in 1996 included laboratory and pilot tests on both core and bulk samples of ore. The latest by IML in Perth included a program of comminution and flotation testing which proposed a copper concentrator designs and process flowsheet based upon established technology, and cyanide leaching CIL plant for the recovery of gold.

A magnetite separation plant was added in 2014 and was commissioned during the first quarter of 2015. Modifications to the copper processing plant since commissioning have increased plant throughput and recoveries as well as adapting to changing feed characteristics.

Mineral Resources

The Mineral Resource estimate used ordinary kriging to estimate grades into a block model. The grade estimates were guided by interpretations of both lithology and oxidation domains. The ordinary kriged estimates were post processed into a smaller block dimension relevant to the scale of mining equipment used at Guelb Moghrein. The Mineral Resource estimate was classified according to geological continuity, sample QAQC, drill hole spacing, geological and grade continuity and the confidences in the panel estimated grades.

The Mineral Resource estimate for Guelb Moghrein, inclusive of the Mineral Reserve inventory, is presented in the table below and reflects the Guelb Moghrein Technical Report estimates and depleted to December 31, 2022. The additional stockpile resource as at the same date is listed in the stockpile table that follows.

Mineral Resources– as at December 31, 2022 and reported using 0.5% CuEq cut-off grade

Classification	Tonnes (Mt)	TCu (%)	Au (g/t)
Sulphide			
Total Measured	2.6	0.90	0.80
Total Indicated	8.0	0.87	0.63
Total Meas. plus Ind.	**10.5**	**0.88**	**0.67**
Total Inferred	0.6	0.91	0.67
Oxide			
Total Measured	0.1	1.46	2.04
Total Indicated	0.3	0.87	0.79
Total Meas. plus Ind.	**0.4**	**1.02**	**1.11**
Total Inferred	1.2	0.74	2.52
Sulphide + Oxide			
Total Measured	2.6	0.92	0.84
Total Indicated	8.3	0.87	0.64
Total Meas. plus Ind.	**10.9**	**0.88**	**0.69**
Total Inferred	1.8	0.80	1.89

The current depleted Mineral Resource was estimated and verified by David Gray of FQM who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, Pr.Sci.Nat.

Mineral Resource Statement for Guelb Moghrein stockpiles - as at December 31, 2022

Classification / Stockpile	Tonnes (Mt)	TCu (%)	Au (g/t)
ROM Stockpile	1.1	0.79	0.61
Marginal Stockpile	1.8	0.42	0.53
Oxide Stockpile	9.3	1.10	1.06
Total Measured	**12.3**	**0.97**	**0.94**

The current stockpile Mineral Resource inventory as at December 31, 2022 was verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, Pr.Sci.Nat.

Mineral Reserves

The table below lists the Mineral Reserve estimate for Guelb Moghrein, inclusive of primary sulphide ore stockpiles, as at December 31, 2022. The oxide resources are not currently included in reserves although studies are on-going as to how this material may be processed.

The Mineral Reserve inventory is a depletion estimate through mining of the Mineral Reserve reported in the Guelb Moghrein Technical Report. The estimate is derived from conventional optimization processes, detailed stage and ultimate pit designs and life of mine production scheduling.

Mineral Reserves - as at December 31, 2022 and reported based on a $3.00/lb long-term copper price

Classification	Non-primary Sulphide Ore			Primary Sulphide Ore			Total Ore		
	Ore (Mt)	TCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	Au (g/t)	Ore (Mt)	TCu (%)	Au (g/t)
Total Proven	—	—	—	3.3	0.57	0.56	3.3	0.57	0.56
Total Probable	—	—	—	0.2	0.80	0.58	0.2	0.80	0.58
Total Mineral Reserves	**—**	**—**	**—**	**3.5**	**0.59**	**0.56**	**3.5**	**0.59**	**0.56**

The 2022 Mineral Reserve estimate has been estimated by independent consulting Mining Engineer, Anthony Cameron of Cameron Mining Consulting Ltd. Anthony Cameron is a qualified person and holds the following valid qualifications: BE (Mining), Grad Dip Bus, M Comm. Law, FAusIMM.

The Mineral Reserve estimate is based on a copper equivalent cut-off grade of 0.59% CuEq using the long term consensus price of $3.00/lb for copper and a gold price of $1,200/oz. Low grade stockpiles are shown to be economic at the 0.59% CuEq cut-off grade. Hence these stockpiles continue to be considered as a part of the Mineral Reserve inventory.

A final cutback (Cutback 4) of the main pit was approved and commenced in 2021. The project is expected to contribute an additional 3Mt of plant feed over the next two to three years. Ore supply from this source will begin in 2023 following a period of waste stripping.

The Cut2 Ramp project commenced in January 2022 has been the primary support for plant feed in 2022 and is expected to be completed in March 2023.

The remaining life of mine at a treatment rate of 4.0 Mtpa is therefore shown to be approximately three years when all Cutback 4 ore, high grade and low grade stockpiles are considered.

Mining Operations

Mining at Guelb Moghrein is conventional open cast mining using hydraulic excavators and mechanical drive haul trucks. Mining is owner operated, with fully equipped training facilities for operators and maintenance workshops. Maintenance of all mining equipment is supported by service technicians and engineers who are the original-equipment-manufacturer's (OEM) personnel contracted to site.

Waste is trucked onto waste dumps in the vicinity of the open pit, while ore is trucked to the Process Plant for direct feeding into the primary crusher or onto the ROM Pad.

On average, sufficient ore is exposed in the pit for one to two months feed to the plant; stockpiling and re-handling is minimized to maintain high efficiencies.

Processing and Recovery Operations

Processing at Guelb Moghrein is by conventional SAG milling followed by flotation concentration. The process flowsheet also includes gravity concentrators in the milling circuit (Knelson concentrators) and flotation scavenger circuit (Falcon concentrators) for the recovery of gold. The final product is a copper concentrate averaging 21 % Cu and 10 to 15 g/t Au.

Plant throughput for 2023 is set at 3.6 Mtpa; with production expected to be about 13,800 tonnes of copper and 31,000 oz of gold in concentrate.

Continued optimization of process automation ('SGS Expert System') and the gravity concentrators has resulted in improved metal recoveries even at lower plant feed grades. Work to ensure the processing rate can be maintained at 4.0 Mtpa rates when treating hard ores is ongoing.

Tailings deposition is in two operational tailings management facilities (TSFs); TSF 2 for magnetite containing tailings and TSF 3 for magnetite-free tailings.

The magnetite plant was commissioned during the first quarter of 2015.

The approved re-commissioning of the carbon in leach ("CIL") plant was approved in November 2022. This will enable MCM to reprocess tailings and oxide stockpiles and is expected to extend the life of MCM until Q1 2028. It is anticipated that first gold bullion will be produced in December 2023 and the Mine Project will be completed in Q1 2025.

Infrastructure, Permitting and Compliance Activities

Guelb Moghrein is generally considered a low risk operation from an environmental, permitting, social and community perspective.

The extremely dry setting means that many of the environmental and community related risks typically associated with surface mining in wet climates are not applicable. The consumption of relatively large amounts of water in a water scarce region is however considered a high environmental risk. In an effort to reduce this risk, Guelb Moghrein have been very successful at replacing fresh with saline water, thus reducing the impact on regional fresh aquifers.

Many of the local community are either employed directly by Guelb Moghrein or derive some form of livelihood from the mining activity and the associated services sector. There are no people living on the land immediately adjacent to the mine boundary.

Apart from the quarterly and annual operational reports, the most recent environmental report submitted to the Mauritanian Government was the environmental impact assessment ("EIA") for the Magnetite Circuit. The EIA was approved by the Mauritanian Government in June 2014. The Magnetite Circuit has been commissioned, whilst the CIL gold plant has been decomissioned.

A Closure Plan for Guelb Moghrein was developed by internationally recognized consultants at the end of 2020. The Closure Plan provides guidance on all mine related infrastructure with the aim of ensuring physical and chemical stability over the long term. One of the longer term risks associated with mine closure is the dependence of the local community on services provided directly by or supported by Guelb Moghrein. Mine closure planning focused on community transition has been initiated with assistance from an internationally recognized Canadian consulting firm that specializes in social mine closure planning and implementation. The firm has been working with the Guelb Moghrein management since April 2018, leveraging various community projects Guelb Moghrein has developed in the community, working with all stakeholders.

A key aspect of the mine environmental and social closure planning process Guelb Moghrein is undertaking is communication with stakeholders and, particularly, the Ministry of Petroleum, Energy and Mines. In this regard, Guelb Moghrein has developed procedures for disseminating information to the stakeholders periodically and in a timely manner.

Tailings Storage Facilities

Guelb Moghrein has two active circular TSFs, TSF2 for magnetite-rich tailings and TSF3 for magnetite-free tailings. TSF2 was commissioned in September 2009 and TSF3 in February 2015. Both facilities are raised by upstream construction using tailings and deposition is done using spigot discharge points. The dam supernatant is recycled to the process plant by means of a pumping system. Construction of the second TSF2 raise commenced in May 2017 and was completed in 2018. With the magnetite plant operational, TSF2 is only used in case of emergency. TSF3 embankment raises 1 and 2 were completed in March 2021 and June 2022 respectively. Raise 3 is in progress on the southern side of cell 1.Prior to commissioning TSF2, sulphide tailings were stored in a circular side-hill paddock type dam covering 1.2 square kilometres (TSF1). There is a plan to reclaim TSF1 tailings once the DIL plant is recommissioned to recover gold and magnetite. Tailings production in 2022 was approximately 2.6 million tonnes; and was deposited in TSF3.

The TSFs at Guelb Moghrein are regularly inspected including annual third party review by an external consultant and subject to statutory reporting.

Notice of Violation, Fines and Penalties

No material environmental incident was reported at Guelb Moghrein in 2022 and no notice of violation or penalties were imposed by any applicable regulatory authority.

Capital and Operating Expenses

At this stage of the operation, capital expenditure on the operations is mainly sustaining capital related to major equipment component change-outs, and small ancillary equipment replacement and deferred stripping costs capitalized for the Oriental deposit. Costs are itemized below.

The Guelb Moghrein estimated capital and operating costs for 2023 are set out in the following table:

Capital costs (2)	**2023**
Total capital cost estimate ($m)	**25**
Operating costs (1)	
Labour, contractors and maintenance	55
Supplies, power and fuel	55
Other (includes Inventory)	15
Total operating cost estimate ($m)	**125**

(1) Operating costs exclude royalties, treatment/refining charges and transport costs.
(2) Capital costs includes growth project costs, site capex and deferred stripping costs capitalized

Exploration, Development and Production

Certain mining and production statistics for the past three years are set out in the following table:

	Unit	2022	2021	2020
Waste Mined	'000 Tonnes	6,616	5,160	10,190
Ore Mined	'000 Tonnes	323	1,757	4,354
Ore Grade Mined	% Cu	0.38	0.56	0.66

	Unit	2022	2021	2020
Ore Processed	'000 Tonnes	3,227	3,426	3,788
Ore Grade	% Cu	0.48	0.62	0.85
Copper Concentrate produced	Tonnes	13,313	18,845	28,491

Sales

A summary of the revenues for the past three years attributable to the Guelb Moghrein division is as follows:

Year	Revenue ($ million)
2022	214
2021	313
2020	300

Ravensthorpe

The information on Ravensthorpe contained in this AIF is based in part on a Technical Report: "Ravensthorpe Nickel Operations, Halleys, Hale-Bopp and Shoemaker-Levy Deposits, Ravensthorpe, Western Australia, Technical Report" dated March 2022 (the "Ravensthorpe Technical Report") completed by David Gray (QP) BSc(Hons, Geology), MAusIMM, FAIG, Group Mine and Resource Geologist, FQM (Australia) Pty Ltd., Robert Stone (QP) BSc(Hons), CEng, ACSM, Technical Manager, FQM (Australia) Pty Ltd, Richard Sulway (QP)

MAppSc (Geological data processing), BAppSc (Hons, Applied Geology), MAusIMM (CP), Consulting Geologist, FQM (Australia) Pty Ltd and Anthony Cameron BE (Mining), GradDipBus, MComLawFAusIMM in accordance with the requirements of NI 43-101. David Gray, Robert Stone, Richard Sulway and Anthony Cameron are Qualified Persons under NI 43-101 and have verified the data. The Ravensthorpe Technical Report is available for review on SEDAR under the Company's profile. Information in this AIF of a scientific or technical nature relating to Ravensthorpe and arising since the date of the Ravensthorpe Technical Report has been prepared under the supervision of John Gregory of the Company who is a "qualified person" under NI 43-101.

Project Description, Location and Access

The Ravensthorpe Nickel Operation ("RNO") is located within the shire of Ravensthorpe, Western Australia, approximately 550 kilometres south-east of Perth. The facility is 35 kilometres east of the town of Ravensthorpe along the South Coast Highway and readily accessible by an all-weather road. The region features a flat to undulating sandplain, falling gradually to the coast 35 kilometres to the south. In the immediate facility of Ravensthorpe is Bandalup Hill, which forms a prominent rise above the surrounding sandplain. RNO falls within the native vegetation conservation corridor known as the Bandalup corridor and the Fitzgerald River National Park is located approximately 25 kilometres to the south west.

Land use in the area is primarily wheat, sheep and cattle farming. The nearest residence is a house located 4.4 kilometres away from the Ravensthorpe processing facility.

RNO accommodates its fly in fly-out and drive in drive-out shift workers in an onsite village, which has a capacity of 550 rooms, dry and wet mess with recreation facilities. Residential staff are housed in 165 company-owned houses and units in the towns of Hopetoun and Ravensthorpe.

RNO's mineral rights are primarily held by, FQM Australia Nickel Pty Ltd ("FQMAN"), which is 70% owned by the Company and 30% owned by POSCO. The RNO assets, including most of the mineral rights, were previously owned by BHP Billiton, and were acquired through the acquisition in 2010. RNO mining licenses held by the Company cover an area of 338 square kilometres.

The current rate of corporate income tax under Australian legislation is 30% of taxable earnings. A mineral royalty of 2.5% of sales less certain allowable deductions is paid on a quarterly basis to the State Government of Western Australia.

History

Mining in the town of Ravensthorpe predates the current nickel mine, with gold discoveries dating back to 1898. The town experienced a downturn after the First World War but mining for copper continued up until the 1970s. A railway line connected Ravensthorpe with the port of Hopetoun from 1901 to 1925, when the line was closed.

BHP Billiton commenced a feasibility study for RNO in 2002 for a nickel and cobalt mine and processing plant. The project was approved in 2004 and construction commenced shortly afterwards. The plant known as the Ravensthorpe Nickel Operation was commissioned in late 2007 with first production occurring in October and the first 5,000 tonnes being produced by December 2007. The plant was officially opened in 2008. Production was then expected to total 50,000 tonnes of nickel per annum.

In January 2009, BHP Billiton announced that it was suspending production at the RNO mine indefinitely, due the reduction in world nickel prices caused by the global economic crisis and the LME nickel price dropping to as low as $8,810.00 per tonne in late 2008.

On December 8, 2009, the Company announced it had entered into a binding agreement with BHP Billiton to acquire RNO in Western Australia for $340 million, conditional on receiving certain government approvals. The

Company received the requisite approvals for the acquisition and the transaction was closed on February 10, 2010. Following acquisition by the Company, RNO achieved commercial production in December 2011.

On December 14, 2014, RNO suffered a structural failure to an atmospheric leach tank. After major refurbishment of Substation 1 the plant returned to partial operation with the limonite pressure leaching circuit starting on February 2, 2015, ramping up to full production during Q2 2015.

RNO was subsequently placed on care and maintenance in October 2017 due to a continuing low nickel price. During this care and maintenance period, RNO continued its statutory environmental monitoring and reporting obligations and progressed the permitting process for the Shoemaker Levy deposit.

During 2019 work began towards the restart of operations and in May 2020 nickel production activities were recommenced. The ramp up and stabilization continued during Q3 and Q4 of 2020. The Shoemaker Levy Project, which includes an overland conveyor and primary crushing station required to access the orebody which is 12 kilometres away, commenced in the second half of 2020.

In September 2021, for cash consideration of $240 million, the Company completed the sale of a 30% equity interest in Ravensthorpe to POSCO, one of the world's leading integrated producer of materials for the electric vehicle sector. The Company retains a 70% interest in Ravensthorpe and continues to be the operator. The proceeds of the transaction were used to pay down the revolving portion of the Company's Previous Facility.

Geological Setting and Mineralization

The RNO nickel laterite deposits have developed over Archean Ultramafic rocks on the eastern margin of the Ravensthorpe Greenstone Belt. The host rocks (Bandalup Ultramafics) are comprised of a serpentinized (greenschist facies metamorphism) komatiite complex with rare interflow sedimentary units; the primary rock was dunitic in composition. The Bandalup sequence is in turn bound by Metabasalt and metadolerite members of the Maydon basalt and Gneissic granitoids of monzogranodiorite to granodiorite composition.

Excluding the Nindilbillup deposit, the mineralization has a strong north-northwest orientation along a total strike length of about 17 kilometres. The Nindilbillup deposit strikes east-west for a strike length of about 6 km. The 5 deposits display strong similarities in regolith geology, geochemistry, texture and mineralogy as a consequence of the consistency of the underlying ultramafic sequence from which they developed. Nickel and cobalt, within the serpentinised komatiites, were concentrated by weathering and oxidation processes in the lateritic regolith.

The weathering/leaching process has resulted in horizontally defined deposits with four typical layers from top to bottom being overburden, limonite, saprolite, developed over altered/weathered saprolitic rock (saprock) grading to bedrock. The overburden is essentially barren while the Ni and Co mineralization is hosted largely in the limonite and upper portions of the saprolite. The style of mineralization at RNO is amenable to beneficiation. Beneficiation removes components of waste rock and non-recoverable material, reducing tonnages and increasing nickel grade of the final product prior to processing in the RNO plant.

The mineralized sequences have been intruded in places by dolerites and talc zones associated with faulting. The dykes are sometimes mineralized due to nickel leaching from the surrounding ultramafic based laterite.

Exploration

Other than drilling, exploration, on behalf of the current owners of RNO, has consisted of ground and airborne geophysical surveys conducted by Perth based contractors. The surveys were aimed mapping both the likely potential extents of the laterite resource and key lithological contacts. Several campaigns of downhole geophysics were undertaken in the period 2019 to 2021 to collect in-situ bulk density data.

Drilling

Of the various drilling methods used to define and estimate the RNO laterite deposits, approximately 99% of the drilled metres has been completed using RC drilling. All drilling has been completed using vertical holes which is common practice with nickel laterite deposits due to the sub-horizontal nature of most of the mineralisation. The other important drilling method used is diamond drilling. The diamond core samples are used to provide samples for both core based density determination and samples for metallurgical test work.

RC drilling is undertaken in a staged approach starting with a large 80 mE by 100 mN grid for the initial Mineral Resource definition stage (define the limits of the mineralization) down to 10 mE by 12.5 mN grid for grade control drilling purposes prior to mining. Diamond drill holes have recently been drilled at PQ diameter in selected locations to validate RC samples for geotechnical studies, metallurgical test work and bulk density determinations. Previously large-scale bucket rig holes to depths of 35 metres have been drilled to provide bulk samples for metallurgical test work.

Sampling, Analysis and Data Verification

All resource definition drilling was managed by FQM personnel following procedures for sample collection and handling designed to minimize contamination and loss of samples and are in line with standard industry practice. Samples are collected at two-metre intervals and split via a cone splitter and placed directly into a numbered calico bag. Particular attention is paid to minimizing sample contamination. The cone splitter and cyclone are pulled apart and cleaned using a steel scraper and compressed air when required, often at the end of every hole. RC chip samples are geologically logged at the time of drilling using well-established logging codes. All logging is done in metre intervals to offer a better resolution to the geological interpretation. Samples are collected in pre-numbered calico bags for dispatch and analysis at a commercial laboratory.

The dry samples (2-5 kg each) are then crushed (Jaw Crusher) and pulverized (LM5 Ring Mill) to produce a pulverised sample (90% passing 75 µm). The laboratory monitors the pulverizing stage by routinely checking a subset of samples by sieving analysis. About 100g is scooped into a labelled envelope for analysis. The QP for the Mineral Resource estimate has visited the site on numerous occasions, most recently in December 2021. The visits were undertaken for a range of tasks including supervising RC and downhole geophysics logging and sampling programmes, updating standard operating procedure (SOP) documentation, training site mine geology personnel and interviewing other RNO staff as part of internal technical studies.

Mineral Processing and Metallurgical Testing

The metallurgical characteristics of the resource have been extensively tested, incorporating beneficiation and process test work at both bench and pilot plant scales, and confirmed by the full-scale plant operation. Extensive study has been undertaken on the inter-relationship between lithology, mineralogy, geochemistry and beneficiation performance in order to provide a predictive tool for major element beneficiation upgrade, product grade and recovery. Nickel is predominantly associated with very fine-grained weathered nickel-magnesium silicates.

The process flowsheet comprises beneficiation of nickel laterite ore, pressure acid leaching (“PAL”), atmospheric leaching (“AL”), counter current decantation (“CCD”), precipitation and filtration to produce a Mixed Hydroxide Precipitate (“MHP”) product.

Mineral Resources

The Mineral Resource estimate was completed by Mr Richard Sulway (who is a contractor retained by RNO) of FQM, with the assistance of RNO geological staff in the period 2020 to 2021. The Mineral Resource was estimated using a combination of ordinary kriging and multiple indicator kriging of element grades into detailed geology model volumes of the respective nickel laterite domains. Dry bulk density values were assigned to the

models based on core-based values (caliper method) or in selected areas of the Shoemaker-Levy deposits, downhole geophysics.

The resulting estimates were classified as Measured, Indicated and Inferred Mineral Resources in accordance with the guidelines of the Standards on Mineral Resources and Reserves of the Canadian Institute of Mining, Metallurgy and Petroleum (CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines, CIM November 2019). The classification was guided by confidences in the geology, estimation methods and the resulting grade estimates in addition to the degree of geological continuity, the drill hole grid spacing and sample analysis.

The models were depleted for mining (where relevant) and reported using a 0.3% nickel cut-off grade. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Fe, Al, Mg and Ca estimates do not constitute part of the Mineral Resource or Mineral Reserve. They are included as additional information relevant to beneficiation and leaching performance.

Mineral Resource inclusive of stockpiles - as at December 31, 2022, cut-off grade 0.3% Ni

Deposit	Classification	Tonnes (Mt)	Ni (%)	Co (%)	Fe (%)	Al (%)	Mg (%)	Ca (%)	CO_3 (%)	Cu (g/t)	Zn (g/t)
Halleys	Measured	2.4	0.61	0.03	11.79	1.72	5.51	1.62	—	—	—
	Indicated	2.5	0.56	0.03	13.58	2.84	6.12	1.00	—	—	—
	Total Meas. plus Ind.	**4.9**	**0.58**	**0.03**	**12.71**	**2.30**	**5.82**	**1.30**	**—**	**—**	**—**
	Inferred	0.2	0.62	0.03	10.67	1.25	9.31	1.98	—	—	—
Hale-Bopp	Measured	21.6	0.55	0.03	11.83	1.51	5.52	0.52	—	—	—
	Indicated	15.4	0.55	0.03	11.50	1.65	8.04	0.77	—	—	—
	Total Meas. plus Ind.	**37.0**	**0.55**	**0.03**	**11.69**	**1.57**	**6.57**	**0.62**	**—**	**—**	**—**
	Inferred	1.2	0.47	0.02	9.51	1.73	10.71	1.49	—	—	—
Shoemaker-Levy	Measured	75.0	0.58	0.03	12.67	1.24	3.54	1.93	—	—	—
	Indicated	101.5	0.55	0.03	12.46	1.64	4.14	1.54	—	—	—
	Total Meas. plus Ind.	**176.5**	**0.56**	**0.03**	**12.55**	**1.47**	**3.88**	**1.71**	**—**	**—**	**—**
	Inferred	9.6	0.47	0.02	10.76	1.27	6.87	2.69	—	—	—
Nindilbillup	Inferred	26.7	0.53	0.03	12.93	2.38	5.82	0.38	—	—	—
Shoemaker-Levy North	Inferred	30.5	0.52	0.02	11.20	2.71	3.32	0.79	—	—	—
Total Resources	Total Measured	99.0	0.57	0.03	12.47	1.31	4.02	1.61	—	—	—
	Total Indicated	119.4	0.55	0.03	12.36	1.67	4.68	1.43	—	—	—
	Total Meas. plus Ind.	**218.4**	**0.56**	**0.03**	**12.41**	**1.51**	**4.38**	**1.51**	**—**	**—**	**—**
	Total Inferred	68.2	0.52	0.02	11.78	2.36	4.95	0.91	—	—	—
Stockpiled Resources	Measured	17.7	0.58	0.03	11.18	1.32	5.20	1.30	8.60	—	—

This 2022 Mineral Resource estimate has been prepared by independent consultant and qualified person, Richard Sulway (QP) MAppSc (Geological data processing), BAppSc (Hons, Applied Geology), MAusIMM (CP), Consulting Geologist, FQM (Australia) Pty Ltd and verified by David Gray (QP) BSc(Hons, Geology), MAusIMM, FAIG, Group Mine and Resource Geologist, FQM (Australia) Pty Ltd.

Mineral Reserves

The Mineral Reserve for RNO inclusive of stockpiles, as at December 31, 2022, is presented in the following table. The life of the mine Mineral Reserve is defined using a 0.3% nickel cut-off grade. The estimate is derived from conventional optimization processes, detailed stage and ultimate pit designs and life of mine production scheduling. Mg and Ca estimates do not constitute part of the Mineral Resource or Mineral Reserve. They are included as additional information relevant to beneficiation and leaching performance.

In addition to the stockpiles, there is also an intermediate beneficiated product that is held within the processing surge (buffer) ponds. At the end of December 2022 the quantity of this material (considered as Proven Reserve) was 75,000 tonnes @ 1.00%Ni.

At the current throughput rate the remaining life of mine is 18 years.

Mineral Reserves - as at December 31, 2022, and reported based on a 0.3% nickel cut-off grade

Classification	Ore (Mt)	Ni (%)	Co (%)	Ca (%)	Mg (%)
Limonite Ore					
Total Proven	63.1	0.46	0.03	0.5	1.7
Total Probable	62.3	0.60	0.03	0.5	2.0
Total Mineral Reserves	**125.4**	**0.53**	**0.03**	**0.5**	**1.9**
Saprolite Ore					
Total Proven	23.4	0.45	0.02	4.4	7.5
Total Probable	23.7	0.46	0.02	3.5	8.2
Total Mineral Reserves	**47.1**	**0.45**	**0.02**	**3.9**	**7.9**
Total Ore in Pits					
Total Proven	86.5	0.46	0.02	1.6	3.3
Total Probable	85.9	0.56	0.03	1.4	3.7
Total Mineral Reserves	**172.4**	**0.51**	**0.03**	**1.5**	**3.5**
Stockpile					
Total Proven	17.1	0.57	0.02	1.7	8.9
Total Probable	—	—	—	—	—
Total Mineral Reserves	**17.1**	**0.57**	**0.02**	**1.7**	**8.9**
Reserve Including Stockpile					
Total Proven	103.6	0.48	0.02	1.6	4.2
Total Probable	85.9	0.56	0.03	1.4	3.7
Total Mineral Reserves	**189.6**	**0.51**	**0.03**	**1.5**	**4.0**

This Mineral Reserve estimate as at December 31, 2022, has been prepared and verified by independent consulting Mining Engineer, Anthony Cameron of Cameron Mining Consulting Ltd. Anthony Cameron is a qualified person and holds the following valid qualifications: BE (Mining), Grad Dip Bus, M Comm. Law, FAusIMM.

Mining Operations

RNO operates with conventional open cast mining using hydraulic excavators and mechanical drive haul trucks. RNO has fully equipped training facilities for operators and maintenance workshops on site. Waste is trucked onto waste dumps in the vicinity of the open pits or backfilled into the mined-out sections of the pit. Ore is directly tipped into the crusher, with allowance for some re-handling on the ROM stockpiles for blending and other operational reasons.

Future mining will be focused at Shoemaker-Levy over several phases starting in the south and progressively moving to the north. Mining commenced at Shoemaker-Levy in 2021 and ore is crushed at Shoemaker-Levy prior to being conveyed ~9.5 km overland to the existing processing facilities in order to minimise costs.

Processing and Recovery Operations

RNO is a hydrometallurgical processing plant that uses proven technology to recover nickel and cobalt as an intermediate product. Processing operations involve the open pit mining and beneficiation of nickel laterite ore, pressure acid leaching (“PAL”), atmospheric leaching (“AL”), counter current decantation (“CCD”), precipitation and filtration to produce a Mixed Hydroxide Precipitate (“MHP”) product, containing approximately 40% nickel and 1.4% cobalt on a dry basis. Sulphuric acid for the leaching process is produced on site in a 4,400 tonnes per day sulphur burning, double absorption, acid plant, with waste heat being recovered to produce steam via three 18MW steam turbines, for the generation of power and to provide heat for the leaching process. An additional 15.7MW of diesel generating capacity is installed. Final tailings from the CCD circuit are neutralized and pumped to the tailings management facility (“TMF”), which consists of two tailings facilities of approximately 460 hectares in area. Nickel in MHP is transported in sea containers from site, to either the Port of Esperance or the Port of Fremantle from where it is exported to world markets, or by road to local off-takers for further processing in-country.

Infrastructure, Permitting and Compliance Activities

The Company directly holds 26 granted mining leases (13,069.97 ha), ten miscellaneous leases (1, 320.2 ha) and one general purpose lease (6.8 ha) totalling 14,396.7 ha. In addition, the Company's subsidiary FQMAN has agreements in place with other companies for access to laterite nickel rights on a further seven mining leases of 3,276. 2ha, for a total of 17,672.8ha. The Company has recently obtained two blocks of an exploration licence. Ravensthorpe holds all necessary Australian permits required to carry out its operations.

Permitting

In 2018, RNO changed the scope of the Public Environmental Review ("PER") process to permit the expansion of the Shoemaker Levy deposit by removing the proposed extension of Halle-Bopp North West pit, the alternative Access Corridor and the proposed deposition of neutralized tailings into the Halleys and Hale Bopp open pits. Removing these three elements has reduced the environmental risk, of the project and simplifies the PER process. It was considered necessary following feedback received in late 2017 from the Office of the Environmental Protection Authority (OEPA).

In 2020, the scope of the PER was further amended to reduce the expansion footprint and limit it to the east side of Bandalup Creek. This was necessary following stakeholder consultation and feedback around potential impact to Aboriginal Heritage and significant environmental values relating to flora and fauna. The SML stage 2 PER process is currently in the response to submissions stage. The key milestone for moving through this stage, is for FQMAN to prepare an environmental offsets strategy that is acceptable to both the state (WA) and Commonwealth government environmental regulators. The environmental offsets strategy is currently being prepared and will be based on the environmental values of identified potential offsets areas. The PER process is expected to be finalised and approval granted in Q4 2023.

Tailings Storage Facilities

RNO operates two TSFs, being TSF1 and TSF2. The facilities currently have a surface area of 432 hectares and contain approximately 21 million tonnes of tailings. TSF1 was originally built as a single cell TSF in 2003 by BHP and was then geometrically modified in 2010 into two smaller tailings cells (TSF1 East and TSF1 West) by FQML. This was achieved by constructing a central dividing embankment and raising the southern and eastern embankments. Construction of TSF2 was completed in 2013 and tailings deposition started the following month. Under RNO's environmental licence conditions, no tailings residue can be released from the TSFs to the surrounding environment. Groundwater quality is monitored in boreholes surrounding the TSFs and evaporation ponds. Regular inspections of the TSF and evaporation ponds are scheduled and the facilities are subject to annual statutory reporting.

Dam 2

A groundwater recovery strategy has been developed to manage the water table in the downstream vicinity of Dam 2. The strategy includes the design, construction and operation of groundwater recovery and monitoring methods including groundwater recovery bores, groundwater recovery trenches and wells, and monitoring bores. Recovery and monitoring bores have been drilled and a system of recovery trenches and recovery wells is being designed for construction. The strategy is expected to be implemented in 2023.

Notice of Violation, Fines and Penalties

During 2022, no penalties were imposed by any applicable regulatory authority arising as a result of water pollution or contamination of land beyond the boundary of its operations.

Capital and Operating Costs

The estimated RNO capital and operating costs for 2023 are as follows:

Capital costs [2]	2023
Total capital cost estimate ($m)	**50**
Operating costs [1]	
Labour, contractors and maintenance	175
Supplies, power and fuel	150
Other (includes Inventory)	20
Total operating cost estimate ($m)	**345**

(1) Operating costs exclude royalties and treatment/refining charges and transport costs.
(2) Capital costs includes growth project costs, site capex and deferred stripping costs capitalized

Exploration Development and Production

Mining and production statistics for the past three years are set out in the following table:

	Unit	2022	2021	2020
Waste Mined	*'000 Tonnes*	6,981	13,176	9,366
Saprolite Ore Mined	*'000 Tonnes*	1,452	3,657	3,233
Limonite Ore Mined	*'000 Tonnes*	4,239	4,154	3,906
Total Ore Mined	*'000 Tonnes*	5,691	7,811	7,139
Strip Ratio		1.07	1.49	1.19

	Unit	2022	2021	2020
Saprolite Ore Processed (Bene Feed)	*'000 Tonnes*	2,619	2,678	1,699
Limonite Ore Processed (Bene Feed)	*'000 Tonnes*	4,019	2,925	2,434
Saprolite Ni Grade	*%Ni*	0.49	0.62	0.61
Limonite Ni Grade	*%Ni*	0.75	0.67	0.63
MHP Produced	*Tonnes*	92,311	73,729	53,279
Ni in MHP Production	*Tonnes*	21,529	16,818	12,695

Sales

A summary of the revenues for the past three years attributable to RNO is as follows:

Year	Revenue ($ million)
2022	476
2021	286
2020	156

Pyhäsalmi

Project Description, Location and Access

Pyhäsalmi Mine is located in Central Finland. It is accessible by road and railway. The closest airports are located in Kuopio (141 kilometres), Jyväskylä (167 kilometres) and Oulu (168 kilometres). The E75 major highway passes the mine close by and highway 27 leads to the mine site. Passenger rail access is available at

Pyhäjärvi town and the mine site has its own freight rail spur. The closest seaport is in Kokkola (170 kilometres). The mine accesses electrical power through two 110 kV national grid lines and draws its fresh water requirements from Lake Pyhäjärvi.

The mining concession held by Pyhäsalmi Mine Oy ("PMO") consists of two leases. The first lease is a mining lease of 59.2 hectares, covering all the surface expression of the ore body and Pyhäsalmi itself. This land area is fully owned by PMO. The second lease is an auxiliary lease of 352.4 hectares, covering all other areas used for mining purposes, 340.4 hectares (96.6%) of this land area is owned by PMO. Under Finnish legislation corporate tax is paid on taxable earnings at a rate of 20%.

Mining operations at PMO ceased in August 2022. Sales of pyrite from PMO are continuing at PMO whilst the mine closure plans are enacted.

History

PMO is an indirectly wholly-owned subsidiary of the Company and is incorporated under the laws of Finland. PMO's main asset is the Pyhäsalmi copper and zinc mine ("Pyhäsalmi"). Pyhäsalmi is one of the oldest and deepest underground mines in Europe and produces copper, zinc and pyrite. In 1962 it was initially developed as an open pit mine by Outokumpu Oy. Following the discovery of a new deep ore zone Outokumpu designed an underground development plan and in 2001 completed construction of a 1,450 meter deep automated hoisting shaft. Outokumpu started production from the new shaft in July 2001, and in March 2002, Inmet completed the acquisition of Pyhäsalmi and continued the underground production. The Company acquired Pyhäsalmi in March 2013 through its acquisition of Inmet.

Underground production of copper and zinc ended in August 2022, and the last copper and zinc tonnes were shipped in the fourth quarter of 2022.

Geological Setting and Mineralization

The Pyhäsalmi deposit is a copper-zinc volcanogenic massive sulphide deposit of Proterozoic age. The mineralization is hosted by altered felsic and mafic volcanic rocks. The enveloping alteration zone is at least four kilometres long and one kilometre wide at its widest point. Alteration of the felsic volcanic rocks includes sericite and cordierite dominated mineralogy. Cordierite, anthophyllite and garnet dominate in the altered mafic volcanic rocks. The metamorphic grade is upper amphibolite facies.

The upper part of the Pyhäsalmi deposit was mined between 1962 and 2001 and is now depleted. Deep drilling in 1996 by Outokumpu Oy (the previous owner) led to the discovery of an extension to the deposit below the +1050 meter level. The newer deep deposit is located between the +1050 meter level (from surface) and the +1416 meter level. The inner part of the lens consists of massive pyrite with low copper and zinc values. This core is surrounded by massive chalcopyrite-pyrite and the outer rim consists of massive sphalerite-pyrite. The main sulphide minerals are pyrite (65%), chalcopyrite (3%), sphalerite (4%) and pyrrhotite (3%).

Exploration

The ore body was discovered and explored by Outokumpu in the 1960s in programs which included geophysical surveys and diamond drilling. The deep parts of the orebody which are currently being mined were discovered in 1996 and have been progressively explored via diamond drilling from underground drill drifts and declines since 2001.

Currently the exploration in the area has ceased. Sterilization of the near surrounds of the ore body has been done to ensure that no mineable material is left unaccounted.

Drilling

During the exploration phase of the deep ore zone, diamond drilling was carried out on an irregular grid dictated by the availability of exploration drill drifts and declines. More recently drilling fans are orientated to provide a targeted drill coverage of 20 metres by 20 metres. The majority of the drilling was completed between 2001 and 2009. Drilling since 2009 has been directed to fill in the gaps in previous drilling. All drill core is logged by mine geologists and drill hole collars and downhole dips are also surveyed.

Sampling, Analysis and Data Verification

Sample preparation and assaying was carried out primarily at the mine site laboratory. During periods of intense drilling activity a portion of the samples were sent to either Valtion Tutkimuskeskus (VTT, State Research Centre) or to Outokumpu's Hitura Mine laboratory.

Core from horizontal holes is split using a diamond saw, whereas core from inclined holes is crushed entirely. Samples are routinely analyzed primarily for Cu and Zn and also As, Au, Ag, Pb and Fe using acid digest followed by AAS. Sulfur is analyzed via titration method.

Since 2002 a systematic quality control and assurance program has been applied to geological sampling. A duplicate, blank and standard was inserted every 20th sample, or one per drill hole in short holes with fewer than 20 samples. The results from QAQC do not reveal any systematic assay errors.

The QP for the Mineral Resource estimates visited the site and performed verification of drilling, sampling, QAQC, database management and geology modelling in order to ensure that the available data and interpretations are of adequate quality to represent the mineralization and to be used for the Mineral Resource estimates.

Mineral Processing and Metallurgical Testing

Results of metallurgical testing are used to refine the recovery estimates along with actual production data. Equations are reviewed and updated regularly.

Mineral Resources and Reserves

Underground copper and zinc resources were depleted in 2022 and mining ended in August 2022. The operation is expected to produce approximately 330,000 to 350,000 tonnes of pyrite per annum from pyrite rich tailings currently stored in tailings pond B.

Classification	Tonnes (kt)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	S (%)
Total Measured	-	-	-	-	-	-
Total Indicated	-	-	-	-	-	-
Total Meas. plus Ind.	**-**	**-**	**-**	**-**	**-**	**-**
Total Inferred	-	-	-	-	-	-

Classification	Primary Sulphide Ore					
	Ore (Mt)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	S (%)
Total Proven	—	—	—	—	—	—
Total Probable	—	—	—	—	—	—
Total Mineral Reserves	**—**	**—**	**—**	**—**	**—**	**—**

Mining Operations

Underground mining at Phyasalmi ended in August 2022.

Starting in 2023, pyrite-rich material will be excavated and transported from a storage pond located about a kilometer away to the concentrator for enrichment. It is estimated that the operation will continue for about four years.

Processing and Recovery Operations

The pyrite-rich material is fed by a wheel loader to a feeder located outside the concentrator, from where the material travels along a conveyor belt to the grinding mill. After light grinding and surface polishing the material is pumped to pyrite flotation. The flotation circuit consists of roughing, scavenging, and single stage cleaning flotations. The dewatering is done with thickener, pressure and capillary action filter.

Infrastructure, Permitting and Compliance Activities

PMO holds all necessary Finnish permits required to carry out its operations and operated in material compliance in 2022. PMO received its environmental permit in the fourth quarter of 2007. This permit reflects the European Union Integrated Pollution Prevention and Control environmental regulatory framework that has been incorporated into Finnish environmental legislation.

Decommissioning of Pyhäsalmi commenced in 2022, and following the closure of the mine, the main activity is the rehabilitation of the surface area. This includes covering and re-vegetating the tailings impoundments.

The tailings management facility is managed effectively during operations. PMO intends to evaluate the need for long-term water treatment as the mine approaches closure.

In 2018, PMO reviewed and updated its mine closure plan and costs. The closure cost estimate as at December 31, 2022 was $25 million. However, PMO has signed a five-year agreement with Yara Suomi Oy to produce and deliver pyrite up to year 2025. In June 2019 this agreement was extended until 2027 with additional 0.5 Mt of pyrites. Post 2022, the pyrite will be produced from pyrite rich tailings currently stored in tailings pond B. PMO submitted an application of closure conditions to the Northern Finland License Office in October 2018. The main environmental issue for closure is the restoration of the TSF and ongoing treatment of site drainage. The underground mine will be flooded and used to store waste from pyrite production if the permit is granted. In December 2017, PMO appointed an environmental manager for mine closure and reclamation.

A number of reuse projects are planned for the decommissioned mining areas, the most significant of which is a pumped hydro energy storage with approximately 1,400 meters hydraulic head. A storage plant operates with an upper reservoir in quarry and lower reservoir mined 1,400 meters depth in underground. When the energy storage is loaded, water is pumped into the upper reservoir, and when energy is unloaded, water is lowered through the turbines into the lower reservoir. The power plant has a closed water cycle. The power of the planned power plant is 75 MW and the capacity is 580 MWh. The Ministry of Employment and the Economy has granted €26.3 million investment support for the project. The main investor is expected to be the EPV energy company, which will continue the profitability reviews. The final decision on the investment is expected this year. Pyhäsalmi Mine is involved in the project but not as an investor.

Tailings Storage Facilities

At Pyhäsalmi the TSF pond area is divided into four parts: A, B, C and D ponds. ‘A’ pond (42 hectares) was decommissioned in 2001-2002 and re-vegetation is progressing well. In 2022 tailings were pumped into the B or D pond. The ‘B’ pond (31 hectares) was divided into two parts in 2014: the southern part is a storage pond for pyrite rich tailings from which the pyrite has not been concentrated and the northern part receives tailings from which pyrite has been largely removed. Also ‘D’ pond (31 hectares) receives tailings from which pyrite has

been largely removed. Parts of pond 'B' dam walls were raised in 2016 to increase the storage capacity. 'D' pond dam walls were raised in 2020. The 'C' pond (47 hectares) operates as a holding pond. The supernatant is conditioned prior to release to the environment. Tailings production in 2022 was 227,857 tonnes of which 126,759 tonnes was deposited in the TSF and 101,098 tonnes was used for underground backfill. In total, 20.8 million tonnes of tailings had been deposited in the TSF at the end of 2022. The ponds meet all current Finnish regulations for design, construction and operation. The TSF is subject to regular external audits.

Approximately 2 million tonnes of pyrite rich material is estimated to be reclaimed from B pond in the coming years for third party sales. The pond is drained and the material is piled up to dry with an excavator. The material is transported by trucks to the concentrator for enrichment.

Notice of Violation, Fines and Penalties

No material environmental incident was reported at Pyhäsalmi in 2022 and no notice of violation or penalties were imposed by any applicable regulatory authority.

Capital and Operating Expenses

The estimated Pyhäsalmi capital and operating costs for 2023 are as follows:

Capital costs [2]	**2023**
Total capital cost estimate ($m)	**0**
Operating costs [1]	
Labour, contractors and maintenance	10
Supplies, power and fuel	5
Other (includes Inventory)	0
Total operating cost estimate ($m)	**15**

(1) Operating costs exclude royalties, treatment/refining charges and transport costs.
(2) Capital costs includes growth project costs, site capex and deferred stripping costs capitalized

Exploration, Development and Production

Certain mining and production statistics for the past three years are set out in the following table:

	Unit	2022	2021	2020
Ore Mined	'000 Tonnes	394	652	775

	Unit	2022	2021	2020
Ore Processed	'000 Tonnes	579	668	756
Ore Grade	% Cu	0.45	0.53	0.63
Copper concentrate produced	Tonnes	2,362	3,292	4,483

Sales

A summary of the revenues for the past three years attributable to the Pyhäsalmi division are as follows:

Year	Revenue ($ million)
2022	43
2021	52
2020	46

Çayeli Bakir Isletmeleri AS

Project Description, Location and Access

Çayeli is located in the province of Rize on the Black Sea coast of north eastern Turkey. The plant site is at about 100 metres above sea level, on the western flood plain of the Büyükdere River and it is situated directly across from the town of Madenli, about seven kilometres from the coast. The town of Çayeli is located approximately 18 kilometres east of the city of Rize. The surface projection of the ore body covers an area of approximately 203 hectares. The mine accesses electrical power from the national grid and draws the water it uses for processing from a series of ground water wells and the adjacent Büyükdere River. Copper and zinc concentrates are shipped from the site in covered trucks to the Black Sea port at Rize. The mine site is located in the middle of three districts which are called Madenli Central District, Çamlıca and Maden.

The climate is moderated by the Black Sea: summers are hot and humid and winters are generally wet. Rainfall is abundant in this area and averages over 2.5 metres per year; as a result the area is lush with vegetation, including a wide variety of flowering plants, such as rhododendrons and azaleas.

Tea farming is the most common cash crop in the area and the short, bushy plant can be seen almost everywhere. Local gardens are common with a variety of vegetables for private use.

Çayeli produced its first concentrate in 1994 at a design capacity of 600,000 tonnes per year, and since then has grown to a peak production capacity of 1,350,000 tonnes per year. Production rates are now in decline as remaining reserves are exploited. Eti Maden İşletmeleri Genel Müdürlüğü (“Eti Maden”), a company wholly-owned by the Government of Turkey, holds the operating license for the mine and has leased it to Çayeli. The lease expires on July 29, 2044.

The current rate of corporate income tax under Turkish legislation is 20%. Eti Maden is entitled to a royalty based on 7% of Çayeli’s net income. In addition, Çayeli pays a mine tax to the Government of Turkey calculated as a percentage of sales value of mine ore production on a sliding scale royalty rate between 0.825% - 9.575% for 2023 as applicable, dependent on the copper price.

History

The work leading to the present mine was started in 1967 by the Turkish Mineral Research and Exploration Institute (“MTA”). MTA carried out a geophysical survey and drilling program, and drove an adit into massive sulphide ore located just south of the current deposit.

In 1981, the Çayeli Bakır İşletmeleri A.Ş. (“CBI”) company was created to develop the orebody; the shareholders were Etibank (now Eti Maden İşletmeleri Genel Müdürlüğü), Phelps Dodge, and Gama Endüstri A.Ş. (Gama). In 1988, Phelps Dodge sold its 49% share to Metall Mining (which later became Inmet). Further underground work and metallurgical testing were completed between 1988 and 1991, and positive results led to a decision to put the mine into production. Site construction began in 1992, basic mine infrastructure began in 1993, and the first concentrate was produced in August 1994. The total capital cost of the operation was approximately $230 million.

In 2002, Inmet acquired Gama's 6% share and, in 2004, Inmet purchased Eti Holding's 45% interest, as it was privatized at an auction. The Company acquired Inmet in 2013 and now owns 100% of the project. Çayeli Bakır İşletmeleri A.Ş. is an indirect wholly-owned subsidiary of the Company and is incorporated under the laws of the Republic of Turkey. Its main asset is the Çayeli copper and zinc mine.

Geological Setting and Mineralization

Çayeli is a Cretaceous-age volcanogenic massive sulphide deposit that has a known strike length of over 600 metres, extends to a depth of at least 600 metres and varies in thickness from a few metres to 80 metres, averaging about 20 metres. The average dip is 65° to the north northwest.

The deposit is at the contact between altered footwall felsic volcanic flows and pyroclastic and hanging wall mafic volcanic rocks. It consists of massive and stockwork sulphides. The mineralization includes pyrite, chalcopyrite and sphalerite and smaller amounts of galena, dolomite and barite.

The massive sulphide ore is classified into yellow ore, which is copper-rich and zinc-poor; black ore, which is zinc-rich and copper-poor; and clastic ore, which contains copper, zinc and precious metals. In this ore, the sphalerite contains intergrowths and inclusions of chalcopyrite and requires batch processing through the mill.

Ore types which contain either secondary copper minerals or bornite are segregated and processed separately.

Stockwork ore, containing pyrite and chalcopyrite in veins, occurs stratigraphically below the massive sulphide ores.

Exploration

The deposit has been explored using a combination of geological mapping, geochemical sampling, geophysical surveys and diamond drilling.

Since 2014 exploration work has been conducted to discover satellite orebodies in close proximity to the Çayeli orebody. The studies included detailed geophysical surveys and a site wide soil sampling program. Several anomalies were tested and in 2020 an MT geophysical survey identified an anomaly 300 metres south of the mine. An exploration drilling program was initiated and 15 holes totaling more than 5,000 m were drilled in 2021 and 2022, which intersected Cu and Zn mineralization around 100 m below the surface. The drilling will continue in 2023 from surface and underground to determine the boundaries.

Drilling

The deposit is defined by several stages of diamond drilling programs, with mineralized zones closely defined with delineation drilling on a 20 metre by 40 metre grid pattern and stope definition drilling on a 10 metre spacing along the centreline of each primary drift.

All drill core is handled, photographed, logged and sampled in the core facility located on the Çayeli site. On-site drilling practices and drill handling procedures follow typical industry standards.

Drill recoveries are generally good, but local altered zones can result in intervals with zero core recovery, in which case the drill cuttings are substituted for core in the core box.

Sampling, Analysis and Data Verification

The mineral resource model was primarily developed using data from diamond drill holes, although historical data from underground channel samples and sludge samples have also been used in the estimates.

Diamond drilling for orebody delineation is NQ diameter and close spaced stope definition holes are BQ diameter. NQ diameter core is cut and half sent for analysis while the complete BQ diameter core is crushed and sent for analysis. The standard sample length is 2 metres but intervals are variable based upon geology.

Underground channel samples were taken extensively in the mine up until 2001 when they were replaced by stope definition samples. Samples were cut using a diamond saw and the material is removed using a chisel. Both walls of the drift were sampled at intervals based upon geology. Statistical comparisons between diamond drilling and channel samples show no significant bias.

Development sludge samples are obtained by scooping a total of 5 to 7 kilograms of drill cuttings accumulated along the base of the face during the jumbo drilling of each round in the ore zone. Each sample represents approximately 4 metres of advance. These samples are limited to primarily measured resources within a distance of 10 metres from the sample location.

Since 1984 Çayeli has operated an on-site assay laboratory to process samples. The lab became ISO accredited in 2017 and has been participating in GEOSTATS Pty Ltd's round robin studies every year since. CBI Analysis Laboratory conducts sampling and sample preparation processes in accordance with TS ISO 12743, TS ISO 12744 and ASTM E877-08 standards which are internationally recognized. All processes are performed in duplicate for ensuring quality control and guarantee. Repeatability and reproducibility are ensured through replicate analyzes. External checks are conducted annually by Alex Stewart (ASA0 or Inspectorate AHK Bachelet Laboratories).

Samples are crushed and pulverized and all samples are analyzed initially via XRF, and then via ICPOES or AAS. Analysis processes are controlled by CRM (Geostats, Amis, Oreas, and etc.) and full assay quality control samples. Only ICPOES or ASS assays are used in resource estimation. Each batch of 25 samples includes 2 standards, 4 reference samples some 10% of all laboratory samples are repeated from both coarse and pulverized fractions.

The QP for the Mineral Resource estimates visited the site and performed verification of drilling, sampling, QAQC, database management and geology modelling in order to ensure that the available data and interpretations are of adequate quality to represent the mineralization and to be used for the Mineral Resource estimates.

Mineral Processing and Metallurgical Testing

Metallurgical test work identified three ore types; copper-rich yellow ore, zinc-rich black ore and zinc-rich clastic ore which are mined separately. Based on mineralogical observation, each of the three types are further subdivided into two and hoisted to surface where the different ore types are transferred into one of eight storage compartments. Mill feed is prepared by blending various types of ore according to their metallurgical composition and copper and zinc grades.

Results of metallurgical testing are used to refine the recovery estimates along with actual production data. Equations are reviewed and updated regularly.

Mineral Resources

Copper, zinc, lead and silver grades were estimated using ordinary kriging. Gold grades were estimated using inverse distance interpolation. Mineral resource classification was guided by confidence in the geological model, the estimation method used to inform the respective volumes of mineralization, the drill hole spacing, the QAQC of the sampling and the confidence in the grade estimates.

The December 31, 2022 Mineral Resource is a depletion of the December 31, 2021 Mineral Resource estimate, as a result of mining and processing carried out in 2022. The Mineral Resources estimate, inclusive of the Mineral Reserves inventory, is shown in the following table.

Mineral Resource - as at December 31, 2022 and reported using a $55 NSR value cut-off

Classification	Tonnes (Mt)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)
Total Measured	8.2	2.28	1.04	0.33	9.1
Total Indicated	2.7	2.08	1.29	0.46	11.19
Total Meas. plus Ind.	**10.9**	**2.23**	**1.10**	**0.36**	**9.62**
Total Inferred	0.8	2.55	6.85	-	-

This estimate has been produced by the CBI site geological team under the supervision of, and verified by, Joseph Boaro of the Company. Joseph Boaro is a qualified person, a member of the Professional Engineers Ontario, and holds the following valid qualifications: P.Eng.

Mineral Reserves

The mineral reserve estimate for Çayeli is presented below and reflects the position as at December 31, 2022. The mineral reserve estimate used an economic net smelter return (NSR) cut-off. There is no stockpiled Mineral Reserve inventory. The estimate is derived from conventional underground mine design and life of mine production scheduling.

At currently projected processing throughput rates, the remaining life of mine is expected to be three years from December 31, 2022. The remaining Mineral Resources, exclusive of Mineral Reserves, other than perhaps 5% of the total, are not currently upgradeable to a Mineral Reserve due to their discontinuous distribution throughout the orebody.

Mineral Reserve - as at December 31, 2022 and reported using a $55 NSR value cut-off

Classification	Primary Sulphide Ore				
	Ore (Mt)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)
Total Proven	1.4	2.32	1.48	0.30	13.90
Total Probable	1.2	2.32	0.99	0.24	9.76
Total Mineral Reserves	**2.6**	**2.32**	**1.25**	**0.27**	**11.97**

This Mineral Reserve estimate as at December 31, 2022 has been produced by the Çayeli site mining team under the supervision of, and verified by, Joseph Boaro of the Company. Joseph Boaro is a qualified person, a member of the Professional Engineers Ontario, and holds the following valid qualifications: P.Eng

Mining Operations

The mine design is based on underground bulk mining methods with the use of delayed backfill to extract the ore in a sequential manner. A service ramp provides access to the mine and haulage.

The shaft hoisting was ceased in 2021, after 23 years. The issues plaguing the system were closely managed over the years and the system generally served the operation very well, until challenging ground control and maintenance issues forced its cessation. The shaft hoisting was filled with paste backfill bottom up to 800 Level. The remaining part up to surface was concreted in 2022, excluding the manway compartment which will remain as a means of egress to the mine in an emergency. This system will allow for the mining of the ore pillar that has been left around the shaft for the balance of the mine life.

The primary mining method for the Çayeli orebody is retreat transverse and longitudinal longhole stoping with paste fill and loose or consolidated waste rock backfill application. The stopes are mined in primary, secondary, and tertiary sequencing. The primary and secondary stopes are mined as transverse and the tertiary as longitudinal stopes. Cut and Fill mining method was applied successfully in 2019 on the upper mine levels in order to eliminate the risk of subsidence to the surface infrastructures and houses. The main levels are developed off the service ramp along the strike of the orebody at 45 to 100 metre vertical intervals. From the top of the mine down to the 800 level, levels are located on the hanging wall side of the orebody. Ore production below 800 level was completed in 2020. The sublevel vertical distance is 20 metres as dictated by the stope height, allowing the development of a 15 metres high by 6 metres wide stope bench for production drilling.

Processing and Recovery Operations

The ore processing facility consists of conventional crushing, grinding, selective flotation, and pressure filtration. The facility is equipped with an online Yokogawa process control system and also an SGS Expert System.

Crushing is done in two stages. A primary jaw crusher located close to the ore storage bins does the first stage crushing. The crushed ore is transported from the crusher to a double deck screen by a conveyor. The top screen (+35 mm) and the bottom screen (+18 mm) oversized material are combined and sent to a cone crusher. The cone crusher operates in a closed circuit. Discharges from the cone crushers plus material from the jaw crusher are combined and returned to the double deck screen by a common belt conveyor. Undersized material from the screen is conveyed to a 2,500 tonne capacity fine ore bin. A wet scrubber controls the dust levels in the facility.

The fine ore is delivered to a 560 kW 3,200 millimetre diameter by 4,300 millimetre long ball mill by a belt conveyor. Primary and secondary ball mill discharges are combined and enter a cyclone unit. The cyclone underflow feeds a 2,100 kW (4,400 millimetre diameter by 7,200 millimetre long) secondary ball mill. Both mills are rubber lined. The overflow from the cyclone goes to the copper rougher circuit as a flotation feed. The grinding circuit produces a flotation feed of 70% passing -36 µm. Three types of collectors and lime are added to the primary ball mill if necessary; a depressant is added to the primary ball mill. Power consumption is 21 KWh/t of ore, and steel consumption is 1.9 kg/t of ore.

The flotation consists of several sets of conventional rougher and scavenger cells, intermediate regrind mill, and rougher column and cleaner column cells.

Copper concentrate, zinc concentrate and final tailing slurries are thickened in three separate identical circuits. Each circuit consists of a 16.0 metre diameter conventional thickener. The thickener underflows are transferred to three surge tanks. Final tail is used to fill the underground voids by mixing with cement at the pastefill plant.

Pressure filters are used for filtration of the thickened copper and zinc concentrates. The final copper concentrates contain 10% moisture and final zinc concentrate contain 9% moisture. Disc filters are used for final tailings in the pastefill plant.

Filtered copper and zinc concentrates drop directly down to a concrete reinforced 1,000 tonnes capacity load out area. The concentrates are transported to the Rize port by trucks.

The plant began processing the surface sulphidic waste pile in 2021, in order to recover low grade metal and discharge the wastes through the deep sea tailing line. The aim is to deplete this pile by the end of the mine life.

Infrastructure, Permitting and Compliance Activities

Turkey published its Mine Waste Regulation in June 2015, which came into effect in June 2017. Çayeli continued engagement efforts with the authorities and Deep Sea Tailings Placement (“DSTP”) was listed as an accepted method in the new regulation. Çayeli does not anticipate any challenge to DSTP permitting given the long-standing acceptance of this practice, strong long-term environmental performance, the evidence indicating no adverse change in water quality, and Çayeli’s robust monitoring program. In this context, the applications that were needed by the regulation were submitted. The DSTP licensing process is still ongoing.

Çayeli is set to be decommissioned and closed in 2027 following depletion of the mine reserves. The Decommissioning and Closure Plan is updated periodically and the cost of closure updated annually by a third party in line with Company financial requirements. This plan was first issued in 1995 and subsequently updated in 1999, 2008 and 2013. Further revisions and refinements of this plan prior to closure of the mine are anticipated. The current plan anticipates a decommissioning and closure period of approximately 12-24 months for the site infrastructure and underground mine, and five years for the site rehabilitation and environmental

compliance monitoring. Alternative options for post closure land use are under evaluation based on social and environmental aspects.

Permitting

In March 2021, Çayeli renewed its Integrated Environmental Permit that governs the environmental requirements for integrated plants, which will be valid until March 2025. In October 2017, Çayeli also renewed the permit for operations at the Rize Port concentrate storage and handling facility which will be valid until 2027.

Tailings Storage Facilities

Çayeli is located in the Rize Province in north-eastern Turkey. The region is known for its high rainfall (in excess of 2.5 metres per year). Inland from the narrow coastal plain the terrain is steep and mountainous with deeply incised valleys. There is no tailings management facility at Çayeli, and process plant tailings are disposed at a depth of 275 metres in the Black Sea using the Deep Sea Tailings Placement method ("DSTP") with the permission of the Turkish environmental authorities. 'Due to the local terrain and rainfall, DSTP is considered the preferred tailings placement method. Below a depth of 150 metres in the Black Sea, the water is naturally rich in hydrogen sulphide and deficient in dissolved oxygen, an environment that does not support macro marine life. Turkey published its Mine Waste Regulations in June 2015. DSTP was included as an accepted method of tailings disposal in the new regulations. Çayeli submitted environment and technical DSTP documents to the environmental authorities and is actively in discussions with the Ministry of Environment regarding the permitting mechanism. The Ministry of Environment ("MoE") will determine whether Çayeli is granted an exemption for DSTP until mine closure or be granted a DSTP permit. Çayeli does not anticipate an immediate threat to DSTP given the long-standing acceptance of this practice, our strong long-term environmental performance, the evidence indicating no change in sea water quality, and Çayeli's robust monitoring program.

Çayeli mobilized the Miners Association of Turkey ("MAT") to introduce paste fill practice to the mining industry and public institutions. The knowledge of key institutions, particularly of the State Water Affairs ("SWA") and MoE has significantly improved, following a number of meetings and presentations made by MAT. MAPEG, the regulatory body of mining industry also sent a letter to SWA and MoE regarding the paste fill practice and encouraged them to recognize paste fill as good mining practice. MAPEG officials stated that they inserted the paste fill practice into the draft of the new mining regulations, but it requires the approval of parliament.

Tailings production in 2022 was 713,734 tonnes of which 305,597 tonnes was processed as DSTP, a further 408,137 tonnes was processed as cemented paste fill for use as backfill in the underground mine. Since operations began, a total of 15.1 million tonnes of tailings had been deposited using DSTP by the end of 2022. During the same period the total inflow of solids into the Black Sea from rivers and other sources is estimated to be 4.64 million tonnes.

Notice of Violation, Fines and Penalties

No material environmental incident was reported at Çayeli in 2022 and no notice of violation or penalties were imposed by any applicable regulatory authority.

Capital and Operating Costs

The estimated Çayeli capital and operating costs for 2023 are as follows:

Capital costs [2]	**2023**
Total capital cost estimate ($m)	**20**
Operating costs [1]	
Labour, contractors and maintenance	18
Supplies, power and fuel	26
Other (includes Inventory)	0
Total operating cost estimate ($m)	**44**

(1) Operating costs exclude royalties, treatment/refining charges and transport costs.
(2) Capital costs includes growth project costs, site capex and deferred stripping costs capitalized

Exploration, Development, and Production

Certain mining and production statistics for the past three years are set out in the following tables:

	Unit	2022	2021	2020
Waste Mined	'000 m3	21	36	34
Ore Mined	'000 Tonnes	720	805	770
Ore Grade Mined	% Cu	1.79	2.06	2.14
Ore Grade Mined	% Zn	1.19	1.82	1.78

	Unit	**2022**	**2021**	**2020**
Ore Processed	'000 Tonnes	780	826	777
Ore Grade	% Cu	1.69	2.06	2.00
Ore Grade	% Zn	1.14	1.81	1.59
Cu in Concentrate Produced	Tonnes	11,456	14,799	13,334
Zn in Concentrate Produced	Tonnes	3,132	6,754	4,512

Sales

A summary of the revenues for the past three years attributable to the Çayeli division is as follows:

Year	**Revenue ($ million)**
2022	120
2021	99
2020	64

Development Projects

Enterprise Nickel Project

The information on Enterprise contained herein is based in part on the Technical Report, "Trident Project, North West Province, Zambia, NI 43-101 Technical Report" dated March 2020 as of December 31, 2019 (the "Trident Technical Report") by David Gray (QP) BSc Hons (Geology), MAusIMM, FAIG, Group Mine and Resource Geologist, FQM (Australia) Pty Ltd, Michael Lawlor (QP) BEng Hons (Mining), MEngSc, FAusIMM, Consultant Mining Engineer, FQM (Australia) Pty Ltd, and Andrew Briggs (QP) BSc (Eng), ARSM, FSAIMM, Group Consultant Metallurgist, FQM (Australia) Pty Ltd in accordance with the requirements of NI 43-101. David Gray, Michael Lawlor, and Andrew Briggs are Qualified Persons under NI 43-101 and have verified the data. The Trident Technical Report is available for review on SEDAR under the Company's profile. Information in this AIF of a scientific or technical nature relating to Trident and arising since the date of the Trident Technical Report has been prepared under the supervision of John Gregory of the Company who is a "qualified person" under NI-43-101.

Project Description, Location and Access

Enterprise is part of the Trident project which includes the Sentinel Mine. The project is located approximately 150 kilometres from Solwezi in north-west Zambia. In April 2011, large-scale mining licenses for the development of the Trident project were received from the GRZ.

Geological Setting and Mineralization

The Enterprise deposit is a hydrothermal nickel deposit with mineralisation hosted in a sequence of shale and siltstone units. These units have been preferentially mineralised due to rheological and geochemical interactions with mineralising fluids.

Nickel sulphide minerals include vaesite, pentlandite, millerite, nickeliferous pyrite, bravoite and carrollite. Sulphide mineralisation occurs within, or as an alteration halo to quartz-kyanite talc veins and vein breccias. Sulphides are concentrated within altered black shales and to lesser amounts in proximal siliciclastic rocks.

The deposit is characterised by a series of relatively shallow dipping bodies covering an area of 1,000 m by 500 m in the main deposit area and approximately 800 m by 300 m in the southern deposit area. Enterprise mineralisation has an unusual lack of spatial control from mafic intrusives and the primary source of nickel remains unclear. Lithologies, alterations and structural deformation (faulting and folding) were modelled from core logging, early pit mapping and multi-element data.

History

The Enterprise project was acquired as part of Trident. The history, property and ownership, location, access and infrastructure and geological setting is set out under *Sentinel on page 29*.

The development of the Enterprise nickel project will be the Company's second nickel mine, scheduled to produce up to 45,000 tonnes of nickel in concentrate per annum. Given the operational and infrastructure synergies with the Sentinel copper project (located only 12 kilometres away), the Enterprise nickel project is expected to be a low cost producing mine.

Construction work on the process plant for Enterprise was completed in 2016, and some sections of the plant have been incorporated into the Sentinel process circuit to provide additional processing flexibility until the start-up of the project.

Following approval for the Enterprise nickel mine by the Board of the Company, activities in 2022 comprised tarring of the ore haul road, continuation of pre-stripping activities, project operational readiness, plant completion and commissioning and the establishment of various supporting facilities.

The first ore was delivered in Q1 2023 and the plant will be commissioned during Q2 2023. Full commercial production is expected by the end of 2023.

Exploration

During the exploration phase a comprehensive soil geochemical sampling program and multiple geophysical surveys were completed along with a continuous program of outcrop mapping. Geophysical surveys contributed to the identification of geological contacts and structures.

Drilling

The Mineral Resource at Enterprise was defined exclusively by diamond drilling, commencing with PQ diameter coring which was reduced to HQ and then to NQ diameter from approximately 200 metre depths. Holes were drilled at a dip of 60 degrees to the south east to achieve a maximum angle of intersection with mineralization. In total some 555 holes were drilled between 2011 and 2013. Downhole surveys, core orientation studies, core recovery analysis and RQD data were routinely collected during diamond drilling.

Five metallurgical drill holes were drilled in 2021 targeting the fresh nickel sulphides in the lower parts of the deposit which host the bulk of the mineralization and provided samples for metallurgical test-work.

Between 2018 and 2022, infill RC drill holes were drilled in order to improve the data resolution in stage 1 pit prior to production and to have a better understanding of the transitional mineralization and geo-metallurguical domains. A total of 499 RC holes have been drilled on a 12.5 by 12.5 m grid and an average depth of 55 m. All the RC drill holes were drilled with a 140mm diameter drill bit and samples were collected at 2 m intervals.

During 2022, the Company drilled four geotechnical drillholes for the investigation of structures on the north and south walls of the Enterprise pit.

Sampling, Analysis and Data Verification

Diamond core sampling at Enterprise was completed on site by experienced geologists following standardized protocols. On completion of logging, recovery and RQD measurements, the geologists marked out diamond core to 1m sample lengths according to key geology contacts. The core was cut in half with a diamond saw with one half bagged according to pre-defined sample numbers and sealed for security and quality. The bagged samples were transported to ALS Kansanshi for preparation and to ALS Johannesburg for analysis. The other half core samples were vacuum sealed and kept in freezers reserved for metallurgical test-works.

Half core samples were crushed, split and pulverized and approximately 250 grams of pulp was submitted for analysis. A total of 1,198 core samples were assayed and added to the SQL database.

For the RC sampling, a 2m RC composite sample was retrieved from the drill rig cone-splitter and recoveries per 2m run were determined by weighing each sample. Each 2m composite sample had an approximate split sample mass of 12kg from the drilled 120 kg sample. The 12 kg samples were split at the drill rig into 3 kg samples using a two-tier riffle splitter. The full length of each RC hole was sampled. Due to water saturated ground conditions, some RC samples were retrieved wet and these were separated from the main stream and laid out to dry prior to dispatched. RC samples were packed into larger polyweave bags for transportation. The samples were transported to ALS Kansanshi for sample preparation and to ALS Johannesburg for analysis.

For QAQC, CRMs, field duplicates, and blank samples were inserted, at a rate of 1 in 20 during both the core sampling and RC sampling programs.

RC chip samples were crushed, split and pulverized and approximately 250 grams of pulp was submitted for analysis. During 2021 and 2022, over 18,000 RC samples were assayed and added to the Structured Query Language (“SQL”) database.

During 2022, 760 pulp samples were collected from the previous drilling campaigns. The samples were assayed for silica using portable x-ray fluorescence (“XRF”) and for total carbon using LECO. The idea was to create a

more complete training set for mineralogy prediction and use the trainer to calculate mineral abundances for the rest of the deposit.

Mineral Processing and Metallurgical Testing

Preliminary metallurgical testwork was conducted in 2010 at the Company's metallurgical laboratories at Kansanshi. Flotation test-work was conducted to a 10 kg core sample at various grind sizes. The scoping test-work demonstrated that the nickel minerals could be recovered into a high grade nickel concentrate with high recoveries. Comminution test-work was done by JKTech Pty Ltd in 2011. All subsequent test-work including bench scale flotation tests and further investigations into grind size was performed by SGS Lakefield in Perth using metallurgical samples from drill core.

Further test-work has been conducted by Base Metal labs in Canada on samples emanating from lower grade mineralization and near to surface weathered material in the area of a proposed starter pit, using drill core composites from the latest drilling campaign. The results obtained in 2021 refined the understanding of the metallurgy of the early years of operation.

Metallurgical testwork targeting deeper ore and the later stages of the mining plan is ongoing at Base Metal Labs in Canada.

A pilot plant was established at site in 2021 to test RC drilling samples and provide first ore information to the process plant.

Mineral Resources

The Mineral Resource estimate for Enterprise, inclusive of the Mineral Reserve inventory, is presented below and reflects the position as at December 31, 2022. This estimate benefits from additional drilling and assaying data, an improved understanding of the geological/structural framework at Enterprise, and also improved estimation techniques. The estimate is consistent with that reported in the Trident Technical Report.

Mineral Resources - as at December 31, 2022, and reported using a 0.15% Ni cut-off grade

Classification	Tonnes (Mt)	Ni%
Non-primary sulphide		
Total Measured	3.6	1.09
Total Indicated	2.7	0.53
Subtotal Meas. plus Ind.	**6.3**	**0.85**
Total Inferred	1.1	0.60
Primary sulphide		
Total Measured	5.5	1.60
Total Indicated	25.7	0.95
Subtotal Meas. plus Ind.	**31.2**	**1.06**
Total Inferred	8.2	0.73
Total Mineral Resource		
Total Measured	9.1	1.40
Total Indicated	28.4	0.91
Total Meas. plus Ind.	**37.5**	**1.03**
Total Inferred	9.3	0.71

The current Mineral Resource inventory was estimated and verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG (#7323)

Mineral Reserves Estimate

The Enterprise Mineral Reserve estimate is shown in the table below, reflecting the position at December 31, 2022. This estimate is consistent with that reported in the Trident Technical Report.

Mineral Reserve - as at December 31, 2022, and reported based on a $7.50/lb Ni price

Classification	Non-primary Sulphide Ore		Primary Sulphide Ore		Total Ore	
	Ore (Mt)	Ni (%)	Ore (Mt)	Ni (%)	Ore (Mt)	Ni (%)
Total Proven	3.8	0.99	5.7	1.46	9.5	1.27
Total Probable	2.0	0.44	23.1	0.93	25.1	0.89
Total Mineral Reserves	**5.7**	**0.80**	**28.9**	**1.03**	**34.6**	**0.99**

The current mineral reserve inventory for Enterprise has been estimated and verified by the Company's personnel under the supervision of Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: BEng (Mining)(Hons), MEngSc, FAusIMM.

The Trident project processing facilities can process either copper ore from Sentinel or nickel ore from Enterprise.

Mining and Processing

Upon resumption of mining activities in September 2021, the mining operations have been focusing on pre-stripping activities, which accelerated significantly upon Board approval of the project in May 2022.

Ores from Enterprise will be transported to the Sentinel processing facility, where they will be treated in a SAG ball milling circuit followed by flotation with a treatment rate of up to 4 million tonnes per annum.

A dedicated primary crusher, crushed ore stockpile and conveying system will be provided for the Enterprise ores; crushed ore will be milled in a SAG and ball milling circuit and the ground product floated in a circuit comprising talc pre-float, nickel rougher flotation, and three stages of cleaning. The talc pre-float will be operated without reagent addition to produce a talc concentrate containing very little nickel, which will be discarded to final tailings. Final concentrate at a grade of between 14 and 16% nickel, will be thickened and filtered in a dedicated concentrate handling facility.

The Enterprise processing facility will share all the Sentinel infrastructure and tailings will be discharged to the Sentinel tailings thickeners and TSF.

Infrastructure, Permitting and Compliance Activities

During April 2011, five large-scale mining license applications were granted covering 950 square kilometres, which include Sentinel, Enterprise and several other exploration targets. The granting of the Large-scale Mining Licenses was conditional upon approval by the Environmental Council of Zambia ("ECZ") of the EIA which was submitted to the ECZ in early February and approved in July 2011. Various updates to the Sentinel EIA were submitted to ZEMA on July 26, 2012, principally for amendments to the TSF and process water facilities. The Environmental and Social Impact Assessment for the Enterprise open pit nickel mine was approved by the environmental authorities in September 2014.

Environmental approval has been granted for Enterprise nickel mine and preparatory works around the mine have been undertaken to allow pre-stripping to commence when market conditions improve, and nickel production is required to commence. Water treatment facilities, including a flocculator and a water retention dam, have been constructed in 2021 and commissioned in 2022. The purpose of these facilities is to ensure effluent discharge compliance. Site construction of the process plant has been completed, and much of the Enterprise processing facilities can be used to augment Sentinel copper production, when not processing nickel ore.

Capital and Operating Costs

The estimated Enterprise capital and operating costs for 2023 are as follows:

Capital costs (2)	2023
Total capital cost estimate ($m)	**80**
Operating costs (1)	
Labour, contractors and maintenance	40
Acid, supplies, power and fuel	0
Other (includes Inventory)	50
Total operating cost estimate ($m)	**90**

(1) Operating costs exclude royalties and TCRC's and transport costs.

(2) Capital costs includes growth project costs, site capex and capitalised stripping costs.

Exploration, Development, and Production

During 2019 hydrogeological and geotechnical drilling programs were completed along with an ongoing RC grade control program within the starter pit area with the purpose of increasing estimate confidence in position, volume and grade of mineralization for the initial years of mining. Drilling is focused on improving definition of geology structure and key lithologies.

Resumption of site development work started in the 2021 dry season, involving drilling of dewatering bores, installation of power reticulation and completion of the aforementioned surface water management structures.

Following approval of the Enterprise Nickel mine by the Board, activities in 2022 comprised tarring of the ore haul road, continuation of pre-stripping activities, project operational readiness, plant completion and commissioning and the establishment of various supporting facilities.

The first ore was delivered in Q1 2023 and the plant will be commissioned during Q2 2023. Full commercial production is expected by the end of 2023.

Advanced Exploration Projects

Taca Taca

The information on Taca Taca contained herein is based in part on the Amended and Restated Taca Taca Technical Report (the "Taca Taca Technical Report"), dated March 29, 2021 prepared by David Gray (QP) BSc(Hons, Geology),MAusIMM, PrSciNat (SACNASP)FAIG, Group Mine and Resource Geologist, FQM (Australia) Pty Ltd, Michael Lawlor (QP) BEng Hons (Mining), MengSc , FAusIMM, Consultant Mining Engineer, FQM (Australia) Pty Ltd, and Andrew Briggs (QP) BSc(Eng), ARSM, FSAIMM, Group Consultant Metallurgist, FQM (Australia) Pty Ltd,0 of the Company in accordance with the requirements of NI 43-101. David Gray, Michael Lawlor, and Andrew Briggs are Qualified Persons under NI 43-101 and have verified the data. The Taca Taca Technical Report is available for review on SEDAR under the Company's profile.

Project Description, Location, and Access

Taca Taca is a porphyry copper-gold-molybdenum deposit located in the arid Puna (Altiplano) region of Salta Province, in northwest Argentina. Taca Taca involves the open pit mining and flotation processing of copper ore from this deposit for a period of 32 years.

Taca Taca is located approximately 230 kilometres west of the city of Salta and 55 kilometres east of the Chilean border. The nearest population centre is the village of Tolar Grande (population of approximately 150)

which is located 35 kilometres east of the Taca Taca site.The Taca Taca site is situated at a median elevation of 3,625 metres above sea level, in an environment with sparse flora and fauna and on the edge of an expansive salt lake (salar). The climate at Taca Taca is arid, with an annual precipitation of approximately 40 millimetres per year and an evaporation rate of 2,500 millimetres per year. Temperatures range from 3 degrees Celsius to plus 22 degrees Celsius, with January being the warmest month and July being the coldest month. Wind speeds typically range from 3.8 m/s to 23.2 m/s, blowing predominantly from the northwest. Although winds are generally strong, particularly during the winter months, development and operational activities could be carried out year round. Taca Taca is located in a seismically active region.

Taca Taca is 100% owned by the Company through its Argentinian subsidiary *Corriente Argentina SA* (CASA). Taca Taca and associated areas of interest are held in a composite package of mining rights consisting of 82 concessions. Two of the mining concessions have a 50% ownership with third party groups, though these are not over commercially material portions of the known deposit. The property is subject to a 3.0% provincial government royalty and a 1.5% third-party net smelter return royalty.

A network of paved and gravel roads from Salta to the towns of San Antonio de los Cobres and Tolar Grande provide access to Taca Taca. The Taca Taca site is located approximately 5 kilometres from the railway line that connects Salta with Antofagasta, Chile. Electrical power connection to the national grid is available in the region at Olacapato, approximately 125 kilometres to the northeast of Taca Taca.

History

The Taca Taca deposit was discovered in the late 1960s. Lumina Copper Corporation (Lumina) acquired an interest in the property when shareholders of Global Copper Corporation (Global Copper) approved a corporate reorganisation in August 2008. This ultimately resulted in the acquisition by Lumina of 100% of the shares in CASA and a 100% interest in the property.

In August 2014 the Company acquired Lumina and its primary asset, Taca Taca. Since that time, the Company has completed detailed reviews of the deposit geology, mineralogy and processing amenability, in addition to assessing development options for Taca Taca. From 2015, the Company has conducted water exploration drilling and aquifer pump tests to confirm sustainable groundwater supply sources for Taca Taca, and has been progressing with environmental and engineering phase studies. The Taca Taca project engineering and feasibility phase remains in progress.

Geological Setting and Mineralization

Taca Taca has porphyry copper-gold-molybdenum mineralization located in the southern half of a 50 km long Ordovician batholith, which forms the Sierra de Taca Taca mountain range. The Taca Taca mineralization is hosted by plutonic rocks of granitic composition together with lesser dacite, dolerite, and rhyolite intrusions. The porphyry is characterized by kilometre-scale zones of hydrothermally altered rocks that grade from a central potassic core to outer phyllic and argillic zones. Phyllic alteration is most pervasive across the deposit and is closely associated with mineralization.

Mineralization is comprised of supergene (chalcocite) and hypogene (chalcopyrite) zones. A sub-surface leached horizon of varying thickness overlies the supergene and hypogene mineralization. Mineralization is disseminated and in fractures, veinlets, and quartz vein stockworks.

The leached horizon is largely depleted of copper mineralization except for a zone of chalcocite-rich ore perched within the leached material to the east of the deposit. In addition, a zone of supergene gold mineralization, close to surface, is present above the thickest portion of leached material.

Supergene zones are mostly secondary sulphides formed by enrichment within a discontinuous blanket underneath the leached cap. Supergene mineralization is often variably mixed with hypogene mineralization

and is often due to deep-seated alteration along structures and host rocks. Fine-grained black chalcocite and lesser covellite are the main secondary copper sulphides.

Hypogene copper sulphides are mostly chalcopyrite with lesser bornite, chalcocite, covellite, and digenite. The mineralization is broadly zoned with a chalcopyrite-bornite-molybdenite core yielding to a stronger pyritic halo around the outer edges.

Mineralization remains open at depth and around several peripheral areas of the deposit.

Exploration

Copper mineralization at Taca Taca was first reported by *Fabricaciones Militares* in the late 1960s. Historical exploration included multiple drill programs and geophysical surveys across the Taca Taca area under various operators.

Surface outcrop mapping was active during most of the exploration phase, supported by excavator trenching and road cuts. CASA and Rio Tinto also undertook comprehensive geochemical sampling of soils and rock outcrops over and peripheral to the deposit, resulting in a dataset with approximately 100 m by 100 m spatial coverage. Much of the property geological information has been derived from drill hole logging, interpretation of assay data, geophysical surveys, and the mapping of outcrop and trenches.

Following Project acquisition, the Company completed several small-scale data collection programmes to ensure that supporting datasets were complete and of high quality. In 2014, New-Sense Geophysics carried out a helicopter-borne magnetic and radiometric survey on behalf of the Company. A total of 4,424.1 survey line kilometres of data was collected at a 300 m spacing across the property. Results were used to support anomaly delineation, structural evaluation, and the identification of lithological trends. Geochemical sampling campaigns of in-situ soils at a 500 m by 500 m grid spacing were also completed around the outer extents of the concessions. In 2019, a high-resolution topographic survey was acquired.

Additional work between 2020 and 2022 continued on evaluation of extensions of the deposit and nearby targets. Additional high-resolution ground based geophysics were collected over the deposit area, and a targeted brownfield drilling campaign was completed in 2022, although results are still being processed.

Drilling

Most of the Taca Taca drilling activities were carried out prior to the Company's acquisition of Taca Taca. The Company has verified the drill hole core logging data by check re-logging and check assaying. A total of 484 drill holes, for 172,031 metres, have been drilled in support of defining the mineralization extents. Of these, 44 holes were drilled outside of Company owned concessions for the purpose of freshwater exploration and for collecting geotechnical data for proposed infrastructure sites.

Prior to acquisition by Lumina, five different companies had carried out exploratory drill campaigns on the property. Earliest drilling of the copper porphyry was by Falconbridge in 1975. Results from three diamond holes showed a relatively thick, metal depleted, leached cap. No further drilling was conducted until 1994 when Glencore tested for shallow gold-copper bearing veins to the north of the porphyry and remnant copper mineralization within the porphyry leached cap.

Between 1996 and 1997, BHP drilled 35 diamond holes (including two re-drills) at an approximate 400 m by 400 m grid spacing into the porphyry. Results partially delineated the supergene dominant zone of mineralization directly below the leached cap.

During 1998 and 1999, CASA drilled 14 diamond holes and 80 RC holes focusing on shallow and exotic copper mineralization peripheral to the porphyry. Rio Tinto conducted two separate campaigns in 1999 and 2008. Drilling in 1999 mainly targeted shallow oxides within the porphyry leached cap (seven RC holes) and exotic

mineralization below the Salar de Arizaro (two RC holes). In 2008, Rio Tinto returned to test for deeper hypogene copper-molybdenum mineralization at the core of the porphyry with eight diamond holes (including two re-drills).

Lumina completed a total of 283 drill holes (137,671.5m) across the Taca Taca area during a 2010 to 2012 drill campaign. This comprised 155 diamond drilled (DD) holes and 128 reverse circulation (RC) holes, and included fifteen geotechnical holes and four water monitoring holes. Most drill holes targeted the deeper porphyry and were completed along a set of east-west trending sections, on a nominal 150 m by 150 m grid spacing. As standard procedure, drill core was logged for lithology, weathering, alteration, mineralization and structure. Diamond holes were also logged for geotechnical data, including core recovery, rock quality, fracture frequency and vein density, and vein angles. Samples were taken every 10 m for point load index tests and for density measurements.

During 2019, an additional four diamond holes were drilled by the Company as twins to Lumina drill holes to provide additional samples for metallurgical test work from material representing early plant feed. Drilling and sampling procedures for these four drill holes were aligned to those used by Lumina. Samples were analysed using Inductively Coupled Plasma-Mass Spectrometry (ICP-MS) for 48 elements, including copper and molybdenum, and fire assay with AAS finish for gold.

In 2022, the Company drilled a further fourteen diamond drillholes for 6,302m on rear mine brownfield targets and deposit extensions. The results are still under evaluation. In addition to this, a further nine diamond drillholes, 1800m total, were drilled during 2022 as part of an infrastructure sterilization program.

Further drilling was undertaken to explore for fresh water and to collect geotechnical data at proposed infrastructure sites.

Sampling, Analysis and Data Verification

Detailed information on sampling, analysis, and data verification for drill holes used in the Mineral Resource estimate can be found in the Taca Taca Technical Report, available on SEDAR under the Company's profile. This includes all holes drilled between 1996 and 2019. No written record of sample preparation, analytical methods, or analytical results is available for holes drilled prior to this, by Falconbridge or Glencore.

Company reviews and analysis indicate that sample preparation, analytical procedures, and secure data management have enabled consistent and repeatable sample analysis for most samples. Analysis of QAQC results indicate that adequate controls were in place and that assay results are reliable. Sample values are believed to be representative of the prevailing mineralization and thus suitable for use in the Mineral Resource estimate. Historic data with limited records mostly provides additional information to the deposit peripheries and is not considered to pose a risk to the quality of the estimate.

Mineral Processing and Metallurgical Testing

Metallurgical test work by Lumina was completed over a period of three years from April 2010. Technical reviews were completed by the Company in 2017, including an assessment of the potential for gold recovery during the Taca Taca pre-strip phase. During the course of reviewing the test work data variability, and as part of the Mineral Resource modelling by the Company, distinct data groupings (clusters) were identified for recovery and copper concentrate grade related to mineralogy, Cu and Fe assay grades.

During 2019, four metallurgical holes were drilled from which ten samples were selected to represent the first five years of operations. These samples along with brine solutions from the Salar de Arizaro, and brackish water from Valle de Arizaro and Valle de las Burras, were sent to the ALS laboratories in Kamloops, Canada. The test work programme included comminution work for mill sizing, flotation work in brine and brackish water to define recoveries and concentrate grades in locked cycle test work, sedimentation and filtration test work for

thickener and concentrate filter sizing, and environmental test work to determine the potential for acid generation from tailings. This test work programme was completed in 2020.

The comminution test work highlighted the toughness of the rock types at Taca Taca and indicated the need for secondary crushing to achieve the ultimate design throughput of 60 Mtpa in two milling trains.

Flotation test work indicated high mass pulls to rougher concentrates using brine solutions in rougher flotation. Brackish or fresh water would be required in the cleaner flotation circuit to enable high pH values to be achieved for pyrite depression; otherwise low concentrate grades and low recoveries would occur in this circuit.

The data generated from the recent locked cycle test work was combined with the variability test work results obtained in the previous test work campaigns to estimate recoveries and concentrate grades for the distinct ore types and the different ranges of copper and pyrite present. These estimates were coded into the Mineral Resource model.

From the test work results and mine production schedules the average life of mine recoveries using brine solution in rougher flotation are anticipated to be copper recovery of 85.0% to a concentrate grade of 25.3% Cu, molybdenum recoveries of 40% to a concentrate grade of 47% to 50% Mo, and gold recoveries to the copper concentrate of 60%, with a grade of approximately 4.5 g/t.

Mineral Resources

The Mineral Resource statement reflecting the position at October 30, 2020 is listed in the table below. The Mineral Resource inventory reflects exactly that which is reported in the Taca Taca Technical Report. The Mineral Resource inventory is inclusive of the Mineral Reserve inventory. Data from a total of 435 diamond and reverse circulation drilled holes, for a total of 75,803 analysed samples, was included in the Mineral Resource estimate. Drill data (logging and sampling) was combined with surface geology mapping and geology modelling to provide defined zones of mineralization.

Block model grade estimates were validated using summary statistics, visual validations, swath plots and comparison with previous estimates. Estimates were classified as Measured, Indicated and Inferred Mineral Resources. Mineral Resource classification was guided by confidence in the grade estimates and underlying geology model. In addition, drill grid spacing, QAQC and an ultimate pit shell were used to guide the classification limits of mineralization having reasonable prospects for eventual economic extraction.

The block model estimates were reported at a 0.13 % copper equivalent (Cu_{eq}) cut-off grade, which is consistent with the Mineral Reserve estimate. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

Mineral Resource Statement for Taca Taca - as at October 30, 2020

Classification	Tonnes (Mt)	TCu (%)	Mo (%)	Au (g/t)
Measured	421.5	0.60	0.016	0.14
Indicated	1,781.8	0.39	0.011	0.07
Measured and Indicated	**2,203.3**	**0.43**	**0.012**	**0.09**
Inferred	716.9	0.31	0.009	0.05

The current Mineral Resource as at October 30, 2020, was estimated and verified by David Gray of the Company who is a qualified person and holds the following valid qualifications: BSc Hons(Geo), MAusIMM, FAIG,(#7323)

Mineral Reserves

The Taca Taca Mineral Reserve estimate is shown in the table below, reflecting the position at October 30, 2020. This is the maiden Mineral Reserve estimate for Taca Taca and is consistent with that reported in the Taca Taca Technical Report. The economic analysis in the form of a basic cashflow model was produced to

support the Mineral Reserves estimate provided in the table below and in order to demonstrate a positive cashflow for mining and processing. The development and expansion capital costs are included in the analysis for completeness. The model is provided pre-tax and post-tax.

Mineral Reserve Statement for Taca Taca - as at October 30, 2020

Classification	Ore (Mt)	TCu (%)	Mo (%)	Au (g/t)
Proven	408.3	0.59	155.045	0.13
Probable	1,350.2	0.39	111.226	0.08
Proven and Probable	**1,758.5**	**0.44**	**121.401**	**0.09**

The current in-pit Mineral Reserve as at October 30, 2020, has been estimated and verified by the Company personnel under the supervision of Michael Lawlor of the Company, who is a qualified person and holds the following valid qualifications: Beng (Mining)(Hons), MengSc, FAusIMM.

The estimated Mineral Reserve was determined using metal prices of $3.00/lb for copper, $12.00/lb for molybdenum, and $1,200/oz for gold, with a supporting production schedule derived from the ore and waste mining inventory within a practical pit design produced from a selected pit optimization shell.

The actual marginal cut-off grade for the Mineral Reserve varies according to the copper recovery assigned to the various mineralogical groupings. However, the overall average marginal copper cut-off grade is in the order of 0.13% Cueq. An elevated cut-off grade of 0.20% Cueq applies to the plant feed inventory for the production schedule.

Based on the Taca Taca Technical Report: Taca Taca life (processing years) is 32 years; on a pre-tax basis, Taca Taca is cashflow positive from Year 2 and payback on the initial development capital is in Year 9; the undiscounted cashflow for the Mineral Reserve production schedule is $17,306.3 M, with an NPV reflecting an 8% discount rate equal to $3,428.8 M. The internal rate of return is 17.4%.

After adopting notional depreciation schedules and a flat 25% corporate tax rate, the estimated tax payable for Taca Taca is $4,331.3 million. Under these circumstances, the NPV reflecting an 8% discount rate is equal to $2,361.2 million and the internal rate of return is 15.3%.

Mining

The Taca Taca deposit grades, geometry, and depth make it suitable for conventional, large-scale, bulk open pit mining methods involving blasthole drills, diesel hydraulic excavators, electric shovels and off-highway haul trucks.

Open pit mining would proceed in phases from an initial starter pit, supplying pre-strip development waste for site infrastructure and construction, and ore onto stockpile for process plant commissioning. The average and maximum material movements over this three-year timeframe are 32.9 Mbcm and 43.3 Mbcm, respectively. There is a pronounced peak in material movements over the next ten years as the first three pit phases are completed and mining proceeds into the fourth phase. The average and maximum material movements over this period are 91.9 Mbcm and 95.7 Mbcm, respectively. Thereafter, the average and maximum material movements reduce to 42.3 Mbcm and 65.2 Mbcm, respectively.

Subject to infill drilling and further mine planning assessments, a small satellite pit immediately to the north of the design pit could be mined during the operations phase, although this is not currently part of the Mineral Reserve inventory.

Processing

The Taca Taca processing feed would comprise a mix of supergene and hypogene ores with initial feed sourced mainly from supergene zones, to be followed by increasing quantities of hypogene ore as the open pit deepens.

The “leach” cap at surface is auriferous but is mostly barren of copper mineralization. The auriferous material would be separately stockpiled for future evaluation of the economics of gold recovery.

The processing facilities are designed for an initial throughput of 30 Mtpa in Year 1, then 40 Mtpa in Years 2 to 6, then 50 Mt in Year 7, and finally 60 Mtpa from Year 8. Ore would be delivered from the mine by haul trucks and crushed in four primary crushers followed by secondary crushing and SAG and ball milling to produce a milled product size of 80% passing 180 µm. Two milling trains will be installed, each comprising a 28 MW SAG mill and two x 22 MW ball mills (for 60 Mtpa).

A rougher flotation circuit will produce a rougher flotation concentrate which will be dewatered by thickening, reground to 80% passing 30 µm and re-diluted with good quality water prior to cleaner flotation. Milling and rougher flotation would be performed in brine, sourced from the adjacent salar. Cleaner flotation would be undertaken in fresh/brackish water, sourced from offsite borefields.

The addition of sodium hydrosulphide (NaHS) is proposed as a means of improving the recovery from the oxidised and mixed ores; it will sulphidise the oxidised and tarnished mineral surfaces and assist in flotation. Facilities will be provided for NaHS addition to the circuit; it is expected to be beneficial for approximately 22% of the ore feed.

Copper and molybdenum concentrates would be separated from the bulk cleaner concentrate, filtered and dispatched to off-site smelters. An average of 985,500 wet tonnes of copper concentrate is expected to be generated annually at an average grade of 25.3% Cu, along with 6,200 tonnes of molybdenum concentrate at a grade of 47% to 50% Mo. Gold would be recovered to the copper concentrate through flotation. Coarse gold recovery would be enhanced by the addition of gravity concentrators.

Flotation tailings would be dewatered in thickeners and the thickened slurry pumped to a TSF located approximately 5 km from the process plant, within an embayment of the Salar de Arizaro.

Tailings Storage Facilities

An upstream raised TSF is planned to be located in a natural embayment of the Salar de Arizaro (i.e., the Salar de Taca Taca), located to the north of the processing plant site. The ultimate capacity is approximately 1.37 Bm^3 and could be expanded through further lifts. The site is almost entirely enclosed by the natural land mass and would only require a relatively low height (25 m plus an additional 3 m of freeboard), short length embankment at the entrance to the salar.

The starter embankment would be constructed as an initial waste rock bund, and then upstream raised in continuous stages using cycloned tailings.

Flotation tailings slurry would typically be at a slurry density of 32% solids and would be discarded to tailings at a thickened density of 55% to 60% solids. Two tails lines, each with two stages of centrifugal pumps would be installed to deliver tailings to the TSF, with spigots arranged around the facility’s periphery. Water run-off from the site and from sediment collection ponds would be pumped to the tailings thickener and, subject to further engineering analysis, excess water then recycled back to the plant.

Project Infrastructure

Power supply

The total power demand for Taca Taca is expected to be in the range of 180 MW to 240 MW at a processing rate of 60 Mtpa. A preferred power supply and transmission route has been identified involving 122.5 km of new transmission line and a new switching station to connect to an existing 345 kV line that extends through northern Argentina and into Chile. A preliminary design and estimates have been produced by a specialist consultant to support the development of the ESIA required for the power supply infrastructure.

The proposed new transmission line will connect the site to the national grid and enable Taca Taca to source its entire electricity supply requirements through a long term power supply agreement with an electricity supplier, to be determined through a competitive tender process. The Company has identified options to source 100% of its electrical energy requirements from renewable sources. Further alternatives exist, if required, to source a portion of the energy requirements from natural gas power plants in Salta and regionally.

Road and rail access

Existing public roads provide access to the Taca Taca site. However, a bypass of an existing road is planned to avoid a section with narrow switchbacks and another section which is subject to seasonal weather disruptions. A preferred deviation has been selected and would require an approximate 26.5 km length of new road construction. In addition, there is an 18.5 km length of existing road to be diverted around Tolar Grande, and a 31 km length of existing road to be diverted around the Taca Taca site.

Taca Taca is located approximately 5 km from an existing railway line that connects Salta with Mejillones, Chile. It is expected that this railway will be used for copper concentrate transport to a port at Mejillones Bay, for subsequent shipment to smelters globally. Construction of a new rail spur, a new maintenance and repair facility for locomotives and railcars, adjacent to the concentrate load-out facility, and rehabilitation across a significant length of the railway will be required.

Port for concentrate export

Potential concentrate export shipping ports in Mejillones Bay have been visited by Company representatives and preliminary discussions held with the port owners.

It is envisaged that the cost of upgrading and expanding one of these ports would be at the expense of the port owner, who would then recoup that cost through a concentrate handling charge levied on the Company. In Taca Taca capital cost estimates, however, it is assumed that the Company would bear the estimated cost for port upgrades and/or expansion works.

Water Supply

In the arid environment characterising the Taca Taca site, local and regional borefields will be developed to supply a combination of high and low salinity water for Taca Taca. Brine water from the adjacent salar is intended for use in milling and rougher flotation, comprising approximately 72% of the make-up water required for processing. The balance of the processing water supply is intended to be fresh or brackish water abstracted from regional borefields.

Fresh water supply investigations to date have identified major water resources at four regional basins located 30 km to 50 km from the Taca Taca site, including Valle de Arizaro, Valle de las Burras, Valle de Chaschas, and Socompa. Each basin holds thick zones of permeable, water saturated sands and gravels intersected in several drill holes, and backed up by geophysical prospecting data. Historic and more recent FQM pump testing to date has shown good transmissivity results in all four basins suggesting pumping at rates of 40 to 50 L/s per bore will be possible in each basin. The four identified fresh water supply basins have a combined estimated yield in excess of that required for process water make-up.

Contemporary with the ongoing investigations, a specialist consultant has assisted with the specification of bore design and estimated numbers, bore spacing at each borefield source, and the nomination of pumping rates. A capital cost estimate for the bore pumps and pipelines has been completed by the Company, considering the number of bores required, the drilling depth, bore pumps, the pipeline distances and the pumping head.

Permitting

The primary permit required for the development of the Taca Taca Project is the Environmental and Social Impact Assessment (*Informe de Impacto Ambiental,* ESIA), to be approved by the Secretariat of Mining of the Salta Province. This ESIA must cover the main Project sites including mine, process plant, TSF, and associated facilities.

The Taca Taca ESIA was submitted to the authorities in 2019. A response to the submission was received from the Secretariat of Mining including observations and requests for clarification or more information. Initial responses were submitted to the authorities in 2020, and detailed supplementary studies on tailings and waste rock management were completed and submitted to the authorities in 2022. Final approval of the ESIA is now expected in 2023. After final approval, the ESIA must be updated and resubmitted to the authorities every two years.

A second ESIA was submitted separately in 2021 to the Energy Secretariat of Salta Province, for the 345 kV transmission line to connect Taca Taca to the national electrical grid. In November 2022, the Salta Production Minister signed Resolution 191/2022, approving the environmental pre-feasibility for the transmission line development. The 345kV line still requires detailed construction permits, but the main environmental aspects have been approved.

A third ESIA was submitted in 2021 to the Salta Road Administration for the proposed bypass road construction for Taca Taca and is expected to be approved during 2023. Taca Taca will also require approval from the Water Resources Secretariat of Salta Province of a concession for water supply development and use. The current water supply definition programme (Phase III) is intended to develop all of the detailed information that will be required to include in a water exploitation permit application. The Phase III water investigation programme was suspended in 2020 due to the COVID-19 pandemic, but resumed in 2021 and is now expected to be completed in 2023.

Other administrative authorisations, detailed construction and operating permits will be required, particularly from the Municipality of Tolar Grande and provincial authorities in the course of development and operation of Taca Taca. The Company has also filed updated ESIA documents and received approvals to proceed with the ongoing field activities. As part of the ESIA process the Company have undertaken socioeconomic studies including a socioeconomic baseline, as well as identification and engagement of stakeholders and social actors.

Capital and Operating Cost Estimates

The capital cost estimate, as stated in the March 2021 NI 43-101 Technical Report is presented in the table below:

Capital Cost Estimates	Initial Costs (US$M)	Expansion Costs (US$M)
Mining	730.7	
Processing	912.5	184.3
TSF	12.0	
Infrastructure	927.1	39.6
Other	54.5	
Indirects	638.1	84.2
Total Project Capital[1]	**3,274.8**	**308.1**

Total initial capital spend over a three year construction phase (including an average 15% contingency) of $3,274.8 million, split between: $2,636.7 million of direct costs, and $638.1 million of indirect costs. Total expansion capital spend (including an average 15% contingency) of $308.1 million, split between $223.9 million

of direct costs, and $84.2 million of indirect costs. The total life of mine sustaining[1] cost provisions are $1,304.1 million, split between: $875.1 million for mining $372.5 million for processing and $56.5 million for the TSF.

[1] Non-IFRS measures. Refer to sections "Non-IFRS Measures" of this AIF and "Regulatory Disclosures" of the Company's MD&A for the year ended December 31, 2022.

The indicative order of accuracy of the updated capital cost estimates is considered to be now in the range of plus or minus 15%. Substantial items totalling approximately 85% of the itemised capital costs have benefitted from either first principles estimates and material take-offs, or are based on actual costs incurred in the construction of the Company's Cobre Panamá project. Contingency provisions on the itemised costs vary from 0% to 20%, with an overall average of 11%.

General and administration (G&A) operating costs, process operating costs and metal costs (i.e. product transport, refining charges and royalties) as set out in the PEA report (Ausenco, 2013) were reviewed, benchmarked and updated. Mining and process operating costs were estimated from first principles. The overall average unit operating costs $4.69/t processing costs, mining ore and waste cost of $1.69/t, stockpile reclaim of $0.74/t reclaimed, and rail load-out infrastructure and water supply tariff of $0.08/t processed.

Project Development Status

The Company has identified its preferences for the scale and extents of open pit mining and ore processing, and for the location of required infrastructure items. Furthermore, technical work has progressed on power and water supply logistics, freight and product transport options, and on designing improved road access into the Taca Taca area. The Company's Project engineering phase has advanced such that an updated Mineral Resource and maiden Mineral Reserve estimate were published in November 2020, along with a proposed mining and processing plan. The Technical Report was published March 2021 including clarifications and confirmatory information relating to pre-tax and post-tax cashflows and sensitivity analyses.

In addition to resuming the Phase III water supply definition program, a scope of continuing engineering phase work includes:

- additional Mineral Resource drilling, sampling and analysis, including infill, extensional and sterilisation targets
- mine and civil geotechnical investigations, in conjunction with seismicity investigations
- optimization of the process plant layout and the concentrate load-out facilities
- further confirmatory metallurgical testwork, not critical for the current processing flow sheet and plant design
- further infrastructure planning for power reticulation
- optimization of the tailings delivery methodology and the potential for decant water return
- selection of a suitable location for the Taca Taca camp and related infrastructure
- review of waste landfill options and locations

Haquira Project

Project Description, Location and Access

The Haquira property is in the Peruvian Andes at elevations of 3,500 to 4,400 metres, and consists of treeless, gently rolling hills with grassy vegetation and some rocky ridges. Rainfall is abundant between December and March (summer).

The 100% owned property is located in the Apurimac Department of southern Peru, adjacent to MMG's Las Bambas copper mine, approximately 270 kilometres northwest of Arequipa or approximately 80 kilometres southwest of Cuzco. Access from Arequipa is by paved and unpaved roads, with a driving time of between 12 to 14 hours. Access from Cuzco is by paved and unpaved roads, with a driving time of approximately 6 hours.

History

The acquisition of Antares Minerals Inc. ("Antares") and its principal asset, the Haquira copper deposit, was finalized by the Company in late 2010. During 2011 an exploration program was conducted including systematic detailed airborne magnetic and electromagnetic surveys covering the whole property as well as detailed soil geochemistry and mapping programs. A new 3D geological model of the porphyry system, alteration halo and regional architecture was completed in 2011 and generated several high priority exploration targets.

In December 2013, titles over seven additional concessions (6,400 ha) adjacent to Haquira were purchased that comprised the "Cristo de los Andes" project. These concessions were formerly held and explored by the Company through a mining assignment with the previous owner Hochschild Mining and now form part of the Haquira project, in addition to potential copper resources, this area consolidates the Company's position and may potentially accommodate infrastructure for Haquira.

Antares then entered into a recalibration of the project with local communities where the change from an exploration project to a development project was explained. The latter involves potential relocation of certain key communities.

Geological Setting and Mineralization

The Haquira project is located in the southeast part of the Andean cordillera in Peru, where parallel belts of Paleozoic and younger rocks are intruded by Tertiary (Oligocene) diorites and monzonites, including the Haquira porphyry. On the Haquira property, the Jurassic-Cretaceous sedimentary sequence consists of several formations containing arenites (quartzose sandstones), siltstones, and shales. The overlying Ferrobamba Limestone does not crop out in the immediate area of known mineralization, but has been identified elsewhere nearby on the property. The sedimentary rocks are folded into a series of major folds with wavelengths of 1 to 3 kilometres, with some thrusting. Oligocene intrusives occur as stocks and sinuous dikes, the latter spatially related to faults and/or fractures that strike north-northwest. Most of the intrusions are medium-grained to porphyritic diorites, quartz diorites, monzonites, and monzodiorites. The Oligocene intrusions silicified the arenites and converted some of the finer grained siltstones and shales into diopside, biotite, and epidote-bearing hornfels. The most important intrusive phase found to date is the Haquira monzonite porphyry, which is currently thought to be the main mineralizing intrusive body. It contains abundant disseminated chalcopyrite, pyrite, and molybdenite. The better primary (hypogene) copper grades tend to be associated with the Haquira porphyry. Pliocene and younger (post-mineral) tuffs and alluvium overlie the Oligocene and older rocks.

Mineralization at Haquira is related to porphyry-copper systems generated by the Oligocene intrusives, including the Haquira Porphyry. Mineralization occurs not only as copper oxide and secondary (supergene) chalcocite in the form of sub-parallel enriched secondary or supergene copper blanket, but also in the form of copper sulfide-bearing stockworks and sheeted-vein systems of interesting grades in underlying primary (hypogene) porphyry-copper style. In addition, there is some potential for skarns developed in carbonate rocks adjacent to the porphyry intrusives.

Mineral Resource and Mineral Reserves

The previously published Mineral Resource at Haquira includes 703.7 million tonnes at 0.51% copper (cut-off grade 0.2%Cu) in the Measured and Indicated categories. In addition, an Inferred Mineral Resource at Haquira totals 683.9 million tonnes at 0.40% Cu (cut-off grade 0.2%Cu).

Primary technical objectives for the project include infill resource drilling of mineralization between Haquira East and Haquira West deposits, as well as drilling for extensions and new targets. Drill planning includes deeper holes targeting extensions of sulphide mineralization at both Haquira West and Haquira East. The Company's view is that there is excellent potential to expand on current Mineral Resources through incremental additions as well as for defining the extents of other known porphyry targets within the property.

Information regarding the Mineral Resource in respect of Haquira is available in the NI 43-101 Technical Report (the "Haquira Technical Report") for the Haquira Project dated September 3, 2010. The Haquira Technical Report is not, and shall not be deemed to be, incorporated by reference in or otherwise included in this AIF. The Company has not verified, and makes no representation or warranty as to, the accuracy or completeness of any information, including information related to the Mineral Resource for the Haquira project, contained in the Haquira Technical Report.

The published Mineral Resource is an historical estimate, to be superseded by the Company's own updates, and based on more recent technical and economic analyses.

Mining and Processing

The Haquira project is one of the world's major undeveloped porphyry copper deposits, with excellent potential for the development of a large-scale open pit copper mine. Production could be from both near-surface secondary copper mineralization amenable to leaching and SX-EW, and from primary copper-molybdenum gold-silver mineralization amenable to processing in a conventional mill/concentrator operation. Alternative processing scenarios and production rates are being considered by the Company.

Infrastructure, Permitting and Compliance Activities

Through its wholly-owned subsidiary Minera Antares Peru S.A.C., the Company currently holds title to 38 mining concessions at Haquira project covering almost 30,000 ha. This includes new concessions applied for since the Haquira acquisition in 2010, as well as the concessions that the Company purchased as part of the adjacent Cristo de Los Andes project.

Agrarian reform in Peru has resulted in the surface rights at Haquira being held by several Andean communities in the area of influence. Development of Haquira will require the purchase of certain surface rights and resettlement of some communities depending on the final design and footprint of the mine.

Environmental permits for exploration and other related permits at Haquira and Cristo de Los Andes are maintained in force and good standing (through several amendments and renewals). The Company holds a permanent camp at site, from where most activities are conducted, this enables a continuous presence in the area and helps to maintain a close and positive relationship with the communities.

Exploration, Development and Production

Additional work has commenced to progress the Haquira project towards a development decision, particularly through a thorough review and drafting of the process description for the project. The ultimate development decision would require further drilling for engineering purposes, mineral resource extensions and additions, mine planning, metallurgical testing, plant, tailings pond and waste rock dump design, infrastructure planning, closure plans, environmental and social impact studies.

The Company's current priority is to negotiate an agreement with the communities adjacent to the main deposits so that a 2 year drilling program can be initiated. Efforts to progress such an agreement were not successful in 2022 and are continuing. The Company is working with local security authorities to prevent illegal mining within the Haquira license area. The objective of the drilling program is to upgrade and extend the mineralized resource. While this drilling program in progress community relations will be continued so that the necessary steps to advance the project can be taken once an updated resource model is available. Pre-operational studies for electricity supply scenarios have been completed, submitted to the regulatory authority and approved. The Company continues to assess potential alternative routes and ports for transport and export of copper concentrate.

Other Exploration

The Company has historically expanded its reserve base through a combination of carefully targeted acquisitions and district scale exploration. Following several years of successful resource development programs that have provided the Company's major operations with long mine lives, the emphasis of the Company's exploration is migrating towards earlier stage projects. The Company's exploration strategy encompasses a focus on maximizing the option value of current assets through near mine exploration, seeking out junior companies with early stage projects for joint venture and a 'Generative' exploration program utilizing the groups technical expertise in sediment hosted and porphyry copper deposit styles.

In recent years the Company has deliberately diversified from its strong African base to establish a ground position and expertise in many of the other premier copper jurisdictions around the globe, more particularly in the fertile Andean Copper Porphyry belt of Latin America. This commenced in 2010 through the purchase of Haquira in Peru and has now expanded to include interests in Argentina, Chile, Ecuador and Colombia.

In recent years exploration budgets have been generally maintained at modest levels commensurate with prevailing economic conditions and the Company's healthy pipeline of development projects. Since 2020 there has been an expansion in exploration activities related to progression of early stage projects into a resource definition phase, particularly in Argentina, Zambia and Turkey. In 2022, the Company incurred a total of $49 million of exploration expenditure which included amounts capitalized for near mine exploration, advanced projects and farm-in joint ventures.

The Company continues to maintain a modest program of early-stage ('Greenfield') exploration. This has included a concerted period of research information gathering and field studies on numerous early stage copper projects around the world, particularly copper-gold porphyry targets in Latin America. The Company's strategy on porphyry copper projects is carefully guided by pro-active selection of joint venture prospects in preferred segments of porphyry belts followed by swift but systematic evaluation of known porphyry occurrences during a limited 'option' period. In this way it is proving possible to rapidly turn over opportunities without major on-going commitments and to accelerate the discovery of the Company's preferred large scale targets. In 2022 this programme successfully highlighted several encouraging new copper-gold porphyry targets for drill testing in Argentina, Chile and Peru.

In contrast, exploration for sediment-hosted copper deposits capitalizes on the Company's considerable experience in the African Copper belt where detailed targeting models have been developed using innovative geochemistry and geophysical mapping techniques. Unlike porphyry copper, very few global mining groups have expertise in sediment-hosted copper exploration, resulting in less competition for these targets. The Company's experienced exploration team is actively engaged in applying the Company's proprietary models and techniques into less well explored sediment hosted copper basins around the world.

Complementary to the large long-life copper deposits that remain the focus for greenfield targeting, the company has also kept a keen eye out for more modest but potentially high-margin base metal targets such as volcanogenic massive sulphides (VMS), mafic hosted nickel-copper and carbonate hosted zinc deposits. These projects tend to be entered at a more advanced stage and are centered in jurisdictions where the company has existing operations such as Finland, Turkey and the Iberian pyrite belt.

Exploration expenditure on early stage projects is expected to continue at relatively modest levels during 2023 with testing of new targets in Zambia, Argentina, Chile, Australia and Finland. More significant expenditure will be committed to resource definition targets in Argentina and Turkey. Whilst near mine exploration has generally been limited in recent years, encouraging results at Las Cruces in Spain as well as Cayeli in Turkey will justify continued drill testing in 2023.

Operations in Emerging Markets

First Quantum conducts mining, development and exploration and other activities through subsidiaries in many countries, including Australia, Finland, Spain, and in emerging markets such as Zambia, Panamá, Turkey, Mauritania, Argentina and Peru. The Company's history of successful development and operation of mines in emerging markets jurisdictions is considerable, and the Company has organizational and governance structures and protocols in place to manage the regulatory, legal, linguistic and cultural challenges and risks associated with having operations in these jurisdictions.

Operating in emerging markets may expose the Company to risks and uncertainties that do not exist or are significantly less likely to occur in other certain other jurisdictions where the Company operates, such as Australia, Finland and Spain. The risks that the Company has identified as material to the Company, including such risks arising from its operations in emerging markets, are disclosed in the Company's annual information form, including under the captions "Mining operations, development projects and exploration are subject to extensive regulations, including environmental, health and safety and other regulations, as well as the need to manage relationships with local communities," The Company currently derives almost half of its revenue from two operating assets located in Zambia," "The Company's operations across several different countries subject it to various political, economic, legal, regulatory and other risks and uncertainties that could negatively impact its operations and financial condition," "Almost half of the Company's revenue is derived from operations in Zambia which, similar to Mauritania where Guelb Moghrein is located, have underdeveloped physical, financial, political, medical and institutional infrastructure". "The Company may be subject to the exclusive jurisdiction of foreign courts, which would impact investors' ability to enforce legal rights", and "Title claims may affect the Company's existing operations as well as its development projects and future acquisitions." The Company has experienced, qualified and professional staff located in each emerging market jurisdiction whose responsibilities include maintaining the validity and currency of Issuer's title to and interests in its projects. Reports from the Company's local staff in each of the jurisdictions in which it operates on matters related to the status of the title documents, claims, permits and other interests that comprise the projects are regularly sent to the Company's responsible officers.

The Company has extensive experience in operating successfully in Zambia and Panamá, the two emerging markets in which the Company has material properties. The Company has successfully operated in Zambia since 1996, and has operated the Kansanshi mine there since 2005, and oversaw the successful development of the Cobre Panamá project into its current status as a producing mine over the past nine years.

Ownership of properties and control of subsidiaries

The Company holds a 100% interest in all of its properties and projects in emerging markets jurisdictions except for the Kansanshi Mine in Zambia, in which it holds an 80% interest, the Cobre Panamá mine in Panamá, in which it holds a 90% interest. The Company has full operational control over its operating subsidiaries in emerging markets in which it operates. As a result, the Company has control over, and access to, the books and records of its operating subsidiaries.

The Company holds its properties and projects in emerging markets indirectly, through subsidiaries that are locally incorporated. These operating subsidiaries are in turn held through holding companies incorporated in jurisdictions with well-developed and reliable legal and taxation systems. The purposes of such holding companies include (i) the facilitation of internal reorganizations by the Company, (ii) the facilitation of project financing and commercial transactions, such as the creation of joint ventures, and (iii) predictability and legitimate dispute resolution processes. The Company has developed a system of corporate governance, internal controls over financial reporting and disclosure controls and procedures that apply to the Company and its consolidated subsidiaries, including those in emerging markets. These systems, controls and procedures are designed to monitor the activities at, and receive timely reports from, the Company's operating subsidiaries.

All but two of the Company's subsidiaries in emerging markets are 100% owned (with Cobre Panamá Mine owned 90% and Kansanshi Mine owned 80%). As such the movement of funds, the appointment, removal and replacement of directors and officers of each of these entities can be effected through appropriate corporate

action, including actions by the shareholder(s), directors and/or officers of the relevant subsidiaries, as applicable.

Experience of directors and management in emerging markets

The majority of the directors of the Company, as well as the Company's senior management team, have experience conducting business internationally, including in the emerging markets where the Company operates. Reports are received at each Board meeting on the country, political, social and business-related matters that may impact the Company's businesses in emerging markets.

Directors generally visit at least two operations a year where they meet with local management and tour the operations. In 2022, directors visited the operations in Panamá and Zambia. New directors also visit the Company's major sites, including those located in emerging markets, as part of their induction and orientation.

Communication

The primary language of the Company's technical operations and management in every jurisdiction where it operates is English; in addition, some of the Company's directors are fluent in Spanish. The use of English as the primary language of technical operations and management reduces the risk that language differences will result in miscommunication regarding material matters.

Significant documents are provided to the Company's directors in English. Where the original document is in a local language other than English, it is translated into English.

Environmental

General

The Company is committed to extracting resources responsibly and in an environmentally sensitive manner, Environmental management is therefore recognized as a corporate priority and the Company is committed to operating in full compliance with all applicable laws and regulations. Furthermore, the Company seeks to identify and reduce environmental impacts, enhance positive impacts and strives for continual improvement in environmental performance. To this end, the Company has developed and implemented environmental management systems in accordance with the ISO14001:2015 Standard at all of its operating sites. These environmental management systems are subject to annual internal and external reviews.

Disclosure on Environmental, Social and Governance ("ESG") Performance

In May 2022, the Company published its primary sustainability report, the annual Environmental, Social and Governance Report (the "ESG Report"). The Company has created an ESG Analyst Centre on the Company's website where all ESG reporting and policies can be found. The ESG Report is aligned with Global Reporting Initiative, Sustainability Accounting Standards Board and the United Nations Sustainable Development Goals frameworks. This report seeks to inform the Company's stakeholders of the Company's sustainability performance across sustainability areas that the Company has considered to be material, with a combination of ESG metrics as well as contextual disclosures and background information.

Tailings Management

The Company manages 19 TSFs, of which ten are active and nine are closed. In recognition of the risk associated with possible TSF failure, the Company regularly undertakes risk assessments of all TSFs at board and management levels. A number of controls and regular internal and external reviews have been implemented across the group. These controls and reviews cover both the Company's structures as well as the day-to-day operations of its dams. All of the Company's TSFs are designed and operated in accordance with guidelines issued by either the Australian National Committee on Large Dams ("ANCOLD"), the Canada Dam Association ("CDA") or the European Union Legislative Directives. Importantly, each of the Company's TSFs

are operated in accordance with the design intent and controls that have carefully considered local conditions. First Quantum's senior management and engineering staff work closely with the operators of each TSF to ensure that the facility is managed and operated according to the design intent and controls. Site management ensures regular site inspections are carried out by trained, onsite personnel as well as by recognized independent global experts.

The Company has reviewed the Global Industrial Standard on Tailings Management ("GISTM") developed by the International Council on Metals and Mining. First Quantum is supportive of the GISTM's intent to improve the industry's performance in tailings management and is committed to a phased approach in aligning our operations with selected performance aspects of the GISTM.

In response to stakeholder interest in the Company's approach and practices in TSF management, the Company has published an updated document providing an overview of the Company's TSFs and approach to managing these. The document, entitled Safety and Security of Our Tailings Storage Facilities, can be found in the ESG Data Analyst area of the Company's website.

Approach to Climate Change

The importance placed on sustainability is intrinsic to the Company's responsible mining approach across its operations. The Company acknowledges its role in meeting the challenge of climate change, both in delivering the performance and energy metals that are essential to the global transition to a low-carbon economy, and also to take action to reduce our carbon footprint.

In 2022, the Company published its inaugural Climate Change Report, setting out the Company's climate change strategy, risks and opportunities and GHG reduction targets. In February 2023, the Company published an updated annual climate change report, which provides an analysis of climate-related risks across all operations, with reference to three climate change scenarios. The report is aligned with the recommendations of the Taskforce on Climate-related Financial Disclosures ("TCFD").

The Company has committed to reducing absolute Scope 1 and 2 greenhouse gas emissions by 30% by 2025 and 50% by 2030. These targets have been set on both an absolute CO_2 equivalent (CO_2e) and the CO_2e intensity of our copper production. Achieving the targets will put First Quantum on a path in line or better than the 1.5-degree reduction trajectory indicated by the International Energy Agency's Net-Zero scenario.

First Quantum's largest source of emissions is related to the power provided to the Company's operations in Panamá and Zambia, principally the Cobre Panamá coal-fired power station. The Company acquired the Cobre Panamá project in 2013 after procurement of the power plants was completed and partially constructed. Although an appropriate choice at the time that it was designed and delivered given the lack of availability of reliable alternative power in Panamá, we acknowledge the need to now reduce our carbon footprint.

The achievement of the Company's GHG emissions reduction targets will require decarbonisation of power. In Panamá, this will comprise three steps. The first step was achieved in September 2022, with the renewable power purchase agreement ("PPA") for the additional 64MW required to power the 100Mtpa (CP100) expansion, receiving regulatory approval from the National Dispatch Centre (CND). This long-term, fixed-price PPA with AES Panamá ("AES"), an independent power producer will be supplied with 100% renewable energy from a portfolio that includes a combination of solar, wind, and hydroelectric generation.

The second and third steps to reducing our emissions at Cobre Panamá will involve a progressive substitution of energy currently generated by the two 150MW coal-fired units with renewable power so that the equivalent of only one of the two units would be required to supply Cobre Panamá's needs from 2025 onwards, in line with the Company's 2025 GHG emissions reduction target. By 2030, it is expected that Cobre Panamá will entirely transition away from coal power, dependent on the seasonality and availability of renewable energy. In the interim, the Company does see some need, particularly at certain times of the year, for the coal-fired power station or at least one of the 150MW units, to continue to operate as a base load feed in order to stabilize the national grid and electricity prices in the country. Conversion of both units to natural gas is capital-intensive and not particularly efficient. It is expected that the third step of the transition away from coal power will be to a mix

of renewable energy sources and natural gas. The Company estimates that its second coal unit could be replaced by a 50:50 mix of natural gas and renewables by 2030, which would require the construction of further natural gas generating capacity in Panamá. It is expected that this power will be sourced through further power purchase agreements, and is expected to be at a cost comparable to current energy costs, partially due to the strong increase in thermal coal prices in recent years.

The Company has committed to working with the Government of Panamá to perform a study into the feasibility of alternative sources of power that is expected to be completed in 2023. This will provide increased clarity with respect to the options for further decarbonisation of power and the timelines to realize the construction and commissioning of these projects.

In March 2022, the Company announced work on a 430MW wind and solar project in Zambia that is expected to allow the Kansanshi and Trident operations to increase the renewable power above the current level of 85%, which is predominantly hydroelectric power. First Quantum will work with Total Eren and Chariot Transitional Power, who plan to develop, finance, build and operate the project. It is expected that power will be provided by a 230 MW solar photovoltaic plant and a 200 MW wind farm. Total Eren is a leading renewable energy independent power producer and Chariot Transitional Power is an African-focused transitional energy group.

The Company's GHG emissions reduction targets have an identified pathway to achievement and are based on commercially available solutions. For this reason, we have not made a net zero commitment at this time. We will continue to monitor the development of new technologies for implementation at our operations as they become commercially viable, and as appropriate update our GHG emissions reduction targets accordingly.

Core to First Quantum's philosophy is our ongoing commitment to innovation in mining, working in collaboration with equipment manufacturers to deliver benefits in productivity and profitability as well as incremental GHG emissions reductions and health and safety improvements. For the last ten years, it has been a priority for First Quantum to create reliable, efficient and robust technologies that maximize the use of electrical power within the mining and haulage of waste and ore. First Quantum leads the industry in the implementation of several mining technologies which improve energy efficiency and reduction of emissions, including trolley assist and electric shovels and drills combined with in-pit crushing and conveying. The Company will continue to utilize innovative mining technologies which improve energy efficiency and reduce emissions, while continuing to prioritize the use of renewable energy where possible, as well as working with our partners to develop technology essential for decarbonisation. First Quantum is recognized as an industry leader in trolley assist technology, which offers the potential for future integration with battery technology that will be key to the further abatement of GHG emissions.

Growth in mining production remains important as the measured and indicated resources of each mine are limited and will eventually be exhausted. We believe that responsible growth in metal production is essential to replace exhausted resources and ensure that the world has adequate performance and energy metals in order to meet the challenges of the 21st century. In keeping with this approach, and as we seek to lower the GHG intensity of our copper and nickel production, we have implemented a carbon price for the evaluation of new projects to incentivize the use of lower carbon technologies and renewable sources of power.

Water Supply and Use

Large quantities of water are essential for almost all mining and mineral processing activities. Our water consumption is considered to be a material aspect across all of our operations. Water supply is not predicted to be a material constraint at any of our operations in the near future. Our three largest operations, namely Trident, Kansanshi and Cobre Panamá have positive water balances and are located in areas with plentiful water supply. Our operations that are within or close to areas of high water stress, have limited dependence on fresh surface water or have secured alternative supplies. More than 97% of our water requirements are met from a combination of seawater, recycled wastewater, saline bore fields or from natural catchments considered to be low water stress. First Quantum has a core commitment to minimize water withdrawal and discharge by adopting new technologies, continually improving efficiencies and on-site water reuse to manage excess water and the resultant discharge risks. The Company has made extensive use of industry-leading predictive tools to

not only identify potential safety issues but also help us to plan around meeting discharge and ambient water standards. Water reuse across the group is above 70% with a number of projects earmarked to improve that in the coming years as part of the expansion of operations at Kansanshi, Trident and Cobre Panamá.

Audits

Statutory and independent environmental audits are carried out periodically at the Company's operating facilities. In 2022, the Company did not identify any new material environmental issues at its operations. The Company maintains an environmental assurance program through internal environmental audits. The assurance program aims to improve environmental performance by reviewing our practices against regulatory requirements, license conditions, Environment and Social Impact Assessment ("ESIA") commitments as well as non-conformances with First Quantum practice and policy. All sites are required to develop action plans to address issues of non-compliance and implementation of those plans is monitored at a corporate level.

Permitting

In February 2019, the ESIA for the Taca Taca copper project in Argentina was submitted to the mining and environmental authorities in Salta for review. Comments on the ESIA were received from the authorities in September 2019. To fully address the concerns, additional studies were commissioned and submitted in 2022 as an addendum to the project ESIA.

In 2021, separate ESIAs were submitted for the mine access road and electrical transmission line. Both ESIAs will require the submission of construction projects for final approval. ESIAs are currently being prepared for the water concession application.

ESIA baseline studies for the Haquira copper project in Peru were suspended in March 2020 due to local COVID-19 travel restrictions. In October 2020, the community relations team resumed talks with the communities affected by the project. The official population census was completed and agreements were signed with all communities to commence negotiations on lands. In 2021 two EIAs were commenced for additional exploration activities in the area. Negotiations for land access to support a drill program were suspended in August 2022 as an agreement could not be reached with communities, and field activities have been reduced. The Company will resume discussions at an appropriate time.

As at December 31, 2022, the Company had all the necessary environmental permits and licenses in place or has submitted applications for renewals and in some cases new permits and licenses in accordance with the legislative requirements, required to carry out its operations.

Incident Reporting

The Company's operations are designed to prevent the release of spills into the environment. Procedures, structures and facilities are in place to manage and contain substances or liquids identified as a potential risk to the environment. These measures are backed up by routine inspections and monitoring. Despite these controls, localized events and spills do occur from time to time. In addition to immediate clean-up operations, the company ensures suitable measures are put in place to reduce the risk of recurrence.

First Quantum uses an Environment Incident Severity Rating Matrix to standardize incident reporting across the Group. The Incident Severity Rating Matrix is based on a severity scale from 1 to 5. A Level 1 incident has minimal impact on the environment while a Level 5 incident might be catastrophic to the Company. In 2022, no material environmental incident of Level 4 or greater was reported. The Company set and achieved a 5% annual reduction target for Level 3 incidents and zero Level 4 or Level 5 incidents in 2022.

Environmental Liabilities and Penalties

The Company had no penalties imposed arising as a result of water pollution or contamination of land beyond the boundaries of its respective operations. To the Company's knowledge, none of our operations are considered imminent threats to the environment by the applicable environmental regulatory authorities.

First Quantum is committed to meeting all relevant environmental legislation and site permitting conditions. The Company aims to meet this commitment with the use of a range of tools. To this end, the Company has implemented environmental management systems at all its operating sites and regularly reviews the environmental risk at its sites. Where current controls are not considered acceptable, additional controls are implemented.

In 2021, Ravensthorpe received two NOVs from the Western Australian Department of Mining and Industry Regulation (DMIRS). The first NOV relates to the clearing of native vegetation during the construction of the Shoemaker-Levy overland conveyor. The second NOV relates to the impact of a leaking seawater pipeline on native vegetation. Ravensthorpe have responded to both NOVs and await confirmation from the relevant authorities that these have been satisfactorily closed out.

In 2021, the Panamánian environmental regulator, Mi-Ambiente imposed two new NOVs on MPSA. The first NOV is associated with the fulfilment of conditions of the project ESIA and the second is associated with water and soil contamination as a result of a tailings pipeline failure in July 2021. MPSA has challenged the NOVs. Both NOVs raised in 2021 are still open. In 2022 no new NOVs were imposed.

CLC received three NOVs, served in 2014, 2017 and 2019 regarding loss of underground water and insufficient compensation for the pit dewatering and reinjection system. The first NOV related to the period from May 2010 to February 2014 with an initial fine of €0.6 million. The fine has been reduced to €326,700 due to our defence, and CLC has paid in advance the sum of €237,600 without admitting any liability for the issue. CLC continues to appeal against this entire penalty.

The second NOV is related to the period from February 2015 to October 2016 with a proposed fine of €1.5 million. Despite its initial reactivation, this case has been provisionally filed and is pending review by the civil authority for potential further reductions in the penalty.

The third NOV of 2019 relates to the period from October 2016 to May 2018 with a proposed fine of €1.6 million. A reduction of €200,000 in the fine was achieved. CLC paid the sum of €800,000 in advance without admission of any liability for the issue. Recently CLC received a favourable sentence from the Supreme Court of Spain, and consequently, the penalty has been declared without effect. CLC has a reimbursement right for the amounts paid in advance.

In 2022 in Zambia, the Roads Division of First Quantum Mining and Operations ("FQMO") was fined approximately $7,500 for abstracting water from the Kifubwa River from outside of the mine lease.

Cyanide and Mercury

The Company does not currently use cyanide or mercury in the processing of minerals at any of its sites. The CIL gold plant at Guelb Moghrein was closed and decommissioned in 2012. The approved re-commissioning of the carbon in leach ("CIL") plant was approved in November 2022 and is expected to be operational by the end of 2023 or early 2024. The re-commissioning will include responsible management of all reagents (including cyanide).

Bio-diversity Protection

The Company operates in diverse ecological settings with varying levels of sensitive biodiversity. Each operation aims to minimize its ecological footprint, by adopting a context-specific mitigation hierarchy approach.

- Firstly by identifying species or habitat of local, regional or international importance; and
- Secondly, by designing and implementing appropriate controls to either avoid or mitigate any potential impacts.
- If avoidance or mitigation is not possible, the Company has implemented potential compensatory strategies to enhance positive impacts.

The Company strives to either have no net impact or a net positive impact on biodiversity at its operations.

In Zambia, in addition to our mine site rehabilitation programmes, the Company has provided significant logistical, technical, financial and managerial support to the West Lunga Ecosystem. The Company's support to the area follows the signing of a Memorandum of Understanding between the Trident Foundation and the Zambia Wildlife Authority ("ZAWA"), now known as the Department of National Parks and Wildlife to guide the implementation and execution of a project known as the West Lunga Conservation Project ("WLCP"). The WLCP aims to contribute to the conservation of almost 12,000 km^2 of natural habitat around the Trident Project. Furthermore, the Company's biodiversity programs support natural habitat preservation of the Bushingwe and Lualalaba Forest Reserves, an area of more than 1,400 km^2, also around the Trident Project.

In Panamá, the Cobre Panamá Mine lies within a sensitive ecological region. In recognition of the ecological importance, the Company has made three bold biodiversity-related commitments:

- having a net positive impact on biodiversity;
- the development and implementation of an exhaustive biodiversity action plan; and
- exceeding national regulations for biodiversity management and meeting appropriate international best practice in biodiversity management. In order to meet these broad commitments, the Company initiated detailed action plans in collaboration with respected independent conservation organizations.

The above commitments will be met through the delivery of three key plans:

- In the Protected Area Plan, Cobre Panamá has committed to provide support to three adjacent protected areas, totalling nearly 250,000 hectares. Cobre Panamá and the Ministry for the Environment have signed a long-term agreement committing to support three protected areas around the Mesoamerican Biological Corridor of the Panamá Atlantic. The areas are the Santa Fe National Park (72,636 ha), Omar Torrijos National Park (25,275 ha) and a protected area to be established in the District of Donoso and its coastal marine zone (> 150,000 ha). The objective is to slow and ultimately reverse the gradual loss of forest cover within these protected areas. As well as providing funding, working with and supporting the local government agencies is a key component of this plan.

- In the Reforestation Plan the Company committed to reforest an area double the size of the projected development footprint. In order to meet this ambitious target, the Company has committed to re-forest denuded farming land outside the mine footprint, encouraging more sustainable agroforestry practices, encouraging ecological restoration and rehabilitating the direct mine footprint where available.

- Finally, the Species-level Conservation Plans aim to address the management needs of individual species where the protected areas and reforestation plans may not be sufficient. Each element of the species action plan outlines a portfolio of actions aimed at ensuring a net positive impact on species viability. The Company continues to partner with a number of experienced independent conservation organizations.

Acid Rock Drainage

Acid Rock Drainage ("ARD") is present at certain of the Company's operations and closed properties. Oxidation of sulfide minerals and leaching of metals in the open pits, ore stockpiles and waste rock dumps has the potential to contaminate water. The Company together with leading international experts has developed long-term predictive models to guide ARD management plans and reduce the potential for contamination. ARD

mitigation measures include the separation of non-acid forming and acid forming materials, the collection of all 'contact' water for treatment prior to release and construction of engineered dumps to encapsulate waste, shed water and minimize infiltration.

Air Emissions

At Kansanshi, smelter stack emissions are not fully compliant with existing Zambia stack emission standards. However, continuous remote air quality monitoring stations indicate ambient air quality to be fully compliant since smelter commissioning. In August 2020, Kansanshi mine formally approached the Zambia Environmental Management Authority ("ZEMA") to move towards ambient standards as opposed to point source emission standards. Kansanshi is awaiting a response from ZEMA and the regulator is currently in the process of reviewing all Zambian environmental standards.

Historical Liabilities

Historical environmental liabilities existing at Kansanshi, Pyhäsalmi and Cayeli were inherited, upon the acquisition of the assets.

The Company, which filed an EIA with the government of Mauritania through a subsidiary, is not responsible for historical environmental liabilities existing at the Guelb Moghrein site on the date of acquisition by the Company of that asset. Regardless, Guelb Moghrein is working towards mitigating all site environmental liabilities.

Trident, Cobre Panamá, Cobre Las Cruces, Haquira and Taca Taca are essentially green field mine sites and with the exception of minor disturbance from exploration activities, no historical environmental liabilities were, therefore, present when the Company acquired its interests in these projects.

The Company is responsible for environmental liabilities at the Ravensthorpe Nickel Project, except in relation to any existing or pending actions arising from unlawful acts or omissions by the previous owners, of which none are currently known by the Company.

Closure and Asset Retirement Obligations

The Company's operations have developed and regularly update mine closure plans in collaboration with recognized international experts. Mine closure costs are subject to bank guarantees and/or contributions to government mining rehabilitation funds, except in Turkey where no legislation exists. The Company holds four closed properties in North America, all of which are at various stages of rehabilitation. Three mines, namely Guelb Moghrein in Mauritania, Çayeli Bakir in Turkey and Pyhäsalmi in Finland are expected to deplete their mineral reserves within three to four years. These sites are currently carrying out closure studies leading to the development of detailed mine closure plans for approval by relevant environmental authorities.

Asset retirement obligations ("AROs") are reviewed at all of our operating sites and closed properties annually. The ARO is an estimate of the resources required to ensure that a closed mine is chemically, physically and biologically stable over the long term. This covers a range of topics such as water discharge, dismantling and disposing of contaminated soils and equipment and the rehabilitation of exposed mining surfaces. Recognized international experts are regularly consulted in this process. The annual updates allow for expansions to the plant, disturbances to land and progressive site rehabilitation efforts to be accounted for.

Site restoration financial guarantees or bonds are in place in Zambia, Finland, Mauritania, Spain, Canada and Panamá. In Australia, in accordance with the regulations of the Western Australia State Government's mining regulator, the Department of Mines, Industry Regulation and Safety, the environmental guarantee is calculated and paid annually, based on the area disturbed and not restored. Turkey currently has no legislation requiring the lodging of environmental guarantees.

Environmental Expenditure

The following table shows the Company's ARO liability as at December 31, 2022:

ARO as at December 31, 2022	
Site	**$ million**
Ravensthorpe	128
Cobre Panama	107
Kansanshi	91
Trident	83
Cobre Las Cruces	69
Closed Properties (1)	30
Pyhäsalmi	25
Guelb Moghrein	14
Çayeli	8
Total AROs	**$555**

(1) Closed Properties does not include $28 million relating to Properties Held for Sale

The Group ARO provision decreased from $731 million in 2021 to $555 million in 2022.

North American Closed Properties

As part of the Inmet acquisition in 2013, the Company acquired six closed properties (five in Canada and one in the United States). Following the sale of Troilus Mine in 2018 and the White Pine mine in 2021, only four of the original six sites remain. These sites are currently progressing through the closure process. Activities include the final stages of site restoration, long-term water treatment and tailings impoundment closure. Junior mining companies have optioned two of the remaining closed properties.

All sites will continue to perform reclamation activities and environmental monitoring until the agreements are closed. The Company is working to release the Lac Shortt site where site restoration is complete.

Social Responsibility

First Quantum recognizes the social impact of mining and seeks to mine in the most responsible manner achievable. Earning and maintaining community support for mining is fundamental to First Quantum's success. In recognition that there is a global public perception around the effect of mining on the environment and communities, First Quantum has implemented a comprehensive community engagement and corporate social responsibility program that balances best practices with operation-specific needs. The Company's initiatives and activities are consistent with international best practices and are carried out in a systematic manner across all operations. The Company's corporate social responsibility strategy recognizes the need for a continued focus on the ongoing improvement of standards in order to maintain the respect and trust that has been earned from the Company's host communities and host governments through regular engagement and collaboration on social initiatives.

Community Relations

Each of the Company's operations has a comprehensive community relations program that allows the Company to engage with host communities in an open and transparent manner as the Company seeks to ensure wider socio-economic participation in the benefits that mining can bring. The Company regularly engages and works with local communities and government on a number of key areas, including:

- community investment and support initiatives across livelihood development, access to education and health services and social infrastructure projects,
- local content and participation in mining activities through hiring and contracting opportunities, and,
- environmental issues including water and biodiversity with the potential to impact local communities.

Grievance Mechanism

Securing and maintaining the Company's social license with communities depends on its ability to listen actively and respond in a timely manner to issues of material importance to the Company's key stakeholders. All communities in which the Company operates have access to simple and culturally sensitive processes, and dedicated site-based grievance officers, through which they can provide feedback and seek resolution to legitimate concerns within prescribed timeframes as well as documented escalation mechanisms.

Indigenous Peoples

The Company's local communities at the Cobre Panamá and Ravensthorpe operations include indigenous communities. Where indigenous communities are present, First Quantum is committed to using its best efforts to respect their standing as distinct, self-determining peoples with collective rights.

In Panamá, following the completion of the Resettlement Action Plan in 2017, which followed the principles of Free, Prior and Informed Consent ("FPIC"), an Indigenous Peoples Development Plan was implemented. These related programs and support continue in partnership with government education, health and social development agencies.

There have been no issues with cultural heritage raised in the past 12 months.

Land Access and Resettlement

When the Company's activities involve land access and displacement, the Company establishes resettlement processes that adhere to international standards of fairness and transparency. As part of the process, in-depth consultations and negotiations are conducted with project-affected people, under the leadership of experienced experts, and resettlement agreements are based on free-prior and informed consent and traditional decision-making.

Cobre Panamá - The resettlement plan for the Cobre Panamá Project was developed through extensive stakeholder consultations. The resulting agreement was the product of good-faith negotiations based on internationally accepted principles of free, prior and informed consent. As of January 2017, all members of the Petaquilla community moved voluntarily to Nuevo Eden as per their resettlement agreement. Previously resettled communities have adapted to their new communities and are now successfully subsisting on their own farming outputs. Following the completion of the resettlement, the Company adhered to the IFC Performance Standard 7 recommendations that resettlement be monitored until year 3, and is now focused on the development and support of livelihoods through agroforestry, agricultural, eco-tourism and textile programs. The Company's objective is to create the same number of jobs through these programs as are held by local employees working at Cobre Panamá. The community schools commenced their school year again in March 2022 which is their seventh school year under the Ministry of Education. This affirms the ongoing government support for, and participation in the new settlements, a key to the long-term sustainability of these communities.

Kansanshi - North Western Fence Extension: all residents within the 520 ha North Western Fence Extension area will be resettled. Kansanshi was granted permission from the Royal Establishment and local Government to proceed with the resettlement. An asset survey will commence in early 2023.

Kansanshi - Sydney's Corner: all families residing on a nine-hectare piece of land known as Sydney's Corner have been successfully relocated.

Trident – Physical resettlement of 597 households and 1,631 subsistence farmers is nearing completion at Trident. All physical structures have either been replaced or compensated in accordance with the approved RAP. Restrictions placed by traditional governance structures have however prevented all resettled households from taking full titled ownership of their replacement land. This is despite FQM Trident Limited having completed

the land acquisition process and the Zambian government having surveyed the area. The final resettlement conditions scheduled for completion in 2022 include the provision of bathrooms for all resettled households and the construction of landfill cells.

Livelihood restoration activities at Trident include training in entrepreneurship by adopting business idea stimulation, support initiatives and sustenance activities. Sustainable agriculture as a business venture for both crops and livestock has also been adopted as a sustainable livelihood restoration initiative and is being implemented starting with mindset transformation activities. To enhance sustainable agriculture as a livelihood for resettled households, Conservation Farming Unit has been subcontracted to work with individual households to stimulate the concept of farming for nutrition and for income, with the aim of identifying small-scale agribusiness opportunities. Other community activities include education support, health support, wildlife management support and community infrastructure. The strategic approach comprises ongoing avoidance of dependence drivers with a focus on Corporate Social Investment activities in order for interventions to outlive the mine life.

Bwana Mkubwa - Nine families downgradient of the previously owned Bwana Mkubwa Mine are in the process of being resettled. All affected families have agreed to the resettlement terms which include a combination of negotiated settlements or full asset replacement packages. The Resettlement Action Plan continues to be implemented in 2023 with completion and handover of replacement homes targeted for mid-2023.

Çayeli - Voluntary resettlement is ongoing at Çayeli as part of the Near Mine Housing Project. For a number of years, local residents have complained that blast vibrations from the mine have damaged their homes. Expert studies were commissioned in 2013 and while no direct causation was established, heavy precipitation and naturally-occurring ground movement led to Çayeli undertaking a voluntary resettlement process for people living in damaged houses. To date 93 households have participated in the process: 85 have been resettled, five have received formal offers and three are having their homes monitored for damage and monitoring is ongoing. Çayeli has initiated extensive engineering measures to seek to ensure the stability of the ground close to the mine site, reducing the risk of future ground movements and ensuring the safety of communities and employees.

Haquira - First Quantum has been engaging with communities influenced by the Haquira project in Peru since 2011. In early 2020, the Company commenced actual discussions on land rights and resettlement with the communities of Huanacopampa, Ccahuanhuire, Lahuani, Cconchaccota, Llamahuire, Ccarayhuacho and Pararani. Negotiations for land access to support a drill program were suspended in August 2022 as an agreement could not be reached with communities, and field activities have been reduced. The Company hopes to resume discussions toward the end of 2023.

Taca Taca - At Taca Taca in north-western Argentina, as part of an EIA, a communications plan has been designed and information meetings have been held with the populations closest to the project. The Company has commenced the process of free, prior and informed consent as required by Argentine laws through the Secretaria de Asunto Indigenas, the ultimate authority on indigenous peoples. The Secretary issued a statement identifying three communities from whom free, prior and informed consent should be sought: Olacapato, Pocitos and Tolar Grande, with the latter being closest to the concession area, 35 km away. The expectation of job creation from the mine has been identified as a priority for the local communities, however, the Company's approach has been to encourage services and businesses not aimed solely at mining but also at tourism, as this has historically been the principal economic activity of these communities and with which there is a commonality with mining in the types of key services required including; catering, lodging, transportation, medical services, clothing and mechanical services.

Security and Human Rights

The Company's security practices are guided by the Voluntary Principles on Security and Human Rights ("VPSHR") which set out rules for engagement with the police that provide external security and response assistance, and provide guidelines on contractual requirements, use of force and human rights training.

All security personnel follow the VPSHR and have received human rights training and all security service providers are required to abide by the VPSHR code of conduct and they have to provide a quarterly certificate declaring that (1) they inducted and trained all new employees on these principles and (2) they monitor the adherence to these principles by their employees.

Corporate Social Responsibility

Integral to First Quantum's corporate social responsibility strategy is the support that the Company provides to host communities and governments, helping to tackle social challenges and work together on solutions that enhance growth and prosperity. The Company develops human and economic capital by providing jobs and skills training and by promoting local procurement. The Company also builds physical infrastructure and institutional capabilities, helping to create more resilient communities.

In 2022, the Company contributed $36 million to programs that maximize the positive benefits of mining. Programs include education and skills development, sports, culture, health, agriculture and forestry, biodiversity conservation, livelihood and local enterprise development.

For more information on the Company's community programs, please read the Company's annual ESG report, available on the Company's website at *www.first-quantum.com*.

Occupational Health and Safety

During 2022, the Company reported zero fatal accidents and a continuation in the decrease of lost time accident and severity frequencies.

In 2022, the Company continued to implement internationally accepted occupational health and safety standards and procedures throughout its operations.

Health and safety statistics for the Company's operations for 2021 and 2022 are summarized in the following tables:

	Kansanshi		Trident		Cobre Panama		Pyhäsalmi	
	2021	2022	2021	2022	2021	2022	2021	2022
# of Fatalities	1	0	0	0	0	0	0	0
Injury Rate[(1)]	0.05	0.02	0.06	0.03	0.05	0.05	0.84	0
Lost Day Rate[(2)]	5.6	0.2	1.4	0.4	1.9	0.8	3.3	0

	Ravensthorpe		Cobre Las Cruces		Çayeli		Guelb Moghrein	
	2021	2022	2021	2022	2021	2022	2021	2022
# of Fatalities	0	0	0	0	0	0	0	0
Injury Rate[(1)]	0.17	0.56	0	0.41	0.22	0.62	0.17	0
Lost Day Rate[(2)]	1.2	28.4	0	13	5.2	28.6	2.6	0

	Exploration	
	2021	2022
# of Fatalities	0	0
Injury Rate[(1)]	0	0.80
Lost Day Rate[(2)]	0	14

(1) *The per annum injury rates have been calculated by using the number of lost time injuries and dividing that figure by the number of hours worked by employees; the result is then multiplied by 200,000 hours.*

(2) *The per annum lost day rates have been calculated by using the number of lost days and dividing that figure by the number of hours worked by employees; the result is then multiplied by 200,000 hours.*

The Company's health and safety goals were achieved in 2022, with no fatal accidents. The lost time injury frequency rate was low and the lost time accidents that did occur were of low severity. New health and safety targets set for 2023, seek to prevent fatal accidents and further reduce targets for lost time injuries and days lost due to them. All contractor companies are fully involved in this process and are required to meet the Company's targets and health and safety requirements. Contractor company selection includes a review of their health and safety performance and operating guidelines.

Progress continues to be made on developing health and safety procedures which support the Company's health and safety goals. The framework provides a health and safety management system that is compatible with ISO 45001 (2018) and the International Labour Organization health and safety guidelines and has assisted in formalizing and standardizing critical processes across the Company. During 2022, audits were conducted

on this system at each operational site. This will provide assurance of continuous improvement of the health and safety management system ("HSMS") and allows planning to ensure continuous improvement throughout 2023. The Company's HSMS is supported by employee and contractor safety training programs that provide an overview of the HSMS and the specific roles and responsibilities of employees, contractors and management.

Within the Company's HSMS, the roles and responsibilities for the emergency response preparedness planning are clearly stated and appropriate training is provided for employees and contractors. Each operational site uses a risk-based approach to emergency response planning and resourcing. This incorporates liaison with regional and national emergency departments and disaster management teams to ensure appropriate stakeholders and the local communities are included and that communication channels are clearly identified and utilized. The operational sites have regular exercises involving employees, contractors and external parties and stakeholders to ensure that the plans are adequate and to identify opportunities for improvement.

To support the Company's Health and Safety Policy during 2022, the five-year health and safety strategy continued to focus on realistic mitigation measures to identify risks. The strategy is based on the concept of 'Sensible Health and Safety' and has been introduced to all operations to set longer-term safety performance goals and focus on proactive (leading) safety performance indicators. Being *"risk aware, not risk averse"* has been built into the Company's whole approach to managing risk and improving overall health and safety performance in all aspects of its operational activities. Embedding sensible health and safety awareness into the Company's culture is key in ensuring that managers, front-line supervisors and general employees work in a safe and efficient manner, whilst ensuring that risks are managed in a sensible, proportionate and legal way.

The goal of this strategy is to deliver sustainable health and safety improvements within the Company, enabling the Company's employees to handle risk effectively within a performance management framework that facilitates the Company's measurement and quantification of improvements made in the management of health and safety across all operations. The six key objectives with specific performance outcomes that operational areas must achieve are:

- To build "Sensible Health and Safety" into the Company's health and safety culture.
- To improve the way health and safety incidents are recorded, investigated and how lessons learnt from internal and external incidents are communicated.
- To improve the way that health and safety performance is measured and monitored.
- To develop leadership skills for managers and front-line supervisors that improve health and safety performance.
- To provide that all employees of the Company have the appropriate levels of competency to address their health and safety responsibilities.
- To provide that, where the Company contracts out work to other companies, the occupational health and safety risks are properly and satisfactorily addressed.

Throughout 2022, the safety staff have led health and safety reviews and facilitated workgroups to map the way forward. A safety awareness program used extensively in the aviation industry since the 1970s, Crew Resource Management, was initially introduced to assist in developing the safety culture across the Company. From this, much in-house work has continued on a behavioural-based approach to safety which has resulted in the 'THINK Safety' program which commenced a rollout across the Company's African operations in 2016.

We believe everyone has a right to return home safely every day and a duty to take care of themselves and those around them and the 'THINK Safety' program focuses on improving workplace behaviours and gaining understanding in accident causation factors such as stress, poor communication, error chains and cultures of blame. Since human factors account for over 80% of all accidents the 'THINK Safety' program focuses on how each employee can make a difference and contribute to a safer workplace and also on the interaction between

multiple work teams, primarily to enable them to better focus their resources in a coordinated, safety-conscious environment. In this highly interactive, multi-disciplinary course, participants gain new skills in improving communication, identifying errors and developing processes that contribute to mine safety.

With the ongoing development of the THINK Safety program, twelve critical hazards that pose the greatest risks to personnel in the workplace were identified. These twelve hazards have been named as the THINK Fatal Dangers ('TFDs'). To create awareness of these twelve hazards, new training programs and a communications strategy were introduced in 2019 for all employees and contractors.

The twelve TFDs are:

- Confined Spaces;
- Working at Heights;
- Falling Objects;
- Mobile Equipment;
- Ground Control;
- Hazardous Materials Management;
- Moving Equipment;
- Energy Isolation;
- Loss of Containment;
- Explosives and Blasting;
- Fires and Explosions; and
- Human Behaviours.

As the THINK Safety program has been rolled out across the Company a positive safety culture has emerged, which is primarily reinforced in the workplace by senior management, leadership field interactions, a review of employee/contractor feedback from safety representatives and by the use of training feedback forms, field surveys and interviews.

RISK FACTORS

Any investment in the Company is subject to a number of risks. Accordingly, prospective investors should carefully consider the risks and uncertainties associated with any investment in Common Shares, the Company's business and the industry in which it operates, described below, together with all other information contained in this document, prior to making an investment decision. Many of the risks below are beyond the Company's control and the occurrence of any of the following could have a material and adverse impact on the Company and its business, prospects, financial position, financial condition and/or results of operations.

Risks Relating to the Company's Business and Industry

Environmental, Health and Safety Risk Factors

Mining is inherently dangerous and subject to conditions or events beyond the Company's control, which could have a material adverse effect on its business

The Company's business operations are subject to risks and hazards inherent in the mining industry that may result in damage to its property, delays in its business and possible legal liability. These risks and hazards include but are not limited to:

- environmental hazards;
- physical climate change-related hazards;
- discharge of pollutants or hazardous chemicals;
- industrial accidents, including such that, result in fatalities;

- failure of processing and mechanical equipment and other performance problems;
- labour force disruptions;
- site/province/country access disruptions;
- seismic events;
- the unavailability of materials and equipment;
- unanticipated transportation costs or disruption;
- unanticipated variations in grade and other geological problems, water conditions, surface or underground conditions;
- unanticipated changes in metallurgical and other processing problems;
- encountering unanticipated ground or water conditions and unexpected or unusual rock formations;
- cave-ins, pit wall failures, dam breaches, flooding, rock bursts and fire;
- periodic interruptions due to inclement or hazardous weather conditions; and
- force majeure factors, epidemic, pandemic, acts of God or unfavourable operating conditions.

Any of the aforementioned risks or hazards could materially and adversely affect, among other things, the development of properties, production quantities and rates, costs and expenditures, and production commencement dates. Such risks could also result in damage to, or destruction of, mineral properties or processing facilities, environmental damage, delays in mining, monetary losses and possible legal liability. They could also lead to personal injury or death or loss of key employees. In 2022 the Company reported zero fatal accidents.

The Company's processing facilities are dependent on continuous mine feed to remain in operation. Insofar as its mines may not maintain material stockpiles of ore or material in process, any significant disruption in either mine feed or processing throughput, whether due to equipment failures, adverse weather conditions, supply interruptions, export or import restrictions, labour force disruptions or other causes, may have an immediate adverse effect on the results from its operations. A significant reduction in mine feed or processing throughput at a particular mine could cause the unit cost of production to increase to a point where the Company could determine that some or all of its reserves are or could be uneconomic to exploit.

The Company periodically reviews mining schedules, production levels and asset lives in its life-of-mine planning for all of its operating and development properties. Significant changes in the life-of-mine plans can occur as a result of mining experience, new ore discoveries, changes in mining methods and rates, process changes, investment in new equipment and technology, precious metals price assumptions, and other factors. Based on this analysis, the Company reviews its accounting estimates and, in the event of impairment, may be required to write-down the carrying value of one or more mines. This complex process continues for the life of every mine.

As a result of the foregoing risks and, in particular, where a project is in a development stage, expenditures on any and all projects, actual production quantities and rates, and cash costs may be materially and adversely affected and may differ materially from anticipated expenditures, production quantities and rates, and costs. In addition, estimated production dates may be delayed materially, in each case, especially to the extent development projects are involved. Any such events can materially and adversely affect the Company's business, financial condition, results of operations and cash flows.

The Company is subject to the risks associated with an outbreak of infectious disease, a pandemic or a similar public health threat.

A local, regional, national or international outbreak of a contagious disease, pandemic or similar public health threat, or a fear of any of the foregoing, including, but not limited to, the ongoing COVID-19 pandemic, could result in restrictive measures being taken by the Company or various governments and businesses which may result in additional risks and uncertainties to Company's business, operations and financial condition. The extent of the effect of the disease, pandemic or public health threat on the Company's operational and financial performance will depend on numerous factors, including the duration, spread and intensity of the outbreak, the actions by governments and others taken to contain the outbreak or mitigate its impact and changes in the

preferences of consumers, all of which are uncertain and difficult to predict as such factors evolve rapidly over the course of any such event or public health threat. Certain aspects of the Company's business and operations that have been or could potentially continue to be impacted by the outbreak of any disease, pandemic or public health threat include increased operating costs and capital costs due to containment efforts such as building quarantine rooms, limitations on mobility of people, disruption to supply chains and increases in demand for financial support and aid from host governments, labour force disruptions (including the supply of labour or site, province and country access), the potential loss (permanent or temporary) of personnel, delays or longer-term stoppage of development projects, limits or restrictions on transportation capacity, including port, shipping and commercial airline flight suspensions and logistical risks associated with the shipment of copper, gold and other metals from the Company's sites, traffic restrictions, expedited freight costs, potential payment premiums and the implementation of alternative sourcing strategies resulting in increased input costs, increased market volatility and volatility in copper, gold and other metal and commodity prices (key drivers of the Company's profitability) and the deterioration of worldwide credit and financial markets that could limit the Corporation's ability to access capital and financing on acceptable terms or at all. Any such impact could have a material adverse effect on the Corporation's business, operations and financial condition. With respect to the COVID-19 pandemic in particular, while certain pandemic-related risks are receding and restrictions to contain the spread of the virus have lifted in many regions, the pandemic continues to have, and a new disease outbreak could have, an impact on the global economy, including contributing to high levels of inflation, supply chain issues, rising interest rates and the resulting threat of recession. In addition, public health measures continue to be implemented in certain regions or countries and may be reinstated in other areas.

Mining operations, development projects and exploration are subject to extensive regulations, including environmental, health and safety and other regulations, as well as the need to manage relationships with local communities

The Company's mining operations, development projects and exploration activities are subject to extensive laws and regulations, which include laws and regulations governing, among other things: exploration; development; production; exports; taxes; labour standards; mining royalties; price controls; waste disposal; the quality and quantity of effluent and emissions, protection and remediation of the environment; reclamation; historic and cultural resource preservation; mine safety and occupational health; handling; storage and transportation of hazardous substances; and other matters. From time to time, existing laws are changed or updated and new more stringent laws are introduced. The costs of discovering, evaluating, planning, designing, developing, constructing, operating and closing the Company's mines and other facilities (including tailings dams) in compliance with such laws and regulations are significant. It is possible that the costs and potential delays associated with compliance with existing and new laws and regulations could become such that the Company would not proceed with the development of, or continue to operate, a mine.

As part of its normal course of operating and development activities, the Company has expended significant resources, both financial and managerial, to comply with governmental and environmental regulations including permitting requirements, and will continue to do so in the future. Moreover, it is possible that future regulatory developments, such as increasingly strict environmental protection laws, climate change policies, regulations and enforcement policies, and claims for damages to property and persons resulting from the Company's operations, could result in additional substantial costs and liabilities, restrictions on or suspension of the Company's activities and delays in the exploration of and development of its properties.

The Company is required to obtain governmental permits to develop its reserves and for expansion or advanced exploration activities at its operating and exploration properties. Obtaining the necessary governmental permits is a complex and time-consuming process involving numerous agencies and other interested parties. There can be no certainty that these approvals will be granted in a timely manner, or at all. The duration and success of each permitting effort are contingent upon many variables not within the Company's control. Governmental approvals, licenses and permits are subject to the discretion of the applicable governments or government officials and potentially consideration of other parties' interests or rights. In the context of environmental protection permitting, including the approval of reclamation plans, the Company must comply with accepted standards, existing laws and regulations that may entail greater or lesser costs and delays depending on the nature of the activity to be permitted and the interpretation of the laws and regulations implemented by the

permitting authority. No assurance can be given that the Company will be successful in obtaining or maintaining any or all of the various approvals, licenses and permits required to operate its businesses in full force and effect or without modification or revocation. The failure to obtain or renew certain permits, or the imposition of extensive conditions upon certain permits, could have a material adverse effect on the Company's business, operations and financial condition.

The Company's mining operations are subject to regular inspection, including compliance audits, by government officials. Such inspections and audits may from time to time lead to allegations or assertions that the Company is not or may not be operating in compliance with applicable permits and licences. The Company may use a variety of methods to address potential non-compliance, including changes to work methods or re-design or re-engineering of affected aspects of the applicable project in a manner targeted to address issues raised during such inspections, or pursuing appropriate variations to the applicable permits or licences. Failure to comply with applicable environmental, health and safety laws, in relation to the Company's mining operations and associated infrastructure, including in respect of waste and its disposal, can result in injunctions, damages, suspension or revocation of permits and imposition of penalties. There can be no assurance that the Company has been or will be at all times in complete compliance with such laws or permits, that its compliance will not be challenged or that the costs of complying with current and future environmental, health and safety laws and permits will not materially or adversely affect the Company's future cash flow, results of operations and financial condition.

As a consequence of public concern about the perceived ill effects of mining and land development, particularly in developing countries, the Company faces increasing public scrutiny of their activities. Criticism of the Company's activities or negative publicity, whether accurate or not, could result in damage to the Company's reputation which could have an adverse effect on the Company's share price. The international standards on social responsibility, community relations and sustainability against which the Company benchmarks its operations are becoming increasingly stringent and extensive over time, and adherence to them is increasingly scrutinized by regulatory authorities, citizens' groups and environmental groups, as well as by investors and financial institutions. In addition, the Company operates in several countries where ownership of rights in respect of land and resources is uncertain and where disputes in relation to ownership or other community matters may arise. These disputes are not always predictable and may cause disruption to the Company's development plans or operations as when ore processing operations at Cobre Panamá were suspended in February 2023 and which resumed in early March 2023. The Company's operations can also have an impact on local communities, including the need, from time to time, to relocate or resettle communities or infrastructure networks such as railways and utility services. Failure to manage relationships with local communities, governments and non-governmental organizations ("NGOs") may harm the Company's reputation as well as its ability to bring development projects into production. The costs and management time required to comply with standards of social responsibility, community relations and sustainability, including costs related to the resettlement of communities or infrastructure, have increased substantially recently and are expected to further increase over time.

The Company's operations sometimes result in the release of hazardous materials into the environment and these releases, whether or not planned, could cause contamination. In addition, many of its mining sites have an extended history of industrial activity. The Company may be required to investigate and remediate contamination, including at properties it formerly operated, regardless of whether it caused the contamination or whether the activity causing the contamination was legal at the time it occurred. The Company also could be subject to claims by government authorities, individuals, employees or third parties seeking damages for alleged illness, personal injury or property damage resulting from hazardous material contamination or exposure caused by its operations or sites. The Company could be required to establish or substantially increase financial provisions for such obligations or liabilities and, if it fails to accurately predict the amount or timing of such costs, the related impact on its business, financial condition or results of operations could be material.

Certain NGOs, some of which oppose globalization and resource development, are often vocal critics of the mining industry and its practices, including the use of hazardous substances in processing activities. Adverse publicity generated by such NGOs or others related to extractive industries generally, or the Company's

operations specifically, could have an adverse effect on the Company's reputation and financial condition and may impact the relationship with the communities in which the Company operates. They may install road blockades, apply for injunctions for work stoppages, make criminal complaints to local authorities, or file lawsuits for damages. They may also file complaints with regulators in respect of the Company's, and the directors' and insiders', regulatory filings, either in respect of the Company or other companies. Such complaints, regardless of whether they have any substance or basis in fact or law, may have the effect of undermining the confidence of the public or a regulator in the Company or such directors or insiders and may adversely affect the price of the Company's securities or prospects of obtaining the regulatory approvals necessary for the advancement of some or all of the exploration and development plans or operations.

Climate change risk is vast and has the potential to materially affect operations and the prospects of the Company in various and uncertain ways.

The metals that the Company mines, copper and nickel, are essential for the global transition to a low-carbon economy and the Company is focused on delivering responsible production growth in these performance and energy metals.

Mining operations are by nature energy intensive and the Company recognizes the environmental impact that mining has, including the greenhouse gas (GHG) emissions generated by operations, and seeks to mine in the most responsible manner possible achievable.

As the Company remains focused on responsible growth in copper production, and as it seeks to lower the GHG emissions intensity of production, an internal carbon price has been implemented for the evaluation of new projects. This is to incentivize the use of lower carbon technologies and renewable sources of power as well as seek to ensure the resilience of new operations to potential future changes in carbon taxes or levies.

Furthermore, the Company undertakes, where practicably possible, to mitigate its GHG emissions through an ongoing commitment to innovation in mining technology which also delivers benefits in production efficiency, health & safety and costs. The innovation by the Company has resulted in the implementation of various technologies at operations and which include mine fleet trolley assist at Kansanshi, Cobre Panamá and Sentinel and in-pit crushing at Cobre Panamá and Sentinel which reduce diesel consumption through increased use of electricity in mining activities. First Quantum will continue to embrace innovation and the development of new technologies for optimizing productivity, profitability and environmental impact through, for example, the expansion of our trolley assist infrastructure at the Company's operations in Zambia and Panamá, expansion of in-pit crushing and conveying systems and increased use of electrical mining equipment.

In 2022, the Company published targets to reduce absolute GHG emissions by 30% by 2025 absolute and intensity of GHG emissions by 50% by 2030. In February 2023, the Company released its annual Climate Change Report, which is aligned with the recommendations of TCFD and sets out the Company's climate strategy and resilience to the impacts of climate changes.

The Company's GHG emissions reduction targets have an identified pathway to achievement focused on decarbonizing the power used by the Company's largest operations. Significant capital expenditure is not expected to be required and the Company expects only limited capital expenditure prior to 2025. The operating cost of renewable energy is not expected to result in significant increases compared with the current cost of power. The targets are based on commercially available solutions and for this reason, the Company has not made a net zero commitment at this time. The Company continues to prioritize innovation in mining and monitor the development of new technologies for implementation at operations. As commercially viable technology becomes available, the Company will update GHG emissions reduction targets accordingly.

The potential physical and transition impacts of climate change on the Company's operations are highly uncertain and are particular to the geographic circumstances associated with its operations. These include the potential for extreme weather events, changes in rainfall patterns, water shortages and temperature changes. The Company's most recent Climate Change Report identifies the areas which face the most significant potential risks from climate change and which include:

- Tailings storage facilities and dams,
- Mining activities
- Supply chains
- Power
- Communities
- Health and safety
- Water management
- Infrastructure
- Policy and regulations, including GHG emissions pricing, reporting requirements and shifts in energy policies
- Technology risks, including the costs to transition to new technologies and the risk of success of new technologies
- Market risks, including changing customer behavior and increased stakeholder concerns as well as impacts on input material costs
- Reputational risks, including sector stigmatization/ pressure to decarbonize resulting in a reduction in capital availability

The Company's costs of reclamation are uncertain and higher than expected costs would negatively affect the Company's business, results of operations, financial condition and cash flows

The costs of reclamation of closed mine sites are uncertain and planned expenditures may differ from the actual expenditures required. The Company holds a number of closed properties. It is not possible to determine the exact amount that will be required to complete reclamation activities, and the amount that the Company is required to spend could be materially different from current estimates. Reclamation bonds or other forms of financial assurance represent only a portion of the total amount of money that will be spent on reclamation over the life of a mine's operation. Although the Company includes estimated reclamation costs in its mining plans, it may be necessary to revise the planned expenditures and the operating plans for its operations in order to fund required reclamation activities. Any additional amounts required to be spent on reclamation would adversely affect the Company's business, results of operations, financial condition and cash flows. As at December 31, 2022, asset retirement obligations across the Company's activities were estimated at $555 million.

Financial Risk Factors

Changes in the prices of copper, nickel, gold, silver, zinc and other metals and energy sector commodities in the global market, which are volatile and may fluctuate widely, can significantly affect the profitability of the Company's operations and its financial condition

The profitability of the Company's current operations is directly related and sensitive to the market prices of copper and, to a lesser extent, that of nickel, gold, silver, zinc and other metal and energy sector commodities. The prices of these commodities are subject to fluctuation, sometimes widely and are affected by numerous factors beyond the Company's control, including global supply and demand, expectations with respect to the rate of inflation, the exchange rates of the U.S. dollar to other currencies, interest rates, forward selling by producers, central bank sales and purchases, production and cost levels in major producing regions, global and/or regional political, economic, social, environmental and/or financial situations and a number of other factors, including global trade disputes, disruptions to the processing and marketing chain, global logistical issues, and conflict (global and regional). The ongoing war in Ukraine and the imposition of sanctions on Russia, a significant producer of copper and particularly nickel, has impacted commodity prices, especially in the short term. Furthermore, Russia is a global supplier of oil and gas as well as key inputs such as ammonium nitrate, used in explosives by the mining industry. Sanctions imposed on Russian suppliers have resulted in increased operating costs in these areas. Historically, such prices have been subject to substantial variation, including on occasion rapid short-term changes because of (among other things) speculative activities or world events and such variation has had and may have a material impact on the Company's business, revenues, costs and/or cash flows. One significant factor and cause of increased prices and uncertainty over the previous year has

been that the price and supply of energy have been impacted by environmental policy and geopolitical challenges.

A portion of the Company's metal sales is sold on a provisional pricing basis whereby sales are recognized at prevailing metal prices at the time when the metal is transferred to the customer and final pricing is not determined until a subsequent date, typically two to three months later. The difference between the final price and the provisional price is recognized in net earnings. In order to mitigate the Company's exposure to these adjustments on net earnings, the Company enters into derivative contracts to directly offset the pricing exposure on the provisionally priced contracts.

The Company is subject to a similar effect through its hedges to un-margined forward sales contracts, as gains or losses arising on settlement of these contracts are based on the underlying metal price.

In addition to adversely affecting the mineral reserve estimates and the financial condition of the Company, declining metal and energy prices can impact operations by requiring a reassessment of the feasibility of a particular project. For example, following a sustained period of depressed nickel prices, the Company placed Ravensthorpe on care and maintenance from October 2017 to early 2020, when following an improvement in nickel prices, the Company resumed production at Ravensthorpe, with full production being achieved in mid-2020. For similar reasons, the Company put on hold and deferred pre-mining activities at Enterprise until June 2022 when the Company commenced pre-stripping at the Enterprise nickel project.

The Company's financial results and its exploration, development and mining activities may, in the future, be significantly and adversely affected by declines in the price of copper or other minerals or increases in energy sector prices. Future production from the Company's mining properties is dependent upon the prices of copper, nickel, gold, silver, zinc and other minerals being adequate to make these properties economic.

Changes in Global Financial Conditions

Prevailing global financial conditions from time to time may impact the ability of the Company to obtain equity or debt financing in the future on terms favourable to the Company or at all. Recent global economic and geopolitical events, such as the war in Ukraine and sanctions on Russia, the US - China trade war, increasing energy costs coupled with supply concerns, the increasing inflationary concerns, as well as the COVID-19 pandemic, have created further uncertainty in global financial and equity markets. Any of these economic factors, as well as other related factors such as recession, may cause decreases in asset values that are deemed to be other than temporary, which may result in impairment losses and the Company's operations could be adversely impacted and the trading price of the Common Shares may be adversely affected.

Securities of mining companies, including the Company's Common Shares, have experienced and will experience substantial volatility, often based on factors unrelated to the financial performance or prospects of the companies involved. These factors would include environmental policies, geopolitical disputes and related policies, macroeconomic developments both globally and in the countries where the Company conducts business, and market perceptions of the attractiveness of particular industries. The common share prices of publicly listed commodity producers are often directly or closely correlated to those same commodity prices. In early 2020, commodity prices decreased significantly at the outset of the COVID-19 pandemic. As a result, the Company's share price also declined significantly. Copper and nickel prices, like the prices for many other commodities recovered considerably throughout 2020 and into 2021. Whilst the copper price fell slightly during mid-2022, it recovered towards the end of 2022 due to supply disruptions and the relaxing of COVID-19 policies in China and as a result the Company's share price also improved.

The price of the securities of the Company may be significantly affected by, among other things, short-term movements in other commodity prices generally, precious metal prices or other mineral or energy sector prices, currency exchange fluctuation and the political environment in the countries in which the Company does business and globally.

The Company is subject to inflation risks, which might adversely affect its financial condition and results of operations

Since it is unable to control the market price at which it sells the minerals it produces (except to the extent that the Company enters into forward sales contracts), it is possible that significantly higher inflation in the future across all operations, without a concurrent devaluation of the local currency against the U.S. dollar or an increase in the price of such minerals, could have a material adverse effect upon its results of operations and financial condition. The Company is also subject to inflation risk in relation to production inputs.

An inability to obtain suitable financing might adversely affect the Company's results of operations

Mining companies need significant amounts of ongoing capital to maintain and improve existing operations, invest in large scale capital projects with long lead times, and manage uncertain development and permitting timelines and the volatility associated with fluctuating metals and input prices. The Company has been successful at financing its projects and operations over the years. However, the ability to continue exploration, assessment, development and operational activities will depend on the resource industry generally, which is cyclical in nature, and which may, in turn, affect its ability to attract financing, including joint venture financing, debt or bank financing, equity financing or production financing arrangements. Failure to obtain, or difficulty or delay in obtaining, requisite financing could result in delay of certain projects or postponement of further exploration, assessment or development of certain properties or projects. Financing through the issuance of equity will result in dilution of existing shareholders. Failure to obtain affordable financing could have a material adverse effect on the Company's business, result of operations and financial condition.

The Company's credit facilities contain financial covenants which it could fail to meet

As at December 31, 2022, the Company had total indebtedness of approximately $7.4 billion. Certain of the Company's existing credit facilities require, and its future credit facilities may require, the Company and certain of its operating subsidiaries to satisfy specified financial tests and maintain specified financial ratios and covenants as defined in such credit facilities (see the risk factor below entitled*: The Company may not be able to generate sufficient cash to service all of its indebtedness and may be forced to take other actions to satisfy its obligations under such indebtedness, which may not be successful).*

The ability of such operating subsidiaries to comply with these ratios and to meet these tests may be affected by events beyond their control and the Company cannot guarantee continued compliance in the future. A failure of the Company or certain operating subsidiaries to comply with such obligations could lead to a default under these credit facilities unless the Company can obtain waivers or consents in respect of any breaches of these obligations under these credit facilities. The Company cannot assure you that these waivers or consents will be granted. A breach of any of these covenants or the inability to comply with the required financial ratios could result in a default under these credit facilities. In the event of any default under these credit facilities, the lenders under these facilities will not be required to lend any additional amounts to the Company or those operating subsidiaries and could elect to declare all outstanding borrowings, together with accrued interest, fees and other amounts due thereunder, to be immediately due and payable. In the event of a default, the relevant lenders could also require the Company to apply all available cash to repay the borrowings.

If the debt under its credit facilities were to be accelerated, or otherwise become immediately due and payable, there can be no assurance that the Company's assets would be sufficient, or that the Company would be able to obtain sufficient alternative financing to repay such debt in full.

The terms of the Company's credit facilities and the Note Indentures restrict its current and future operations, particularly its ability to respond to changes or to take certain actions

The Company's credit facilities and the indentures governing the 2024 Notes, 2025 Notes, 2026 Notes and 2027 Notes (collectively the "Notes Indentures") contain a number of restrictive covenants that will impose

significant operating and financial restrictions on it and may limit its ability to engage in acts that may be in its long-term best interest, including restrictions on its ability to:

- incur additional indebtedness;
- pay dividends or make other distributions or repurchase or redeem capital stock;
- prepay, redeem or repurchase certain debt;
- make loans and investments;
- sell assets;
- incur liens;
- enter into transactions with affiliates;
- alter its businesses;
- enter into agreements restricting its subsidiaries' ability to pay dividends; and
- consolidate, amalgamate, merge or sell all or substantially all of its assets.

The Company has issued a notice of redemption on March 17, 2023, for the 2024 Notes to be redeemed on March 28, 2023, in full therefore the Indenture governing the 2024 Notes will not be in effect after March 28, 2023.

Any future indebtedness may include similar or other restrictive terms. These restrictions could materially and adversely affect the Company's ability to finance its future operations and capital needs or its ability to pursue acquisitions or other business activities that may be in its interest.

A breach of the covenants under the Company's credit facilities, the Notes Indentures or its other debt instruments could result in an event of default under the applicable indebtedness agreement. Such a default may allow the creditors to accelerate the related debt and may result in the acceleration of any other debt to which a cross-acceleration provision applies. In the event holders of the 2024 Notes, 2025 Notes, 2026 Notes or 2027 Notes or the Company's lenders accelerate the repayment of its borrowings, the Company and its subsidiaries may not have sufficient assets to repay that indebtedness.

The Company's ability to expand or replace depleted mineral reserves and the possible recalculation or reduction of its mineral reserves and mineral resources could materially affect its results of operations and long-term viability

The Company's reported Mineral Reserves and Mineral Resources are only estimates. No assurance can be given that the estimated Mineral Reserves and Mineral Resources will be recovered or that they will be recovered at the rates estimated. Mineral Reserve and Mineral Resource estimates are based on limited sampling and, consequently, are uncertain because the samples may not be representative. Mineral Reserve and Mineral Resource estimates may require revision (either up or down) based on actual production experience. Market fluctuations in the price of metals, as well as increased production costs or reduced recovery rates, changes in the mine plan or pit design, changes in a fiscal regime or increasing capital costs, may render certain Mineral Reserves and Mineral Resources uneconomic and may ultimately result in a restatement of Mineral Reserves and/or Mineral Resources. Moreover, short-term operating factors relating to the Mineral Reserves and Mineral Resources, such as the need for sequential development of ore bodies and the processing of new or different ore grades, may adversely affect the Company's profitability in any particular accounting period.

As a Canadian company, First Quantum uses CIM Standards (the Canadian Institute of Mining, Metallurgy and Petroleum on Mineral Resources and Mineral Reserve Definitions and Guidelines).

There are uncertainties inherent in estimating proven and probable Mineral Reserves and measured, indicated and inferred Mineral Resources, including many factors beyond the Company's control. Estimating Mineral Reserves and Mineral Resources is a subjective process. Accuracy depends on the quantity and quality of available data and assumptions and judgments used in engineering and geological interpretation, which may be unreliable. It is inherently impossible to have full knowledge of particular geological structures, faults, voids,

intrusions, natural variations in and within rock types and other occurrences. Failure to identify and account for such occurrences in the Company's assessment of Mineral Reserves and Mineral Resources may make mining more expensive and cost-ineffective, which will have a material and adverse effect on the Company's future cash flow, results of operations and financial condition.

There is no assurance that the estimates are accurate, that Mineral Reserve and Mineral Resource figures are accurate, or that the Mineral Reserves or Mineral Resources can be mined or processed profitably. Mineral Resources that are not classified as Mineral Reserves do not have demonstrated economic viability. It should not be assumed that all or any part of the measured Mineral Resources, indicated Mineral Resources, or an inferred Mineral Resource will ever be upgraded to a higher category or that any or all of an inferred Mineral Resource exists or is economically or legally feasible to mine.

Any material reductions in estimates of Mineral Reserves and/or Mineral Resources, or the Company's ability to extract those Mineral Reserves or Mineral Resources, could have a material adverse effect on the Company's results or financial condition.

The Company may not be able to generate sufficient cash to service all of its indebtedness and may be forced to take other actions to satisfy its obligations under such indebtedness, which may not be successful

The Company's ability to make scheduled payments on or refinance its debt obligations depends on its financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond its control. The Company may be unable to maintain a level of cash flows from operating activities sufficient to permit it to pay the principal, premium, if any, and interest on its indebtedness.

If the Company's cash flows and capital resources are insufficient to fund its debt service obligations, it could face substantial liquidity problems and could be forced to reduce or delay investments and capital expenditures or to dispose of material assets or operations, seek additional debt or equity capital or restructure or refinance its indebtedness. The Company may not be able to effect any such alternative measures on commercially reasonable terms or at all, and, even if successful, those alternatives may not allow it to meet its scheduled debt service obligations. The Company may not be able to consummate those dispositions or to obtain proceeds in an amount sufficient to meet any debt service obligations then due.

If the Company cannot make scheduled payments on its debt, or is not in compliance with a covenant included within its debt agreements, it could be in default and its creditors could declare all outstanding principal and interest to be due and payable, causing a cross-acceleration or cross-default under certain of its other debt agreements, if any, and its other creditors could foreclose against the collateral securing its obligations and it could be forced into bankruptcy or liquidation.

In addition, because the Company is a holding company, and as such conducts all of its operations through its subsidiaries, repayment of its indebtedness is dependent on the generation of cash flows by the Company's subsidiaries and their ability to make such cash available to the Company, by dividend, debt repayment or otherwise. The Company's subsidiaries may not be able to, or may not be permitted to, make distributions to enable it to make payments in respect of its indebtedness. Each subsidiary is a distinct legal entity, and, under certain circumstances, legal and contractual restrictions may limit the Company's ability to obtain cash from its subsidiaries. In the event that the Company does not receive distributions from its subsidiaries, it may be unable to make required principal and interest payments on its indebtedness.

The estimation of asset-carrying values for individual mines may affect the Company's results of operations

The Company annually undertakes a detailed review of the life-of-mine plans for its operating properties and an evaluation of the Company's portfolio of development projects, exploration projects and other assets. The

recoverability of the Company's carrying values of its operating and development properties are assessed by comparing carrying values to estimated future net cash flows from each property.

Factors which may affect carrying values include, but are not limited to: copper, gold, nickel, zinc and sulphuric acid prices; capital cost estimates; mining, processing and other operating costs; grade and metallurgical characteristics of ore; and mine design and timing of production. In the event of a prolonged period of depressed copper, gold, nickel and zinc prices, the Company may be required to take material write-downs of its operating and development properties.

The market price of the Common Shares may fluctuate significantly in response to a number of factors, many of which will be out of the Company's control.

Publicly traded securities from time to time experience significant price and volume fluctuations that may be unrelated to the operating performance of the company that has issued them. The market price of the Common Shares may fluctuate significantly in response to a number of factors, many of which are beyond the Company's control, including but not limited to variations in operating results in the Company's reporting period, changes in market conditions, changes in global financial markets, changes in financial estimates by securities analysts, speculation about the Company in the press or investment community, changes in market valuation of similar companies, announcements by the Company of corporate events such as significant acquisitions or capital commitments, loss of any customers, additions or departures of key personnel, any shortfall in revenue or net profit or any increase in losses from levels expected by securities analysts, credit ratings, future issues or sales of Common Shares, strategic acquisitions by competitors, regulatory changes and changes in the political environments within which the Company operates. Any or all of these events could result in a material decline in the price of the Common Shares.

The Common Shares are quoted on the TSX in Canadian dollars. An investment in the Common Shares by an investor in a jurisdiction whose principal currency is not Canadian dollars exposes the investor to foreign currency rate risk. Any depreciation of the Canadian dollar in relation to such foreign currency will reduce the value of the investment in the Common Shares in foreign currency terms.

There can be no assurance that dividends will continue to be paid in the future

Payment of any future dividends will be at the discretion of the Board after taking into account many factors, including the Company's operating results, financial condition, comparability of the dividend yield to peer companies and current and anticipated cash needs. There can be no assurance that dividends will continue to be paid in the future or on the same terms as are currently paid by the Company.

Fluctuations in foreign currency exchange rates could significantly affect the Company's operating results and liquidity

The Company's revenue from operations is received in U.S. dollars while a portion of its operating expenses are incurred in Zambian Kwacha, Australian dollars, Euro, Turkish Lira, Mauritanian Ouguiya, Peruvian Nuevo Sol, South African Rand, Argentine Pesos and Canadian dollars. In certain circumstances, the Company engages in foreign currency hedging activities for operational purposes. There can be no assurance that these hedging activities will be successful in mitigating the impact of exchange rate fluctuations or that hedging activities will not cause the Company to experience less favourable economic outcomes than the Company would have experienced if it had no hedges in place. Accordingly, foreign currency fluctuations may adversely affect the Company's operating results and financial position.

The Company's insurance does not cover all potential losses, liabilities and damage related to its business and certain risks are uninsured or uninsurable

As noted above, the business of mining and mineral exploration is generally subject to a number of risks and hazards including: adverse environmental conditions; industrial accidents; contaminations; labour disputes;

unusual or unexpected geological conditions; ground or slope failures; cave-ins; changes in the regulatory environment; and natural phenomena such as inclement weather conditions, floods and earthquakes. Such occurrences could result in damage to, or destruction of, mineral properties or production facilities, personal injury or death, environmental damage to the Company's properties or the properties of others, delays in mining, monetary losses and possible legal liability. The Company maintains insurance against certain risks that are typical in the mining industry and in amounts that the Company believes to be reasonable, but which may not provide adequate coverage in certain circumstances. However, insurance against certain risks (including certain liabilities for environmental pollution or other hazards as a result of exploration and production) is not generally available to the Company or to other companies in the industry on acceptable terms. The Company does not currently have political risk insurance. Losses resulting from such failure to obtain insurance may result in cost increases and decreased profitability.

Geographical/Political Risk Factors

The Company currently derives almost half of its revenue from two operating assets located in Zambia and over one-third of its revenue from one operating asset located in Panamá

For the twelve months ended December 31, 2022, the Company derived 22.4% of its revenue from Kansanshi and 26.0% of its revenue from Sentinel both of which are located in Zambia. In the year ended December 31, 2022, Cobre Panamá generated 38.8% of the Company's revenue. Cobre Panamá produced 350,438 tonnes of copper and is expected to achieve annual copper production of between 350,000 and 380,000 tonnes in 2023, with the Company's total copper production expected to be between 770,000 to 840,000 tonnes. The Company's operations in both Zambia and Panamá are vulnerable to hazards generally associated with the mining industry and open pit mining.

Although politically stable from a regime change perspective, Zambia has a history of making significant and unpredictable changes in government policies and laws. The Company's operations in Zambia are vulnerable to disruption due to such government changes.

In addition, the Company's ownership interest at Kansanshi is subject to third party risk arising from the Zambian authorities and the Company's partner on the project, ZCCM-IH (see the risk factor entitled *"The Company holds its principal asset in Zambia jointly with Government of the Republic of Zambia, whose interests may conflict with those of the Company"*). The Company's results of operations have depended on production at Kansanshi and Sentinel. Any suspension of operations or production for any reason, or third party intervention in the Company's corporate actions in Zambia, could have a material adverse effect on its business, prospects, financial condition and results of its operations. The concentration risk in Zambia will reduce over the coming years with increasing revenue contribution from Cobre Panamá.

Panamá has in recent history been a relatively stable jurisdiction from a political, regulatory and economic perspective. In 2018 the Supreme Court of Panamá declared (and subsequently upheld in 2021) that Law 9, which granted the status of national law to the Company's mining concession contract, was unconstitutional.

As further discussed under the heading "*Legal Proceedings*" herein, in January 2022 the Company and a commission acting on behalf of the Government of Panamá had reached an agreement in principle on certain items relating to amendments to the Company's concession contract.

Agreement on the Proposed Concession Contract was reached in early March, 2023 following a period of intense negotiations with the Government of Panamá. The Proposed Concession Contract meets the objectives of the Government of Panamá outlined in January 2022.

The Proposed Concession Contract is subject to a 30-day public consultation process and approvals by the Panamánian Cabinet, Comptroller General of the Republic and the National Assembly. Failure of the National Assembly to approve the Proposed Concession Contract could have a material adverse effect on the Company's business, prospects, financial condition and results of its operations in Panamá.

The Company is subject to taxation risk

The Company has operations and conducts business in a number of jurisdictions and is subject to the taxation laws of these jurisdictions. These taxation laws are complex and subject to changes and revisions in the ordinary course.

In Panamá, under the terms of the Proposed Concession Contract the following has been agreed:

- Payment by MPSA of $375 million plus an additional $20 million to cover taxes and royalties up to the year-end 2022.

- Payment by MPSA starting in 2023 of an annual minimum contribution of $375 million in Government income, comprised of corporate taxes, withholding taxes and a profit-based mineral royalty of 12 to 16 percent, with downside protections.

- Downside protections to the annual minimum contribution under the following conditions:
  - Until the end of 2025, copper price below $3.25 per pound; and
  - From 2026 and beyond, a total tax contribution for that year of less than $300 million.

- Applicable profit based mineral royalty rate at various operating margins are as shown below:

Operating Margin	Effective Royalty Rate
0% - 20%	12%
>20% - 30%	13%
>30% - 40%	14%
>40% - 50%	15%
> 50%	16%

- Application of the general regime of income tax, including deductions for depletion, and withholding taxes in Panamá.

In Zambia, the GRZ has enacted a number of changes to the tax regime relating to mining companies. Changes to tax laws and regulations over the years have had a material impact on the Company.

Some of the recent significant changes made to the tax regime include:

- The reintroduction of the corporate tax deductibility of mineral royalties which were enacted into law, effective January 1, 2022.

- The 2023 National Budget, presented in September, 2022 included a restructuring of the mineral royalty tax regime including an amended to the calculation of mineral royalty tax to be on an incremental basis and revised mineral royalty tax bands of 4%-10% dependent on copper prices. This change was enacted into law effective January 1, 2023.

In addition, during the second quarter of 2022, the Company reached an agreement with the GRZ for repayment of the outstanding VAT claims based on offsets against future corporate income tax and mineral royalty tax payments, which commenced July 1, 2022. During the year ended December 31, 2022, the Company was granted offsets of $154 million and cash refunds of $72 million with respect to VAT receivable balances. In the same period of 2021, offsets of $71 million were granted.

In December 2022, an agreement was entered into between KMP and ZCCM-IH to convert ZCCM-IH's dividend rights in KMP into royalty rights. Post completion, this transaction also provides for 20% of the KMP VAT refunds

as at June 30, 2022 to be paid to ZCCM-IH, as and when these are received by KMP from the ZRA. Completion of this transaction is expected during the first half of 2023.

Changes in taxation law or reviews and assessments could result in higher taxes being payable by the Company which could adversely affect profitability and cash flows. The Company is also subject to the risk that VAT repayments owed to the Company may be delayed.

The Company's operations across several different countries subject it to various political, economic, legal, regulatory and other risks and uncertainties that could negatively impact its operations and financial condition

The Company conducts exploration, development and production activity in several countries, including Zambia, Mauritania, Australia, Panamá, Spain, Finland, Peru, Turkey and Argentina. These operations and activities are subject to a number of political, economic, legal, regulatory and other risks. In particular, many of the Company's mineral rights and interests are subject to government approvals, licenses and permits. Such approvals, licenses and permits are subject to the discretion of applicable governments or governmental officials. No assurance can be given that the Company will be successful in obtaining or maintaining any or all of the various approvals, licenses and permits required to operate its businesses in full force and effect or without modification or revocation.

The Company's business is subject to the risks normally associated with conducting business in foreign countries. Some of these risks are more prevalent in countries that are less developed or have emerging economies. In certain countries in which it has assets and operations, such assets and operations are subject to various political, economic and other uncertainties and changes arising therefrom, including, among other things: the risks of war and civil unrest or other risks that may limit or disrupt a project, restrict the movement of funds or product, or result in the deprivation of contract rights or the taking of property by nationalization or appropriation without fair compensation; expropriation; nationalization; renegotiation, nullification, termination or rescission of existing concessions or of licenses, permits, approvals and contracts; taxation policies; foreign exchange and repatriation restrictions; changing political conditions; changing fiscal regimes and uncertain regulatory environments; international monetary and market securities fluctuations; and currency controls and foreign governmental regulations that favour or require the awarding of contracts to local contractors or require foreign contractors to employ citizens of, or purchase supplies from, a particular jurisdiction. These examples highlight the risks and inherent uncertainties of operating in developing countries.

The Company expects to generate cash flow and profits at its foreign subsidiaries and may need to repatriate funds from those subsidiaries to service the Company's indebtedness or fulfil the Company's business plans, in particular in relation to ongoing expenditures at the Company's development assets. The Company may not be able to repatriate funds, or the Company may incur tax payments or other costs when doing so, as a result of a change in applicable law or tax requirements at local subsidiary levels or at the First Quantum Minerals Ltd. level, which costs could be material.

The Company may also face import and export regulations, including restrictions on the export of metals, disadvantages of competing against companies from countries that are not subject to Canadian, U.S. or European laws, (which include the *Corruption of Foreign Public Officials Act (Canada), the UK Bribery Act 2010, the U.S. Foreign Corrupt Practices Act of 1977, the Criminal Justice (Corruption Offences) Act 2018 of Ireland and the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions)* restrictions on the ability to pay dividends offshore, risk of loss due to disease and other potential endemic health issues that may affect its workforce.

In addition, in the event of a dispute arising from foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in the United States, Europe or Canada. It also may be hindered or prevented from enforcing its rights with respect to a governmental instrumentality because of the doctrine of sovereign immunity. It is not possible for the Company to accurately predict such developments or changes in law or policy or to what extent any such developments or changes may have a material adverse effect on its operations.

The above risks are beyond the Company's control and the occurrence of any of the foregoing could have a material and adverse impact on the Company and its business, prospects, financial position, financial condition and/or results of operations.

The Company may be subject to the exclusive jurisdiction of foreign courts, which would impact investors' ability to enforce legal rights

The Company has material subsidiaries organized under the laws of foreign jurisdictions and certain of the Company's directors, management and personnel are located in foreign jurisdictions, and as a result, investors may have difficulty in effecting service of process within Canada and collecting from or enforcing against the Company, or its directors and officers, any judgments issued by the Canadian courts or Canadian securities regulatory authorities which are predicated on the civil liability provisions of Canadian securities legislation or other laws of Canada. Similarly, in the event a dispute arises in connection with the Company's foreign operations, the Company may be subject to the exclusive jurisdiction of foreign courts or may not be successful in subjecting foreign persons to the jurisdiction of courts in Canada.

Operational Risk Factors

The Company may be adversely affected by the availability and cost of key inputs

The Company's competitive position depends on its ability to control operating costs. The cost structure of each operation is based on its location, grade and nature of the ore body, and the management skills at each site as well as the costs of key inputs such as electricity, fuel, tyres for mining equipment, and other supplies. If any such supplies become unavailable or their cost increases significantly, the profitability of the Company's mines would be impacted and operations at its mines could be interrupted or halted resulting in a significant adverse impact on its financial condition. The Company's management prepares its cost and production guidance and other forecasts based on its review of current and estimated future costs, and management assumes that the materials and supplies required for operations will be available for purchase. Lack of supply or increased costs for any of these inputs would decrease productivity, reduce the profitability of the Company's mines, and potentially result in suspending operations at its mines. Production guidance and cost guidance involve estimates of known and unknown risks, uncertainties and other factors which may cause the actual results to be materially different.

Many of the Company's costs are driven by supply and market demand. For example, the cost of local materials, like cement, explosives and electricity, will vary based on demand. Wages can be affected by inflation and currency exchange rates and by the shortage of experienced human resources. The costs of fuel and steel are driven by global market supply and demand. The Company's main cost drivers include the cost of labour plus consumables such as electricity, fuel, transport and steel. In recent years, the mining industry has been impacted by increased worldwide demand for critical resources such as input commodities, drilling equipment, tires and skilled labour, and these shortages may cause unanticipated cost increases and delays in delivery times, thereby impacting operating costs, capital expenditures and production schedules. The war in Ukraine and the sanctions imposed on Russia could result in increased input costs, particularly for energy and ammonium nitrate, used in explosives by the mining industry, in which Russia is a significant global supplier.

Concentrate treatment charges and transportation costs are also a significant component of operating costs. Concentrate treatment and refining charges and fuel prices have been volatile in recent years. The Company is dependent on third parties for rail, truck and maritime services to transport its products, and contract disputes, demurrage charges, rail and port capacity issues, availability of vessels, weather and climate and other factors can have a material adverse impact on its ability to transport its products according to schedules and contractual commitments.

The Company's operations, by their nature, use large amounts of electricity and energy. Energy prices can be affected by numerous factors beyond the Company's control, including global and regional supply and demand, political and economic conditions, applicable regulatory regimes and policies (which may include sanctions and/or constraints on trade), as well as adverse weather conditions (especially in countries reliant on hydro-

electric generation). While Kansanshi and Sentinel have binding power supply agreements with fixed prices, the GRZ has taken steps to unilaterally increase tariffs significantly. Reductions to the electricity supply at Kansanshi mine and smelter and Sentinel have also been imposed by ZESCO on several occasions (*for further details, see Legal Proceedings*). ZESCO implemented continuous load shedding schedules, at the national level during 2021, to reduce the electricity demand but mines were exempt from the schedules and continued to receive electricity supply in line with the projected demand submitted to ZESCO.

The prices of various sources of energy increased in 2022 and may increase significantly from current levels. The recent increase in electricity and energy prices may negatively affect the Company's business, financial condition, liquidity and results of operations.

Almost half of the Company's revenue is currently derived from operations in Zambia which, similar to Mauritania where Guelb is located, has underdeveloped physical, financial, political, medical and institutional infrastructure

The Company currently has operations in Zambia and Mauritania, with 48.3% of its revenue being generated from Zambia and 2.8% from Mauritania in the twelve months ended December 31, 2022. Following the successful ramp up of Cobre Panamá, the Company's operations are more diversified. In the year ended December 31, 2022, Cobre Panamá generated 38.8% of the Company's revenue. Cobre Panamá is expected to achieve annual copper production of between 350,000 and 380,000 tonnes in 2023, with the Company's total copper production expected to be between 770,000 to 840,000 tonnes. These countries have a history of political instability, significant and unpredictable changes in government policies and laws, illegal mining activities, lack of law enforcement and labour unrest. Due to the fact that these countries are developing nations, with poor physical and institutional infrastructure, the Company's Zambian and Mauritanian operations are subject to various increased economic, political and other risks, including war, civil unrest, nationalization, expropriation, changing fiscal regimes and uncertain regulatory environments, changing tax and royalty regimes, and challenges to or reviews of the Company's legal and contractual rights, including under the Kansanshi Development Agreement which was unilaterally terminated by Zambia in 2008 and the MCM Mining Convention. In the past, events of expropriation resulted in the withdrawal of the Frontier and Lonshi mining licenses and the cessation of the Company's activities in the DRC. While the Company has recourse to international arbitration under the Kansanshi Development Agreement and MCM Mining Convention, there are risks associated with litigation and the enforceability of these contracts, the Company's mining titles, and any damages awards obtained through international arbitration.

HIV, malaria and other diseases are perceived as a serious threat to maintaining a skilled workforce. The per capita incidence of the HIV virus in Zambia is amongst the highest in the world. As such, HIV remains a major healthcare challenge faced by the Company's Zambian operations. There can be no assurance that the Company will not lose members of its workforce or lose workforce man-hours to illnesses, which may have a material adverse effect on the Company's operations.

The Company holds one of its principal producing assets in Zambia jointly with the GRZ, whose interests may conflict with those of the Company

The Company holds an 80% interest in KMP and thereby in Kansanshi; with the remaining 20% being held by ZCCM-IH, which is controlled by the GRZ. The Company's relationship with ZCCM-IH is governed by a shareholders' agreement (the "KMP Shareholders' Agreement") pursuant to which ZCCM-IH are entitled to certain rights.

In December 2022, an agreement was entered into between KMP and ZCCM to convert ZCCM's dividend rights in KMP to a 3.1% revenue royalty. A dividend of $195 million was paid to ZCCM-IH on the signing of this agreement. Post completion, this transaction also provides for 20% of the KMP VAT refunds as at June 30, 2022 to be paid to ZCCM-IH, as and when these are received by KMP from the ZRA. ZCCM-IH will continue to be represented on the KMP Board to ensure full visibility and transparency in respect to KMP's future operations. The updated arrangement ensures alignment between both First Quantum and ZCCM-IH

going forward, including the delivery of the S3 Expansion project at Kansanshi. Completion of this transaction is expected during the first half of 2023.

Under the existing KMP Shareholder Agreement, (which will drop away on the completion of the transaction detailed above) each of ZCCM-IH and the GRZ has the right to appoint a director to the board of the operating company with presence of the GRZ and ZCCM-IH appointed directors required for a quorum. In addition, ZCCM-IH retains weighted voting rights in respect of certain corporate actions (for example, the approval of transactions with affiliates) and amendment of the KMP Shareholders Agreement requires all party consent. As a result, the GRZ and/or ZCCM may exercise effective or *de facto* veto rights in respect of KMP's decision-making, including in respect of any changes to KMP's dividend policy, which could affect the ability to pay dividends from the operating company to the Company for the purpose of making scheduled payments on the Notes. The KMP Shareholders Agreement also imposes certain restrictions on the Company's ability to transfer its shares in KMP or a controlling interest in its assets at Kansanshi to non-affiliate third parties unless any such third party to whom the Company's shares in KMP are transferred assumes certain undertakings pursuant to the KMP Shareholders Agreement. In the event that the Company becomes unable to pay its debts or commence liquidation or administration proceedings, and in certain other circumstances, ZCCM is entitled to a right of first refusal in relation to the Company's 80% interest in KMP. The KMP Shareholders Agreement contains ''free-carried'' interest provisions entitling ZCCM to maintain a 5% equity interest and ''repayable carried'' interest provisions for the benefit of ZCCM set at the 15% level. These provisions would entitle ZCCM to maintain the same percentage of equity interest in the event of capital increases by KMP. The KMP Shareholders Agreement also requires KMP to maintain a specified debt to equity ratio. Restrictions such as those in the KMP Shareholders Agreement may impact the ability of the Company's subsidiaries to make distributions to it, which could adversely affect the Company's future cash flows and its ability to use its cash to fund further development and exploration projects and/or make payments in respect of its indebtedness, including the Notes.

The Company faces risks associated with its development projects

The Company's ability to maintain or increase its annual production of copper and other metals will be dependent, in significant part, on its ability to bring new mines into production and to expand existing mines. Although the Company utilizes the operating history of its existing mines to derive estimates of future operating costs and capital requirements, such estimates may differ materially from actual operating results at new mines or at expansions of existing mines. The economic feasibility analysis with respect to any individual project is based upon, among other things: the interpretation of geological data obtained from drill holes and other sampling techniques; feasibility studies (which derive estimates of cash operating costs based upon anticipated tonnage and grades of ore to be mined and processed); precious and base metals price assumptions; the configuration of the ore body; expected recovery rates of metals from the ore; comparable facility and equipment costs; anticipated climatic conditions; and estimates of labour, productivity, royalty, tax rates, or other ownership burdens and other factors.

The Company's development projects are also subject to the successful completion of construction and commissioning, the issuance of necessary permits and the receipt of adequate financing, and the actual operating results of the Company's development projects may differ materially from those anticipated.

Uncertainties relating to operations are even greater in the case of development projects. Any of the following events, among others, could affect the profitability or economic feasibility of a project:

- the availability of funds to finance construction and development activities;
- the ability of key contractors to perform services in the manner contracted for;
- unanticipated changes in grade and tonnage of ore to be mined and processed;
- unanticipated adverse geotechnical conditions;
- travel restrictions and lockdowns due to pandemic such as the COVID-19 pandemic;
- incorrect data on which engineering assumptions are made;
- costs of constructing and operating a mine in a specific environment;

- availability and costs of processing and refining facilities;
- availability of economic sources of power on an uninterrupted basis;
- adequacy of water supply on an uninterrupted basis;
- adequate access to the site, including competing land uses (such as agriculture and illegal mining);
- unanticipated transportation costs or disruption;
- government regulations (including regulations to prices, royalties, duties, taxes, permitting, restrictions on production, quotas on exportation of minerals, as well as the costs of protection of the environment and agricultural lands);
- fluctuations in commodity prices and exchange rates; and
- accidents, labour actions and force majeure events.

It is not unusual in new mining operations to experience unexpected problems during the start-up phase, and delays can often occur at the start of production. In the past, the Company has adjusted estimates based on changes to assumptions and actual results. These and other factors may have the effect of increasing the expected capital expenditures for the Company's development projects.

The Company depends on key management personnel and may not be able to attract and retain qualified personnel in the future

The Company's ability to manage its operations, exploration and development activities, and hence its success depends in large part on its ability to retain current key management personnel and to attract and retain new personnel, including management, technical and unskilled workforce. The loss of the services of one or more key employees could have a material adverse effect on the Company's ability to manage and expand its business. The Company currently does not have key person insurance on these individuals.

Cobre Panamá was the first large scale mining project in Panamá and the ability to operate Cobre Panamá depends upon the Company's ability to attract, train and retain highly skilled personnel. Additionally, there are restrictions in Panamá to manage the expatriate population which has the potential to create difficulty in recruiting qualified personnel. However, over time, the development of local personnel would mitigate this risk. From time to time the mining industry experiences a shortage of skilled or experienced personnel, especially trades people, on a global, regional or local basis. Competition for such personnel in the mining industry is intense, and the Company may not be able to retain current personnel and attract and retain new personnel. An inability to do so would have a material adverse effect on the Company's business, results of operations, financial condition and cash flows.

The Company's information technology systems may be subject to disruption, damage or failure

The Company's operations depend, in part, upon information technology systems, including systems covering financial controls and accounting systems. Information technology systems may be subject to disruption, damage, abuse/misuse, or failure, from a number of sources including, but not limited to: adversaries, accidents, or environmental factors. These, and other threats, could result in a breach of confidentiality, integrity, or availability, of the information technology system, which could affect the Company's reputation, operations, and/or, financial performance.

The Company recognizes that these risks cannot be fully mitigated because of, among other factors, the changing nature of the threats. In response, the Company continues to invest in information technology security including, the continued development and enhancement of controls, processes and practices designed to protect the Company's systems, computers, software data and networks from attack damage or unauthorized access remains a priority. The Company invests in additional resources to further mature its information technology security and also focuses on information security to modify and enhance protective measures and to remediate security vulnerabilities. There can be no assurance that the Company will not experience any material losses relating to cyber-attacks, or other information security breaches.

Although, to date, the Company has not experienced any material losses relating to cyber-attacks, or other information security breaches, it continues to remain highly vigilant as there is no assurance that such losses will not occur in the future.

The Company may be unable to compete successfully with other mining companies

The mining industry is competitive in all of its phases. The Company faces strong competition from other mining companies in connection with the acquisition of properties producing, or capable of producing, metals. Many of these companies have greater financial resources and a longer operating history than the Company. The Company may also encounter increasing competition from other mining companies in its efforts to hire experienced mining professionals. In addition, competition for exploration resources at all levels is very intense. Increased competition could adversely affect the Company's ability to attract necessary capital funding, to acquire it on acceptable terms, or to acquire suitable producing properties or prospects for mineral exploration in the future. Increases in copper, nickel and gold prices have in the past, and could in the future, encourage increases in mining exploration, development and construction activities, which could in turn result in increased demand for and cost of contract exploration, development and construction services and equipment. Increased demand for and cost of services and equipment could cause project costs to increase materially, resulting in delays if services or equipment cannot be obtained in a timely manner due to inadequate availability, and increased potential for scheduling difficulties and cost increases due to the need to coordinate the availability of services or equipment. Any of these outcomes could materially increase project exploration, development or construction costs, result in project delays, or both. As a result of this competition, the Company may be unable to maintain or acquire attractive mining properties or attract better or more qualified employees.

Certain directors also serve as directors and/or officers of other companies involved in natural resource exploration and development. There is a possibility that such other companies may compete with us for the acquisition of assets. Consequently there exists the possibility for such directors to be in a position of conflict. If any such conflict of interest arises, then a director who has such a conflict must disclose it at a meeting of the directors and will be precluded from participation, discussion or decisions pertaining to the matter. In appropriate cases, the Company will establish a special committee of independent directors to review a matter in which several directors, or management, may have a conflict of interest.

The Company relies on a limited number of smelters and off-takers to produce and distribute the product of its operations

In some locations where the Company operates (particularly Zambia and to a much lesser extent, Finland), there are a limited number of smelters within range of its operations. If local smelter capacity proves insufficient, the Company would be exposed to increased freight costs and export duties associated with delivering concentrate into the international market.

While Zambia has the smelting capacity to treat all locally produced concentrate, in practice, the limited number of off-takers in Zambia means that the Company is sensitive to force majeure events, maintenance shutdowns or economic constraints at third-party smelters. The Company has proposed the resumption of the S3 sulphide plant construction and expansion of the Kansanshi smelter project. However, if these expansions do not proceed, smelter capacity in Zambia may be insufficient to treat the volume of concentrate produced.

As of December 31, 2022, 34% of the Company's trade receivables were outstanding from three customers together representing 17% of the total sales for the year. The inability, or unwillingness for any reason, of one or more of the smelters or off-takers with whom the Company has relationships to meet their obligations to it, or their insolvency or liquidation, may adversely affect the Company's financial results. Traditionally, all of the Company's accounts receivable result from sales to third parties in the mining industry. This concentration of customers may impact its overall credit risk in that these entities may be similarly affected by various economic and other conditions.

Title claims may affect the Company's existing operations as well as its development projects and future acquisitions

Title to the Company's properties may be challenged or impugned and title insurance is generally not available. The Company's mineral properties may be subject to prior unregistered agreements, transfers or claims, and title may be affected by, among other things, undetected defects. In addition, the Company may be unable to operate its properties as permitted or to enforce its rights with respect to its properties. This may affect the Company's ability to acquire within a reasonable time frame effective mineral titles in the jurisdictions in which it operates and may affect the timetable and costs of development of mineral properties in these jurisdictions. The risk of unforeseen title claims could also affect existing operations as well as development projects and future acquisitions. These legal risks may affect the Company's ability to expand or transfer existing operations or to develop new projects.

Some of the Company's employees are unionized and work stoppages by unionized employees could materially and adversely affect its business, prospects, financial condition and results of operations

Current union agreements at the Company's operations in Zambia are typically one or two years in duration and are subject to expiration at various times in the future. If the Company is unable to renew union agreements as they become subject to renegotiations from time to time, this could result in work stoppages and other labour disturbances that could have a material adverse effect on the Company's business, financial condition, liquidity and results of operations.

Certain of the Company's employees are employed under collective bargaining agreements. If unionized employees were to engage in a concerted strike or other work stoppage, or if other employees were to become unionized, the Company could experience a disruption of operations, higher labour costs or both. A lengthy strike or other labour disruption could have a material adverse effect on its business, financial condition, liquidity and results of operations.

The Company is subject to litigation, the outcome of which may affect the Company's business, results of operations, financial condition and cash flows

The Company is subject from time to time to litigation and may be involved in disputes with other parties in the future, which may result in litigation. The Company cannot predict the outcome of any litigation. Defence and settlement costs may be substantial, even with respect to claims that have no merit. If the Company cannot resolve these disputes favourably, its business, financial condition, results of operations and future prospects may be materially adversely affected.

In 2018 the Company became aware of a ruling of the Supreme Court in relation to the constitutionality of Law 9, under which MPSA has the rights to explore for, extract, exploit, beneficiate, process, refine, transport, sell and market the gold, copper and other mineral deposits on the Cobre Panamá concession, and is also aware of other constitutional proceedings and nullity motions before the Supreme Court in relation to 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 the continuation of the development and operation of the Cobre Panamá project by MPSA. With respect to other constitutional proceedings and nullity motions, the Company has been advised by external counsel that the processes of approval and extension for MPSA's mining concession contract were correctly followed and the concession contract complies with Panamánian law.

In January 2022 the Company and a commission acting on behalf of the Government of Panamá had reached an agreement in principle on certain items relating to amendments to the Company's concession contract.

On March 8, 2023 following a period of intense negotiation, the Company announced that it had agreed and finalised the draft of a concession contract with the Government of Panamá that meets the objectives outlined by the Government in January 2022.

Failure by the National Assembly to approve the Proposed Concession Agreement may have a material adverse effect on the Company's business, result of operations and financial condition.

Cobre Panamá and Ravensthorpe are subject to the risks associated with joint venture projects

KPMC, a 50/50 joint venture between the Company and KOMIR, holds a 20% equity interest in MPSA, the Panamánian corporation that owns the concession for Cobre Panamá. There are a variety of risks associated with KOMIR's interest in KPMC's and its consequent ownership interest in Cobre Panamá, including:

- disagreement about how to operate or finance the project;
- that KOMIR may at any time have economic or business interests or goals that are, or become, inconsistent with the Company's business interests or goals;
- that KOMIR may not comply with the agreements governing the Company's relationship with them;
- disagreement with KOMIR over the exercise of KPMC's rights under the agreements governing its relationship;
- the possibility that KPMC may become insolvent and KOMIR may be unable or unwilling to fund its share of development costs; and
- possible litigation with KOMIR over matters related to KPMC or MPSA.

In addition, the Company has relied on the Precious Metals Stream Agreement to fund a significant portion of Cobre Panamá's capital expenditure requirements. Any disputes relating to, or the termination of, the Precious Metals Stream Agreement could materially affect the Company's ability to fund the ongoing capital expenditures and other expenses related to Cobre Panamá.

These risks could result in legal liability or affect the Company's ability to operate Cobre Panamá, which could have a material adverse effect on its business, results of operations, financial condition and cash flows.

POSCO holds a 30% equity interest in Ravensthorpe. There are a variety of risks associated with POSCO's ownership interest in Ravensthorpe, including:

- disagreement about the Company's operations and financing arrangements;
- that POSCO may at any time have economic or business interests or goals that are, or become, inconsistent with, or compete with, the Company's business interests or goals;
- that POSCO may not comply with the agreements governing the Company's relationship with them;
- that POSCO exercises rights of veto in respect of certain activities material to the operations of the Company;
- possible litigation with POSCO over matters related to RNO.

In addition, the following may also apply in relation to the offtake arrangements:

- delays to the commencement of delivery of MHP under the JV Offtake Agreement related to POSCO's requirements for MHP;
- possibility of RNO MHP being unsuitable for POSCO's processing requirements;
- possible warranty and indemnity claims by POSCO relating to its acquisition of a 30% interest in the Company.

The Company could be adversely affected by violations of applicable anti-corruption laws

The Company and certain of its subsidiaries and affiliated entities conduct business in countries where there is an increased risk of government and private sector corruption. The Company is committed to doing business in accordance with all applicable laws and its codes of ethics, but there is a risk that the Company, its subsidiaries or their affiliated entities or their respective officers, directors, employees or agents may act in violation of its codes and applicable laws, including the *Corruption of Foreign Public Officials Act (Canada), the UK Bribery Act 2010, the U.S. Foreign Corrupt Practices Act of 1977, the Criminal Justice (Corruption Offences)*

Act 2018 of Ireland and the OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions. Any such violations could result in substantial civil and criminal penalties and might materially adversely affect the Company's business and reputation, results of operations or financial condition. The Company is also at risk of material failures of its internal controls and employee fraud, and from time to time in the past has suffered from breaches of its internal controls and instances of employee fraud, including misuse of corporate funds and assets, by certain employees. Despite monitoring compliance with internal policies, the Company may nonetheless be unable to detect or prevent all instances of fraud, bribery and corruption involving our employees in the future, which could subject the Company to civil, administrative or criminal penalties as well as reputational damage. As such, there can be no assurance that the Company will not experience future instances of our local, regional and national managers not complying with the Company's policies, making unintended accounting misstatements or breaches of local and national regulations and legislation or committing fraud, any of which could, individually or collectively, have a material adverse effect on our cash flows, financial condition and results of operations.

Mineral exploration is speculative and uncertain and the development from mines may be unsuccessful

Since mines have limited lives based on proven and probable Mineral Reserves, the Company continually seeks to replace and expand its mineral reserves. Mineral exploration, at both newly acquired properties and existing mining operations, is highly speculative in nature, involves many risks and frequently does not result in the discovery of mineable reserves. There can be no assurance that the Company's exploration efforts will result in the discovery of significant mineralization or that any mineralization discovered will result in an increase of the Company's proven or probable Mineral Reserves. If proven or probable Mineral Reserves are developed, it may take a number of years and substantial expenditures from the initial phases of drilling until production is possible, during which time the economic feasibility of production may change. No assurance can be given that the Company's exploration programs will result in the replacement of current production with new Mineral Reserves or that the Company's development program will be able to extend the life of the Company's existing mines. This is particularly true in the case of Pyhäsalmi and Cobre Las Cruces, each of which has a remaining mine life of less than 1 year, Guelb Moghrein with a remaining mine life of less than 3 years and Çayeli, with a remaining mine life of approximately 3 years, in each case based on Mineral Reserves adjusted for production during the year ended December 31, 2022. Pyhäsalmi, Cobre Las Cruces and Çayeli accounted for approximately 1%, 1% and 2%, respectively, of the Company's revenues in the year ended December 31, 2022. In the event that new Mineral Reserves are not developed, the Company will not be able to sustain any mine's current level of mineral reserves beyond the life of its existing Mineral Reserve estimates. The combination of these factors may cause the Company to expend significant resources (financial and otherwise) on a property without receiving a return on investment.

The Company may not consummate or integrate acquisitions successfully, which could adversely affect its financial condition and future performance

The Company is always actively pursuing the acquisition of advanced exploration, development and production assets consistent with its acquisition and growth strategy. From time to time, it may also acquire securities of, or other interests in, companies with respect to which it may enter into acquisitions or other transactions. Acquisition transactions involve inherent risks, including:

- accurately assessing the value, strengths, weaknesses, contingent and other liabilities and potential profitability of acquisition candidates;
- ability to achieve identified and anticipated operating and financial synergies;
- unanticipated costs;
- diversion of management attention from existing business;
- potential loss of its key employees or the key employees of any business that the Company acquires;
- unanticipated changes in business, industry or general economic conditions that affect the assumptions underlying the acquisition; and
- decline in the value of acquired properties, companies or securities.

Any one or more of these factors or other risks could cause the Company not to realize the benefits anticipated to result from the acquisition of properties or companies and could have a material adverse effect on its ability to grow and on its financial condition.

Acquisitions by the Company involve the integration of companies that previously operated independently. An important factor in the success of an acquisition is the ability of the acquirer's management in managing the Company's business and that of the acquired company and, if appropriate, integrating all or part of that company's business with that of the acquirer. The integration of two businesses can result in unanticipated operational problems and interruptions, expenses and liabilities, the diversion of management attention and the loss of key employees and their knowledge. Acquisitions may involve a number of special risks, circumstances or legal liabilities.

There can be no assurance that a business integration will be successful or that it will not adversely affect the business, results of operations, financial condition or operating results of the acquirer and, as a result, the price of the Company's publicly traded securities. In addition, the acquirer may incur charges related to the acquisition of the acquired company and related to integrating the two companies. There can be no assurance that the Company, in the case of its recent acquisitions, will not incur additional material charges in the future to reflect additional costs associated with the acquisition or that all of the benefits expected from the acquisitions will be realized.

In order, to acquire properties and companies, the Company may need to use available cash, incur debt, issue Common Shares or other securities, or a combination of any one or more of these. This could limit its flexibility to raise capital, to operate, explore and develop its properties and to make additional acquisitions, and could further dilute and decrease the trading price of the Common Shares. When evaluating an acquisition opportunity, the Company cannot be certain that it will have correctly identified and managed the risks and costs inherent in the business that it is acquiring.

CAPITAL STRUCTURE

The authorized capital of the Company consists of an unlimited number of Common Shares. As at December 31, 2022, 692,505,043 Common Shares were issued and outstanding. This figure includes Common Shares purchased and held by two independent trusts under the Company's long-term incentive plan and KEYs plan, further details of which can be found in the Company's financial statements and its Annual MD&A for the financial year ended December 31, 2022, both of which are available for review on SEDAR at www.sedar.com. Each shareholder is entitled to one vote for each common share registered in his or her name, as the case may be, on the list of shareholders. All of the Common Shares of the Company rank equally as to participation in dividends and in the distribution of the Company's assets on liquidation, dissolution or winding up, or other distribution of assets for the purpose of winding up the Company's affairs.

DIVIDENDS

The Company's previous dividend policy was implemented in 2005. Under that policy, the Company expected to pay two dividends per year, the first an "interim" dividend declared after the release of second quarter results and the second, a "final" dividend based on year-end results. Interim dividends were set at one-third of the total dividends (interim and final) declared on a per common share basis applicable in respect of the previous financial year. Final dividends were determined based on the financial performance of the Company during the previous applicable financial year.

The new Dividend Policy was adopted by the Board and announced by the Company on January 17, 2022. Pursuant to the Dividend Policy the Company intends to pay, on a semi-annual basis, the Performance Dividend, that represents, in the aggregate, 15% of available cash flows generated after planned capital spending and distributions to non-controlling interests. It is expected that the Annual Base Dividend of C$0.10 per Common Share, consisting of semi-annual dividends of C$0.05 per Common Share will be part of the Performance Dividend. Dividend payments remain at the discretion of the Board.

The Company operates a dividend reinvestment and share purchase plan for its Canadian resident shareholders.

Details of the dividends paid/approved* by the Company on its Common Shares are set out in the following table:

Year	Interim	Final	Total
2022	C$0.16	C$0.13*	C$0.29
2021	C$0.005	C$0.005	C$0.01
2020	C$0.005	C$0.005	C$0.01

*On February 14, 2023, the Company announced that the Board of Directors had approved a final dividend of C$0.13 per Common Share, payable on May 8, 2023, to shareholders of record on April 17, 2023.

LONG-TERM DEBT

As of December 31, 2022, the Company's long-term debt was comprised of:

Senior notes	**$m**
First Quantum Minerals Ltd. 6.50% due 2024	848
First Quantum Minerals Ltd. 7.50% due 2025	1,348
First Quantum Minerals Ltd. 6.875% due 2026	996
First Quantum Minerals Ltd. 6.875% due 2027	1,490
Long Term Bank Debt	
First Quantum Minerals Ltd. senior debt facility	1,700
FQM Trident Term Loan	423
Short Term Debt	
First Quantum Minerals Ltd senior debt facility - short term portion	455
Trading facilities	120

First Quantum Minerals Ltd. 6.50% senior notes due March 2024

In February 2018, the Company issued $850 million in senior notes due in 2024, bearing interest at an annual rate of 6.50%. The Company and its subsidiaries are subject to certain restrictions on asset sales, payments, incurrence of indebtedness and issuance of preferred stock. The notes are part of the senior obligations of the Company and are guaranteed by certain subsidiaries of the Company. Interest is payable semi-annually.

On February 25, 2023, the Company completed a partial redemption of the 2024 Notes. Such 2024 Notes were redeemed on a lottery drawing basis at a redemption price of 100.000% of the principal amount thereof, plus accrued and unpaid interest.

The Company issued a notice of redemption on March 17, 2023 for the remaining 2024 Notes which will be redeemed in full on March 28, 2023 at a redemption price of 100.000% of the principal amount thereof, plus accrued and unpaid interest.

First Quantum Minerals Ltd. 7.50% senior notes due April 2025

The notes are part of the senior obligations of the Company and are guaranteed by certain of the Company's subsidiaries. Interest is payable semi-annually. The Company and its subsidiaries are subject to certain restrictions on asset sales, payments, incurrence of indebtedness and issuance of preferred stock.

The Company may redeem some or all of the notes at any time, at redemption prices ranging from 105.625% in the first year to 100% from April 2023, plus accrued interest. Although part of this redemption feature indicates the existence of an embedded derivative, the value of this derivative is not significant.

First Quantum Minerals Ltd. 6.875% senior notes due March 2026

In February 2018, the Company issued $1 billion in senior notes due in 2026, bearing interest at an annual rate of 6.875%. The Company and its subsidiaries are subject to certain restrictions on asset sales, payments, incurrence of indebtedness and issuance of preferred stock. The notes are part of the senior obligations of the Company and are guaranteed by certain subsidiaries of the Company. Interest is payable semi-annually.

The Company may redeem some or all of the notes at any time, at redemption prices ranging from 105.156% in the first year to 100% from March 2024, plus accrued interest. Although part of this redemption feature indicates the existence of an embedded derivative, the value of this derivative is not significant.

First Quantum Minerals Ltd. 6.875% senior notes due October 2027

In October 2020, the Company issued $1.5 billion in senior notes due in 2027, bearing interest at an annual rate of 6.875%. The Company and its subsidiaries are subject to certain restrictions on asset sales, payments, incurrence of indebtedness and issuance of preferred stock.

The notes are part of the senior obligations of the Company and are guaranteed by certain subsidiaries of the Company. Interest is payable semi-annually.

The Company may redeem some or all of the notes at any time on or after October 15, 2023, at redemption prices ranging from 103.44% in the first year to 100% from October 2025, plus accrued interest. In addition, until October 15, 2023, the Company may redeem up to 35% of the principal amount of notes, in an amount not greater than the net proceeds of certain equity offerings, at a redemption price of 106.875% plus accrued interest. Although part of this redemption feature indicates the existence of an embedded derivative, the value of this derivative is not significant.

First Quantum Minerals Ltd. senior debt facility

On October 14, 2021, the Company entered into the Facility. The Facility replaced the Previous Facility, which matured in December 2022. The Facility is comprised of a $1.625 billion term loan facility and a $1.3 billion revolving credit facility, matures in 2025 and is syndicated to a group of predominantly long-standing relationship banks of First Quantum. Repayments on the term loan commenced in December 2022. The Facility has a single Net debt to EBITDA ratio covenant set at 3.5 times over the Facility term. Transaction costs for the new facilities have been deducted from the principal drawn on initial recognition.

As at December 31, 2022, the outstanding balance of the Term Loan, was $1,397 million and $770 million of the revolving credit facility had been drawn, leaving $530 million available under the revolving credit facility.

FQM Trident Facility

On December 2, 2022, FQM Trident, the owner of the Sentinel copper mine and the Enterprise nickel mine, signed a loan facility (the “FQM Trident Facility”) for $425milion which has a termination date of December 31, 2025. Repayments on the FQM Trident Facility commence in March 2024 and are due every six months thereafter. The FQM Trident Facility matures in December 2025.

The principal outstanding under the FQM Trident Facility as at December 31, 2022 was $425 million.

Trading facilities

The Company’s metal marketing division has six uncommitted borrowing facilities totaling $730 million. The facilities are used to finance purchases and the term hedging of copper, gold and other metals, undertaken by the metal marketing division. Interest on the facilities is calculated at the bank’s benchmark rate plus a margin. The loans are collateralized by physical inventories.

RATINGS

The following table sets forth the current ratings that the Company has received from credit rating agencies. Credit ratings are not recommendations to purchase hold or sell securities and do not address the market price or suitability of a specific security for a particular investor. Credit ratings may not reflect the potential impact of all risks on the value of securities. In addition, real or anticipated changes in the credit rating assigned to a security will generally affect the market value of that security. The Company cannot assure you that a rating will remain in effect for any given period of time or that a rating will not be revised or withdrawn entirely by a rating agency in the future.

Company family rating	**Fitch** **B+** **Stable Outlook**	**Standard & Poor's** **B+** **Stable Outlook**
2024 Notes (Rating)	B+	B+
2025 New Notes (Rating)	B+	B+
2026 Notes (Rating)	B+	B+
2027 Notes (Rating)	B+	B+

A description of the rating categories of each of the rating agencies and details of unsolicited ratings are set out below.

Fitch

On January 18, 2023, Fitch amended the ratings Outlook to Review Watch Negative on the risk of operational disruptions at MPSA.

Fitch Ratings publishes credit ratings that are forward-looking opinions on the relative ability of an entity or obligation to meet financial commitments. Fitch's credit rating scale for issuers and issues is expressed using the categories 'AAA' to 'BBB' (investment grade) and 'BB' to 'D' (speculative grade) with an additional +/- for AA through CCC levels indicating relative differences of probability of default or recovery for issues. The terms "investment grade" and "speculative grade" are market conventions and do not imply any recommendation or endorsement of a specific security for investment purposes. Investment grade categories indicate relatively low to moderate credit risk, while ratings in the speculative categories signal either a higher level of credit risk or that a default has already occurred.
Fitch's B rating assigned to the Company's senior debt instruments is considered a highly speculative grade. B ratings indicate that material default risk is present, but a limited margin of safety remains. Financial commitments are currently being met; however, the capacity for continued payment is vulnerable to deterioration in the business and economic environment. Fitch has assigned a stable outlook to the rating.

Standard & Poor's ("S&P")

On December 20, 2022, S&P amended the ratings Outlook to Credit Watch Negative on the risk of operational disruptions at MPSA.

S&P's long-term credit ratings are forward-looking opinions about an issuer's relative creditworthiness.

Long-term issuer credit ratings are assigned on a rating scale from AAA through D, highest to lowest. Ratings AAA through BBB are considered investment grade and ratings BB through D are considered speculative grade.

S&P's B+ rating assigned to the Company's senior debt instruments is considered speculative grade (i.e. more vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments). S&P uses a "+" or "-" suffix to indicate the relative standing of securities within a rating band.

MARKET FOR SECURITIES

Trading Price and Volume

The Common Shares of the Company are listed and posted for trading on the TSX under the symbol "FM". On April 9, 2001, the Common Shares were listed for trading on AIM under the symbol "FQM". In July 2011, the Company also listed Depository Receipts in Zambia on the Lusaka Stock Exchange under the symbol "FQMZ". The Depository Receipts were delisted from the Lusaka Stock Exchange in 2022. The TSX is the principal exchange on which the Common Shares are traded.

The table shown below presents the high and low sale prices for the common shares and the average daily trading volumes, on a monthly basis, on the TSX and in aggregate on Canadian marketplaces for 2022.

Month	High C$	Low C$	TSX Average Daily Volume	Total Average Daily Volume[1]
January	36.17	30.16	2,123,747	4,063,850
February	37.17	31.31	1,614,782	2,668,406
March	43.52	36.81	2,119,571	3,801,052
April	44.96	33.83	2,154,587	3,695,169
May	36.81	31.24	2,060,926	3,578,441
June	38.91	23.29	2,857,474	4,923,810
July	26.71	19.11	3,805,799	6,517,801
August	26.50	20.67	2,433,574	3,935,415
September	24.89	20.68	2,504,154	4,042,277
October	26.72	22.89	3,246,663	5,651,993
November	33.56	25.27	2,849,266	4,563,832
December	32.89	25.93	2,716,447	4,495,784

[1] *Aggregate volume on all Canadian marketplaces*

Chart data per Bloomberg

DIRECTORS AND OFFICERS

The names and provinces or states and countries of residence of the directors and executive officers of the Company, positions held by them with the Company, and their principal occupations as at March 28, 2023, are set forth below. Each director is elected to hold office until the next annual meeting of shareholders of the Company or until his or her successor is elected or appointed.

Name, Residence and Office with the Company	Principal Occupation During the Previous Five Years	Commencement of Directorship[5]
Directors		
Andrew B. Adams[1][2][3][5] *Ontario, Canada* *Non-Executive Director*	Former Non-Executive Director of Torex Gold Resources Inc., and former Chairman of TMAC Resources Inc.	June 6, 2005
Alison Beckett[2][5] *Sevenoaks, UK* *Non-Executive Director*	Group Talent Director at Ardagh Group, Director at Sevenoaks School and Knole Academy. Former advisor providing leadership advisory services at Egon Zehnder	May 5, 2022
Robert J. Harding[1][2][3][5] *Ontario, Canada* *Non-Executive Director*	Former Director and Chairman of Brookfield Asset Management, Inc.; former Director and Chairman of Norbord, Inc.	May 7, 2013
Kathleen A. Hogenson[3][4][5] *Texas, USA* *Non-Executive Director*	President, Chief Executive Officer and Executive Director of Zone Oil & Gas Houston; Non-Executive Director at Verisk Analytics and a Director of Tamarack Valley Energy Ltd. Ms Hogenson also serves on the Advisory Board of The Women's Global Leadership Conference. Former director of Cimarex Energy	May 5, 2017
C. Kevin McArthur[4][5] *Nevada, USA* *Non-Executive Director*	Director of Royal Gold, Inc and Novagold Resources Inc. Former Director and Executive Chair of Tahoe Resources Inc., Non-Executive Chair of Boart Longyear Limited and Director of Pan American Silver Corp.	May 6, 2021
Anthony Tristan Pascall[5] *Bedfordshire, UK* *Chief Executive Officer and Director*	Chief Executive Officer of the Company. Previously General Manager Cobre Panamá, Group Director of Strategy and Investor Relations of the Company, and Chief Operating Officer for the Company	May 5, 2022
Philip K. R. Pascall[5] *Western Australia, Australia* *Chairman, Non-Executive Director*	Chairman of the Company. Former Chief Executive Officer of the Company	June 19, 1996
Simon J. Scott [1][4][5] *Surrey, United Kingdom* *Non-Executive Director*	Non-Executive Director of AngloGold Ashanti Holdings plc. and Sylvania Platinum Limited	May 3, 2018
Peter St. George[2][5] *New South Wales, Australia* *Non-Executive Director*	Non-Executive Director of Dexus Property Group	October 20, 2003
Joanne Warner[2][4][5] *New South Wales, Australia* *Non-Executive Director*	Non-Executive Director of Geo40 Limited and Deterra Royalties Limited; former Head of Global Resources for Colonial First State Global Asset Management	May 9, 2019

Executive Officers		
Rudi Badenhorst *Zambia, South Africa* *Chief Operating Officer*	Chief Operating Officer of the Company. Previously Director, Operations of the Company	N/A
John Gregory *Western Australia, Australia* *Group Consulting Mining Engineer*	Group Consulting Mining Engineer	N/A
Ryan MacWilliam *Greater London, United Kingdom* *Chief Financial Officer*	Chief Financial Officer of the Company. Previously Director Business Development and Investor relations of the Company and Chief Financial Officer of Nevsun Resources	N/A
Sarah Robertson *West Sussex, United Kingdom* *Corporate Secretary*	Corporate Secretary of the Company	N/A
Juliet Wall *Kent, United Kingdom* *General Manager, Finance*	General Manager, Finance of the Company	N/A
Zenon Wozniak *Western Australia*, *Australia* Director, Projects	Director, Projects for the Company	N/A

(1) Denotes member of Audit Committee.
(2) Denotes member of Human Resources Committee.
(3) Denotes member of Nominating and Governance Committee.
(4) Denotes member of Environmental, Health, Safety & CSR Committee
(5) Each director is elected to hold office until the next annual general meeting of the shareholders of the Company or until his successor is elected or appointed. "N/A" means "not applicable", as the individual is not a director.

Aggregate Ownership of Securities

As at December 31, 2022, and to the best of the knowledge of the Company, the current directors and executive officers of the Company, as a group, beneficially owned, directly or indirectly, or exercised control or direction over 6,750,511 Common Shares representing 0.97% of the issued and outstanding common shares of the Company. None of the directors or executive officers of the Company held shares of the Company's subsidiaries except shares required for qualification as a director of a subsidiary or where otherwise required under local law.

Corporate Cease Trade Orders and Bankruptcies

To the best of the knowledge of the Company, no current director or executive officer of the Company is at the date of the AIF, or has been within the ten years prior to the date of the AIF, a director or chief executive officer or chief financial officer of any issuer that was the subject of a cease trade or similar order or an order that denied the issuer access to any exemption under securities legislation that was in effect for a period of more than 30 consecutive days that was issued while that person was acting in that capacity or was issued after that person ceased to act in that capacity and resulted from an event that occurred while such person was acting in that capacity.

To the best of the knowledge of the Company, no current director, executive officer or shareholder holding a sufficient number of securities to materially affect control of the Company is at the date of the AIF, or within the ten years prior to the date of the AIF has been, a director or executive officer of any issuer that, while that person was acting in that capacity or within a year of that person ceasing to act in that capacity become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or was subject to or instituted any proceedings, arrangement, or compromise with creditors or had a receiver, receiver manager or trustee appointed to hold the assets of that person.

Penalties or Sanctions

To the best of the knowledge of the Company, no current director, executive officer or shareholder holding a sufficient number of securities to materially affect control of the Company had been subject to any penalties or sanctions imposed by a court relating to securities legislation or by a securities regulatory authority or has entered into a settlement agreement with a securities regulatory authority, or has been subject to any other penalties or sanctions imposed by a court or regulatory body that would likely be considered important to a reasonable investor in making an investment decision.

Personal Bankruptcies

As at the date hereof, and to the best of the knowledge of the Company, no current director, executive officer or shareholder holding a sufficient number of securities to materially affect control of the Company had, within the past ten years of the date of this AIF, become bankrupt, made a proposal under any legislation relating to bankruptcy or insolvency or became subject to or instituted any proceedings, arrangement or compromise with creditors, or had a receiver, receiver manager or trustee appointed to hold his or its assets.

Conflicts of Interest

Certain directors and officers of the Company are directors, officers and/or shareholders of other private and publicly listed companies, including companies that compete with the Company. To the extent that such other companies may participate in or be affected by ventures involving the Company, these directors and officers of the Company may have conflicting interests. While there is potential for such conflicts to arise, the Board has not received notice from any director or officer of the Company indicating that any material conflict currently exists. Conflicts of interest affecting the directors and officers of the Company will be governed by the BCBCA and other applicable laws. In the event that such a conflict of interest arises at a meeting of the Board, a director who has such a conflict must disclose the nature and extent of his interest and abstain from voting for or against matters concerning the venture. The Company maintains a Register of Related Party Transactions and Register of Related Party Employees, which is reviewed on a regular basis. To the best of the knowledge of the Company, no director or executive officer had an existing or potential material conflict of interest with the Company or its material subsidiaries.

LEGAL PROCEEDINGS

From time to time, the Company and its subsidiaries are involved in various claims, legal proceedings, investigations and complaints that arise in the ordinary course of business. The results of these pending or threatened claims, proceedings, investigations and complaints cannot be predicted with certainty and may ultimately be material to the Company. Set out below is a summary of the governmental, legal or arbitration proceedings (including any such proceedings which are pending or threatened of which the Company is aware) that the Company believes may have, or that have had during the prior fiscal year, a significant effect on the Company and/or the financial position or profitability of the Company.

Kansanshi Development Agreement

Through the Company's Zambian subsidiary KMP, it is party to a development agreement covering its Kansanshi operations (the ''Kansanshi Development Agreement'') with the GRZ. This agreement provides an express right to full and fair compensation for any loss, damages or costs (including interest) incurred by the Company by reason of the GRZ's failure to comply with the tax stability and VAT guarantees set out in the Kansanshi Development Agreement, which also provides rights of international arbitration in the event of any dispute. The GRZ announced in January 2008 a number of proposed changes to the tax regime in the country in relation to mining companies. The GRZ also passed legislation which affected the tax guarantees in the Kansanshi Development Agreement. The Company complied with the GRZ's demand and completed the payment of all back taxes, totalling $224 million, on June 27, 2011, in addition to $80 million paid in 2010, without prejudice to the Company's rights under the Kansanshi Development Agreement. Following the change

of the GRZ government in 2011, the first budget of the new GRZ government introduced a further increase in the mineral royalty tax from 3% to 6%, effective April 2012, in breach of the Kansanshi Development Agreement. In 2013, the GRZ also decreased the rate of Capital Allowances from 100% per annum to 25% per annum. Effective January 1, 2015, Zambia amended the corporate tax and mining royalty regime, under which the Company operates, by increasing revenue based royalties from 6% to 20% and reducing corporate taxes to 0% for open pit mining operations. On August 14, 2015, the GRZ then passed into law further changes to the taxation and royalty regime that became effective from July 1, 2015. The changes resulted in a decrease in mineral royalties to 9% for open pit mines from the 20% royalty rate that was enacted effective January 1, 2015. The changes also included the reinstatement of corporate tax to 30% with variable profits tax of up to 15%. Effective June 1, 2016, the GRZ implemented additional changes to the corporate tax and mining royalty regime which included the repeal of the variable profits tax at up to 15% applicable to profits from mining, corporate tax on profits from mining was retained at 30%, the reduction in the mining royalty rates for mining from 9% to a sliding scale of 4% to 6% depending on the LME monthly average copper price and the suspension of the 10% export duty on ores and concentrates for which there are no processing facilities in Zambia, which include for example nickel.

Further significant changes to the tax regime were implemented on January 1, 2019. These changes involved increasing the sliding scale mineral royalty on copper by 1.5% to between 5.5% and 7.5% dependent on the LME average monthly. New mineral royalty rates of 8.5% and 10% were introduced if the LME monthly average price exceeds $7,500 and $9,000 per tonne, respectively and mineral royalties were for a period of time no longer deductible for corporate tax purposes. In addition, an export levy of 15% was introduced on precious metals including gold. A 5% import duty was also introduced on copper concentrates.

Further changes to the tax code were made commencing 1 January 2020, including: reducing the capital expenditure allowance from 25% to 20%; decreasing the claimable VAT on diesel from 90% to 70%; introduction of a restriction on VAT claims on electricity at 80%; and denying claims of VAT on 100% of expenditure relating to spare parts, office costs, and lubricant for a period of time.

On February 20, 2020, KMP began the process of disengaging from a Stand Still agreement between KMP and the Government of the Republic of Zambia, under which the parties had a sixty-day cooling off and negotiation period before any arbitration may be commenced before the International Centre for Settlement of Investment Disputes (“ICSID”).

The Company has continued to assert it has rights arising from the Kansanshi Development Agreement, which rights remain unresolved.

On May 19, 2020, after completion of the Stand Still Agreement cooling off period, KMP filed a claim at ICSID against the GRZ. KMP’s claims arise from the Kansanshi Development Agreement and international law. The hearing in this matter is scheduled for July 2023. Pursuant to the wider reset arrangements concluded between the Company and GRZ in May 2022, the parties have agreed in principle to a settlement in respect of this arbitration. However, the effectiveness of the settlement is subject to the satisfaction of certain conditions precedent, which parties are currently working on to satisfy.

ZCCM-IH Minority Shareholder dispute

In October 2016, the Company, through its subsidiary Kansanshi Holdings Limited, received a notice of arbitration from ZCCM-IH under the KMP Shareholders Agreement. ZCCM-IH is a 20% shareholder in KMP and filed the notice of arbitration against Kansanshi Holdings Limited, the 80% shareholder, and against KMP. ZCCM-IH also launched a parallel suit in the Lusaka High Court, relating to the same facts but brought against the Company and certain named defendants, including FQM Finance Ltd ("FQM Finance"). In both, the arbitration and in the Lusaka Court proceedings, the claim was stated as a request for a derivative action, requiring ZCCM-IH to obtain permission from the Arbitral Panel and the Lusaka Court (respectively) to proceed with the claim in the name of KMP.

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 between 2007 and 2015. The funds on deposit 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 the 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-IH disputed that the interest rate paid to KMP on the deposits was sufficient.

By way of a Ruling dated February 22, 2018, and confirmed by a final award dated July 9, 2019, the arbitral tribunal denied permission to ZCCM-IH to maintain the derivative action. It was held that the permission request did not evidence dishonesty or loss to KMP so as to establish a prima facie case in the interest of KMP. The arbitration was thus dismissed, with costs against ZCCM-IH.

In the Lusaka Court action, ZCCM-IH's application was rejected by the Court of Appeal on October 15, 2018. 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.

Once the final arbitration award was rendered, it was registered as a judgement in Zambia on February 13, 2020. As a result of the registration, KMP brought an application against ZCCM-IH for abuse of process on grounds of multiplicity of proceedings and res judicata, since the very same facts and matters were already adjudicated by the Arbitral Panel seated in London. The Lusaka Court heard arguments in support of the application, and ZCCM-IH's opposition thereto, on October 2, 2019.

However, ZCCM-IH pursued a challenge to the registration of the arbitral award on grounds that it was not enforceable because it had complied with the costs payment order of the arbitral award. KMP opposed ZCCM-IH's challenge and made submissions to the Registrar that an arbitration award is eligible for registration despite compliance with costs orders. On February 13, 2020, the Registrar accepted KMP's position and dismissed ZCCM-IH's challenge to the registration of the Arbitration Award. Accordingly, the Lusaka High Court proceeded to rule on the abuse of process application. By way of a Ruling dated March 23, 2020, the Lusaka High Court agreed with KMP's application that the process, if it were to be allowed to continue before it, would risk conflicting judgements and would be res judicata. Accordingly, ZCCM-IH's derivative action case was dismissed, with costs to KMP against ZCCM-IH.

On June 5, 2020, ZCCM-IH filed its initial submission in the appeal. The Court of Appeal heard the matter on October 14, 2020 for which the parties exchanged written submissions. ZCCM-IH argued that the decision of the High Court was not a decision on the merits for the purposes of res judicata, nor does it bind the other defendants who were not parties to the arbitration. Kansanshi Holdings Limited ("KHL") argued that the final Arbitration Award signals that the matter was fully evaluated on the merits in so far as that particular cause of action (the derivative action) is concerned. As to the related defendants, KHL relied on authorities to show that they are the "privies" of the party which partook in the arbitration. The Court of Appeal delivered its judgment on January 13, 2021, dismissing all of ZCCM-IH's grounds of appeal with the exception of one ground but held that the determination of this ground would be inconsequential and therefore the matter was dismissed. The defendants were awarded costs. On January 27, 2021, ZCCM-IH filed a notice of motion for leave to appeal to the Supreme Court. A hearing on the matter was held on April 29, 2021 and the court denied the application.

On August 11, 2021, ZCCM-IH submitted a new summons for leave to appeal to the Supreme Court (single judge). KMP submitted its response on August 27, 2021 opposing leave to appeal.

On October 4, 2021 the Supreme Court dismissed ZCCM-IH's application in its entirety with costs awarded to KMP. On October 19, 2021, ZCCM-IH submitted a notice of motion for leave to appeal to a full bench (3 judges) of the Supreme Court. The hearing was held on January 18, 2022. The Supreme Court continues to reserve its Ruling.

Cobre Panamá

Supreme Court Ruling on the Constitutionality of Law 9

In February 1996, the Republic of Panamá and MPSA entered into a mining concession contract in respect of the Cobre Panamá project.

On February 26, 1997, Law 9 was passed by the Panamánian 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 Panamá project. On December 30, 2016, the Government of Panamá signed and issued Resolution No. 128 by which it extended the mining concession contract held by MPSA for a second 20-year term commencing March 1, 2017 up to February 28, 2037. Under the terms of the concession contract, the Company would be 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 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 Panamá project by MPSA.

In respect of the Supreme Court ruling on Law 9, the Company notes the following:

- The ruling entered into effect on December 22, 2021.
- The Supreme Court decision was in respect of legal filings made since 2009.
- 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 the applicable legislation at the time, namely Cabinet Decree 267 of 1969.
- The applicable Cabinet Decree 267 of 1969, repealed in 1997 by Law 9, required the Ministry of Commerce and Industry (the "MICI") to issue a request for proposals before awarding a mining concession in the concession area.
- Two Attorney Generals of Panamá provided formal opinions favourable to the constitutionality of Law 9 as required in this type of proceedings by Panamánian law.

- The Supreme Court ruling did not make a declaration as to the annulment of the MPSA mining concession contract.

Notwithstanding the foregoing, on March 8, 2023 MPSA and the Republic of Panamá announced that they had reached an agreement on the terms and conditions of a refreshed concession contract that will govern the relationship of the parties once following approval from the National Assembly of Panamá. The Proposed Concession Contract is expected to be presented before the Assembly after undergoing a thirty day public consultation process and receipt of all required prior governmental approvals.

Other Constitutional Proceedings

Separate to the Supreme Court ruling on the constitutionality of Law 9, unconstitutionality proceedings have been brought to the Supreme Court (comprised of a joinder of two separate proceedings dating back to 2015, one filed by the Suntracs Union, and one by Mr. Rafael Rodriguez) against article 1 of Law 9 and clause 8 of MPSA's mining concession contract (as approved by Law 9). The claimants to these proceedings allege that: (i) the constitution of Panamá requires that the Panamánian National Assembly grant its approval to contracts entered into between the state and a private entity; (ii) the Panamánian National Assembly´s second and third round votes for approval of MPSA's mining concession contract required absolute majority for its approval; (iii) clause 8 of MPSA's mining concession contract is contrary to certain provisions of the Panamánian Labour Code that restrict the use of foreign labour. The Company has been advised by external counsel that the processes of approval for MPSA's mining concession contract were correctly followed and the concession contract complies with Panamánian law.

As required in these types of proceedings by Panamánian law, the Attorney General of Panamá provided a formal opinion to the Supreme Court, dated January 2016. The Attorney General's opinion was favourable to the constitutionality of Law 9.

On August 3, 2021 the Supreme Court issued a declaration of "constitutional res judicata" based on the separate Supreme Court ruling that declared Law 9 to be unconstitutional. Such declaration became public and effective upon its publication in the Official Gazette on October 25, 2022. As a result, these proceedings have now closed.

Nullity Motions filed by third parties

Two claims have been lodged with the Supreme Court contesting the approval, granted in 2016 by the Government of Panamá, for the extension of MPSA's mining concession contract. These claims centre on the nature of rights accorded by the mining concession contract to Petaquilla Gold S.A, and the validity of certain assignments between MPSA and Petaquilla Gold, S.A. relating to the concession area and concession rights; and the process followed by the MICI in approving the extension of MPSA's mining concession contract.

The Company refutes the claims made in the aforementioned nullity motions and has been advised by external counsel that the extension process followed by the MICI in 2016 was correct. The Company has requested that both nullity motions be combined into one, the decision is pending. In both proceedings, the Attorney General of Panamá has previously provided a favourable formal opinion as to the legality of the resolution which approved the extension of MPSA's mining concession contract, as required for such proceedings under Panamánian law. Further procedural steps are pending prior to these proceedings reaching a final decision-making phase.

On January 11, 2023, the Attorney General filed motions requesting the Supreme Court issue a declaration of "constitutional res judicata" in both proceedings, based on the Supreme Court ruling that declared Law 9 to be unconstitutional. MPSA is challenging the Attorney General's motions.

Commercial Arbitration Proceedings

MPSA has noticed a commercial arbitration under the terms of the existing Concession Contract and the arbitration proceeding commenced on December 27, 2022. The arbitration is conducted under the arbitration rules of Inter-American Commercial Arbitration Commission ("IACAC"). The arbitration enforces the parties' agreement to arbitrate its disputes arising out of and in connection with the Concession Contract. The parties have each appointed their arbitrator and the process towards the appointment of the Arbitral Tribunal chairman had begun. In light of the parties' agreement on the terms of the Proposed Concession Contract, the parties executed a standstill agreement on March 10, 2023 to toll any applicable time periods and deadlines relating to the arbitration proceedings pending approval of the Proposed Concession Contract by the National Assembly of Panamá.

Investor State Arbitration Proceedings

On December 23, 2022, First Quantum submitted a letter to the Government of Panamá initiating the consultation period required under the Canada-Panamá Free Trade Agreement (FTA). Under the terms of the FTA, First Quantum and the Government of Panamá are required to engage for a period in consultations to resolve the dispute amicably before First Quantum may file a request for arbitration.

During the consultation period, the Company and the Government of Panamá reached an agreement on the terms of the Proposed Concession Contract, which will enter into effect following approval by the National Assembly of Panamá.

Kevitsa Tax Assessment

Following the sale of FQM Kevitsa Mining Oy (now Boliden Kevitsa Mining Oy, "Kevitsa Mining") to Boliden Mineral AB ("Boliden") in June 2016 pursuant to a share purchase agreement dated March 10, 2016 ("SPA"), the Company received a notice of intended claim letter from Boliden in May 2018 seeking indemnification pursuant to the provisions of the SPA in connection with a tax assessment for the period from 2012 to 2016 (the "Assessment") by the Finnish Tax Authority ("FTA") arising from a corporate restructuring that occurred in 2010. In December 2018, the FTA issued its assessment and determined that an amount of approximately €14.9 million was payable by Kevitsa Mining (including penalties and interest up until the due date for payment). In accordance with its rights under the SPA, the Company assumed supervision of the Assessment and submitted a formal appeal to the Assessment Adjustment Board in Finland in respect of the Assessment in accordance with FTA procedure in March 2019. That appeal was dismissed in March 2020. The Company filed an appeal to the Northern Finland Administrative Court in June 2020. That appeal was dismissed in March 2022. The Company applied for leave to appeal to the Supreme Administrative Court in Finland in May 2022. The Supreme Administrative Court dismissed the application for leave to appeal in October 2022. In December 2022, the Company applied to the Supreme Administrative Court for the reversal in accordance with the Finnish Administrative Judicial Procedure Act. That application is pending.

On April 9, 2020, Boliden and Kevitsa Mining commenced an application in the Ontario Superior Court of Justice for, among other things, a declaration that the Company was liable to indemnify Boliden and Kevitsa Mining for any losses arising from the Assessment and judgment in the Canadian dollar equivalent of €28,718,758 plus additional amount to be particularized at the hearing. On November 1, 2021, the Ontario court ruled in favour of Boliden with respect to the applicability of the indemnity (the "Judgment"). However, pursuant to the Judgment, the amount owing to Boliden was not to be calculated until all appeal rights from the Assessment were abandoned or finally resolved. The Company was ordered to pay the amount that had already been paid to or garnished by the FTA, being €8.6 million, which Boliden and Kevitsa Mining were required to hold in an interest-bearing account pending final disposition of all appeals from the Assessment. The Company's appeal of the Judgment to the Ontario Court of Appeal was dismissed on February 16, 2023. Pursuant to the Judgment, the final amount now owing by FQM to Boliden is to be calculated consensually in accordance with the Judgment and, failing such consensus, as determined by the Court.

MCM Tax Dispute

Mauritanian Copper Mines S.A. (“MCM”), a wholly owned subsidiary of the Company, operates in Mauritania pursuant to an establishment convention entered into on February 22, 2009, with the Mauritanian state (the “Convention”) relating to the exploitation of the Guelb Moghrein copper and gold mine. Since 2014, the Company has been subject to various annual tax assessments totaling approximately $102.5 million, approximately $75 million of which MCM has paid under protest and with full reservation of its legal rights, which it considers to be in violation of the Convention. Separately, for several years, there has been a dispute between MCM and the Mauritanian state regarding the proper calculation of royalties applicable on the Company’s sales revenues of copper and gold pursuant to the Convention. On February 15, 2021, MCM lodged a request for arbitration at ICSID in order to resolve the matters in dispute in accordance with the Convention. The hearing took place in Paris from February 6 to February 8, 2023. The parties have until April 2023 to file post-hearing submissions. A final award is expected by September 2023.

INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS

Other than as disclosed in this AIF and as set out below, the Company is not aware of any material interest, direct or indirect, of (i) any of the Company's directors or executive officers; (ii) any shareholder that is a direct or indirect beneficial owner of, or who exercises control or direction over, more than 10% of the voting rights attached to the common shares; or (iii) any associate or affiliate of the foregoing in any transaction which has been entered into within the Company's three most recent completed financial year or during the current financial year that has materially affected or will materially affect the Company.

Name of Shareholder	Voting Rights Held	Percentage of issued and outstanding voting rights
Jiangxi Copper Company Limited	126,842,671	18.39%
Capital Research Global Investors	74,839,406	10.84%

The foregoing information has been obtained by the Company through publicly-disclosed filings made by such persons or companies under applicable securities laws.

MATERIAL CONTRACTS

The following are the material contracts of the Company that are in effect as of the date of this AIF:

- Indenture dated February 27, 2018, between, among others, the Company, Citibank N.A., London Branch, as trustee, and certain subsidiaries of the Company, as guarantors, with respect to the 2024 Senior Notes, as supplemented. As announced on March 17, 2023 the Company has issued a notice of redemption on March 17, 2023 for the 2024 Notes to be redeemed on March 28, 2023. Therefore the Indenture dated February 27, 2018 will not be in effect after March 28, 2023.
- Indenture dated March 22, 2017, between, among others, the Company, Citibank N.A., London Branch, as trustee, and certain subsidiaries of the Company, as guarantors, with respect to the 7.50% Senior Notes due 2025, as supplemented.
- Indenture dated February 27, 2018, between, among others, the Company, Citibank N.A., London Branch, as trustee, and certain subsidiaries of the Company, as guarantors, with respect to the 6.875% Senior Notes due 2026, as supplemented.
- Indenture dated October 1, 2020, between, among others, the Company, Citibank, N.A., London Branch, as trustee, and certain subsidiaries of the Company, as guarantors, with respect to the 6.875% Senior Notes due 2027, as supplemented.
- Term and Revolving Facilities Agreement dated October 14, 2021 between, among others, the Company as borrower, certain subsidiaries of the Company as obligors, BNP Paribas as coordinating bookrunner, BNP Paribas, Bank of Montreal, London Branch, ING Bank N.V. and Societe Generale as bookrunner mandated lead arrangers, ABSA Bank Limited (acting through its Corporate and Investment Banking Division) as senior mandated lead arranger and BNP Paribas as agent and security agent.
- Term Facility Agreement dated December 2, 2022, between, among others, FQM Trident as borrower, the Company as guarantor, The Standard Bank of South Africa Limited (acting through its Corporate and Investment Banking Division) as mandated lead arranger and bookrunner, FirstRand Bank Limited (London Branch) as mandated lead arranger, ABSA Bank Limited (acting through its Corporate and Investment Banking Division) and NedBank Limited, London Branch as lead arrangers and The

Standard Bank of South Africa Limited (acting through its Corporate and Investment Banking Division) as agent.

- Amended and Restated Purchase and Sale Agreement dated January 19, 2018 between Franco-Nevada (Barbados) Corporation as purchaser, Minera Panamá S.A. as seller, the Company FQM Panamá Holdings I Ltd., FQM Panamá Holdings II Ltd., FQM Panamá Finance Limited, FQM Panamá Finance Holdings Limited, Korea Resources Corporation and Korea Panamá Mining Corp.

All other contracts entered into by the Company (or still in effect) during the course of 2022, were in the ordinary course of business for the Company. Such contracts are not material when considered in the context of the Company's business and the industry within which it operates. Certain contracts which have been entered into in the ordinary course of business and which relate to the operations of the Company are described earlier in this AIF.

INTERESTS OF EXPERTS

The following persons prepared or contributed to a report under NI 43-101, referenced earlier in this AIF, John Gregory, Group Consultant, Mining, of the Company (*Review of all Operations and Development Projects)*;

(i) David Gray, of the Company (*see 'Operations – Kansanshi';' Operations – Cobre Las Cruces'; 'Operations – Guelb Moghrein'; 'Operations – Sentinel'; 'Development Projects – Enterprise', 'Operations – Cobre Panamá';*) *'Advanced Exploration Projects – Taca Taca';*
(ii) Michael Lawlor, of the Company (*see 'Operations – Kansanshi'; 'Operations – Sentinel'; 'Development Projects – Enterprise'; 'Operations – Cobre Panamá'*); *'Advanced Exploration Projects – Taca Taca'*;
(iii) Robert Stone (*see 'Operations – Cobre Las Cruces; 'Operations – Cobre Panamá'*);
(iv) Juan Manuel Escobar Torres, of Cobre Las Cruces S.A.U. (see '*Operations – Cobre Las Cruces'*)

(v) Anthony R. Cameron, of Cameron Mining Consulting Ltd. (*see 'Operations – Guelb Moghrein'; 'Operations – Ravensthorpe'*);
(vi) Richard Sulway, Independent contractor (*see 'Operations – Ravensthorpe'*);
(vii) Andrew Briggs, of the Company (*see 'Operations – Kansanshi'; 'Operations – Sentinel'; 'Development Projects – Enterprise'*);'*Advanced Exploration Projects – Taca Taca';*
(viii) Joseph Boaro, of the Company (*see 'Operations – Çayeli'; 'Operations – Pyhäsalmi'*); and

(ix) Mikko Numminen, of the Company (*see 'Operations – Pyhäsalmi'*).

To the best of the knowledge of the Company, none of the individuals noted above owns in excess of 1% of the Common Shares or any interest in any other property of the Company.

The Company's auditors are PricewaterhouseCoopers LLP (Canada) ("PwC Canada"), Chartered Professional Accountants, located at PwC Tower, 18 York Street, Suite 2600, Toronto, Ontario, M5J 0B2, who have prepared an independent auditor's report dated February 14, 2023 in respect of the Company's consolidated financial statements as at December 31, 2022 and 2021 and for the years then ended. PwC Canada has advised that they are independent with respect to the Company within the meaning of the Chartered Professional Accountants of Ontario CPA Code of Conduct.

TRANSFER AGENT AND REGISTRAR

The Company's transfer agent is Computershare Investor Services Inc., which is located at 3rd Floor, 510 Burrard Street, Vancouver, British Columbia, Canada, V6C 3C9. The Company's register of transfer is located in Vancouver.

AUDIT COMMITTEE DISCLOSURE

Audit Committee – General

The Audit Committee operates under the guidelines of the Audit Committee Charter which is reproduced later in this AIF. The Audit Committee, among other things, reviews the annual financial statements of the Company for recommendation to the Board, reviews and approves the quarterly financial statements, oversees the annual audit process, the Company's internal accounting controls and the resolution of issues identified by the Company's external auditors, and recommends to the Board the firm of independent auditors to be nominated for appointment by the shareholders at the next annual general meeting. In addition, the Audit Committee meets annually with the Company's external auditors, both with and without the presence of any other members of the Company's management.

Composition of the Audit Committee

The Audit Committee is comprised of the following three independent directors who are financially literate as defined by National Instrument 52-110 – *Audit Committees*: Messrs. Scott, Adams and Harding. The Chairman of the Audit Committee is Mr. Scott.

Relevant Education and Experience of the Audit Committee

Mr. Scott is a Chartered Accountant and holds degrees in both accounting and commerce from the University of the Witwatersrand in South Africa. He is currently an independent Non-Executive Director of AngloGold Ashanti Holdings plc. and Sylvania Platinum Limited. His early career was spent in various financial positions, including as CFO Southern Africa for JP Morgan Chase. Mr. Scott has some 20 years of experience in the mining industry. Between 2010 and 2016, he was Chief Financial Officer of Lonmin plc, a London Stock Exchange listed platinum mining company and was acting CEO between 2012 and 2013. Prior to that, Mr. Scott was Chief Financial Officer of Aveng Limited a Johannesburg Stock Exchange listed construction company providing products and services to the mining industry globally. Mr. Scott also held a variety of senior management positions in Anglo American Platinum Limited including as acting CFO.

Mr. Adams obtained his BSc (Accounting and Statistics) from Southampton University and then qualified as a chartered accountant in the United Kingdom in 1981. He is a former independent Chairman of TMAC Resources Inc. He has over 25 years of financial experience in the mining industry, and served as Non-Executive Director of Torex Gold Resources Inc. for more than a decade and Chief Financial Officer of Aber Diamond Corporation from 1999 to 2003. Mr. Adams worked for the Anglo American group of companies for 12 years, including Vice President and Chief Financial Officer of AngloGold North America from 1995 to 1999.

Mr. Harding graduated with a Bachelor of Mathematics from the University of Waterloo in 1980 and received his Chartered Accountant designation the following year. Mr. Harding began his career at a major accounting firm before joining Hees International (now Brookfield) where he served in progressively senior roles including Controller, Chief Financial Officer, Chief Operating Officer, and ultimately, Chief Executive Officer in 1992. He previously served on the Boards of Manulife Financial Corporation and NexJ Systems Inc.

Principal Accounting Firm Fees

From time to time, PwC Canada also provides advisory and other non-audit services to the Company and certain of its subsidiaries, the details of which are summarized below. As a policy, the Company does not engage its auditors to provide services in connection with internal audit and financial information systems design and implementation. Also as a matter of policy, all non-audit related services are pre-approved by the Audit Committee.

The following table summarizes fees billed by PwC Canada during the last two financial years:

	December 31, 2022	December 31, 2021
Audit Fees	2,100,463	1,736,835
Audit-Related Fees[1]	67,801	351,460
Tax Fees	—	—
All Other Fees[2]	14,985	42,186
Total	2,183,249	2,130,481

[1] Audit-related fees relate to services for subsidiaries with non-controlling interests and other regulatory reviews, and in 2021 also include fees related to financing arrangements.
[2] All other fees relate to other services including information technology tool fees.

The Audit Committee considered whether the provision of the above-captioned services was compatible with maintaining auditor independence and determined that such services were fully compatible with the maintenance of the auditor's independence.

Pre-Approval Policies

The Audit Committee has considered and adopted a pre-approval policy in respect of non-audit services performed by its auditors. The Audit Committee's charter provides that the Audit Committee must approve in advance the provision of non-audit services by the Company's auditors. This is done at the beginning of each financial year. Under the pre-approval policy of the Company, its auditors are required to prepare a quarterly statement regarding the assignments accepted by them including non-audit services. In addition, the auditors must notify the Chairman of the Audit Committee of any non-audit service the fees for which (i) exceed a pre-determined amount per assignment and (ii) exceed pre-determined increments thereafter.

Audit Committee Charter

The actual text of the Audit Committee's charter is set out in Exhibit "A" to this AIF.

ADDITIONAL INFORMATION

Additional information about the Company may be found on SEDAR at *www.sedar.com.*

Further information, including particulars of directors' and officers' remuneration and indebtedness, principal holders of the Company's securities, and securities authorized for issuance under equity compensation plans is contained in the Company's information circular for its most recent annual meeting of holders of Common Shares. Additional financial information is provided in the Company's most current consolidated financial statements and MD&A, copies of which have been filed with the securities commissions in each Canadian province in which the Company is a reporting issuer and which is available on SEDAR at *www.sedar.com*.

Contact information for the Company is as follows:

First Quantum Minerals Ltd., Suite 2600, Three Bentall Centre, 595 Burrard Street, P.O Box 49314, Vancouver BC V7X 1L3, Canada, telephone**:** (416) 361–6400, fax: (416) 368-4692, e-mail: info@fqml.com, website: www.first-quantum.com.

EXHIBIT "A"
AUDIT COMMITTEE CHARTER

1. OVERALL PURPOSE / OBJECTIVES

The audit committee (the "Audit Committee") of the board of directors (the "Board") is established by the Board and is responsible for assisting the Board with respect to independent review and oversight of the Company's financial reporting process, the system of internal control and management of financial risks, and the audit process, including the nomination, oversight and compensation of the Company's external auditors. The Audit Committee will also assist the Board in fulfilling its responsibilities in reviewing the Company's process for monitoring compliance with laws and regulations and the Company's Employee Code of Conduct.

2. AUTHORITY

The Board authorizes the Audit Committee, within the scope of its responsibilities to seek any information it requires from any officer or employee and from external parties and following appropriate consultation with the Chairman or lead independent director to retain independent external legal or professional counsel and other experts at the Company's expense and to require the attendance of Company officers at meetings as appropriate. The Board has delegated the approval of the interim financial statements and related MD&A to the Audit Committee. In performing its duties, the Audit Committee will maintain effective working relationships with the Board, management, internal audit and the Company's external auditors.

3. ORGANIZATION

3.1 Membership

3.1.1 The Audit Committee shall be comprised of at least three members of the Board. Each Audit Committee member shall be "independent" according to all applicable standards of independence under applicable laws, regulations, rules and stock exchange requirements or guidelines.

3.1.2 All members shall, to the satisfaction of the Board, be financially literate. For this purpose, "financially literate" has the meaning in applicable securities legislation.

3.1.3 At least one member of the Committee shall have accounting or related financial management expertise, as the Board interprets such qualification in its business judgement.

3.1.4 The chairman of the Audit Committee (the "Chairman") will be appointed by the Board, and in his or her absence, nominated by the Audit Committee from time to time.

3.1.5 No business may be transacted by the Committee at a meeting, unless a quorum is present. A quorum for any meeting will be a majority of the members.

3.2 Attendance at Meetings

3.2.1 Meetings shall be held not less than four times a year. Special meetings shall be convened as required. The Chairman or any two members of the Committee may call a meeting. Either auditors or management may request that the Audit Committee convene a meeting if they consider that it is necessary.

3.2.2 The Audit Committee may invite such other persons to its meetings as it deems appropriate.

3.2.3 The external auditors will be present at each quarterly Audit Committee meeting, unless otherwise requested by the Chairman, and are expected to provide comment on the financial statements and their work in relation to the financial statements and other disclosure documents in accordance with their professional standards. The auditors will also have direct access to the Audit Committee without the need to use management as a conduit.

3.2.4 The proceedings of all meetings will be minuted.

3.2.5 The secretary for meetings of the Audit Committee will be appointed by the Chairman.

3.3 Role of Chairman

The Chairman of the Audit Committee shall preside over meetings of the Audit Committee, assist in co-ordination of the agenda and materials for Audit Committee meetings, co-ordinate the discharge of the Audit Committee's responsibilities under this Charter and provide reports of the Audit Committee to the Board.

4. ROLES AND RESPONSIBILITIES

The Audit Committee will:

4.1 Review with the auditors and management the adequacy and effectiveness of the Company's controls over financial reporting;

4.2 Make inquiries of management, internal audit and the external auditors to gain an understanding of the current areas of greatest financial risk and review with management the Company's strategies for the management of significant financial risk and contingent liabilities (including the use of hedges, derivative instruments and any other similar risk management technique) with a view to assessing whether management is managing those risks effectively;

4.3 The Committee shall review and approve on an annual basis the mandate and annual internal audit plan of the internal audit department and discuss with management the internal audit budget and staffing. The Committee shall recommend management to make changes it deems advisable in respect of the internal audit function.

4.4 Recommending to the Board policies relating to maintaining and improving the financial health and integrity of the Company;

4.5 Review the confirmation of compliance with the Company's policies on controls over financial reporting;

4.6 Review significant accounting and reporting issues, including recent professional and regulatory pronouncements, and understand their impact on the financial statements;

4.7 Report to the Board with regard to the adequacy of the Company's ratings, given its ongoing business and financial outlook;

4.8 Review any legal matters which could significantly impact the financial statements and meet with external counsel whenever deemed appropriate;

4.9 Meet with management and the external auditors to review, and approve the quarterly interim financial statements, including management's discussion and analysis ("MD & A"), as well as earnings press releases~~;~~

4.10 Meet with management and the external auditors to review, and, if appropriate, recommend to the Board for approval, the audited annual and MD & A and earnings press releases;

4.11 Be satisfied adequate procedures are in place for the review of the public disclosure of financial information extracted or derived from the issuer's financial statements and periodically assess the adequacy thereof;

4.12 Oversee the work of the external auditor engaged for the purpose of preparing or issuing an auditor's report or performing other audit, review or attest services for the Company, including the resolution of disagreements between management and the external auditor regarding financial reporting;

4.13 Review the external auditors' proposed audit scope and approach, particularly with respect to any unjustifiable restrictions or limitations within the proposed scope;

4.14 Review the performance of the external auditors;

4.15 Approve any permissible non-audit engagements of the external auditor in accordance with applicable laws and policies;

4.16 Consider the independence of the external auditors, including reviewing the range of services provided in the context of all consulting services bought by the Company. The Audit Committee will obtain from the external auditors, on an annual basis, a formal written statement delineating all relationships between the external auditors and the Company which could be seen to bear on the independence of the auditors;

4.17 Set hiring policies for employees or former employees of the external auditors;

4.18 Make recommendation to the Board regarding the selection, evaluation, and, if and when appropriate, replacement of the external auditors, subject to approval of shareholders as required by applicable law;

4.19 Review and approve the appropriate audit engagement fees for the external auditors, and recommend to the Board such fees for approval;

4.20 Require that the external auditors report directly to the Audit Committee and are made accountable to the Board and the Audit Committee;

4.21 Meet separately with the external auditors, at least quarterly, without management present to discuss any matters that the Audit Committee or external auditors believe should be discussed privately, including the results of the external auditors' review of the adequacy and effectiveness of the Company's accounting and financial controls;

4.22 Endeavour to cause the receipt and discussion on a timely basis of any significant findings and recommendations made by the external auditors;

4.23 Obtain regular updates from management regarding compliance matters, as well as periodic certificates from the Chief Financial Officer as to required statutory payments and bank covenant compliance~~;~~.

4.24 Monitor compliance with the Company's Employee Code of Conduct;

4.25 Make the Board aware of matters which may significantly impact the financial condition or affairs of the business;

4.26 Perform other functions as requested by the Board;

4.27 Annually review and update the Audit Committee Charter and recommend approval of such changes from the Board; and

4.28 Create specific procedures for the receipt, retention and treatment of complaints and/or allegations regarding the Company's accounting, internal accounting controls and auditing matters. These procedures will include, among other things, provisions for the confidential treatment of complaints and/or allegations and anonymity for employees desiring to make submissions. The details of such whistleblower procedures will be described in the Company's Code of Conduct and available on the Company's website.

LAST UPDATED: May 2021