

TOWARDS A BETTER  
TOMORROW

邁向美好明天



**JINCHUAN 金川**

**Jinchuan Group International Resources Co. Ltd**  
**金川集團國際資源有限公司**

(Incorporated in the Cayman Islands with limited liability)  
(於開曼群島註冊成立之有限公司)  
(Stock Code 股份代號 : 2362)

**年報 2022**  
**ANNUAL REPORT**

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## Geographic Location of JCI Mines 金川國際礦區地理位置分佈

### Operating Mines 營運礦場



#### 1. Ruashi Mine/Ruashi礦場

Ruashi Mine is an open-pit mining operation located in the DRC, and has been producing copper cathode and cobalt hydroxide since 2009. Copper cathode and cobalt hydroxide are sold to global commodities traders. Ruashi Mine produced 30,353 tonnes of copper and 3,961 tonnes of cobalt respectively in 2022.

Ruashi礦場是位於剛果(金)的露天礦場，自二零零九年起生產電解銅及氫氧化鈷，並將其出售予全球大宗商品貿易商。Ruashi礦場於二零二二年分別生產30,353噸銅及3,961噸鈷。



#### 2. Kinsenda Mine/Kinsenda礦場

Kinsenda Mine is an underground mine located in the DRC which produces high grade copper concentrate. Produced 29,087 tonnes of copper content in concentrates in 2022. Kinsenda Mine is one of the world's highest grade copper deposits with an average reserves grade of 5.8%.

Kinsenda礦場為位於剛果(金)的地下礦場，生產高品位銅精礦。於二零二二年生產29,087噸銅含量精礦。Kinsenda礦場作為全球品位最高的銅礦床之一，銅儲量平均品位為5.8%。

### Development Project 開發項目



#### 3. Musonoi Project/Musonoi項目

Musonoi Project is a high grade copper-cobalt deposit in the DRC, which is an underground mine under construction and will be producing copper cathode and cobalt hydroxide. According to feasibility study, Musonoi Project has a total mine life of 19 years.

Musonoi項目是位於剛果(金)之高品位銅鈷礦床，該項目正處於建設之中，將以地下礦方式開採，生產電解銅及氫氧化鈷。根據可行性研究，Musonoi項目的礦場壽命共19年。

### Exploration Project 勘探項目



#### 4. Lubembe Project/Lubembe項目

Lubembe Project is located in the DRC, 30km to the south of Kinsenda Mine. Further metallurgical testwork is performed in 2021 to optimise processing circuit and LoM copper recoveries. Mineral Resources model was updated in December 2021 with majority of Mineral Resources upgraded from inferred category to indicated category.

Lubembe項目位於剛果(金)，位於Kinsenda礦場以南30公里。於二零二一年進一步完成冶金測試工作，以優化加工流程及礦場開採期的銅回收率。於二零二一年十二月，礦產資源量模型更新，成功將大部份礦產資源量從推斷級別提升至控制級別。

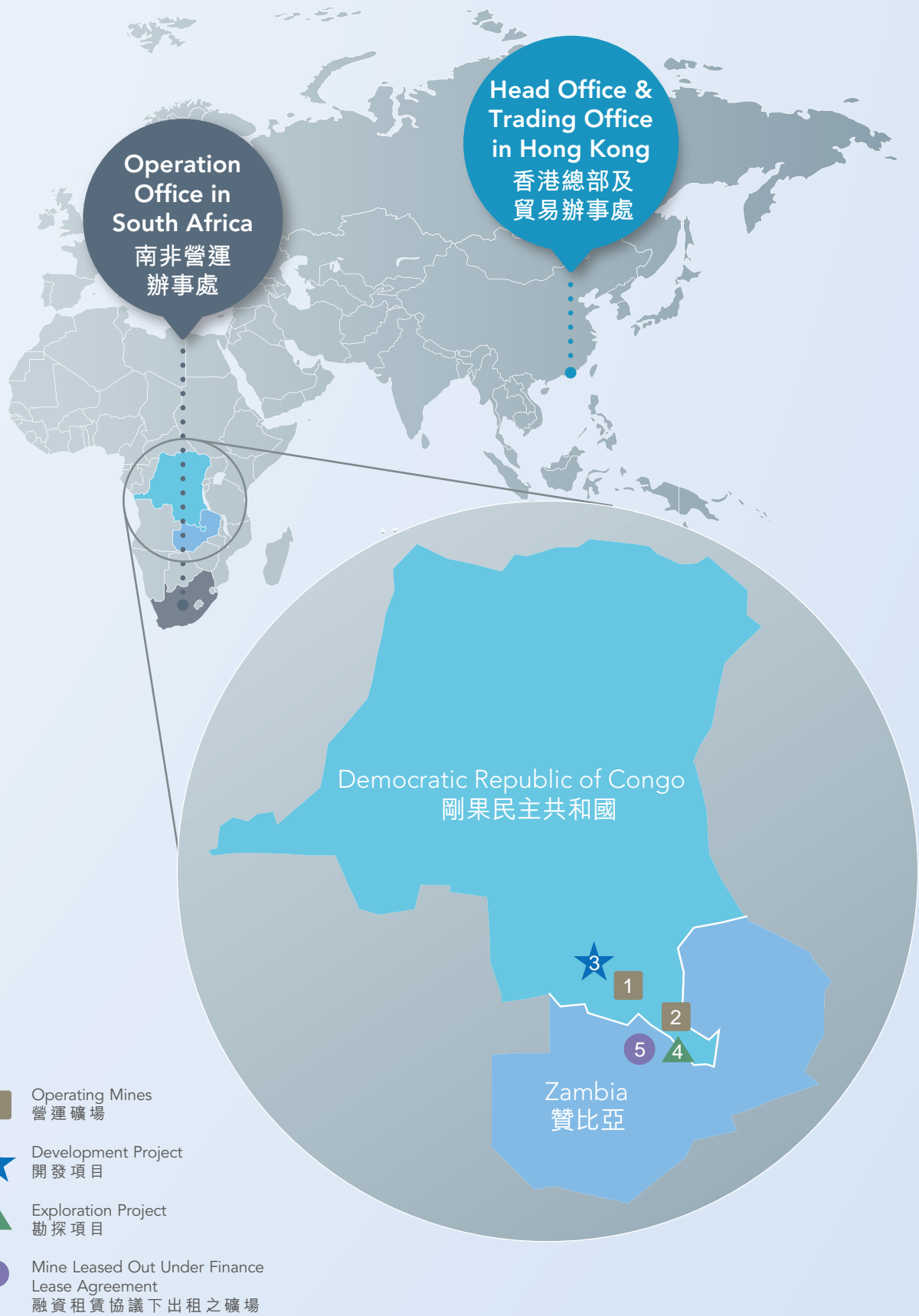
### Mine Leased Out Under Finance Lease Agreement 融資租賃協議下出租之礦場



#### 5. Chibuluma South Mine (including Chifupu Deposit)/ Chibuluma南礦場(包括Chifupu礦床)

Chibuluma South Mine and Chifupu Deposit are located in Zambia. In December 2020, Chibuluma entered into a lease agreement with an independent third party to lease out the mining assets including the Chifupu Deposit for a fixed rental fee plus a flexible royalty fee payable calculated base on amount of copper extracted and sold.

Chibuluma南礦場及Chifupu礦床位於贊比亞。於二零二零年十二月，Chibuluma與獨立第三方訂立租賃協議，出租包括Chifupu礦床在內的採礦資產，代價為固定租賃費用外加按產出及出售銅礦產計算的浮動礦權使用費。



## BOARD OF DIRECTORS

### Executive Directors

Mr. CHENG Yonghong (Chairman of the Board)<sup>4</sup>

Mr. GAO Tianpeng (Chief Executive Officer)

### Non-executive Directors

Ms. CAI Juan (Former Chairlady of the Board)<sup>1</sup>

Mr. ZHANG Youda (Former Chairman of the Board)<sup>2</sup>

Mr. LIU Jian

Mr. WANG Qiangzhong

### Independent Non-executive Directors

Mr. YEN Yuen Ho, Tony

Mr. POON Chiu Kwok

Mr. YU Chi Kit

Ms. HAN Ruixia<sup>5</sup>

## COMPANY SECRETARY

Mr. WONG Hok Bun Mario (FCPA, CFA)

## AUTHORISED REPRESENTATIVES

Mr. GAO Tianpeng

Mr. WONG Hok Bun Mario

## AUDIT COMMITTEE

Mr. POON Chiu Kwok (Chairman)

Mr. YEN Yuen Ho, Tony

Mr. YU Chi Kit

Ms. CAI Juan<sup>1</sup>

Mr. ZHANG Youda<sup>2</sup>

Mr. CHENG Yonghong<sup>3</sup>

## REMUNERATION AND NOMINATION COMMITTEE

Mr. YEN Yuen Ho, Tony (Chairman)

Mr. POON Chiu Kwok

Mr. YU Chi Kit

Mr. ZHANG Youda<sup>2</sup>

Ms. CAI Juan<sup>1</sup>

Mr. CHENG Yonghong<sup>3</sup>

Mr. LIU Jian

## RISK MANAGEMENT COMMITTEE

Mr. YEN Yuen Ho, Tony (Chairman)

Mr. POON Chiu Kwok

Mr. YU Chi Kit

Ms. CAI Juan<sup>1</sup>

Mr. ZHANG Youda<sup>2</sup>

Mr. CHENG Yonghong<sup>3</sup>

Mr. GAO Tianpeng

## STRATEGY AND INVESTMENT COMMITTEE

Mr. CHENG Yonghong (Chairman)<sup>4</sup>

Ms. CAI Juan (Former Chairlady)<sup>1</sup>

Mr. ZHANG Youda (Former Chairman)<sup>2</sup>

Mr. LIU Jian

Mr. GAO Tianpeng

## 董事會

### 執行董事

程永紅先生(董事會主席)<sup>4</sup>

郜天鵬先生(行政總裁)

### 非執行董事

蔡娟女士(前董事會主席)<sup>1</sup>

張有達先生(前董事會主席)<sup>2</sup>

劉建先生

王權忠先生

### 獨立非執行董事

嚴元浩先生

潘昭國先生

余志傑先生

韓瑞霞女士<sup>5</sup>

## 公司秘書

黃學斌先生(FCPA, CFA)

## 授權代表

郜天鵬先生

黃學斌先生

## 審核委員會

潘昭國先生(主席)

嚴元浩先生

余志傑先生

蔡娟女士<sup>1</sup>

張有達先生<sup>2</sup>

程永紅先生<sup>3</sup>

## 薪酬及提名委員會

嚴元浩先生(主席)

潘昭國先生

余志傑先生

張有達先生<sup>2</sup>

蔡娟女士<sup>1</sup>

程永紅先生<sup>3</sup>

劉建先生

## 風險管理委員會

嚴元浩先生(主席)

潘昭國先生

余志傑先生

蔡娟女士<sup>1</sup>

張有達先生<sup>2</sup>

程永紅先生<sup>3</sup>

郜天鵬先生

## 戰略及投資委員會

程永紅先生(主席)<sup>4</sup>

蔡娟女士(前主席)<sup>1</sup>

張有達先生(前主席)<sup>2</sup>

劉建先生

郜天鵬先生

<sup>1</sup> appointment with effect from 19 February 2022 and resignation with effect from 21 April 2022

<sup>2</sup> resignation with effect from 19 February 2022

<sup>3</sup> appointment with effect from 21 April 2022

<sup>4</sup> redesignated from member to Chairman with effect from 21 April 2022

<sup>5</sup> appointment with effect from 20 July 2022

<sup>1</sup> 委任於二零二二年二月十九日生效及辭任於二零二二年四月二十一日生效

<sup>2</sup> 辭任於二零二二年二月十九日生效

<sup>3</sup> 委任於二零二二年四月二十一日生效

<sup>4</sup> 由成員調任為主席，於二零二二年四月二十一日生效

<sup>5</sup> 委任於二零二二年七月二十日生效

#### REGISTERED OFFICE

Cricket Square, Hutchins Drive  
P.O. Box 2681  
Grand Cayman KY1-1111  
Cayman Islands

#### HEAD OFFICE AND PRINCIPAL PLACE OF BUSINESS IN HONG KONG

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United Centre  
95 Queensway  
Hong Kong

#### INDEPENDENT AUDITOR

Deloitte Touche Tohmatsu  
Certified Public Accountants  
Registered Public Interest Entity Auditors  
35/F, One Pacific Place  
88 Queensway  
Hong Kong

#### CAYMAN ISLANDS PRINCIPAL SHARE REGISTRAR AND TRANSFER OFFICE

Conyers Trust Company (Cayman) Limited

#### HONG KONG BRANCH SHARE REGISTRAR AND TRANSFER OFFICE

Boardroom Share Registrars (HK) Limited

#### COMPANY WEBSITE

[www.jinchuan-intl.com](http://www.jinchuan-intl.com)

#### INVESTOR RELATIONSHIP

Ms. Sherry TANG  
[ir@jinchuan-intl.com](mailto:ir@jinchuan-intl.com)

#### STOCK CODE

2362

#### MAJOR BANKERS

China Development Bank Corporation  
The Export-Import Bank of China  
Bank of China (Hong Kong) Limited  
Bank of China Limited Macau Branch  
Bank of China Limited, Johannesburg Branch  
Bank of China (Zambia) Limited  
The Hongkong and Shanghai Banking Corporation Limited  
Bank of Communications Co., Ltd  
DBS Bank Limited  
BNP Paribas  
China Construction Bank Corporation  
Standard Bank  
First National Bank  
Rawbank  
Trust Merchant Bank  
Banque Commerciale Du Congo (BCDC)  
Banque Internationale Pour l'Afrique Au Congo (BIAC)  
Barclays Bank (Z) Plc  
Afriland First Bank  
Zambia National Commercial Bank Plc  
Standard Chartered Bank (Z) Plc  
Standard Chartered Bank

#### 註冊辦事處

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P.O. Box 2681  
Grand Cayman KY1-1111  
Cayman Islands

#### 總辦事處暨香港主要營業地點

香港  
金鐘道95號  
統一中心  
31樓3101室

#### 獨立核數師

德勤•關黃陳方會計師行  
執業會計師  
註冊公眾利益實體核數師  
香港  
金鐘道88號  
太古廣場一座35樓

#### 開曼群島主要股份過戶登記處

Conyers Trust Company (Cayman) Limited

#### 股份過戶登記處香港分處

寶德隆證券登記有限公司

#### 公司網址

[www.jinchuan-intl.com](http://www.jinchuan-intl.com)

#### 投資者關係

湯曉雪女士  
[ir@jinchuan-intl.com](mailto:ir@jinchuan-intl.com)

#### 股份代號

2362

#### 主要往來銀行

國家開發銀行  
中國進出口銀行  
中國銀行(香港)有限公司  
中國銀行股份有限公司澳門分行  
中國銀行有限公司約翰內斯堡分行  
中國銀行(贊比亞)有限公司  
香港上海滙豐銀行有限公司  
交通銀行股份有限公司  
星展銀行有限公司  
法國巴黎銀行  
中國建設銀行股份有限公司  
標準銀行  
第一國民銀行  
Rawbank  
信託商業銀行  
剛果商業銀行  
剛果非洲國際銀行  
巴克萊銀行贊比亞分行  
非洲第一銀行  
贊比亞國家商業銀行  
渣打銀行贊比亞分行  
渣打銀行



Cheng Yonghong  
程永紅

Chairman of the Board  
董事會主席

DEAR SHAREHOLDERS,

I would like to sincerely thank the shareholders who have shown their concern and support to JCI over the years. On behalf of the Board, I would like to present to the shareholders the annual report of the Company for the year 2022.

尊敬的各位股東：

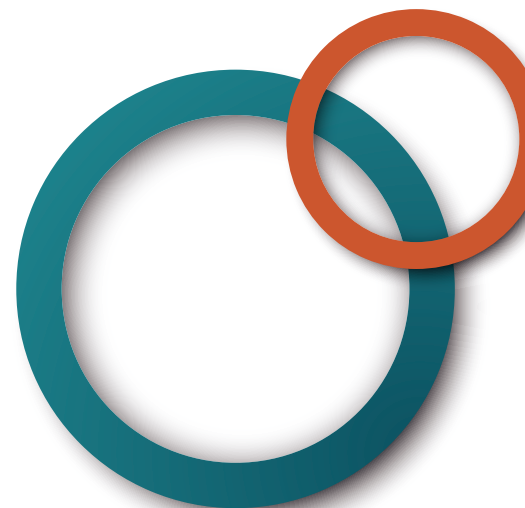
衷心感謝各位股東長期以來對金川國際的關注與支持。我謹代表公司董事會向各位股東呈報本公司二零二二年度報告。

In 2022, the global economy encountered a series of severe shocks superimposed over one another. Against the background where the impact of the COVID-19 pandemic still reverberating around the world, the war in Ukraine has triggered a new crisis that has disrupted food and energy markets. Sustained high inflation rate prompted a sharp tightening of monetary policy in numerous developed and developing countries. The United States Federal Reserve's continuous interest rate hikes have increased the pressure on the balance of international receipts and disbursements, which exacerbated the risk of debt sustainability. The ongoing challenges in the supply chain alongside the industrial chain have led to a weakening of global trade. In addition, suffering from the prominent contradiction of commodity supply as well as the drastically fluctuating prices, cobalt prices fell rapidly, whereas copper prices rebounded slightly at the end of the year but failed to reach the expected level.

During the reporting period, JCI's production and operation remained smooth and orderly, producing 59,440 tonnes of copper and 3,961 tonnes of cobalt throughout the year. The Group achieved a revenue of US\$881.6 million for the year, representing a year-on-year increase of 5.97%, and realised a profit attributable to shareholders amounted to US\$1.03 million. The mining engineering of Musonoi Project was completed ahead of schedule, while the concentration engineering was progressing smoothly. In terms of deep processing, the Group finalised the tendering for purchasing and construction contracts.

二零二二年，世界經濟遭遇了一系列嚴重且相互疊加的衝擊。在新冠肺炎疫情的影響仍在世界各地迴蕩的情況下，烏克蘭戰爭引發了一場新的危機，擾亂了糧食和能源市場；持續的高通貨膨脹促使許多發達國家和發展中國家大幅抽緊銀根；美國聯邦儲備局儲連續加息增加了國際收支壓力，加劇了債務可持續性風險；持續的產業鏈供應鏈挑戰，導致全球貿易疲軟；大宗商品供給矛盾突出，價格大幅波動，鈷價快速下降，銅價在年末雖略有反彈但一直未及預期。

報告期內，金川國際生產經營平穩有序。全年生產銅59,440噸，鈷3,961噸；全年實現收入88,160萬美元，同比增長5.97%；實現歸屬股東盈利103萬美元；Musonoi項目採礦工程超計劃完成，選礦工程進展順利，深加工完成採購合同及建築合同定標。





The Board will continue to work relentlessly to achieve the magnificent objective of building JCG Group's overseas resources flagship platform and developing the Company into a world-class mining company. The Company shall further strengthen investor relationship management and maintain market capitalization; optimise shareholder structure and enhance market liquidity; actively carry out resource sustainability and continue to consummate the surrounding geological prospecting and the acquisition of new resource projects; reinforce its administration to improve economic scale; accelerate the construction progress of Musonoi Project, initiate the trial stope of the mining project on schedule, start the stand-alone commissioning of the concentration project, and complete all the civil engineering and steel structure construction for deep processing. We will also continue to explore appropriate opportunities for merger and acquisition in pursuit of expansion of the Company's scale and revitalise JCG footprints in overseas.

Looking forward into 2023, the Hong Kong stock market which has been exposed to exhaustless headwinds is expected to rebound. From the perspective of profit as a numerator, the PRC's economy is gradually recovering, while overseas economies may enter recession; from the perspective of valuation as the denominator, overseas inflation and liquidity have relieved, driving the valuation repair. With the rise of Eastern countries and the decline of the West, the influx of global funds may increase the exposure of Hong Kong stock market in capital allocation. On the whole, the recovery of the PRC's economy in 2023, combined with the downward pressure of US\$ and United States treasury securities in terms of interest rates, will empower the Hong Kong stocks with more flexibility.

**CHENG Yonghong**  
*Chairman of the Board*

23 March 2023

董事會將繼續朝著全力打造金川集團海外資源旗艦平台，將本公司發展成為世界級礦業公司的宏偉目標而踔厲前行。公司要進一步加強投資者關係管理，做好市值維護；優化股東結構，提升市場流動性；積極開展資源接續，持續做好周邊地質找礦和新資源項目獲取工作；加強管理，提升經濟規模；加快Musonoi項目建設進度，採礦工程按期開始試回採，選礦工程開始單機試車，深加工完成全部土建及鋼結構施工；繼續尋找合適的收併購機會，擴大公司規模，再造海外金川。

展望二零二三年，利空出盡後的港股有望迎來曙光。從分子端盈利來看，中國經濟逐步復甦，海外經濟或步入衰退。從分母端估值來看，海外通脹和流動性緩解，推動估值修復。東升西落，全球資金或提升對港股配置權重。整體上，二零二三年中國經濟復甦，疊加美元美債息下行，將賦予港股更大的彈性。

**程永紅**  
*董事會主席*

二零二三年三月二十三日



Gao Tianpeng  
郟天鵬

Chief Executive Officer  
行政總裁

#### DEAR SHAREHOLDERS,

On behalf of the Board of JCI, I announce that the Group has recorded a profit in 2022 despite copper and cobalt prices experienced a sharp drop in the second quarter of 2022 and maintained at a low level in the second half of 2022. The drop in commodity prices was a big challenge to the Group and has heavily impacted the Group's revenue in 2022.

Starting 2022 on a positive where copper price recorded an all-time high of US\$10,700 per tonne in March and cobalt price reached a recent year high of approximately US\$40 per pound in April, the market supply for both copper and cobalt was tight as global logistics arrangement was disrupted due to COVID-19 complication and other factors.

#### 尊敬的各位股東：

本人代表金川國際董事會宣佈，儘管銅鈷價格在二零二二年第二季度急劇下挫並於二零二二年下半年於低位運行，本集團仍於二零二二年實現盈利。大宗商品價格下跌對本集團而言頗具挑戰，嚴重影響本集團二零二二年度營收。

二零二二年實現良好開局，銅價在三月份創下每噸10,700美元的歷史新高，而鈷價則在四月份升至每磅約40美元的近年高點。由於新冠肺炎疫情和其他不同原因，全球物流斷續不止，致使銅鈷市場供應持續緊張。

However, in the second quarter of 2022, the outspread of COVID-19 in the PRC, the beginning of US\$ appreciation, increase in global interest rate, market uncertainty caused by Ukraine-Russia war had affected long term investments incentive and causing a drop in demand for commodities, including copper and cobalt. Copper and cobalt prices recorded a significant drop of 20% and 19% respectively in a single quarter. Copper price then traded relatively stable between the range of US\$7,000 to US\$8,500 per tonne in the second half of 2022. However, in the case of cobalt, price dropped further by another 40% in the second half of 2022 due to sufficient market supply as logistics gradually resumed normal and relatively weak market demand for EV materials in view of the cessation of subsidy for new energy vehicles in the PRC effective from January 2023.

JCI's production in 2022 was not interrupted by COVID-19 complication but the delivery of goods out of the DRC was heavily impacted by additional quarantine requirement under COVID-19, the disruption of labour strike and water flood in South Africa's Durban port and the shortage of truck and vessel for transporting goods, especially in the first half of 2022, when commodity prices were relatively high.

With global supply chain remain constrained, the Group's delivery time to the customers located in Far East Asia was longer than normal. The Group agreed with several customers to adopt a longer quotation period under this abnormally long delivery period. Compounded with the unfavourable price movement during the longer quotational period, the previous recognised provisional price was revised downwards and caused a further decrease in revenue recognised.

Global logistics gradually resumed normal in the second half of 2022 and the Group was able to send out more goods in the second half of the year, but the lower market copper and cobalt prices were not in the Group's favour.

然而，二零二二年第二季度，新冠肺炎肆虐中國、美元開始升值、全球加息以及俄烏戰爭帶來的市場不確定性影響了長期投資意願，導致大宗商品(包括銅鈷)需求下降。銅鈷價格單季度分別暴跌20%及19%。隨後於二零二二年下半年，銅價相對穩定在每噸7,000美元至8,500美元的區間。然而，鈷價則持續疲弱，於二零二二年下半年進一步下挫40%，歸因於物流逐步恢復常態導致市場供應充足，以及鑑於中國自二零二三年一月起取消新能源汽車購置補貼，電動汽車材料市場需求相對疲軟。

金川國際在二零二二年的生產並未因新冠肺炎影響而中斷，但由於新冠肺炎下的額外檢疫要求、南非德班港口的罷工和水災及運貨卡車、船舶短缺，從剛果(金)交付貨物至境外受到嚴重影響，尤其於二零二二年上半年大宗商品價格相對較高之時。

由於全球供應鏈持續受到制約，本集團向遠東亞洲客戶的交貨時間長於正常情況。在此異常漫長的交貨期下，本集團與數名客戶協定採納較長的作價期。疊加較長作價期內的不利價格變動，先前確認的臨時價格被下調，導致確認收益進一步減少。

隨著二零二二年下半年全球物流逐漸恢復正常，本集團下半年能夠發出更多貨物，惟市場銅鈷價格走低對本集團不利。

Copper price has rebounded by 6% in the first quarter of 2023 (up till 23 March 2023) and was trading above US\$9,000 per tonne for a period of time. With the PRC reopening its border to the world and economy recovering from COVID-19, industrial activities started to gradually resume operations. Governments around the globe are launching incentive programs to revitalise their economy and more infrastructure projects and construction work are to be launched under the program. Copper, being one of the critical materials for construction and infrastructure, will definitely benefit from the incentive programs.

Meanwhile, global copper market was tight with LME copper inventory level remained at low level. Supply disruption at the two largest copper producer, Chile and Peru, caused by labour strike, community road blockage, etc have gone more frequent. Las Bambas, a Peru copper mine producing 2% of global copper supply, has suspended production for one month time in February 2023 due to protest from the community. Antapaccay, another major Peru copper mine, has also suspended production for 11 days in early 2023 due to community protests. Codelco, Chile's state-owned entity and the world's largest copper producer, experienced a nation wide labour strike in June 2022.

Supply from other part of the world was also impacted by government intervention. The Panama Government has halted Cobre Panama's loading permission and Cobre Panama, a copper mine producing 400,000 tonnes of copper per annum, has suspended processing since February 2023. The DRC Government has suspended copper and cobalt export of a major DRC mine demanding the revisit of historic shareholders' contract and royalty arrangement.

The long term supply of copper is forecasted to remain tight as exploration investments in the past few years were low under COVID-19 and global copper mines' feed grade are decreasing in recent years, limiting the growth in copper supply in longer term. At the same time, Chile and Peru are proposing new taxes on miners which deter further investment in the two major copper mining countries.

JCI will continuously monitor its exposure to market price movement and will adjust its marketing strategies accordingly.

銅價在二零二三年第一季度(截至二零二三年三月二十三日)反彈6%，成交價一度高於每噸9,000美元。隨著中國邊境重新開放以及經濟從新冠肺炎疫情中復甦，工業活動開始逐步恢復正常。全球各國政府均在出台激勵計劃以振興經濟，更多基礎設施項目和建設工程將在該等計劃下啟動。銅作為建築和基礎設施的關鍵材料之一，無疑將會從激勵計劃中受益。

與此同時，全球銅市場吃緊，倫金所銅庫存水平保持於低位。勞工罷工、社區道路阻塞等問題造成兩大產銅國智利及秘魯的供應中斷。佔全球銅供應量2%的秘魯Las Bambas銅礦因受到社區抗議影響，該銅礦曾於二零二三年二月停產一個月。秘魯另一大銅礦Antapaccay也因社區抗議而於二零二三年初停產11天。二零二二年六月，智利國有企業及全球最大的銅生產商Codelco亦曾經歷了全國範圍的罷工。

世界其他地區的供應亦受到政府干預的影響。巴拿馬政府已叫停年產400,000噸銅的Cobre Panama銅礦場的裝貨許可，自二零二三年二月起暫停冶煉。剛果(金)政府亦已暫停一家主要礦山的銅銻出口，勒令其重訂歷史股東協議及權利金結構。

由於過去幾年在新冠肺炎疫情環境下的勘探投資較低，且近年來全球銅礦的入廠品位持續下降限制銅長期供應增長，故預計銅的長期供應將維持緊張。與此同時，智利及秘魯擬對礦業施行新稅制，令有意於兩大銅礦開採國投資的各方望而卻步。

金川國際將持續監測因市場價格變動而面臨的敞口，並將相應調整營銷策略。

The construction of the Group's core Musonoi copper-cobalt project was also in full steam in 2022. Musonoi copper-cobalt project contains a total reserves of 606kt of copper and 174kt of cobalt and the average grade of 0.9% cobalt reserves ranks Musonoi Project as one of the highest grade cobalt mines in the world. The addition of Musonoi Project to our operating portfolio will further enhance our copper and cobalt production volume and the Group's leading cobalt producer status in the world. With the support from JCG, our parent company, in mine planning, technological design and project financing, and together with our recent successful experience in the construction of Kinsenda Mine in the DRC, we believe Musonoi Project can be completed in a cost effective and timely manner.

In the year, the geologist and mining engineering team completed a redesign of Ruashi Mine's pit shell and has include more mineable ore in the new pit shell design, further extending Ruashi Mine's LoM. The Group's metallurgy team at Kinsenda Mine has further increase its processing capacity and have increased its daily production volume.

On the financing side of the Group, the Group is gradually repaying its outstanding bank and shareholders' loans with the healthy cashflow from Ruashi Mine and Kinsenda Mine. The Group successfully secured a US\$350 million, 10 years long loan facility with CDBC for the construction of the new Musonoi Project and an accumulative amount of US\$120 million was drawn from the facility.

More efforts was placed towards new business development and resources upgrading. We have assessed several merger and acquisition opportunities, in particular southern Africa which was close to our existing mines to look for synergy. We will continually, prudently and actively pursue any new business development opportunity.

At last, I would like to take this opportunity to express my deepest gratitude to all the shareholders, my fellow directors, management team and staff of the Group for their support and contributions to the Group throughout the year.

**GAO Tianpeng**  
Chief Executive Officer

23 March 2023

本集團的重點Musonoi銅鈷礦項目的建設於二零二二年亦全速進行。Musonoi銅鈷礦項目的總儲量為606千噸銅及174千噸鈷。Musonoi項目儲量的平均鈷品位為0.9%，為全球品位最高的鈷礦之一。Musonoi項目投入營運後將進一步提高我們的銅鈷產量並鞏固本集團在全球鈷生產商中的領先地位。憑藉我們母公司金川於礦場規劃、技術設計及項目融資方面的支持，外加我們近期於剛果(金)建設Kinsenda礦場的成功經驗，我們相信，Musonoi項目可以經濟高效且及時地完成。

年內，地質和採礦工程團隊完成了對Ruashi礦場邊界範圍的重新規劃，並在新的邊界範圍設計中納入更多可開採礦石，進一步延長了Ruashi礦場的礦場開採期。本集團在Kinsenda礦場的冶金團隊進一步提升了冶煉能力，日產量得以提高。

就本集團融資方面而言，本集團憑藉於Ruashi礦場及Kinsenda礦場產生的健康現金流逐步償還未結清的銀行及股東貸款。本集團已成功於國開行獲得350百萬美元的10年期長期貸款融資，用於建設新Musonoi項目，累計合共於該項融資額提取120百萬美元。

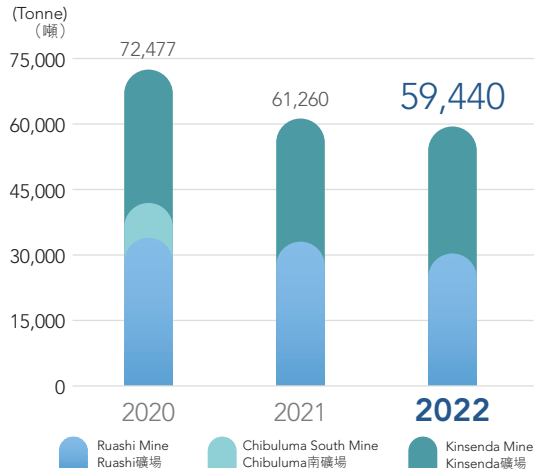
我們繼續致力發展新業務及提升資源量。我們已評估若干併購機會，特別是在靠近我們現有礦場的非洲南部，以尋求協同發展。我們將持續、審慎而積極地尋求任何新的業務發展機會。

最後，本人藉此機會向全體股東、各董事、本集團管理團隊及員工於年內為本集團帶來的鼎力支持及作出的貢獻致以衷心謝意。

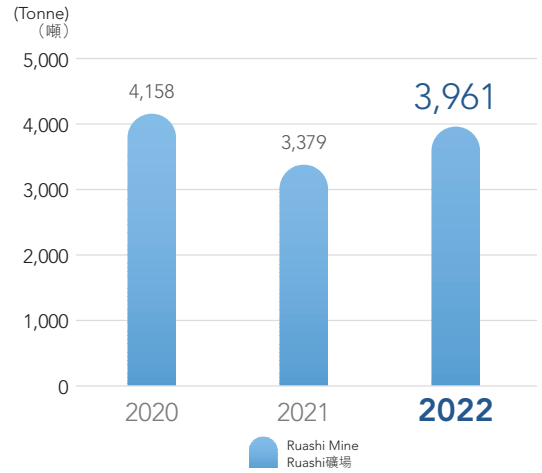
**鄧天鵬**  
行政總裁

二零二三年三月二十三日

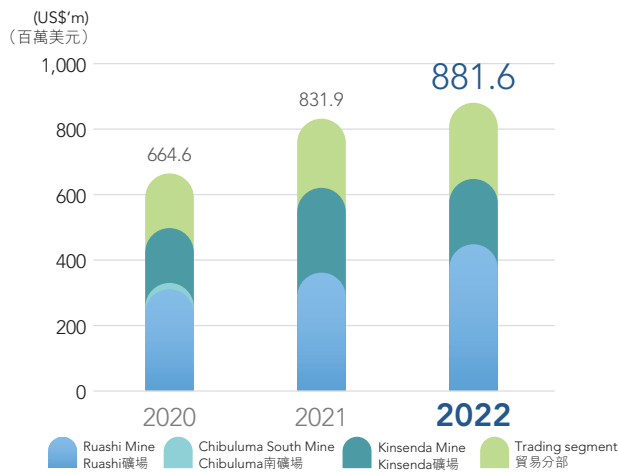
COPPER PRODUCTION  
銅產出量



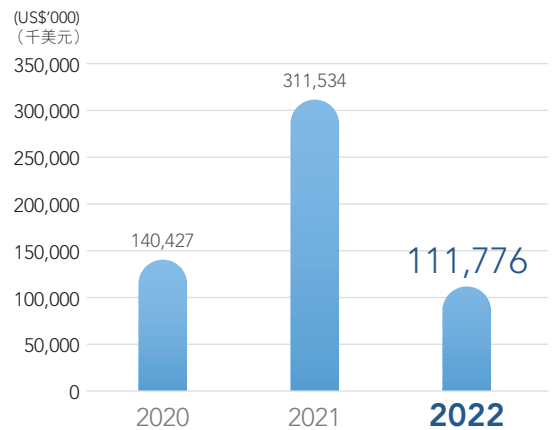
COBALT PRODUCTION  
鈷產出量



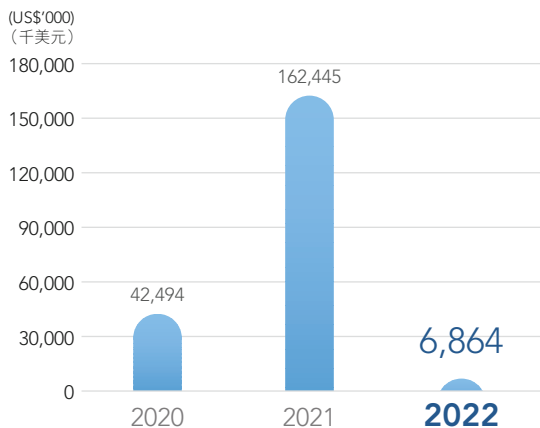
REVENUE  
收益



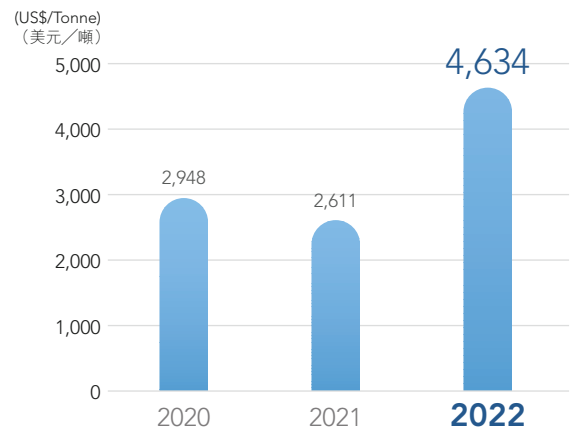
EBITDA  
除息稅折舊攤銷減值前溢利



PROFIT FOR THE YEAR  
年內溢利



C1 CASH COST PER TONNE OF COPPER  
(including by-product credit)  
每噸銅的C1現金成本(包括副產品抵扣)



The Group's mining operations include two operating mines (Ruashi Mine and Kinsenda Mine), one project at development stage (Musonoi Project), one advanced exploration project (Lubembe Project) and one mine leased out under finance lease agreement (Chibuluma South Mine (including Chifupu Deposit)).

本集團採礦業務包括兩座營運礦場(Ruashi礦場及 Kinsenda礦場)、一個處於開發階段的項目(Musonoi項目)、一個後期勘探項目(Lubembe項目)及一個根據融資租賃協議出租的礦場(Chibuluma南礦場(包括 Chifupu礦床))。

### OPERATING MINES

### 營運礦場

#### Ruashi Mine

#### Ruashi礦場



Ruashi Processing Plant  
Ruashi冶煉廠

#### Overview

- Mine type: open-cast oxide copper and cobalt mine with sulphide potential underneath
- Location: Lubumbashi, Haut Katanga Province, the DRC
- Ownership: JCI (75%), Gécamines SA (25%)
- Processing: leach SX-EW processing
- Products: copper cathode, cobalt hydroxide
- LoM: 9 years
- Resources: 614kt Cu, 74kt Co
- Reserves: 299kt Cu, 32kt Co

#### 概覽

- 礦場類型：露天氧化銅鈷礦，深部有潛在的硫化物
- 地點：剛果(金)上加丹加省蘆本巴希
- 所有權：金川國際(75%)，Gécamines SA (25%)
- 冶煉：SX-EW浸出加工
- 產品：電解銅，氫氧化鈷
- 礦場開採期：9年
- 資源量：614千噸銅，74千噸鈷
- 儲量：299千噸銅，32千噸鈷

## Operational Review

Ruashi Mine's copper production volume decreased by 8% from 33,063 tonnes in the year ended 31 December 2021 to 30,353 tonnes in the year ended 31 December 2022 due to the drop in ore feed grade while cobalt production volume increased by 17% from 3,379 tonnes in 2021 to 3,961 tonnes in 2022 as the Group has successfully procured more foreign ore with high grade cobalt in 2022. Ruashi Mine focused on cobalt production in the first half of 2022.

Feed ore processed in 2022 was mainly from Ruashi's mine pits, inventory stockpile and floatation plant, Ruashi also processed 104,806 tonnes of foreign ore with high grade cobalt content. Leach feed processed in 2022 was 1,413,934 tonnes and 6% lower as compared to 2021 of 1,505,628 tonnes. Leach feed grade was 2.62% TCu and 0.42% TCo in 2022 as compared to 2.72% TCu and 0.38% TCo in 2021.

A total of 2,480,135 tonnes of ore was mined in 2022, which was an 21% increase compared to 2,054,098 tonnes in 2021. Ruashi Mine accelerated the depletion of Pit 1 to create dumping space for waste from Pit 3. Higher ore mining activities will continue into 2023.

Production and sales summary for Ruashi Mine:

## 營運回顧

Ruashi礦場的銅產量由截至二零二一年十二月三十一日止年度的33,063噸減少8%至截至二零二二年十二月三十一日止年度的30,353噸，乃主要由於礦石入廠品位下降，而鈷產量由二零二一年的3,379噸增加17%至二零二二年的3,961噸，乃由於本集團於二零二二年成功採購更多含高鈷品位的外購礦石。Ruashi礦場於二零二二年上半年專注生產鈷。

於二零二二年，入廠礦石大部分來自Ruashi的礦坑、庫存礦石堆及浮選廠。Ruashi亦冶煉104,806噸高品位鈷含量的外購礦石。二零二二年所處理的入廠浸出液為1,413,934噸，較二零二一年的1,505,628噸下降6%。於二零二二年，入廠浸出液品位含2.62%總銅及0.42%總鈷，二零二一年則為2.72%總銅及0.38%總鈷。

於二零二二年，合共採出2,480,135噸礦石，較二零二一年的2,054,098噸增加21%。Ruashi礦場加速耗減一號礦坑，騰出空間放置三號礦坑之廢石。採礦活動於二零二三年將維持高位。

Ruashi礦場的生產及銷售概要：

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年	2021 二零二一年
<b>PRODUCTION:</b>	<b>產量：</b>		
Copper (t)	銅(噸)	30,353	33,063
Cobalt (t)	鈷(噸)	3,961	3,379
<b>PRODUCT SOLD:</b>	<b>產品銷量：</b>		
Copper (t)	銅(噸)	35,150	27,930
Cobalt (t)	鈷(噸)	4,496	2,617
<b>REVENUE – including provisional pricing adjustment:</b>	<b>收益 – 包括臨時定價調整：</b>		
Copper (US\$'000)	銅(千美元)	288,524	255,128
Cobalt (US\$'000)	鈷(千美元)	160,910	106,613
Total (US\$'000)	總計(千美元)	449,434	361,741
Average copper price realised (US\$/t)	平均實現銅價(美元/噸)	8,208	9,135
Average cobalt price realised (US\$/t)	平均實現鈷價(美元/噸)	35,790	40,738

\* Ruashi's products include copper cathode and cobalt hydroxide. The production and sales volume shown in the above table were calculated in metal content, with selling prices equivalent to the metal prices. Pricing coefficients were considered in actual sales price.

\* Ruashi的產品包括電解銅及氫氧化鈷。上表中顯示的產量及銷量以金屬含量計算，而銷售價格相等於金屬價格。於實際銷量中已考慮定價係數。



Ruashi produced 30,353 tonnes (2021: 33,063 tonnes) of copper in 2022, representing a 8% decrease as compared to 2021. The average copper feed grade in 2022 was 2.62% which was 4% lower compared to 2.72% in 2021. Copper recovery rate was 82.07% which was 2% higher than 80.77% in 2021 due to the higher copper solubility of feed ores.

Ruashi produced 3,961 tonnes (2021: 3,379 tonnes) of cobalt in 2022, representing a 17% increase compared to 2021. Leached tonnages in 2022 was 6% lower than 2021 but was offset by a higher feed grade of 0.42% in 2022, representing a 11% increase as compared to 0.38% recorded in 2021. The higher feed grade from foreign ore resulted in higher cobalt production. Cobalt recovery rate of 65.92% in 2022 was 12% higher compared to 59.03% in 2021, due to the higher cobalt solubility of feed ores and the blending of higher grade foreign ore together with Ruashi Mine's self-mined ore.

The average realised copper price for 2022 was US\$8,208 per tonne (2021: US\$9,135 per tonne), which was 10% lower than 2021. The decrease was in line with the decrease in average market copper price in 2022.

The average realised cobalt price for 2022 was US\$35,790 per tonne (2021: US\$40,738 per tonne), which was 12% lower than 2021. Benchmark MB cobalt price has decreased by 44% from 31 December 2021 to US\$18.75 per pound at 31 December 2022, and compounding with the decrease in market cobalt hydroxide coefficient, results in the decrease in average realized cobalt price. Also, due to logistics limitation in the DRC in the first half of 2022, more sales was delivered towards the end of the year where market cobalt price was at a lower point.

Overall revenue in 2022 was 24% higher than in 2021. Copper revenue increased by 13% due to higher volume of copper sold in 2022 partly offset by lower realised prices in 2022. Cobalt revenue in 2022 was 51% higher when compared to 2021 as a result of higher volume sold, offset by a lower realised cobalt price in 2022.

Ruashi's main mining license (PE578) was renewed for a period of 15 years in 2021 and will expire in September 2036.

The capital expenditure of Ruashi Mine in 2022 was US\$10.9 million which included US\$6.1 million for the magnetic separation and floatation plant construction and US\$1.3 million relating to Pit 3 waste stripping.

二零二二年 Ruashi 生產 30,353 噸銅 (二零二一年：33,063 噸)，較二零二一年減少 8%。二零二二年平均銅入廠品位為 2.62%，與二零二一年 2.72% 相比低 4%。銅回收率為 82.07%，較二零二一年 80.77% 上升 2%，乃由於入廠礦石的銅溶解度較高。

二零二二年 Ruashi 生產 3,961 噸鈷 (二零二一年：3,379 噸)，較二零二一年上升 17%。二零二二年浸出礦石量較二零二一年下降 6%，惟獲二零二二年入廠品位提升至 0.42% 所抵銷，較二零二一年所錄得 0.38% 上升 11%。外購礦石入廠品位較高，導致產出鈷產品增加。二零二二年鈷回收率為 65.92%，較二零二一年的 59.03% 上升 12%，乃由於入廠礦石鈷溶解度較高及高品位的外購礦石與 Ruashi 礦場自家採出的礦石混合。

二零二二年平均實現銅價為每噸 8,208 美元 (二零二一年：每噸 9,135 美元)，較二零二一年減少 10%。該減少與二零二二年銅的平均市價減少一致。

二零二二年平均實現鈷價為每噸 35,790 美元 (二零二一年：每噸 40,738 美元)，較二零二一年下降 12%。金屬導報鈷基準價由二零二一年十二月三十一日下降 44% 至二零二二年十二月三十一日每磅 18.75 美元，加上市場氫氧化鈷計價系數下跌導致平均實現鈷價減少。此外，由於二零二二年上半年於剛果(金)之物流限制，於市場鈷價處於較低點的年底交付多數銷售。

二零二二年的整體收益較二零二一年增加 24%。銅收益增加 13%，乃由於二零二二年銅銷量較高，惟部分受到二零二二年較低實現價格所抵銷。二零二二年鈷收益較二零二一年增加 51%，乃由於二零二二年銷量上升及受較低實現鈷價所抵銷。

Ruashi 的主要採礦許可證 (PE578) 已於二零二一年重續 15 年，且將於二零三六年九月屆滿。

二零二二年 Ruashi 礦場的資本開支為 10.9 百萬美元，當中包括磁浮選廠建設的 6.1 百萬美元及三號礦坑廢石剝採的 1.3 百萬美元。

Ruashi Mine completed the construction of a 600kt per annum floatation and magnetic separation plant which is targeted to treat low grade oxide and sulphide material via magnetic separation and floatation. The successful construction of the floatation and magnetic separation plant will further increase the mine life of Ruashi. This plant was completed at the end of 2021 and 530,045 tonnes of low grade oxide ore were processed through the floatation plant in 2022, producing a total of 132,383 tonnes of oxide concentrate for further processing in the SX-EW circuit.

Ruashi礦場完成建設每年60萬噸處理量之浮選及磁性分離工廠，旨在通過磁性分離及浮選技術處理低品位氧化物及硫化物材料，且成功建設浮選及磁性分離工廠將進一步提高 Ruashi礦場壽命。該工廠於二零二一年年底完工，且於二零二二年透過浮選廠處理530,045噸低品位的氧化礦，共生產132,383噸氧化精礦供SX-EW系統進一步處理。

### Kinsenda Mine

### Kinsenda礦場



Kinsenda Processing Plant  
Kinsenda加工廠

#### Overview

- Mine type: underground copper mine
- Location: Haut Katanga Province, the DRC
- Ownership: JCI (77%), Sodimico (23%)
- Product: copper concentrates
- LoM: 12 years
- Resources: 950kt Cu
- Reserves: 221kt Cu

#### 概覽

- 礦場類型：地下銅礦
- 地點：剛果(金)上加丹加省
- 所有權：金川國際(77%)，Sodimico (23%)
- 產品：銅精礦
- 礦場開採期：12年
- 資源量：950千噸銅
- 儲量：221千噸銅

**Operational Review**

Production and sales summary for Kinsenda Mine:

**營運回顧**

Kinsenda礦場的生產及銷售概要：

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年	2021 二零二一年
<b>PRODUCTION:</b> Copper (t)	<b>產量：</b> 銅(噸)	<b>29,087</b>	28,197
<b>PRODUCT SOLD:</b> Copper (t)	<b>產品銷量：</b> 銅(噸)	<b>29,589</b>	29,071
<b>REVENUE – including provisional pricing adjustment:</b> Copper (US\$'000)	<b>收益 – 包括臨時定價調整：</b> 銅(千美元)	<b>199,383</b>	258,897
Average copper price realised (US\$/t)	平均實現銅價(美元/噸)	<b>6,738</b>	8,906

\* Kinsenda Mine's only product in 2022 was copper concentrate while Kinsenda Mine produced copper concentrate and copper blister in 2021. The production volume shown in the above table represents the copper content in concentrates produced, the sales volume shown in the above table were calculated in metal content in concentrates and blister sold, with selling prices equivalent to the metal prices. Pricing coefficients were considered in actual sales volume.

\* Kinsenda礦場產品於二零二二年僅為銅精礦，而Kinsenda礦場於二零二一年生產銅精礦及粗銅。上表中顯示的產量指所生產精礦的銅含量，上表中顯示的銷量以所出售銅精礦及粗銅之金屬含量計算，而銷售價格相等於金屬價格。於實際銷量中已考慮定價係數。

Kinsenda Mine ranks one of the world's highest grade copper deposits and has good access to infrastructure, with a single-lane road connecting the mine to the regional highway 20 km to the west of the site. Current mine life is 12 years and there exists substantial additional ore resources that could extend the mine life to 20 years and beyond.

Kinsenda礦場是全球最高品位的銅礦床之一，貫接道路基建之情況良好(有一條單行道連接礦場至礦區西部20公里的區域高速公路)。現礦場壽命為12年，且其含大量新增礦石資源可將礦場壽命延長至20年及以上。

Kinsenda Mine produced 29,087 tonnes of copper content in concentrate in 2022, 3% higher than 2021 at 28,197 tonnes. The increase in production volume was mainly due to 6% higher throughput, offset by 4% lower average feed grade of 4.25% in 2022 as compared to 4.41% in 2021. Overall recovery rate of 94.29% in 2022 was 1% higher than 93.8% in 2021. Kinsenda Mine's processing plant milled a total of 725,157 tonnes of ore in 2022 which was a record high and exceeded its nameplate capacity of 600,000 tonnes per annum.

Kinsenda礦場於二零二二年生產29,087噸銅含量精礦，較二零二一年的28,197噸增加3%。產量增加乃主要由於處理量提升6%，惟受二零二二年平均入廠品位4.25%較二零二一年平均入廠品位4.41%下跌4%所抵銷。二零二二年整體回收率94.29%較二零二一年93.8%上升1%。Kinsenda礦場的加工廠於二零二二年總共處理725,157噸礦石，創下記錄並超過每年600,000噸標示產能。

Kinsenda Mine recorded copper revenue of US\$199.4 million in 2022, 23% lower than US\$258.9 million in 2021, due to lower average realised copper price, offset by 2% increase in sales volume. The average realised copper price at Kinsenda Mine was US\$6,738 per tonne in 2022, representing a 24% decrease compared to 2021. The decrease was mainly due to the drop in LME copper price since June 2022 which resulted a downward revision of provisional price previously recognised. In addition, logistics constraint in the first half of 2022 limited the Group's ability to ship out concentrate to customers, limiting the sales volume in the first half of 2022. Delivery gradually resumed normal in the second half of 2022 and Kinsenda Mine was able to deliver and sell more copper concentrates in the second half of 2022, but at a lower market copper price. The overall copper sales volume was 2% higher as compared to 2021.

Kinsenda's main mining licence (PE101) was renewed in 2021 for a period of 15 years, and will expire in October 2036.

Capital expenditure at Kinsenda Mine in 2022 was US\$16.4 million (inclusive of East Mine development), primarily spent on underground development and underground dewatering.

Kinsenda Mine constructed a second ramp decline from 209mL to open up the East Mine resources. In 2022, capital expenditure of US\$4.8 million was incurred on East Mine development while further decline ramp construction expenditure of US\$4.1 million was incurred for the ongoing development of West Mine orebody.

Kinsenda礦場於二零二二年錄得銅收益199.4百萬美元，較二零二一年258.9百萬美元下跌23%，乃由於平均實現銅價下跌所致，惟受銷量增加2%所抵銷。Kinsenda礦場於二零二二年的平均實現銅價為每噸6,738美元，較二零二一年下跌24%。下跌乃主要由於倫敦金所銅價自二零二二年六月下跌導致先前確認之臨時定價作出下調。此外，於二零二二年上半年物流受阻，限制本集團向客戶運送精礦的能力，並限制二零二二年上半年的銷量。二零二二年下半年運輸逐漸恢復正常，Kinsenda礦場於二零二二年下半年能夠交付且銷售更多的銅精礦，但市場銅價較低。整體銅銷量較二零二一年增加2%。

Kinsenda的主要採礦許可證(PE101)已於二零二一年續期15年，並將於二零三六年十月到期。

於二零二二年，Kinsenda礦場的資本開支為16.4百萬美元(包含東部礦體開發項目)，主要用於地下開發及地下排水。

Kinsenda礦場修建了第二條斜坡道(從209米水平開展)，以開採東部礦體資源。於二零二二年，東部礦體開發產生資本開支4.8百萬美元，而用於西部礦體持續開發產生進一步修建斜坡道開支4.1百萬美元。

DEVELOPMENT PROJECT

開發項目

Musonoi Project

Musonoi項目



Musonoi Main Decline Ramp  
Musonoi主斜坡道

#### Overview

- Location: North of Kolwezi town, Lualaba Province, the DRC
- Ownership: JCI (75%), Gécamines SA (25%)
- Progress: under construction
- LoM: 19 years according to ENFI Feasibility Study
- Resources: 1,085kt Cu, 363kt Co
- Reserves: 606kt Cu, 174kt Co

#### 概覽

- 地點：剛果(金)盧阿拉巴省科盧韋齊鎮以北
- 所有權：金川國際(75%)，Gécamines SA (25%)
- 進度：建設階段
- 礦場開採期：19年(按恩菲可行性研究)
- 資源量：1,085千噸銅，363千噸鈷
- 儲量：606千噸銅，174千噸鈷

## Development Review

Musonoi Project is a brownfield copper and cobalt project, located in the northern outskirts of Kolwezi, approximately 360km Northwest of Lubumbashi city, capital of Haut Katanga Province of the DRC.

A detailed evaluation of the ore body indicates that the mineral resources are SAMREC Code compliant, with sufficient size to support a mining project. The studies indicated that the orebody occurs on the eastern end of the Dilala Syncline and is a blind deposit with high-grade mineralization starting at between 50m and 100m below surface. The orebody has a strike length of 600m to 700m and is open ended at depth below 600m from surface and will be mined from underground using a long hole stopping mining method and a cut and fill with post pillars mining method.

The Group performed further study for deep processing and the feasibility study for further processing copper and cobalt concentrate was completed by ENFI in 2021. The feasibility study was approved by Ruashi's shareholders and construction commenced in June 2022.

The underground project is now in construction phase. Major underground work comprises a main decline ramp, a multi-purpose vertical shaft and three ventilation shafts.

The construction work of the multi-purpose vertical shaft was completed with a depth of 685 meters drilled. Musonoi has commenced the installation work of the hoisting system for both manpower and ore production.

The mining of major decline ramp project was completed in March 2023 with a total of over 5,000 meters construction work completed. Overcoming the complexity of underground water situation, the construction of decline ramp has connected successfully with the vertical shaft, marking a great milestone of Musonoi Project. Sublevel works at 80mL, 140mL, 380mL and 400mL were progressing as scheduled.

## 開發回顧

Musonoi項目為一個位於科盧韋齊以北外圍的開發中銅鈷項目，距剛果(金)上加丹加省省會盧本巴希市西北約360公里。

對礦體的詳細評估表明，礦產資源符合SAMREC規則標準，且具有足夠規模，可支持採礦項目。研究表明，礦體位於Dilala Syncline的東端，是一個隱伏礦床，高品位成礦開始於地表以下50米至100米之間。礦體的走向長度為600米至700米，在距地面600米以下的深度處開口，將採用深孔空場採礦法及樁柱充填採礦法，從地下進行開採。

本集團對深加工進行進一步研究，恩菲已於二零二一年完成深加工銅鈷精礦的可行性研究，並經Ruashi股東批准後於二零二二年六月動工。

該地下項目現時正處於建設階段。主要的地下工程包括一條主要斜坡道、一口多功能垂直豎井及三口通風井。

多用途垂直豎井之施工工作已完成，合共總深度685米。Musonoi已就人力及礦石生產提升系統展開安裝工作。

主斜坡道項目之掘進工程已於二零二三年三月竣工，合共建成超過5,000米通道。克服地下水複雜的情況，建設之斜坡道已成功與垂直豎井相連，標誌著Musonoi項目的一個重大里程碑。80米水平、140米水平、380米水平及400米水平的分層掘進工程已按計劃推進。

The construction of dewatering pump station at 140mL was completed and is in testing phase. The construction of the dewatering pump station at 400mL has commenced in the year and the contract for station at 540mL was awarded and will commence construction in 2023.

At ground level, the construction of facilities including power station, administrative offices, living camp, core shed, integrated warehouse and connection road were completed.

The Musonoi power project was commissioned by SNEL in February 2022. All power loads in the mining area were transferred to the main substation.

Construction for the integrated maintenance workshop has commenced, and the steel components of the workshop were delivered to the site.

The construction contract and procurement contract of the concentrator were awarded in 2022. Civil construction works of the coarse ore pile, concentrate pump station, floatation workshop, mill workshop were progressing as planned.

The construction contract and procurement contract for the Musonoi Project's deep processing project were tendered and are now under evaluation. Construction work are scheduled to commence in 2023.

An exploration drilling campaign is ongoing at Musonoi Project. Geochemical analysis has not been completed. The relevant result was not included in Mineral Resources as at 31 December 2022.

140米水平排水泵站已完成建設，目前處於測試階段，400米水平排水泵站於年內已開始建設，另外，540米水平之水泵站合約已授出並將於二零二三年開始建設。

電站、行政辦公室、生活區、岩心庫、綜合倉庫及道路連接等地面設施建築已完成。

二零二二年二月，Musonoi電力項目由SNEL正式啟用，採礦區全部供電負荷轉移至主變電站。

綜合維修車間已開工建設，車間鋼構件運抵現場。

選礦廠之建築合約及採購合約已於二零二二年進行招標。粗碎礦石堆場、精礦泵站、浮選車間及磨輾車間之土木工程工作已按計劃推進。

Musonoi項目深加工項目之建築及採購合約已進行招標，目前在評估階段。建設工作計劃於二零二三年開展。

Musonoi項目正在展開勘探計劃。地球化學分析尚未完成。相關結果並無計入於二零二二年十二月三十一日之礦產資源量。

EXPLORATION PROJECT

勘探項目

Lubembe Project

Lubembe項目



Lubembe Infill Drilling Program  
Lubembe加密鑽探計劃

Overview

- Location: Haut Katanga Province, the DRC
- Ownership: JCI (77%), Sodimico (23%)
- Progress: mining license renewed in 2016 and extended for a further 15 years to 2032. An infill drilling program was completed in 2021
- Resources: 1,909kt Cu

Development Review

In January 2021, the Group undertook a drilling program to collect metallurgical samples across the orebody for further metallurgical test work and to update the resource model. During the first 6 months of 2021, a total of 20 diamond drillholes were drilled over 6,592.36m of which 5,048.2m were used for geological and metallurgical purposes and 1,544.16m for geotechnical characterisation.

All boreholes were surveyed using differential global positioning system (GPS) by Siteke Dior Geodesique (SDG) professional surveyors from Lubumbashi, utilizing a Differential GPS (Datum WSG84 and Projection UTM-S35).

概覽

- 地點：剛果(金)上加丹加省
- 所有權：金川國際(77%)，Sodimico (23%)
- 進度：採礦許可證於二零一六年重續及進一步延長15年至二零三二年。一項加密鑽探計劃已於二零二一年完成
- 資源量：1,909千噸銅

開發回顧

於二零二一年一月，本集團開展了一項鑽探計劃，以收集整個礦體的冶金樣品，以進行進一步的冶金測試工作並更新資源模型。二零二一年前六個月共鑽探20個金剛石鑽孔，總長度超過6,592.36米，其中5,048.2米用於地質和冶金目的，1,544.16米用於岩土工程特徵分析。

來自盧本巴希的Siteke Dior Geodesique (SDG) 公司專業測量師使用差分全球定位系統(GPS) (Datum WSG84 and Projection UTM-S35) 對所有鑽孔進行了測繪。



During April to August 2021, a total of 1,164 samples including CRMs were submitted to a laboratory in Zambia for chemical analysis and 86 samples for density assay. A total of 844 samples were sent to ENFI for metallurgical test work and 53 duplicate pulp samples were submitted to another independent laboratory in Johannesburg, South Africa (referee laboratory) for inter-laboratory comparisons.

Mineral resource model was updated in 2021 with the effective date for mineral resource estimation of 31 December 2021 and has upgraded a portion of inferred mineral resources category to indicated mineral resources category.

In 2022, the Group carried out several trial metallurgical testing on samples extracted and is pending for final report. The Group will further evaluate the different methodologies options for concentrator and processing.

#### MINE LEASED OUT UNDER FINANCE LEASE AGREEMENT

##### Chibuluma South Mine (including Chifupu Deposit)

於二零二一年四月至八月間，將包括CRMs在內的總計1,164個樣品提交給贊比亞的一間化驗所進行化學分析，86個樣品進行密度測定。共有844個樣品被送往恩菲進行冶金測試工作，提交53個重複的礦漿樣品給位於南非約翰尼斯堡的另一家獨立實驗室進行實驗室之結果比較。

礦產資源模型已於二零二一年更新，礦產資源量估算的生效日期為二零二一年十二月三十一日，並將部分推斷礦產資源種類升級至控制礦產資源種類。

於二零二二年，本集團對抽取的樣本進行若干試驗性冶煉檢測，且正在等待最終報告。本集團將進一步評估選礦廠及冶煉廠的不同方法選擇。

#### 融資租賃協議下出租之礦場

##### Chibuluma南礦場(包括Chifupu礦床)



Chibuluma Processing Plant  
Chibuluma加工廠

## Operational Review

In December 2020, the Group decided to lease out Chibuluma South Mine (including Chifupu Deposit) and the processing plant to an independent third party on a five year term lease in order to realise the remaining value of the mining assets.

The total lease payment payable under the lease is US\$6.5 million, payable in instalments over a two-year period starting from the date of signing of the lease agreement on 28 December 2020. Up till 31 December 2022, US\$6.16 million has been received towards the lease amount. In addition to the lease payments, the Group is also entitled to a monthly royalty payment based on the volume of copper payable sold from Chifupu Deposit at a rate dependent on the prevailing market copper price. The lessee has the priority to renew upon the expiry of the lease agreement.

The finance lease agreement became effective since 1 April 2021. For details of the finance lease agreement, please refer to the Company's announcement dated 28 December 2020.

The lessee produced and sold 3,737 tonnes of payable copper in 2022 (2021: 3,051 tonnes) and the Group had recorded a royalty income of US\$2.7 million (2021: US\$2.4 million) under the finance lease agreement.

## 營運回顧

於二零二零年十二月，本集團決定將Chibuluma南礦場(包括Chifupu礦床)及加工廠出租予一名獨立第三方，租期為五年，以實現採礦資產的剩餘價值。

租賃項下應付的租賃付款總額為6.5百萬美元，應於簽署租賃協議之日(即二零二零年十二月二十八日)起計兩年內分期支付。截至二零二二年十二月三十一日，本集團收到固定租金收入6.16百萬美元。除租賃付款外，本集團亦將有權每月收取礦權使用費，有關費用乃根據自Chifupu礦床出售的銅礦量按其當時市場銅價計算得出。承租人可於租賃協議屆滿時優先續約。

融資租賃協議於二零二一年四月一日開始生效。有關融資租賃協議之詳情，請參閱本公司日期為二零二零年十二月二十八日之公告。

承租人於二零二二年共生產及出售3,737噸銅(二零二一年：3,051噸)，而本集團根據融資租賃協議錄得礦權使用費收入2.7百萬美元(二零二一年：2.4百萬美元)。

**MINING EXPLORATION, MINING DEVELOPMENT  
AND ORE MINING ACTIVITIES**

**採礦勘探、採礦開發及礦石開採活動**

Expenses of exploration, development, and mining activities of the Group for the year ended 31 December 2022 are set out below:

本集團截至二零二二年十二月三十一日止年度的勘探、開發及採礦活動開支載列如下：

Unit: US\$'000	單位：千美元	Ruashi Mine Ruashi 礦場	Kinsenda Mine Kinsenda 礦場	Musonoi Project Musonoi 項目	Lubembe Project Lubembe 項目	Total 總計
<b>Exploration activities</b>	<b>勘探活動</b>					
Drilling and analysis	鑽探及分析	-	-	-	259	259
<b>Sub-total</b>	<b>小計</b>	-	-	-	259	259
<b>Development activities (including mine construction)</b>	<b>開發活動 (包括礦場建設)</b>					
Civil work for construction of tunnels and roads and infrastructure	建設隧道及道路及基建的土木工程	-	8,981	48,030	-	57,011
Electrical supply and distribution	供電及配電	-	-	460	-	460
Mine services and utilities	礦山服務及設施	-	806	7,467	-	8,273
Engineering design	工程設計	-	-	2,340	-	2,340
Stripping cost	剝採成本	1,320	-	-	-	1,320
Dewatering engineering work	脫水工程	-	5,024	3,262	-	8,286
Others	其他	258	49	1,278	-	1,585
<b>Sub-total</b>	<b>小計</b>	1,578	14,860	62,837	-	79,275
<b>Mining activities (excluding ore processing)</b>	<b>採礦活動 (不包括礦石處理)</b>					
Staff cost	員工成本	11,262	5,326	-	-	16,588
Blasting	爆破	7,026	5,879	-	-	12,905
Fuel, electricity, water and other services	燃料、電力、水及其他服務	1,286	4,960	-	-	6,246
Foreign ore purchase	從外購買礦石	92,224	-	-	-	92,224
Sub-contracting charges	分包費用	40,939	26,441	-	-	67,380
Depreciation	折舊	9,851	13,980	-	-	23,831
Others	其他	6,280	3,217	-	-	9,497
<b>Sub-total</b>	<b>小計</b>	168,868	59,803	-	-	228,671
<b>Total</b>	<b>總計</b>	170,446	74,663	62,837	259	308,205

## EXECUTIVE SUMMARY

Mineral Resources and Mineral Reserves for the Group are reported on a 100 percent basis and are estimated as at 31 December 2022. All the Group's Mineral Resources and Mineral Reserves are compliant with the SAMREC Code, and are reported according to the requirements of Chapter 18 of the Listing Rules.

Mineral Resources and Mineral Reserves tables are provided on pages 30 to 35, which included the 31 December 2022 and 31 December 2021 estimates for comparison. The Measured and Indicated Mineral Resources are inclusive of Mineral Reserves.

## MINERAL RESOURCES

As at 31 December 2022, the Group's Mineral Resources were estimated to contain approximately 4,557,000 tonnes of contained copper and 437,000 tonnes of contained cobalt. This represents a 1.9% decrease in contained copper and a 1.6% decrease in contained cobalt as compared to the estimates as at 31 December 2021 of 4,643,000 tonnes of contained copper and 444,000 tonnes of contained cobalt.

### Changes in Mineral Resources

Key changes to the Group's Mineral Resources (contained metal) since the 31 December 2021 estimate relate to the increase in Ruashi Mine's resources due to pit optimisation and was offset by the decreases in resources due to mining depletion during the year.

Ruashi Mine has carried out an infill drilling program in 2022 and have increase its knowledge on the orebody. Ruashi Mine has also revised its cut-off assumptions and due to the revision of assumptions, Ruashi Mine revised the LoM mine plan and re-optimised its pit shell design according to the new geological model. More transitional materials were included in the revised mine plan's new ultimate pit shell design and the Mineral Resources figures were updated according to the new mine plan with part of the Mineral Resources previously under the "outside of ultimate pit shell" category reclassified to "within ultimate pit shell" category. The resultant increase in Mineral Resource has offset the depletion from Ruashi Mine's mining activities in 2022.

The decrease in Kinsenda Mine's copper resources were due to mining depletion during the year.

## 報告摘要

本集團的礦產資源量及礦產儲量按100%基準呈列，估計乃於二零二二年十二月三十一日作出。本集團所有礦產資源量及礦產儲量均符合SAMREC規則及根據上市規則第18章中的規定呈報。

礦產資源量及礦產儲量表載於第30至35頁，其中包括二零二二年十二月三十一日及二零二一年十二月三十一日的估計以作比較。探明及控制的礦產資源量包括礦產儲量。

## 礦產資源量

於二零二二年十二月三十一日，估計本集團的礦產資源量將包括銅約4,557,000噸及鈷約437,000噸。這表示銅資源量及鈷資源量較於二零二一年十二月三十一日的估算值4,643,000噸及444,000噸分別減少1.9%及減少1.6%。

### 礦產資源量變動

自二零二一年十二月三十一日評估以來，本集團礦產資源量(金屬含量)主要變動乃由於礦坑設計優化使Ruashi礦場資源量增加，但因年內因採礦耗減而減少的資源量所抵銷。

Ruashi礦場於二零二二年開展一項加密鑽探計劃，增加對礦體的了解。Ruashi礦場亦修訂邊際假設，且由於假設的修訂，Ruashi礦場修訂礦場開採期排產計劃並根據地質模型重新優化礦坑外形設計。於經修訂排產計劃的新的最終礦坑外形設計包含更多過渡性礦石及礦產資源量數字根據新排產計劃進行更新，先前歸屬「設計礦場境界範圍以外」類別的部分礦產資源量重新分類為「設計礦場境界範圍以內」類別。礦產資源量的增加抵銷Ruashi礦場於二零二二年採礦活動的耗減。

Kinsenda礦場銅資源量減少乃由於年內採礦耗減。

There has been no change to Musonoi Project mineral resource model. There has been no mining depletion at Musonoi Project during the year as the project remains under development.

As Chibuluma South Mine (including Chifupu Deposit) has been finance leased out since 1 April 2021, the Group thereafter ceased to report the Mineral Resources for Chibuluma South Mine (including Chifupu Deposit) as part of the Group's Mineral Resources. The Mineral Resources figures for Chibuluma South Mine (including Chifupu Deposit) are separately disclosed under note 2 of Mineral Resources and Mineral Reserves table for reference purpose.

### Development

An exploration drilling campaign is ongoing at Musonoi Project. Geochemical analysis have not been completed. The relevant result was not included in this Mineral Resources statement as at 31 December 2022.

### MINERAL RESERVES

As at 31 December 2022, the Group's Mineral Reserves were estimated to contain approximately 1,126,000 tonnes of contained copper and 206,000 tonnes of contained cobalt. This represents a 1% increase in contained copper and a 4% increase in contained cobalt as compared with the estimates as at 31 December 2021 of 1,112,000 tonnes of contained copper and 198,000 tonnes of contained cobalt.

### Changes in Mineral Reserves

The Group's Mineral Reserves showed an increase in contained copper and cobalt in 2022. Ruashi Mine has optimised its open-pit design and the optimisation has led to the inclusion of more resources into the pit shell limit, resulting in an increase in mineable reserves.

A study has been completed at Ruashi Mine to reclassify part of the out-pit resources into Mineral Reserves after appropriate pit optimisation. As a result, Ruashi Mine has an increase in reserves metal contained within ultimate pit by 58kt on copper and 6kt on cobalt due to redesign of mine pit. In stockpiles, ore reserves metal contained slightly increased by 14kt on copper and 1kt on cobalt which partially offset the depletion recorded in the open-pits.

Musonoi項目礦產資源模型沒有改變。Musonoi項目仍處於開發階段，因此該項目年內沒有採礦耗減。

由於Chibuluma南礦場(包括Chifupu礦床)自二零二一年四月一日起以融資租賃方式出租，故本集團此後不再呈報Chibuluma南礦場(含Chifupu礦床)的礦產資源量作為本集團礦產資源量的一部分。Chibuluma南礦場(包括Chifupu礦床)之礦產資源量另於礦產資源量及礦產儲量表附註2中披露，以供參考。

### 發展

Musonoi項目正在展開勘探計劃中。地球化學分析尚未完成。於二零二二年十二月三十一日，相關結果並無計入本礦產資源量報告。

### 礦產儲量

於二零二二年十二月三十一日，本集團的礦產儲量估算為約1,126,000噸含銅量及約206,000噸含鈷量。這表示銅儲量及鈷儲量較於二零二一年十二月三十一日的估算值1,112,000噸及198,000噸分別增加1%及增加4%。

### 礦產儲量變動

本集團二零二二年礦產儲量中的銅和鈷含量皆有所上漲。Ruashi礦場已優化其露天採場設計，導致更多資源納入礦場境界範圍內，從而增加可採儲量。

Ruashi礦場已完成一項研究以於適當優化礦場後將部分礦場境界範圍外的資源重新分類至礦產儲量。因此得益於重新設計礦場境界，Ruashi礦場設計礦場境界範圍內的含銅金屬儲量增加58千噸，含鈷金屬儲量增加6千噸。就礦石堆庫存而言，含金屬礦石儲量略有增加，銅增加14千噸，鈷增加1千噸，但由露天礦場錄得之耗減所部分抵銷。

The decrease in Kinsenda Mine's copper reserves were due to mining depletion during the year.

Kinsenda礦場銅儲量的減少乃由於年內的採礦耗減。

The Mineral Reserves at Musonoi Project remained static in 2022. There has been no mining depletion at Musonoi Project during the year as the project remains under development.

於二零二二年，Musonoi項目的礦產儲量保持不變。由於Musonoi項目仍在開發中，因此該項目於年內並沒有採礦耗減。

No Mineral Reserves have been declared for Lubembe Project.

並無就Lubembe項目申報礦產儲量。

As Chibuluma South Mine (including Chifupu Deposit) has been finance leased out effective since 1 April 2021, the Group thereafter ceased to report the Mineral Reserves for Chibuluma South Mine (including Chifupu Deposit) as part of the Group's Mineral Reserves. The Mineral Reserves figures for Chibuluma South Mine (including Chifupu Deposit) are separately disclosed under note 2 of Mineral Resources and Mineral Reserves table for reference purpose.

由於Chibuluma南礦場(包括Chifupu礦床)自二零二一年四月一日起以融資租賃方式出租，故本集團此後不再呈報Chibuluma南礦場(含Chifupu礦床)的礦產儲量作為本集團礦產儲量的一部分。Chibuluma南礦場(包括Chifupu礦床)之礦產儲量另於礦產資源量及礦產儲量表附註2中披露，以供參考。

### Development

### 發展

At Ruashi Mine, a study on the development of sulphide deposit was commenced in 2022 and the study will continue in 2023.

於Ruashi礦場，於二零二二年開始開發硫化物礦床的研究且於二零二三年將繼續該研究。

MINERAL RESOURCES

礦產資源量

		31 December 2022 二零二二年十二月三十一日					31 December 2021 二零二一年十二月三十一日				
		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)	
<b>Copper-Cobalt Resources</b>	<b>銅鈷資源量</b>										
<b>Ruashi Mine (oxide and mixed within ultimate pit shell)</b>	<b>Ruashi礦場(設計礦場境界範圍以內的氧化物及混合礦物)</b>										
Measured	探明	0.0	3.1	0.1	0	0	0.1	6.1	0.4	6	0
Indicated	控制	11.3	2.2	0.2	251	24	8.3	2.1	0.2	174	15
Inferred	推斷	0.9	1.8	0.2	15	2	0.6	2.3	0.2	15	1
<b>Sub-Total</b>	<b>小計</b>	<b>12.2</b>	<b>2.2</b>	<b>0.2</b>	<b>267</b>	<b>26</b>	<b>9.0</b>	<b>2.2</b>	<b>0.2</b>	<b>195</b>	<b>17</b>
<b>Ruashi Mine (oxide stockpile and tailings)</b>	<b>Ruashi礦場(氧化物堆及尾礦)</b>										
Measured	探明	-	-	-	-	-	-	-	-	-	-
Indicated	控制	6.8	1.5	0.2	105	15	6.0	1.5	0.2	91	14
Inferred	推斷	-	-	-	-	-	-	-	-	-	-
<b>Sub-Total</b>	<b>小計</b>	<b>6.8</b>	<b>1.5</b>	<b>0.2</b>	<b>105</b>	<b>15</b>	<b>6.0</b>	<b>1.5</b>	<b>0.2</b>	<b>91</b>	<b>14</b>
<b>Ruashi Mine (sulphide within ultimate pit shell)</b>	<b>Ruashi礦場(設計礦場境界範圍以內的硫化物)</b>										
Measured	探明	0.4	2.6	0.3	9	1	0.0	0.5	0.1	0	0
Indicated	控制	5.3	2.7	0.3	143	16	1.4	2.8	0.3	39	4
Inferred	推斷	0.6	2.7	0.3	16	2	0.4	2.6	0.3	10	1
<b>Sub-Total</b>	<b>小計</b>	<b>6.3</b>	<b>2.7</b>	<b>0.3</b>	<b>169</b>	<b>19</b>	<b>1.8</b>	<b>2.7</b>	<b>0.3</b>	<b>49</b>	<b>5</b>
<b>Ruashi Mine (oxide and mixed outside of ultimate pit shell – potentially exploitable from underground)</b>	<b>Ruashi礦場(設計礦場境界範圍以外的氧化物及混合礦物 – 潛在可地下開採礦物)</b>										
Measured	探明	-	-	-	-	-	-	-	-	-	-
Indicated	控制	1.6	2.6	0.3	42	5	2.8	2.5	0.3	71	8
Inferred	推斷	0.2	3.0	0.3	7	1	1.0	2.3	0.3	23	3
<b>Sub-Total</b>	<b>小計</b>	<b>1.8</b>	<b>2.7</b>	<b>0.3</b>	<b>50</b>	<b>6</b>	<b>3.9</b>	<b>2.4</b>	<b>0.3</b>	<b>94</b>	<b>11</b>

MINERAL RESOURCES (Continued)

礦產資源量(續)

		31 December 2022 二零二二年十二月三十一日					31 December 2021 二零二一年十二月三十一日				
		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (% Co) (%銅) (%鈷)		Contained Metals 含金屬量 (kt Cu) (kt Co) (千噸銅) (千噸鈷)		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (% Co) (%銅) (%鈷)		Contained Metals 含金屬量 (kt Cu) (kt Co) (千噸銅) (千噸鈷)	
<b>Ruashi Mine (sulphide outside of ultimate pit shell – potentially exploitable from underground)</b>	<b>Ruashi礦場(設計礦場境界範圍以外的硫化物–潛在可地下開採礦物)</b>										
Measured	探明	0.0	0.8	0.7	0	0	–	–	–	–	–
Indicated	控制	0.7	1.6	0.5	10	4	6.7	2.0	0.3	133	20
Inferred	推斷	0.9	1.3	0.5	12	4	3.7	1.4	0.4	52	15
<b>Sub-Total</b>	<b>小計</b>	<b>1.6</b>	<b>1.4</b>	<b>0.5</b>	<b>23</b>	<b>8</b>	<b>10.3</b>	<b>1.8</b>	<b>0.3</b>	<b>185</b>	<b>35</b>
<b>Musonoi Project (oxide)</b>	<b>Musonoi項目(氧化物)</b>										
Measured	探明	4.7	3.1	1.0	144	48	4.7	3.1	1.0	144	48
Indicated	控制	1.2	1.9	0.8	22	9	1.2	1.9	0.8	22	9
Inferred	推斷	1.4	2.0	0.7	29	10	1.4	2.0	0.7	29	10
<b>Sub-Total</b>	<b>小計</b>	<b>7.3</b>	<b>2.7</b>	<b>0.9</b>	<b>195</b>	<b>68</b>	<b>7.3</b>	<b>2.7</b>	<b>0.9</b>	<b>195</b>	<b>68</b>
<b>Musonoi Project (mixed and sulphide)</b>	<b>Musonoi項目(混合礦物及硫化物)</b>										
Measured	探明	12.8	2.7	0.8	339	100	12.8	2.7	0.8	339	100
Indicated	控制	13.1	2.2	0.8	292	107	13.1	2.2	0.8	292	107
Inferred	推斷	11.6	2.2	0.8	258	88	11.6	2.2	0.8	258	88
<b>Sub-Total</b>	<b>小計</b>	<b>37.5</b>	<b>2.4</b>	<b>0.8</b>	<b>889</b>	<b>295</b>	<b>37.4</b>	<b>2.4</b>	<b>0.8</b>	<b>890</b>	<b>295</b>
<b>Copper-Cobalt Resources</b>	<b>銅鈷資源量</b>										
Measured	探明	17.9	2.8	0.8	493	150	17.6	2.8	0.8	489	149
Indicated	控制	40.0	2.2	0.5	867	180	39.4	2.1	0.4	822	177
Inferred	推斷	15.6	2.2	0.7	338	107	18.7	2.1	0.6	387	118
<b>Total Cu-Co Resources</b>	<b>銅鈷資源量總計</b>	<b>73.5</b>	<b>2.3</b>	<b>0.6</b>	<b>1,698</b>	<b>437</b>	<b>75.7</b>	<b>2.2</b>	<b>0.6</b>	<b>1,698</b>	<b>444</b>



MINERAL RESOURCES (Continued)

礦產資源量(續)

		31 December 2022 二零二二年十二月三十一日					31 December 2021 二零二一年十二月三十一日				
		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)	
<b>Copper-only Resources</b>	<b>僅銅資源量</b>										
<b>Kinsenda Mine</b>	<b>Kinsenda礦場</b>										
Measured	探明	0.7	4.4	-	29	-	0.7	4.5	-	30	-
Indicated	控制	10.0	5.1	-	513	-	11.4	5.2	-	588	-
Inferred	推斷	9.9	4.1	-	408	-	10.2	4.1	-	417	-
<b>Sub-Total</b>	<b>小計</b>	<b>20.6</b>	<b>4.6</b>	<b>-</b>	<b>950</b>	<b>-</b>	<b>22.2</b>	<b>4.7</b>	<b>-</b>	<b>1,035</b>	<b>-</b>
<b>Lubembe Project (oxide and sulphide)</b>	<b>Lubembe項目 (氧化物及硫化物)</b>										
Measured	探明	3.5	1.2	-	44	-	3.5	1.2	-	44	-
Indicated	控制	73.8	2.0	-	1,469	-	73.8	2.0	-	1,469	-
Inferred	推斷	17.4	2.3	-	396	-	17.4	2.3	-	396	-
<b>Sub-Total</b>	<b>小計</b>	<b>94.8</b>	<b>2.0</b>	<b>-</b>	<b>1,909</b>	<b>-</b>	<b>94.8</b>	<b>2.0</b>	<b>-</b>	<b>1,909</b>	<b>-</b>
<b>Copper-only Resources</b>	<b>僅銅資源量</b>										
Measured	探明	4.2	1.7	-	73	-	4.2	1.8	-	74	-
Indicated	控制	83.8	2.4	-	1,982	-	85.2	2.4	-	2,058	-
Inferred	推斷	27.4	2.9	-	804	-	27.6	2.9	-	812	-
<b>Total Cu-only Resources</b>	<b>僅銅資源量總計</b>	<b>115.4</b>	<b>2.5</b>	<b>-</b>	<b>2,859</b>	<b>-</b>	<b>117.0</b>	<b>2.5</b>	<b>-</b>	<b>2,945</b>	<b>-</b>
<b>JCI Total Resources</b>	<b>金川國際資源量總計</b>										
Measured	探明	22.1			566	150	21.8			564	149
Indicated	控制	123.8			2,849	180	124.6			2,880	177
Inferred	推斷	43.0			1,142	107	46.3			1,199	118
<b>Grand Total Resources</b>	<b>總資源量匯總</b>	<b>188.9</b>			<b>4,557</b>	<b>437</b>	<b>192.7</b>			<b>4,643</b>	<b>444</b>

MINERAL RESERVES

礦產儲量

		31 December 2022 二零二二年十二月三十一日					31 December 2021 二零二一年十二月三十一日				
		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)	
			(% Co) (%鈷)					(% Co) (%鈷)			
<b>Copper-Cobalt Reserves</b>	<b>銅鈷儲量</b>										
<b>Ruashi Mine (in-pit oxide and mixed)</b>	<b>Ruashi礦場(境界範圍以內的氧化物及混合礦物)</b>										
Proved	證實	0	3.1	0.1	0	0	0.1	6.1	0.4	6	0
Probable	概略	7.8	2.6	0.2	200	17	4.7	2.9	0.2	136	10
<b>Sub-Total</b>	<b>小計</b>	<b>7.8</b>	<b>2.6</b>	<b>0.2</b>	<b>200</b>	<b>17</b>	<b>4.8</b>	<b>2.9</b>	<b>0.2</b>	<b>142</b>	<b>11</b>
<b>Ruashi Mine (oxide stockpile and tailings)</b>	<b>Ruashi礦場(氧化物堆及尾礦)</b>										
Proved	證實	-	-	-	-	-	-	-	-	-	-
Probable	概略	6.7	1.5	0.2	99	15	5.9	1.4	0.2	85	14
<b>Sub-Total</b>	<b>小計</b>	<b>6.7</b>	<b>1.5</b>	<b>0.2</b>	<b>99</b>	<b>15</b>	<b>5.9</b>	<b>1.4</b>	<b>0.2</b>	<b>85</b>	<b>14</b>
<b>Musonoi Project (oxide)</b>	<b>Musonoi項目(氧化物)</b>										
Proved	證實	2.7	3.4	1.0	91	28	2.7	3.4	1.0	91	28
Probable	概略	0.5	3.3	0.8	16	4	0.5	3.3	0.8	16	4
<b>Sub-Total</b>	<b>小計</b>	<b>3.2</b>	<b>3.3</b>	<b>1.0</b>	<b>107</b>	<b>32</b>	<b>3.2</b>	<b>3.3</b>	<b>1.0</b>	<b>107</b>	<b>32</b>
<b>Musonoi Project (mixed and sulphide)</b>	<b>Musonoi項目(混合礦物及硫化物)</b>										
Proved	證實	8.8	3.0	0.8	266	72	8.8	3.0	0.8	266	72
Probable	概略	8.2	2.8	0.9	233	70	8.2	2.8	0.9	233	70
<b>Sub-Total</b>	<b>小計</b>	<b>17.0</b>	<b>2.9</b>	<b>0.8</b>	<b>499</b>	<b>142</b>	<b>17.0</b>	<b>2.9</b>	<b>0.8</b>	<b>499</b>	<b>142</b>
<b>Copper-Cobalt Reserves</b>	<b>銅鈷儲量</b>										
Proved	證實	11.5	3.1	0.9	357	100	11.6	3.1	0.9	363	100
Probable	概略	23.2	2.4	0.5	548	106	19.4	2.4	0.5	471	97
<b>Total Cu-Co Reserves</b>	<b>銅鈷儲量總計</b>	<b>34.7</b>	<b>2.6</b>	<b>0.6</b>	<b>905</b>	<b>206</b>	<b>31.0</b>	<b>2.7</b>	<b>0.6</b>	<b>833</b>	<b>198</b>

MINERAL RESERVES (Continued)

礦產儲量(續)

		31 December 2022 二零二二年十二月三十一日					31 December 2021 二零二一年十二月三十一日				
		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)		Contained Metals 含金屬量 (kt Cu) (千噸銅)	
<b>Copper-only Reserves</b>	<b>僅銅儲量</b>										
<b>Kinsenda Mine</b>	<b>Kinsenda礦場</b>										
Proved	證實	0.0	5.4	-	1	-	0.0	5.4	-	2	-
Probable	概略	3.8	5.8	-	220	-	4.9	5.7	-	277	-
<b>Sub-Total</b>	<b>小計</b>	<b>3.8</b>	<b>5.8</b>	<b>-</b>	<b>221</b>	<b>-</b>	<b>4.9</b>	<b>5.6</b>	<b>-</b>	<b>279</b>	<b>-</b>
<b>Copper-only Reserves</b>	<b>僅銅儲量</b>										
Proved	證實	0.0	5.4	-	1	-	0.0	5.4	-	2	-
Probable	概略	3.8	5.8	-	220	-	4.9	5.7	-	277	-
<b>Total Cu-only Reserves</b>	<b>僅銅儲量總計</b>	<b>3.8</b>	<b>5.8</b>	<b>-</b>	<b>221</b>	<b>-</b>	<b>4.9</b>	<b>5.7</b>	<b>-</b>	<b>279</b>	<b>-</b>
<b>JCI Total Reserves</b>	<b>金川國際儲量總計</b>										
Proved	證實				358	100	11.6			365	100
Probable	概略				768	106	24.2			748	97
<b>Grand Total Reserves</b>	<b>總儲量滙總</b>	<b>38.5</b>			<b>1,126</b>	<b>206</b>	<b>35.9</b>			<b>1,112</b>	<b>198</b>

Notes:

- Totals may not add up correctly due to rounding.
- Chibuluma South Mine (including Chifupu Deposit) has been leased out to an independent third party under a finance lease agreement since 1 April 2021. As at 31 December 2022, Chifupu Deposit's Mineral Resources and Mineral Reserves were estimated as follows:

附註：

- 由於約整，總數未必等於相關數字相加。
- 自二零二一年四月一日起，Chibuluma南礦場（包括Chifupu礦床）以融資租賃協議的形式出租予一名獨立第三方。於二零二二年十二月三十一日，Chifupu礦床的礦產資源量及礦產儲量估計如下：

MINERAL RESOURCES

礦產資源量

		31 December 2022 二零二二年十二月三十一日			31 December 2021 二零二一年十二月三十一日		
		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)	Contained Metals 含金屬量 (kt Cu) (千噸銅)	Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)	Contained Metals 含金屬量 (kt Cu) (千噸銅)
Measured	探明	-	-	-	0.0	3.6	0
Indicated	控制	0.5	2.5	11	0.8	2.3	18
Inferred	推斷	2.1	2.0	43	2.2	2.0	44
Total	總計	2.6	2.1	54	3.0	2.1	62

MINERAL RESERVES

礦產儲量

		31 December 2022 二零二二年十二月三十一日			31 December 2021 二零二一年十二月三十一日		
		Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)	Contained Metals 含金屬量 (kt Cu) (千噸銅)	Tonnage 噸數 (Mt) (百萬噸)	Grade 品位 (% Cu) (%銅)	Contained Metals 含金屬量 (kt Cu) (千噸銅)
Proved	證實	-	-	-	-	-	-
Probable	概略	0.2	2.1	4	0.3	1.9	5
Total	總計	0.2	2.1	4	0.3	1.9	5

### KEY ASSUMPTIONS

#### Commodities prices

Mineral Reserves have been determined using long-term copper and cobalt prices of US\$7,200 per tonne and US\$20.4 per pound, and average mining and processing costs. Mineral Resources have been reported using long-term copper and cobalt prices of US\$10,800–US\$12,750 per tonne and US\$30.6–US\$54.4 per pound respectively 1.5 times of the copper and cobalt prices used for Mineral Reserves).

#### Processing recoveries

Average processing recoveries are shown in the table below:

### 關鍵假設

#### 商品價格

礦產儲量乃按假設銅和鈷的長期價格每噸7,200美元及每磅20.4美元以及平均採礦和冶煉成本估算。礦產資源量按照銅鈷長期價格每噸10,800美元至12,750美元及每磅30.6美元至54.4美元(礦產儲量所用銅鈷價格之1.5倍)估算。

#### 冶煉回收

下表所示為平均冶煉回收率：

Site 礦址	Product 產品	Recovery 回收率		Concentrate Moisture Assumptions 精礦水分假設
		Cu 銅	Co 鈷	
Kinsenda	Sulphide Copper Concentrate 硫化銅精礦	98%	–	12%
	Oxide Copper Concentrate 氧化銅精礦	57%	–	15%
Ruashi	Copper Cathode 電解銅	83%	–	–
	Cobalt Hydroxide Concentrate 氫氧化鈷精礦	–	67%	15%
Musonoi	Sulphide Copper-Cobalt Concentrate 硫化銅鈷精礦	91%	88%	11%
	Crude Copper & Cobalt Hydroxide 粗銅及氫氧化鈷	85%	80%	30%

Cut-off grades

Multiple cut-off grades adopted in the estimation of the Mineral Resources and Mineral Reserves are shown in the tables below:

邊界品位

下表所示為就礦產資源量及礦產儲量估算應用的多個邊界品位：

Cut-off grades adopted for Mineral Resources estimation

就礦產資源量估算應用的邊界品位

Site	Mineralisation	Likely Mining Method	Cut-off Value	Comments
礦址	礦化	可能採礦方法	邊界值	說明
Ruashi	Primary Mineral Resource (Cu & Co) 主要礦產資源(銅和鈷)	Open-pit 露天	1.06% CuEq (Oxide/Mixed) 1.06% 銅當量(氧化物/ 混合礦物) 2.05% CuEq (Sulphide) 2.05% 銅當量(硫化物)	CuEq = (Cu + 4 x Co): based on Long-Term Mineral Resources copper price of US\$12,750 per tonne or cobalt price of US\$80,000 per tonne (US\$36.3 per pound) and estimation is based on constrained in-situ related grades. 銅當量=(銅+4×鈷)：基於長期礦產資源量銅價每噸12,750美元或鈷價每噸80,000美元(每磅36.3美元)，估算乃根據限制原位相關品位作出。
	Ex-pit HG Oxide Copper 境界外高品位氧化銅 Ex-pit HG Oxide Cobalt 境界外高品位氧化鈷	Open-pit 露天	4.27% TCu (Average) 4.27%總銅(平均值) 0.33% TCo (Average) 0.33%總鈷(平均值)	All ex-pit material average grades reported are as estimated by Ruashi Grade Control Team during material re-classification and for existing stockpile reclaim. 所呈報的所有境界外物質平均品位乃由Ruashi品位監控團隊在物質重新分類期間估算，估算目的為現有堆儲量回收。
	Ex-pit LG Oxide Copper 境界外低品位氧化銅 Ex-pit LG Oxide Cobalt 境界外低品位氧化鈷	Open-pit 露天	1.13% TCu (Average) 1.13%總銅(平均值) 0.22% TCo (Average) 0.22%總鈷(平均值)	
	Ex-pit BOMZ Copper 境界外BOMZ銅 Ex-pit BOMZ Cobalt 境界外BOMZ鈷	Open-pit 露天	0.61% TCu (Average) 0.61%總銅(平均值) 0.76% TCo (Average) 0.76%總鈷(平均值)	
	Historical Tailings Copper 舊尾礦銅 Historical Tailings Cobalt 舊尾礦鈷	Open-pit 露天	1.90% TCu (Average) 1.90%總銅(平均值) 0.30% TCo (Average) 0.30%總鈷(平均值)	
	Ex-pit Mixed Copper 境界外混合銅 Ex-pit Mixed Cobalt 境界外混合鈷	Open-pit 露天	5.62% TCu (Average) 5.62%總銅(平均值) 0.24% TCo (Average) 0.24%總鈷(平均值)	
	Ex-pit Sulphide Copper 境界外硫化銅 Ex-pit Sulphide Cobalt 境界外硫化鈷	Open-pit 露天	4.73% TCu (Average) 4.73%總銅(平均值) 0.07% TCo (Average) 0.07%總鈷(平均值)	

# Resources and Reserves

## 資源量及儲量

Site 礦址	Mineralisation 礦化	Likely Mining Method 可能採礦方法	Cut-off Value 邊界值	Comments 說明
Musonoi	Primary Oxide Copper 原生氧化銅	Underground 地下	3.17% ASCuEq 3.17%酸溶銅當量	CuEq = (Cu + 3.9 x Co): based on Long-Term Mineral Resources copper price of US\$10,800 per tonne or cobalt price of US\$67,500 per tonne (US\$30.6 per pound) and estimation is based on constrained in-situ related grades. 銅當量=(銅+3.9×鈷): 基於長期礦產資源量銅價每噸10,800美元或鈷價每噸67,500美元(每磅30.6美元), 估算乃根據限制原位相關品位作出。
	Primary Oxide Cobalt 原生氧化鈷			
	Primary Mixed and Sulphide Copper 原生混合銅及硫化銅	Underground 地下	1.83% TCuEq 1.83%總銅當量	
	Primary Mixed and Sulphide Cobalt 原生混合鈷及硫化鈷			
Kinsenda	Primary Sulphide Copper 原生硫化銅	Underground 地下	1.40% TCu 1.40%總銅	In-situ copper Mineral Resources constrained within a metal price of US\$10,800 per tonne. 原位銅礦產資源量受限於金屬價格每噸10,800美元。
Lubembe	Primary Sulphide Copper 原生硫化銅	N/A 不適用	0.85% TCu 0.85%總銅	In-situ copper Mineral Resources constrained within an economical metal price. 原位銅礦產資源量受限於經濟型金屬價格。

Cut-off grades adopted for Mineral Reserves estimation

就礦產儲量估算應用的邊界品位

Site 礦址	Mineralisation 礦化	Likely Mining Method 可能採礦方法	Cut-off Value 邊界值	Comments 說明
Ruashi	Primary Oxide and Mixed Copper 原生氧化銅及混合銅	Open-pit 露天	1.17% TCu or/and 0.30% TCo 1.17%總銅或/及 0.30%總鈷	Based on Long-Term breakeven copper price of US\$7,200 per tonne or cobalt price of US\$45,000 per tonne (US\$20.4 per pound) and reserve estimation is based on constrained in-situ related grades. 基於長期保本銅價每噸7,200美元或鈷價每噸45,000美元(每磅20.4美元)，儲量估算乃根據限制原位相關品位作出。  All ex-pit material average grades reported are as estimated by Ruashi Grade Control Team during material re-classification and for existing stockpile reclaim. 所呈報的所有境界外物質平均品位乃由Ruashi品位監控團隊在物質重新分類期間估算，估算目的為現有堆儲量回收。
	Primary Oxide and Mixed Cobalt 原生氧化鈷及混合鈷			
	Ex-pit HG Oxide Copper 境界外高品位氧化銅	Open-pit 露天	4.27% TCu (Average) 4.27%總銅(平均值)	
	Ex-pit HG Oxide Cobalt 境界外高品位氧化鈷		0.33% TCo (Average) 0.33%總鈷(平均值)	
	Ex-pit LG Oxide Copper 境界外低品位氧化銅	Open-pit 露天	1.13% TCu (Average) 1.13%總銅(平均值)	
	Ex-pit LG Oxide Cobalt 境界外低品位氧化鈷		0.22% TCo (Average) 0.22%總鈷(平均值)	
	Ex-pit BOMZ Copper 境界外BOMZ銅	Open-pit 露天	0.61% TCu (Average) 0.61%總銅(平均值)	
Ex-pit BOMZ Cobalt 境界外BOMZ鈷		0.76% TCo (Average) 0.76%總鈷(平均值)		
Musonoi	Historical Tailings Copper 舊尾礦銅	Open-pit 露天	1.90% TCu (Average) 1.90%總銅(平均值)	Based on Long-Term breakeven reserve copper price of US\$7,200 per tonne or cobalt price of US\$45,000 per tonne (US\$20.4 per pound) and estimation is constrained within 2019 optimised and scheduled stopes. 基於長期保本儲備銅價每噸7,200美元或鈷價每噸45,000美元(每磅20.4美元)，估算受限於二零一九年優化及計劃回採法。
	Historical Tailings Cobalt 舊尾礦鈷		0.30% TCo (Average) 0.30%總鈷(平均值)	
	Ex-pit Mixed Copper 境界外混合銅	Open-pit 露天	5.62% TCu (Average) 5.62%總銅(平均值)	
Kinsenda	Ex-pit Mixed Cobalt 境界外混合鈷		0.24% TCo (Average) 0.24%總鈷(平均值)	Based on constraint within 2019 optimised and scheduled stopes at reserve breakeven metal price of US\$7,200 per tonne. 基於二零一九年優化及計劃回採法所限的儲備保本金屬價格每噸7,200美元。
	Primary Oxide Copper 原生氧化銅	Underground 地下	3.80% ASCuEq 3.80%酸溶銅當量	
Musonoi	Primary Oxide Cobalt 原生氧化鈷	Underground 地下	2.80% TCuEq 2.80%總銅當量	Based on constraint within 2019 optimised and scheduled stopes at reserve breakeven metal price of US\$7,200 per tonne. 基於二零一九年優化及計劃回採法所限的儲備保本金屬價格每噸7,200美元。
	Primary Mixed and Sulphide Copper 原生混合銅及硫化銅	Underground 地下	2.20% TCu 2.20%總銅	
Musonoi	Primary Mixed and Sulphide Cobalt 原生混合鈷及硫化鈷	Underground 地下	2.20% TCu 2.20%總銅	Based on constraint within 2019 optimised and scheduled stopes at reserve breakeven metal price of US\$7,200 per tonne. 基於二零一九年優化及計劃回採法所限的儲備保本金屬價格每噸7,200美元。
	Primary Sulphide Copper 原生硫化銅	Underground 地下	2.20% TCu 2.20%總銅	



## COMPETENT PERSON STATEMENT

Mineral Resources and Mineral Reserves information in this statement has been compiled by Mr. Karfai Leung, Mr. Hongbo Liu and Mr. Shugang Zhao of BAW Mineral Partners Limited (“**BAW**”), which all of them are Competent Persons under the SAMREC Code. BAW is a consulting firm independent from the Group. BAW consent to the inclusion of the relevant information in this report in the form and context in which it appears.

**Mr. Karfai Leung** (MPhil, MAusIMM), as the project manager and senior geologist of BAW. He has more than fifteen years of extensive experience in the mining industry globally including project generation, prospecting, field exploration, mineral resource definition, health, safety and environment management, mineral assets valuation, project evaluation, merger and acquisition deals and initial public offering process for energy, base metals, non-ferrous metals and precious metals. He has hands-on and extensive experience in cash flow modelling, valuation, due diligence, capital raising and project management.

**Mr. Hongbo Liu** (M. Sc., MAusIMM), as a senior mining engineer of BAW, has more than fifteen years of underground and open pit mining experience in mine operations, constructions, project management, engineering, mine development, ground control, ventilation, backfill, haulage and technical services.

**Mr. Shugang Zhao** (M. Sc., MAusIMM), as a senior resource geologist of BAW, earned his Master’s degree in Safety Technology and Engineering in digital mining from Central South University. He has more than ten years of extensive experience in mineral exploration, resource database management, 3D resource modelling, resource and reserve estimation, mine planning and production scheduling.

## 合資格人士聲明

本聲明中的礦產資源量及礦產儲量資料由BAW Mineral Partners Limited(「**BAW**」)的梁嘉輝先生、劉洪波先生及趙書剛先生所編製，其皆為SAMREC規則下的合資格人士。BAW為一家獨立於本集團的顧問公司，BAW同意於本報告中將有關資料按其列示的形式及涵義載入本報告。

**梁嘉輝先生**(MPhil, MAusIMM)，為BAW項目經理及高級地質師。彼在全球採礦業擁有超過15年的豐富經驗，包括項目生成、勘探、現場勘探、礦產資源界定、健康、安全及環境管理、礦物資產評估、項目評估、併購交易以及能源、普通金屬、有色金屬及貴金屬的首次公開招股流程。彼在現金流建模、評估、盡職審查、資金籌集和項目管理方面具有豐富的實踐經驗。

**劉洪波先生**(M.Sc., MAusIMM)，為BAW的高級採礦工程師，擁有超過15年的地下及露天採礦經驗，涉及礦山作業、建設、項目管理、工程、礦山開發、地面控制、通風、回填、運輸及技術服務等。

**趙書剛先生**(M.Sc., MAusIMM)，為BAW的高級資源地質師，彼從中南大學獲得了數位採礦安全技術和工程碩士學位。彼在礦產勘探、資源資料庫管理、3D資源建模、資源和儲量估算、礦山計劃和生產調度方面擁有十多年的豐富經驗。

## BUSINESS REVIEW

JCI and its subsidiaries are principally engaged in (i) the mining of metals, primarily copper and cobalt, in the DRC and Zambia; and (ii) the trading of mineral and metal products in Hong Kong.

The financial results of the Group in 2022 receded as compared to 2021. The results were primarily impacted by fluctuating commodity prices, higher production costs together with the longer quotation period adopted in the period when DRC's logistics was disrupted.

LME copper price reached a record high of US\$10,730 per tonne in March 2022, then dropped 35% to a year low of US\$7,000 per tonne by July 2022 and closed the year at US\$8,387 per tonne as at 31 December 2022. On the other hand, MB cobalt price climbed up to US\$39.75 per pound in April 2022 and then dropped 37% to US\$25 per pound by July 2022. The fall continued in the year and closed the year at US\$18.75 per pound as at 31 December 2022, representing a decrease of 53% from the highest price in 2022. The Group's results were heavily impacted by the sudden sharp decrease in commodity prices.

### Mining Operations

The Group has majority control over two operating mines in Africa which are Ruashi Mine, a copper and cobalt mine located in Lubumbashi, the DRC, and Kinsenda Mine, a copper mine located in Haut Katanga Province, the DRC. The Group also has interest over a copper mine located in Zambia which has been leased out under finance lease agreement (Chibuluma South Mine (including Chifupu Deposit)).

In 2022, the Group produced 59,440 tonnes of copper (2021: 61,260 tonnes) and 3,961 tonnes of cobalt (2021: 3,379 tonnes) and sold 64,739 tonnes of copper (2021: 57,001 tonnes) and 4,496 tonnes of cobalt (2021: 2,617 tonnes) which generated revenue of US\$487.9 million and US\$160.9 million respectively (2021: US\$514.0 million and US\$106.6 million respectively).

## 業務回顧

金川國際及其附屬公司主要從事(i)於剛果(金)及贊比亞開採金屬，主要為銅及鈷；及(ii)於香港進行礦產品及金屬產品貿易。

本集團於二零二二年的財務業績較二零二一年有所回落，主要歸因於大宗商品價格起伏不定、生產成本上漲及剛果(金)物流斷續期間採納較長作價期的影響。

倫敦金所銅價於二零二二年三月創下每噸10,730美元的歷史新高，隨後下跌35%至二零二二年七月的每噸7,000美元的年度低點，年終(二零二二年十二月三十一日)收盤於每噸8,387美元。另一方面，金屬導報鈷價曾於二零二二年四月攀升至每磅39.75美元，隨後下跌37%至二零二二年七月的每磅25美元。年內價格持續走低，截至二零二二年十二月三十一日之年終收盤價每磅18.75美元，較二零二二年最高價下跌53%。本集團業績受到大宗商品價格急劇下挫的嚴重影響。

### 採礦業務

本集團對非洲兩個營運礦場擁有多數控制權，分別為位於剛果(金)盧本巴希之銅鈷礦Ruashi礦場及位於剛果(金)上加丹加省之銅礦Kinsenda礦場。本集團亦持有贊比亞的一個銅礦場(即包括Chifupu礦床在內的Chibuluma南礦場)的權益，其已以融資租賃協議方式租出。

於二零二二年，本集團生產59,440噸銅(二零二一年：61,260噸)及3,961噸鈷(二零二一年：3,379噸)，並出售64,739噸銅(二零二一年：57,001噸)及4,496噸鈷(二零二一年：2,617噸)，產生收益分別為487.9百萬美元及160.9百萬美元(二零二一年：分別為514.0百萬美元及106.6百萬美元)。

Copper production was lowered by 3% in 2022 as compared to 2021. Ruashi Mine's copper production for 2022 of 30,353 tonnes was 8% lower as compared to 2021 of 33,063 tonnes due to lower ore feed grade. Kinsenda Mine reported 3% higher copper production at 29,087 tonnes for 2022 as compared to 28,197 tonnes for 2021. Kinsenda Mine has increased its ore processing volume in 2022 and this had successfully offset the impact of decreasing ore grade and feed grade in the year.

Cobalt production has increased by 17% to 3,961 tonnes in 2022 as compared to 2021 of 3,379 tonnes as Ruashi Mine had successfully purchased more ore from independent suppliers in 2022 which were of higher cobalt grade as compared to self-mined ore and had offset the impact caused by the decrease in self-mined ore's feed grade.

The Group also has control over Musonoi Project, a copper and cobalt project at development stage, and Lubembe Project, a copper project in exploration stage. Both projects are located in the DRC.

### Trading of Mineral and Metal Products

In 2022, the trading division of the Group recorded a turnover of US\$232.8 million (2021: US\$211.3 million) via the trading of commodities, including copper cathode, copper matte and cobalt hydroxide.

### FINANCIAL REVIEW

The Group's operating results for 2022 are a consolidation of the results from the operating mines in the DRC and Zambia and the trading of mineral and metal products in Hong Kong.

二零二二年銅產量較二零二一年少3%。二零二二年Ruashi礦場銅產量為30,353噸，相比二零二一年33,063噸低8%，乃由於礦石入廠品位下降。二零二二年Kinsenda礦場錄得較高銅產量29,087噸，較二零二一年28,197噸增加3%。Kinsenda礦場於二零二二年提高礦石處理量，並成功抵銷年內礦石品位及入廠品位下降之影響。

鈷產量由二零二一年的3,379噸增加17%至二零二二年的3,961噸，乃由於期內Ruashi礦場於二零二二年成功從獨立供應商採購更多礦石，所採購礦石的鈷品位相比自家採出的礦石較高，抵銷了自家開採礦石入廠品位下降的影響。

本集團亦擁有Musonoi項目（一個處於開發階段之銅鈷礦項目）及Lubembe項目（一個處於勘探階段之銅礦項目）的控制權。兩個項目均位於剛果（金）。

### 礦產品及金屬產品貿易

於二零二二年，本集團的貿易分部透過包括電解銅、冰銅及氫氧化鈷商品貿易錄得232.8百萬美元（二零二一年：211.3百萬美元）的營業額。

### 財務回顧

本集團於二零二二年之經營業績為綜合位於剛果（金）及贊比亞之經營礦場及位於香港之礦產品及金屬產品貿易業務之業績。

Revenue

The revenue for the Group's operations in 2022 was US\$881.6 million, representing an increase of 6% compared to US\$831.9 million for 2021. Reasons for the increase in revenue during the year are discussed below.

The Group's sales performance from its mining operations and trading of mineral and metal products was as follows:

收益

於二零二二年，本集團經營業務之收益為881.6百萬美元，較二零二一年之831.9百萬美元增加6%。年內收益增加的原因於下文論述。

本集團採礦業務與礦產品及金屬產品貿易之銷售表現如下：

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年	2021 二零二一年
<b>Mining operations:</b>	<b>採礦業務：</b>		
Volume of copper sold (tonnes)	銅銷售量(噸)	64,739	57,001
Volume of cobalt sold (tonnes)	鈷銷售量(噸)	4,496	2,617
Average price realised per tonne of copper (US\$)	每噸銅平均實現售價(美元)	7,537	9,018
Average price realised per tonne of cobalt (US\$)	每噸鈷平均實現售價(美元)	35,790	40,738
<b>Revenue from sales of copper (US\$'000)</b>	<b>銅銷售收益(千美元)</b>	<b>487,907</b>	514,025
<b>Revenue from sales of cobalt (US\$'000)</b>	<b>鈷銷售收益(千美元)</b>	<b>160,910</b>	106,613
Total revenue from mining operations – including provisional pricing adjustment (US\$'000)	採礦業務總收益 – 包括臨時定價調整(千美元)	648,817	620,638
<b>Trading of mineral and metal products: Revenue – trading of externally sourced mineral and metal products – including provisional pricing adjustment (US\$'000)</b>	<b>礦產品及金屬產品貿易：收益 – 向外採購礦產品及金屬產品貿易 – 包括臨時定價調整(千美元)</b>	<b>232,781</b>	211,261
<b>Total Revenue (US\$'000)</b>	<b>總收益(千美元)</b>	<b>881,598</b>	831,899

Note: Pricing coefficients were considered in actual sales revenue.

附註：於實際銷售收益中已考慮定價系數。

In 2022, the Group sold 64,739 tonnes of copper content contained in copper cathode and copper concentrate (2021: 57,001 tonnes), of which the copper sales volume of Ruashi Mine in 2022 was 35,150 tonnes, an increase of 26% from 27,930 tonnes in 2021, and the copper sales volume of Kinsenda Mine in 2022 was 29,589 tonnes, an increase of 2% from 29,071 tonnes in 2021. The Group sold 4,496 tonnes of cobalt content contained in cobalt hydroxide in 2022, representing an increase of 72% compared with 2,617 tonnes in 2021.

With global logistics gradually resumed normal in the second half of 2022, the Group has been successful in destocking finished goods on hand, leading to a higher sales volume in 2022 for both copper and cobalt as compared to production volume.

Copper revenue from mining operations for 2022 decreased by 5% as compared to 2021. The average copper price realised in 2022 was US\$7,537 per tonne, representing a decrease of 16% as compared to US\$9,018 per tonne in 2021.

Cobalt revenue from mining operations in 2022 increased by 51% as compared to 2021 due to the increase in volume of cobalt sold offset by lower average realised cobalt price. The volume of cobalt sold has increased by 72% from 2,617 tonnes in 2021 to 4,496 tonnes in 2022. The average realised cobalt price for 2022 was US\$35,790 per tonne which was 12% lower when compared to US\$40,738 per tonne for 2021.

Benchmark LME copper price and MB cobalt price have decreased by approximately 13% and 44% respectively from the end of 2021 and reached US\$8,387 per tonne and US\$18.75 per pound respectively by the end of December 2022. As a result, the Group's average copper and cobalt price realised in 2022 have decreased by 16% and 12%, respectively, as compared to prior years. Moreover, longer quotation periods were adopted with several copper and cobalt customers during the time when global logistics was disrupted, leading to more downward adjustments to the provisional prices previously recognised under the market downturn circumstances.

The trading of mineral and metal products segment recorded an increase in revenue on trading of externally sourced commodities of 10% from US\$211.3 million in 2021 to US\$232.8 million in 2022. The increase was due to the gradual increase in trading volume of the new trading business line in Hong Kong which commenced operation in 2020.

於二零二二年，本集團售出含銅量64,739噸(二零二一年：57,001噸)的電解銅及銅精礦，其中Ruashi礦場於二零二二年銅銷量為35,150噸，較二零二一年的27,930噸上升26%，而Kinsenda礦場於二零二二年的銅銷量為29,589噸，較二零二一年的29,071噸上升2%。於二零二二年，本集團售出含鈷量4,496噸(二零二一年：2,617噸)的氫氧化鈷，較二零二一年上升72%。

隨著全球物流於二零二二年下半年逐步恢復常態化，本集團成功縮減手頭製成品存貨，導致二零二二年銅、鈷銷量均高於產量。

於二零二二年，來自採礦業務的銅收入較二零二一年減少5%。二零二二年平均實現銅價為每噸7,537美元，較二零二一年每噸9,018美元下跌16%。

二零二二年來自採礦業務的鈷收入較二零二一年增加51%，乃由於鈷銷量上升所致，但為平均實現鈷價下跌所抵銷。鈷銷量由二零二一年2,617噸上升72%至二零二二年的4,496噸。二零二二年平均實現鈷價為每噸35,790美元，較二零二一年每噸40,738美元下跌12%。

倫敦金所銅基準價及金屬導報鈷基準價從二零二一年年底分別下跌約13%及44%至二零二二年十二月末的每噸8,387美元及每磅18.75美元，引致本集團於二零二二年銅及鈷的平均實現售價較上年度分別下跌16%及12%。另外，於全球物流受阻時與數家銅鈷客戶達成同意採用更長時期之定價期，因而導致市場下降週期時需要就先前確認之臨時定價作出更多下調。

礦產品及金屬產品貿易分部所錄得向外採購的大宗商品貿易之收益由二零二一年的211.3百萬美元增加10%至二零二二年的232.8百萬美元。該增加乃由於二零二零年新開展香港貿易業務線的貿易貨量持續上升所致。

### Cost of Sales

Cost of sales represents the costs associated with the production of copper and cobalt from the Group's mining operations and the purchase cost for the trading of mineral and metal products. The major components of cost of sales are as follows:

### 銷售成本

銷售成本指與本集團採礦業務銅鈷生產有關之成本以及礦產品及金屬產品貿易之採購成本。銷售成本之主要組成部分如下：

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Mining operations:</b>	<b>採礦業務：</b>		
Realisation costs	變現成本	1,125	7,233
Mining costs	採礦成本	91,069	63,517
Ore purchase	礦石採購	92,224	11,497
Salaries and wages	薪金及工資	52,093	50,734
Processing costs	冶煉成本	112,544	95,841
Engineering and technical costs	工程及技術成本	18,471	14,245
Safety, health, environment and community costs	安全、健康、環境及社區成本	5,478	5,130
Mine administrative expenses	礦山行政開支	33,263	34,452
Depreciation of property, plant and equipment	物業、廠房及設備之折舊	63,294	67,831
Depreciation of right-of-use assets	使用權資產之折舊	68	107
Amortisation of mineral rights	礦產權攤銷	24,842	14,434
Movement in inventories	庫存變動	18,967	(50,132)
<b>Sub-total</b>	<b>小計</b>	<b>513,438</b>	314,889
<b>Trading of mineral and metal products:</b>	<b>礦產品及金屬產品貿易：</b>		
Purchase of commodities	採購商品	232,781	216,212
<b>Total Cost of Sales</b>	<b>總銷售成本</b>	<b>746,219</b>	531,101

Cost of sales for the Group's mining operations increased to US\$513.4 million in 2022, representing an increase of 63% as compared to US\$314.9 million in 2021. Mining costs increased by 43% as Ruashi Mine had increased mining activities to accelerate the depletion of Pit 1, so as to create dumping space for waste from Pit 3. Processing costs were 17% higher in 2022 due to the higher electricity expenses, higher reagent consumption due to acid solubility of the ore and the increase in the reagent price. Ore purchase expenses have increased from US\$11.5 million in 2021 to US\$92.2 million in 2022 as Ruashi Mine had successfully purchased more ore from independent suppliers which offset the impact caused by the decrease in self-mined ore's feed grade.

於二零二二年，本集團採礦業務的銷售成本增加至513.4百萬美元，較二零二一年的314.9百萬美元增加63%。由於Ruashi礦場增加採礦活動以耗減一號礦坑，騰出空間放置三號礦坑之廢石，故採礦成本增加43%。二零二二年冶煉成本增加17%，乃由於電費上升、礦石酸溶性導致溶劑使用量增加以及溶劑價格上漲所致。礦石採購開支由二零二一年的11.5百萬美元增加至二零二二年的92.2百萬美元，乃由於Ruashi礦場成功向獨立供應商採購更多礦石，抵銷了自家開採礦石入廠品位下降的影響。

In 2022, the Group's finished goods inventory decreased by 4,778 tonnes of copper cathode, 544 tonnes of cobalt hydroxide (cobalt content) and 503 tonnes of copper concentrate (copper content).

Cost of trading of mineral and metal products of US\$232.8 million (2021: US\$216.2 million) represented the cost of commodities purchased by our trading subsidiaries in 2022. The increase in cost of sales was in line with the increase of trading segment's revenue.

### Royalty Payment

Royalty payment increased from US\$49.1 million in 2021 to US\$66.9 million in 2022 which was in line with the increase in sales volumes of cobalt in 2022.

### Gross Profit

Gross profit of the Group's operations has decreased by 73% from US\$251.7 million in 2021 to US\$68.5 million in 2022. The increase in revenue in 2022 was offset by the higher cost of sales and royalty payment as mentioned above which led to the decrease in gross profit in 2022.

### Net Finance Costs

Finance costs has decreased by 10% from US\$9.5 million in 2021 to US\$8.6 million in 2022 as a result of the gradual repayment of Kinsenda Mine's project loan and working capital loans. Interest expenses on project loan raised for the construction of Musonoi Project were capitalised to construction in progress as the project was still in construction phase.

Gross interest expenses (before capitalisation) increased by 32% from US\$11.0 million in 2021 to US\$14.6 million in 2022 due to the increase in market interest rate in 2022 and offset by the gradual repayment of bank loans using cashflow from Kinsenda Mine, leading to a decrease in principal outstanding and the impact of the interest rate swap agreements, which had swapped part of the interest payments from floating interest payments to fixed interest payments, locking down the interest payment amount.

於二零二二年，本集團製成品庫存減少4,778噸電解銅、544噸氫氧化鈷(含鈷量)及503噸銅精礦(含銅量)。

礦產品及金屬產品貿易之成本232.8百萬美元(二零二一年：216.2百萬美元)指我們貿易附屬公司於二零二二年所採購大宗商品的成本。該銷售成本增加與貿易分部的收益增加變動一致。

### 礦權使用費

礦權使用費由二零二一年的49.1百萬美元增至二零二二年的66.9百萬美元，與二零二二年鈷銷量上升一致。

### 毛利

本集團經營毛利由二零二一年的251.7百萬美元減少73%至二零二二年的68.5百萬美元。如上文所述，二零二二年收益增加受銷售成本及礦權使用費增加所抵銷，導致二零二二年整體毛利下跌。

### 淨財務成本

財務成本由二零二一年之9.5百萬美元減少10%至二零二二年之8.6百萬美元，原因為逐步償還Kinsenda礦山項目貸款及流動資金貸款。由於Musonoi項目仍處於建設階段，就建設Musonoi項目籌集的項目貸款之利息開支已資本化至在建工程。

利息開支總額(資本化前)由二零二一年的11.0百萬美元增加32%至二零二二年的14.6百萬美元，乃由於二零二二年市場利率上調，並由使用Kinsenda礦場產生之現金流逐步償還銀行貸款(導致未償還本金減少)及訂立利率掉期協議(該協議將部份利息支付由浮動利息支付轉為固定利息支付，從而鎖定利息支付金額)之影響所抵銷。

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Finance income	財務收入	1,931	728
Finance costs	財務成本		
– Interest expenses	– 利息開支	(14,563)	(11,044)
– Less: Amount capitalised in cost of qualifying assets	– 減：已於合資格資產成本中資本化之金額	5,921	1,505
		<b>(8,642)</b>	(9,539)
<b>Net Finance Costs</b>	<b>淨財務成本</b>	<b>(6,711)</b>	(8,811)

#### Other Income, Other Gains and Losses

#### 其他收入、其他收益及虧損

The major components of other income, other gains and losses are as follows:

其他收入、其他收益及虧損之主要組成部分如下：

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Reversal of impairment loss recognised in respect of property, plant and equipment	就物業、廠房及設備確認之減值虧損撥回	42,166	–
Reversal of impairment loss recognised in respect of mineral rights	就礦產權確認之減值虧損撥回	2,834	96,000
Royalty income under finance lease agreement	融資租賃協議下的礦權使用費收入	2,713	2,442
Written off of property, plant and equipment	撇銷物業、廠房及設備	–	(10,369)
Impairment loss on VAT recoverable	可收回增值稅之減值虧損	–	(25,900)
Exchange losses, net	匯兌虧損，淨額	(2,034)	(1,075)
Gain on disposal of property, plant and equipment	出售物業、廠房及設備之收益	–	1,477
Others	其他	444	671
		<b>46,123</b>	63,246



### Reversal of impairment loss

The Group recognised a reversal of impairment of property, plant and equipment of US\$42,166,000 and mineral rights of US\$2,834,000, respectively, for Kinsenda CGU (2021: reversal of impairment of mineral rights of US\$96,000,000 for Ruashi CGU) for the year ended 31 December 2022. The Group has reviewed the updated life of mine model of the Group's two operating mines incorporating revised minable reserves and new commodities prices assumption, and has reversed Kinsenda Mine's impairment loss and Ruashi's Mine's impairment loss recognised in prior years to reflect the changes in assumptions and mineable reserves for the years ended 31 December 2022 and 2021 respectively.

### Royalty income under finance lease agreement

Starting from 2021, Chibuluma South Mine (including Chifupu Deposit) was leased out under a finance lease agreement. The Group is entitled to fixed lease income and variable royalty income under the finance lease agreement. The lessee produced and sold 3,737 tonnes (2021: 3,051 tonnes) of copper in 2022 and the Group has recorded a royalty income of US\$2.7 million (2021: US\$2.4 million) under the finance lease agreement.

### Written off of property, plant and equipment

In 2021, part of the Group's property, plant and equipment were replaced by new facilities, therefore the Group has written off property, plant and equipment amounted to US\$10.4 million (2022: nil).

### Impairment loss on VAT recoverable

As a result of continued challenge by relevant government authorities in settling long outstanding VAT claims, an impairment loss of US\$25.9 million (2022: nil) was recognised on VAT recoverable in 2021.

### Gain on disposal of property, plant and equipment

In 2021, the Group recorded a gain on disposal of Chibuluma's mining assets amounted to US\$1.5 million (2022: nil) upon the effective of Chibuluma finance lease agreement.

### 減值虧損撥回

截至二零二二年十二月三十一日止年度，本集團分別就Kinsenda現金產生單位確認物業、廠房及設備減值撥回42,166,000美元及礦產權減值撥回2,834,000美元(二零二一年：Ruashi現金產生單位的礦產權減值撥回為96,000,000美元)。本集團已審閱本集團兩家營運礦場的最新礦場開採期模型，其中包括經修訂可開採儲量及新的商品價格假設，並已就Kinsenda礦場及Ruashi礦場於前過往年度確認減值虧損作出撥回，以分別反映截至二零二二年及二零二一年十二月三十一日止年度的假設及可開採儲量的變化。

### 融資租賃協議下的礦權使用費收入

自二零二一年起，Chibuluma南礦場(包括Chifupu礦床)根據一項融資租賃協議租出。根據該融資租賃協議，本集團有權享有固定租賃收入另加浮動礦權使用費收入。承租人於二零二二年生產及售出3,737噸銅(二零二一年：3,051噸)，本集團根據該融資租賃協議錄得礦權使用費收入2.7百萬美元(二零二一年：2.4百萬美元)。

### 撇銷物業、廠房及設備

於二零二一年，本集團部分物業、廠房及設備換新，因此本集團撇銷物業、廠房及設備10.4百萬美元(二零二二年：無)。

### 可收回增值稅之減值虧損

由於相關政府機關對清償長期未償還增值稅不斷提出質疑，因此於二零二一年確認對可收回增值稅計提減值虧損25.9百萬美元(二零二二年：零)。

### 出售物業、廠房及設備之收益

於二零二一年，本集團於Chibuluma融資租賃協議生效時錄得出售Chibuluma採礦資產收益1.5百萬美元(二零二二年：無)。

### Selling and Distribution Costs

The costs mainly represent the off-mine costs incurred when the Group sells its copper and cobalt products under the mining operations, and they primarily comprise of transportation expenses and custom clearing expenses. The breakdown of selling and distribution costs is as follows:

### 銷售及分銷成本

該等成本主要指本集團於銷售其採礦業務之銅及鈷產品時所產生之礦場外成本，主要包括運輸開支及清關費用。銷售及分銷成本之明細如下：

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Off-mine costs:	礦場外成本：		
Clearing costs of export	出口清關成本	27,329	18,240
Transportation	運輸	6,822	3,917
Others	其他	2,182	658
<b>Total Selling and Distribution Costs</b>	<b>總銷售及分銷成本</b>	<b>36,333</b>	<b>22,815</b>

Selling and distribution costs has increased by 59% from US\$22.8 million in 2021 to US\$36.3 million in 2022.

銷售及分銷成本由二零二一年的22.8百萬美元增加59%至二零二二年的36.3百萬美元。

The increase in selling and distribution costs was a result of increase in clearing cost of export and transportation cost as Kinsenda Mine previously sold copper blister to local DRC customers prior to July 2021 and has changed to exporting copper concentrates to overseas since July 2021. At the same time, cobalt hydroxide sale volumes increased by 72% in 2022 as compared to 2021 also contributed to the increase in clearing and transportation costs.

銷售及分銷成本增加乃由於Kinsenda礦山於二零二一年七月前於當地出售粗銅予剛果(金)的客戶，但自二零二一年七月起轉為出口銅精礦，導致出口清關成本及運輸成本增加所致。同時，氫氧化鈷於二零二二年的銷量較二零二一年上升72%亦使清關及運輸成本上升。

### Administrative Expenses

Administrative expenses increased by 129% from US\$4.5 million in 2021 to US\$10.4 million in 2022. In 2021, the Group had revisited the rehabilitation plan and the revision had led to a reversal of US\$6.1 million in rehabilitation provision in 2021. There was no such reversal in 2022. The amount of other administrative expenses items in 2022 are comparable to that of 2021.

### 行政開支

行政開支由二零二一年的4.5百萬美元增加129%至二零二二年的10.4百萬美元。於二零二一年，本集團重新制定礦山復墾計劃，該更新令致復墾撥備回撥6.1百萬美元。二零二二年並沒有該等回撥。其他行政開支費用項目於二零二二年的金額與二零二一年相約。

## Income Tax Expense

The Group is subject to taxes in Hong Kong, the DRC, Zambia and South Africa due to its business operations in these jurisdiction. An income tax expense of US\$54.3 million was derived in 2022 as compared to US\$116.7 million in the 2021. The decrease of income tax expenses was due to (i) the decrease in profit before tax in 2022; and (ii) the absence of DRC Super Profits Tax in 2022. Provision of US\$3.6 million for DRC Super Profits Tax was triggered by the significant increase in copper price in 2021.

## Profit for the Year

As a result of the above, the Group recorded a consolidated profit of US\$6.9 million for the year ended 31 December 2022 as compared to US\$162.4 million for the year ended 31 December 2021.

## Profit Attributable to Shareholders

The Group recorded a profit attributable to the shareholders of the Company amounted to US\$1.0 million for the year ended 31 December 2022, as compared to the profit attributable to shareholders of the Company of US\$120.5 million for the year ended 31 December 2021. The decrease of the Group's profit attributable to shareholders of the Company for the year ended 31 December 2022 as compared to the year ended 31 December 2021 was mainly due to the impact of lower commodity prices, longer quotational period and higher production cost incurred, especially for the mining costs, ore purchase expenses and processing costs as mentioned above.

## Non-IFRS Financial Measure

### C1 cash cost

The term "C1 cash cost" is a non-IFRS performance measure included in this "Management Discussion and Analysis" and is prepared on a per tonne of copper sold basis. The term C1 cash cost does not have any standardised meaning prescribed by IFRS and therefore may not be comparable to similar measures presented by other issuers. C1 cash cost is a common performance measure in the copper industry and is prepared and presented herein on a basis consistent with industry standard definitions. C1 cash costs include all mining and processing costs, mine site overheads, realisation costs through to refined metal and off-site costs.

## 所得稅開支

本集團因其於香港、剛果(金)、贊比亞及南非之業務營運而須繳納該等司法權區之稅項。二零二二年產生的所得稅開支為54.3百萬美元，而二零二一年則為116.7百萬美元。所得稅開支減少乃因為(i)二零二二年除稅前溢利下降；及(ii)於二零二二年並無計提撥備剛果(金)超額利潤稅所致。於二零二一年，因銅價大幅上漲而引致撥備剛果(金)超額利潤稅3.6百萬美元。

## 年內溢利

基於上述事項，本集團截至二零二二年十二月三十一日止年度錄得綜合溢利為6.9百萬美元，而截至二零二一年十二月三十一日止年度則為162.4百萬美元。

## 股東應佔溢利

截至二零二二年十二月三十一日止年度，本集團錄得本公司股東應佔溢利為1.0百萬美元，而截至二零二一年十二月三十一日止年度本公司股東應佔溢利120.5百萬美元。截至二零二二年十二月三十一日止年度，本公司股東應佔本集團溢利較截至二零二一年十二月三十一日止年度減少的主要原因是大宗商品價格下跌、較長定價期及生產成本上漲(尤其是上文所述採礦成本、採購礦石開支及冶煉成本)所致。

## 非國際財務報告準則財務計量方法

### C1現金成本

「C1現金成本」為本「管理層討論及分析」內呈報的一項不屬於國際財務報告準則的計量表現方法，乃按每噸銷售的銅為基準編製。國際財務報告準則並無界定C1現金成本一詞的標準定義，因而該數據未必能與其他發行人所呈列的類似計量方法比較。C1現金成本乃銅行業內普遍採用的業務表現計量方法，於本節內以符合業界標準定義的基準編製及呈列。C1現金成本包括所有採礦及選冶成本、礦場的經常性開支及直至加工精煉金屬的可變現成本及礦場外成本。

The table below reconciles the Group's C1 cash costs to the statement of comprehensive income in the financial statements of the Group for the financial periods indicated.

就所示財政期間而言，下表提供本集團的C1現金成本與本集團財務報表內全面收益表的對賬。

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Cash costs as reported in the income statement:	於收益表內申報的現金成本：		
Direct and indirect mining cost	直接及間接採礦成本	441,967	305,571
Adjustment for change in inventory	庫存變動的調整	18,967	(50,132)
Adjustment for cobalt (by-product) revenue	鈷(副產品)收益調整	(160,910)	(106,613)
<b>C1 cash costs</b>	<b>C1現金成本</b>	<b>300,024</b>	<b>148,826</b>
Copper sold (tonnes)	已出售銅(噸)	64,739	57,001
C1 cash cost per tonne of copper (US\$/tonne)	每噸銅的C1現金成本(美元/噸)	4,634	2,611

**Earnings before interest (net finance costs), income tax, depreciation and amortisation and impairment loss ("EBITDA")**

未計利息(淨財務成本)、所得稅、折舊及攤銷以及減值虧損前盈利(「EBITDA」)

EBITDA is used by the management to evaluate the financial performance of the Group and identify underlying trends in business that could otherwise be distorted if the impact of items that do not consider indicative of the performance of the business and/or which we do not expect to be recurring are not eliminated. Companies may use different methods of depreciating assets. Management considered the impairment loss and written off of property, plant and equipment and mining rights and gain on disposal of property, plant and equipment, are non-recurring in nature and are not relevant to our core business operations. Management believes that these measures better reflect the Company's performance for the current period and are a better indication of its expected performance in future periods. EBITDA is intended to provide additional information, but does not have any standardized meaning prescribed by IFRS.

EBITDA由管理層用於評估本集團的財務表現並識別相關業務趨勢，倘項目的影響不被視為對業務表現有指示性及/或我們預計不屬經常性的項目並未消除，則相關業務趨勢可能扭曲。不同的公司可能採用不同的方法對資產進行折舊。管理層認為物業、廠房及設備及採礦權的減值虧損及撇銷，以及出售物業、廠房及設備之收益屬非經常性且與我們的核心業務運營無關。管理層認為該等指標更好地反映本公司本期的表現，為未來期間其預計表現的更好指示。EBITDA旨在提供額外資料，但國際財務報告準則並無界定標準定義。

The EBITDA of the Group is derived as follows:

本集團EBITDA計算如下：

For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Profit for the year</b>	<b>年內溢利</b>	<b>6,864</b>	162,445
Add: Net finance costs	加：淨財務成本	<b>6,711</b>	8,811
Add: Income tax expenses	加：所得稅開支	<b>54,266</b>	116,729
Add: Depreciation of property, plant and equipment	加：物業、廠房及設備折舊	<b>63,342</b>	67,935
Add: Depreciation of right-of-use assets	加：使用權資產之折舊	<b>751</b>	911
Add: Amortisation of mineral rights	加：礦產權攤銷	<b>24,842</b>	14,434
Add: Impairment loss on VAT recoverable	加：可收回增值稅之減值虧損	-	25,900
Add: Written off of property, plant and equipment	加：撇銷物業、廠房及設備	-	10,369
Less: Reversal of impairment loss recognized in respect of mineral rights	減：就礦產權確認之撥回減值虧損	<b>(2,834)</b>	(96,000)
Less: Reversal of impairment loss recognised in respect of property, plant and equipment	減：就物業、廠房及設備確認之減值虧損撥回	<b>(42,166)</b>	-
<b>EBITDA</b>	<b>EBITDA</b>	<b>111,776</b>	311,534

The Company believes that in addition to conventional measures prepared in accordance with IFRS, certain investors will use the above tool and related information to evaluate the Company. It is intended to provide additional information and should not be considered in isolation nor as a substitute for measures of performance prepared in accordance with IFRS.

#### Issue of New Shares

During the year ended 31 December 2022 and 31 December 2021, no new shares have been issued by the Company.

本公司認為，除根據國際財務報告準則編製的傳統計量方法外，若干投資者將採用上述工具及相關資料評估本公司。其擬提供額外資料，不應單獨考慮及被視為替代根據國際財務報告準則編製的表現計量方法。

#### 發行新股

於截至二零二二年十二月三十一日及二零二一年十二月三十一日止年度，本公司並無發行新股。

## Capital Structure

The capital of the Company comprises ordinary shares and perpetual subordinated convertible securities. For the movement of share capital and perpetual subordinated convertible securities, please refer to notes 33 and 35 of the consolidated financial statements respectively. During the period from June to December 2022, a wholly-owned subsidiary of the Company, GHL purchased and cancelled a total of 107,791,000 ordinary shares of the Company on-market. The buy-back payment was paid wholly out of the Company's share premium. Consequently, US\$139,000 share capital and US\$10,558,000 share premium was deducted for the ordinary shares bought back and cancelled. The number of ordinary shares outstanding decreased from 12,609,873,051 Shares to 12,502,082,051 Shares upon cancellation of Shares repurchased at end of current year. The Shares were acquired during the year at an average price of HK\$0.77 per Share, with prices ranging from HK\$0.53 to HK\$0.94. The total amount of approximately HK\$83,437,000 (equivalent to approximately US\$10,697,000) paid to acquire the Shares has been deducted from shareholders' equity.

## Liquidity and Financial Resources

As at 31 December 2022, the Group had bank balances and cash (including bank deposits) of US\$89.7 million as compared to US\$215.8 million as at 31 December 2021.

As at 31 December 2022, the Group had total bank borrowings and overdrafts of US\$197.8 million (2021: US\$249.7 million) in which the bank borrowings and overdrafts of US\$70.8 million (2021: US\$115.7 million) are due within one year, bank borrowings of US\$127.0 million (2021: US\$104.0 million) are due within 2 to 5 years and no bank borrowings are due over 5 years (2021: US\$30.0 million).

In December 2020, the Group entered into interest rate swap agreements with an independent commercial bank to swap the Group's LIBOR denominated bank loans with principal amount of US\$194.0 million to fixed interest rate for the remaining loan term. As at 31 December 2022, bank loans with principal amount of US\$34.0 million are carrying effective fixed interest rate for the remaining loan term of 3.9% per annum.

## 資本結構

本公司資本包括普通股及永久次級可換股證券。有關股本及永久次級可換股證券之變動，請分別參閱綜合財務報表之附註33及35。於二零二二年六月至十二月期間，本公司之全資附屬公司金港源於市場購買及註銷合共107,791,000股本公司普通股。有關購回的款項全部以本公司股份溢價支付。因此，已就購回及註銷的普通股份扣除股本139,000美元及股份溢價10,558,000美元。於購回股份獲註銷後，發行在外的普通股份數目由12,609,873,051股減至本年度結束時的12,502,082,051股。股份按平均價格每股份0.77港元於本年度收購，價格由0.53港元至0.94港元不等。就購入股份已支付的總額約83,437,000港元（等於約10,697,000美元）已從股東權益中扣除。

## 流動資金及財務資源

於二零二二年十二月三十一日，本集團有銀行結餘及現金（包括銀行定存）89.7百萬美元，而於二零二一年十二月三十一日則為215.8百萬美元。

於二零二二年十二月三十一日，本集團之總銀行借款及銀行透支為197.8百萬美元（二零二一年：249.7百萬美元），其中為數70.8百萬美元（二零二一年：115.7百萬美元）之銀行借款及銀行透支於一年內到期，為數127.0百萬美元（二零二一年：104.0百萬美元）之銀行借款於兩至五年內到期，及沒有銀行借款於五年後到期（二零二一年：30.0百萬美元）。

於二零二零年十二月，本集團與一間獨立商業銀行訂立利率掉期協議，以將本集團本金為194.0百萬美元的倫敦銀行同業拆息計息銀行貸款於餘下貸款期轉換為固定利率。於二零二二年十二月三十一日，本金為34.0百萬美元的銀行貸款於餘下貸款期按年利率3.9%的實際固定利率計息。

As at 31 December 2022, the Group had loans from related companies of US\$112.1 million (2021: US\$108.3 million), of which US\$11.2 million (2021: US\$108.3 million) are due within one year and loans from related companies of US\$100.9 million (2021: Nil) are due within 2 to 5 years.

The gearing ratio of the Group as at 31 December 2022 was 18.9% compared to 12.1% as at 31 December 2021. Gearing ratio is defined as net debt over total equity, and net debt is derived from total borrowings (including amount due to related companies and bank overdrafts) less bank balances and cash (including bank deposits). The increase in the gearing ratio was due to the decrease of bank balance and cash and the increase of loan from related companies.

For the year ended 31 December 2022, the Group financed its operations with loan facilities provided by banks, borrowings from related companies and internally generated cash flows.

#### Material Acquisitions and Disposals of Investments

During the year ended 31 December 2022, there was no material acquisition or disposal of subsidiaries, associates and joint ventures.

#### Significant Capital Expenditures

During the year ended 31 December 2022, the Group acquired property, plant and equipment amounting to US\$99.1 million (2021: US\$108.0 million) and incurred expenditures on exploration and evaluation assets amounting to US\$0.3 million (2021: US\$1.7 million) for the Group's mining operations. During the year ended 31 December 2022, the Group did not recognise any additional right-of-use assets (2021: US\$2.0 million). US\$75.5 million (2021: US\$61.3 million) of the capital expenditure incurred in the year ended 31 December 2022 related to the construction cost of Musonoi Project.

#### Details of Charges on the Group's Assets

As at 31 December 2022, none of the Group's assets were pledged or subject to encumbrance to secure general banking facilities granted to the Group.

#### Details of Contingent Liabilities

As at 31 December 2022, the Group did not have any significant contingent liabilities.

於二零二二年十二月三十一日，本集團有關聯公司貸款112.1百萬美元(二零二一年：108.3百萬美元)，其中為數11.2百萬美元(二零二一年：108.3百萬美元)於一年內到期及為數100.9百萬美元(二零二一年：無)關聯公司貸款於兩至五年內到期。

本集團於二零二二年十二月三十一日之資產負債比率為18.9%，而於二零二一年十二月三十一日為12.1%。資產負債比率之定義為債務淨額除以總權益，債務淨額乃來自總借款(包括應付關聯公司款項及銀行透支)減銀行結餘及現金(包括銀行定存)。資產負債比率上升，乃由於銀行結餘及現金減少及關聯公司貸款增加所致。

於截至二零二二年十二月三十一日止年度，本集團以銀行提供之貸款融資、關聯公司提供之借款及內部產生的現金流為本集團之營運提供資金。

#### 重大收購及出售投資

於截至二零二二年十二月三十一日止年度，並無重大收購或出售附屬公司、聯營公司及合資企業。

#### 重大資本開支

截至二零二二年十二月三十一日止年度，本集團購買物業、廠房及設備99.1百萬美元(二零二一年：108.0百萬美元)以及就本集團採礦業務產生勘探及評估資產開支0.3百萬美元(二零二一年：1.7百萬美元)。於截至二零二二年十二月三十一日止年度，本集團並沒有確認額外的使用權資產(二零二一年：2.0百萬美元)。截至二零二二年十二月三十一日止年度產生的資本開支中的75.5百萬美元(二零二一年：61.3百萬美元)乃與Musonoi項目建設成本相關。

#### 本集團抵押資產詳情

於二零二二年十二月三十一日，本集團資產概無作為本集團獲授之一般銀行融資之抵押或負有產權負擔。

#### 或然負債詳情

於二零二二年十二月三十一日，本集團並無任何重大或然負債。

### Foreign Exchange Risk Management

The reporting currency of the Group is US\$ and the functional currencies of subsidiaries of the Group are mainly US\$. The Group is also exposed to currency change in HK\$, ZAR, CDF and ZMW. Given the exchange rate peg between HK\$ and US\$, the Group is not exposed to significant exchange rate risk of HK\$. The Group's significant assets are located in the DRC, Zambia and South Africa and the Group is exposed to fluctuation in CDF, ZMW and ZAR. The Group monitors its exposure to foreign currency exchange risk on an on-going basis.

### PROSPECT

Copper price is highly susceptible to swing in global policy and economic uncertainty. The geopolitical instability between Russia and Ukraine, the re-emergence of COVID-19 and "zero-COVID" policy in the PRC and the fear of global economic slowdown have caused copper price to plunge by one-third from a March 2022 high of US\$10,730 per tonne to US\$7,000 per tonne in mid July 2022, the lowest since November 2020. At the same time, central banks are raising interest rates and high energy prices are affecting long-term investments. Commodities price has been volatile in 2022 and likely to remain volatile in the short-term future.

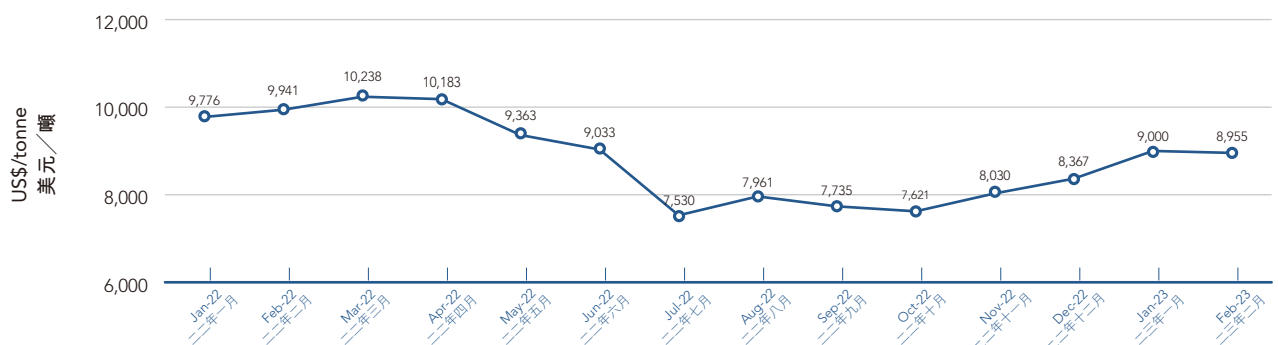
### 外匯風險管理

本集團之呈報貨幣為美元，本集團附屬公司之功能貨幣主要為美元。本集團亦面臨港元、南非蘭特、剛果法郎及贊比亞克瓦查的貨幣變動風險。鑒於港元與美元匯率掛鈎，本集團並無面臨港元重大匯率風險。本集團大部分資產位於剛果(金)、贊比亞及南非，本集團面臨剛果法郎、贊比亞克瓦查及南非蘭特的波動風險。本集團持續監察其所承受之外幣匯兌風險。

### 展望

銅價極易受到全球政策及經濟不確定性的波動影響。俄羅斯與烏克蘭之間的地緣政治不穩定情況、新冠肺炎疫情反覆及中國的「清零」政策以及對於全球經濟放緩的憂慮，導致銅價重挫三分之一，由二零二二年三月的高位每噸10,730美元跌至二零二二年七月中的每噸7,000美元，是自二零二零年十一月以來的最低位。同時，各地中央銀行加息、能源價格高企，均對長期投資造成影響。大宗商品價格於二零二二年一直反覆，短期內很可能持續波動。

LME COPPER PRICE (JAN 2022 TO FEB 2023)  
倫敦金所銅價(二零二二年一月至二零二三年二月)





In 2022, global copper supply has been affected by disruptions caused by government intervention, ongoing labour issues, community opposition and the outbreak of COVID-19 leading to delays of shipments of copper concentrates out of key South American loading ports. LME copper inventory has remained at a low level in a prolonged period. Meanwhile, Russia produced around 3.5% of global copper production in 2021 according to US Geological Survey (USGS) and any potential disruption to Russia's copper production will also lead to copper price shock. Copper market is forecasted to remain tight in the short-term future.

With the gradual reopening of the PRC economy after COVID-19 getting under control in the PRC, copper fundamental factors are strong. Copper, as a critical commodity used in construction and infrastructure, will definitely benefit from the economic recovery from COVID-19. Nations around the globe have initiated the strategic target of carbon neutral. Copper, as the most commonly used conductible material, will be used more frequently in areas including solar, wind, power storage, new energy and distribution grid under the carbon neutral era, the demand for copper will further increase.

In longer term, copper supply will remain tight after a few large scale new projects and expansions come online in 2023. Bank of America Global Research analysts expect global copper market to return to deficit from 2025 onwards after completion of projects currently under construction. With exploration activity relatively limited in recent years under the uncertainty of COVID-19, the increase in new supply will be slow from 2025 onwards. Goldman Sach retained their US\$15,000 per tonne forecast in 2025. Meanwhile, Chile, the world's largest copper producing country, is proposing a new mining royalty tax, bringing more uncertainty to long term supply.

Growth in long-term copper demand will be driven by the growth in fast expanding green technologies, where copper is used in energy storage, electric vehicles, EV charging infrastructure, wind power generation and solar photovoltaic panels. S&P Global forecasted that long term demand will reach 53 million tonnes annually in order to reach carbon neutrality by 2050, more than double the current level.

於二零二二年，全球銅供應一直受到政府干擾、持續勞工問題、社區反對聲浪、新冠肺炎蔓延導致銅精礦延遲從南美主要裝運港口運出等事件影響。倫金所銅庫存長期持續處於低位。同時，根據美國地質調查局(USGS)數據，二零二一年俄羅斯佔全球銅產量約3.5%，任何俄羅斯銅生產的潛在間斷亦將導致銅價受到衝擊。銅市場未來短期內預計將保持緊張。

隨着國內新冠肺炎疫情受控，並逐步重開對外經濟，銅的基本面仍然強勁。銅作為用於建築及基礎設施的重要商品，無疑將從新冠肺炎後經濟復甦中受益。全球各個國家開始推出國家層面的碳中和戰略目標。於碳中和時代，銅作為最常用的導體材料，將在光伏、風電、儲能、新能源及配電網領域進一步被應用，銅需求將會再度增加。

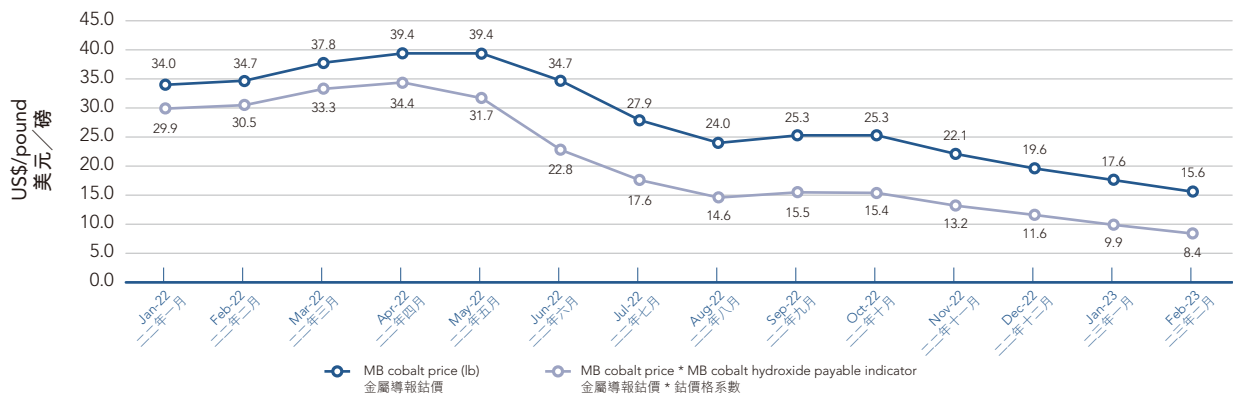
長遠而言，隨著二零二三年數項大型新項目及擴展工程竣工投產後，銅市場將保持緊張狀態。美國銀行全球研究分析師預計，於當前在建項目完成後，全球銅市場將自二零二五年起恢復赤字狀態。由於近年來的勘探活動因新冠肺炎疫情的不穩定下相對投入較少，預期於二零二五年以後，新的供應將較為緩慢。高盛維持二零二五年銅價每噸15,000美元的預測。同時，世界最大產銅國智利正提出一項新礦權使用費稅項，為長遠供應帶來更多不明朗因素。

迅速發展的綠色科技增長將推動長遠銅需求增長。綠色科技在儲存能源、電動汽車、電動汽車充電基礎設施、風力發電及太陽能光伏板等方面均需使用銅。標普全球預測，若要在二零五零年前達致碳中和，則銅的長遠需求將達到每年53百萬噸，是目前水平的雙倍以上。

In the case of cobalt, after cobalt price increased by more than double in 2021, benchmark MB cobalt price has retreated by approximately 61% since end of March 2022 from US\$39.0 per pound at 31 March 2022 to US\$15.15 per pound by the end of February 2023. With global logistics gradually resumed normal, cobalt supply has returned to pre-pandemic level. On the other hand, cobalt demand has been affected by the uncertainty under COVID-19 where capital investments were deferred and with the termination of national EV subsidy program in the PRC effective from January 2023, short-term EV demand growth was slower than expected and hence affected the short-term demand for cobalt. Coupling with the decrease in cobalt hydroxide coefficient where benchmark MB cobalt hydroxide coefficient has decreased from 88% at the end of March 2022 to 54% at the end of February 2023, leading to the further decrease in effective cobalt price of the Group.

就鈷而言，自於二零二一年鈷價攀升超過一倍後，金屬導報鈷基準價自二零二二年三月底已下滑約61%，由二零二二年三月三十一日每磅39.0美元跌至二零二三年二月底每磅15.15美元。隨著全球物流逐步恢復正常，鈷供應已恢復至疫情前水平。另一方面，鈷需求受到新冠肺炎下的不確定性所影響，資本投資被推遲，並且隨著二零二三年一月起中國取消國家電動汽車補貼生效，短期電動汽車需求增長低於預期，因此影響了鈷的短期需求。加上氫氧化鈷計價系數一同下跌，金屬導報氫氧化鈷基準計價系數由二零二二年三月底88%降至二零二三年二月底的54%，導致本集團實際鈷售價進一步下跌。

MB COBALT PRICE (JAN 2022 TO FEB 2023)  
金屬導報鈷價(二零二二年一月至二零二三年二月)



In 2021, global EV sales recorded 6.6 million units, more than double the sales in 2020 of 3 million units, in which PRC's EV sales in 2021 surged 136% year-on-year to 3.95 million units, accounting for 13.5% of the total auto market in China. China Association of Automobile Manufacturers estimates that EV sales will grow to 5 million units in 2022, accounting for 18% of total domestic auto sales. According to Cobalt Institute, EV became cobalt's largest end use sector for the first time in 2021, representing 34% of global cobalt usage. Major auto makers were launching more EV models in 2021 and Ford estimates that 40% of motor vehicle sold will be EVs by 2030 and Bloomberg estimates that half of motor vehicle to be sold will be EVs by 2040. Analyst forecasts cobalt demand to expand at a compound annual growth rate of 7% to 2030. Moreover, aerospace sector continues its recovery from COVID-19 disruption, adding to further demand of cobalt.

Copper and cobalt markets are easily affected by global economy uncertainties and will continue to be difficult to operate in the near future. The Group will continue to monitor all factors causing market fluctuation and will ensure the Group is able to respond to any market changes in a prepared and timely manner.

Since the Group's business spans over different regions and countries, our overseas business is therefore susceptible to the stability of and changes in the local government policies, social and economic environments, and international relations. If there are any material adverse changes in the aforesaid factors, our business, financial condition and operating results may be adversely affected. We endeavour to closely monitor the aforesaid situation and to promptly adjust our strategies in response thereto.

To be a world-class mineral corporation is the ultimate goal of the Group. The Group's focus in the near future is the construction of the Musonoi copper-cobalt mine in Kolwezi, the DRC. Construction work at Musonoi Project has progressed well in 2022.

Also, with the continuous support of JCG and prudent strategic planning of the Board, the Group remains confident that the performance of the Group will overcome the disadvantages and stand out from the crowd under such unfavorable market conditions and create values for the stakeholders of the Company.

二零二一年，全球電動汽車銷量達660萬輛，為二零二零年銷量300萬輛的雙倍以上，其中中國電動汽車銷量於二零二一年同比激增136%至395萬輛，佔中國汽車市場總額13.5%。中國汽車製造商協會估計，電動汽車銷量將於二零二二年繼續向500萬輛靠攏，佔國內汽車總銷售額的18%。根據國際鈷業協會分析，二零二一年電動汽車首次成為鈷的最大終端使用產業，佔全球鈷使用量的34%。各大主要汽車製造商於二零二一年相繼推出更多電動汽車車型，福特估計到二零三零年電動汽車將佔到售出汽車的40%，而彭博估計，到二零四零年電動汽車將佔到售出汽車的半數。分析師預測，鈷需求將以7%複合年增長率持續增長到二零三零年。此外，航空航天行業在受到新冠肺炎干擾後持續復甦，將進一步推動鈷需求。

銅鈷市場容易受到全球經濟不明朗因素影響，短期內仍會持續經營困難。本集團將繼續監控市場波動成因，確保本集團準備充足，能夠及時應對任何市場變動。

由於本集團的業務跨越不同地域與國家，因此，我們的境外業務易受當地政府政策、社會民生、經濟環境及國際關係的穩定性與變化等狀況所影響。倘前述因素出現任何重大不利變化，則我們的業務、財務狀況及經營業績可能會受到不利影響。我們致力密切留意上述形勢及迅速調整應對的策略。

本集團的最終目標是成為世界級礦產企業。本集團於短期的重點是興建位於剛果(金)科盧韋齊的Musonoi銅鈷礦。Musonoi項目的建設工程於二零二二年進展良好。

此外，在金川的持續支持及董事會審慎的策略規劃下，本集團仍然堅信，本集團的表現將可克服劣勢，並在該等不利的市場條件下脫穎而出，為本公司持份者創造價值。

We will continue to improve quality, efficiency and production, strives to continuously reduce production costs, and achieve better profitability.

我們將繼續提高質量、效率及產量，致力持續降低生產成本，更好的提高盈利能力。

#### EMPLOYEES

#### 僱員

As at 31 December 2022, the Group had 1,598 (2021: 1,575) permanent workers and 4,050 (2021: 2,741) contractor's employees. Employees of the Group receive competitive remuneration packages including salary and medical and other benefits. Key staff may also be entitled to performance bonuses and grant of option shares of the Company.

於二零二二年十二月三十一日，本集團擁有1,598名(二零二一年：1,575名)長期員工及4,050名(二零二一年：2,741名)承包商僱員。本集團的僱員享有具競爭力的薪酬待遇，包括工資、醫療及其他福利。主要員工亦可獲得績效獎金及本公司購股權補助。

## EXECUTIVE DIRECTORS

### CHENG Yonghong (Chairman)

Mr. Cheng Yonghong, aged 53, was appointed as an executive Director with effect on 21 April 2020 and was appointed as the chairman of the Board with effect from 21 April 2022. Mr. Cheng graduated in 1992 from University of Science and Technology Beijing with a degree in Ferrous Metallurgy. During his 30-year career, Mr. Cheng has served in various positions in JCG including as the Deputy Plant Manager of the Smelter of JCG (from February 2010 to December 2011), the Deputy Plant Manager of the Nickel Plant of JCG (from December 2011 to January 2013), the Plant Manager of the Copper Plant of JCG (January 2013 to April 2015). Mr. Cheng joined the Group as a director of Metorex in April 2015 and served as the General Manager of Ruashi from April 2015 to March 2020. Since 1 April 2020, Mr. Cheng serves as the Chairman and Chief Executive Officer of Metorex, and also the Head of the African Region of JCG. He is a technical professional with extensive operational management experience in nonferrous pyrometallurgy and hydrometallurgy.

### GAO Tianpeng (Chief Executive Officer)

Mr. Gao Tianpeng, aged 51, BEng and EMBA, was appointed as the Chief Executive Officer and an executive director of the Company since August 2017. He was previously the non-executive director of the Company for the period from 30 November 2010 to 21 March 2014. During his 30-year career in JCG, he has been overseeing various matters including cost management, financial management, international trading management, risk management, foreign exchange business, capital operation and equity division reform of JCG and daily affairs of the board of directors. He was also a manager of the Cost Branch of Financial Department of JCG, manager of Financial Department of International Trading, general manager of Risk Management Department, general manager of Capital Operation Department, the general manager of International Department of Resources Capital, vice general manager of China Jinchuan Investment Holding Limited and the director of Metorex, successively. He has extensive experience in financial cost management, risk management and asset management.

## 執行董事

### 程永紅(主席)

程永紅先生，53歲，於二零二零年四月二十一日獲委任為執行董事並於二零二二年四月二十一日獲委任為董事會主席。程先生於一九九二年畢業於北京科技大學，獲鋼鐵冶金學士學位。參加工作30年以來，程先生一直在金川工作，曾先後擔任金川冶煉廠副廠長(二零一零年二月至二零一一年十二月)、金川鎳冶煉廠副廠長(二零一一年十二月至二零一三年一月)、金川銅冶煉廠廠長(二零一三年一月至二零一五年四月)。程先生於二零一五年四月加入本集團出任Metorex之董事，並於二零一五年四月至二零二零年三月期間出任Ruashi總經理。程先生自二零二零年四月一日起擔任Metorex之董事長兼行政總裁，並擔任金川駐非洲區總監。彼在有色火法、濕法治煉領域具有較高的專業技術水準和豐富的經營管理經驗。

### 郜天鵬(行政總裁)

郜天鵬先生，51歲，工學學士、高級管理人員工商管理碩士(EMBA)，自二零一七年八月起獲委任為本公司行政總裁及執行董事。彼曾經於二零一零年十一月三十日至二零一四年三月二十一日期間擔任本公司的非執行董事。加入金川30年來，彼一直監察各項事務，包括成本管理、財務管理、國際貿易管理、風險管理、外匯業務、資本運營、金川股改上市及董事會日常事務等工作。彼亦先後擔任金川財務部成本室經理、國際貿易公司財務部經理、風險管理部總經理、資產運營部總經理、資源資本國際部總經理、中國金川投資控股公司副總經理、Metorex董事等職，具有豐富的財務成本管理、風險管理及資產管理經驗。

## NON-EXECUTIVE DIRECTORS

### LIU Jian

Mr. Liu Jian, aged 50, obtained a bachelor's degree in Accounting from the Lanzhou University of Technology of the PRC in 2005. He is currently the general manager of the Finance Department of JCG, the ultimate shareholder of the Company. Since 1994, he had worked in various positions within JCG and its subsidiaries, including the deputy general manager of costing department, internal audit and risk management department of JCG, general manager and financial controller of Guangxi Jinchuan Nonferrous Metals Co. Ltd\* (廣西金川有色金屬有限公司), the financial controller of Lanzhou Jinchuan Keliyuan Battery Co. Limited\* (蘭州金川科力遠電池有限公司), etc. He has been a director of Lanzhou Jinchuan New Materials Technology Co., Ltd.\* (蘭州金川新材料科技股份有限公司) since 17 December 2021 (which company's shares were quoted on the National Equities Exchange and Quotations until 17 March 2022). He has extensive experience in financial reporting and management.

### WANG Qiangzhong

Mr. Wang Qiangzhong, aged 58, with qualification of senior engineer, graduated from Jiangxi Metallurgy Academia (now known as Jiangxi University of Science and Technology) in July 1986, major in mining engineering. He obtained a diploma in financial management for listed companies from Shanghai University of Finance and Economics in June 2001 and his master degree of business administration from Lanzhou University in June 2011. From 2005 to 2014, he served at various positions in Gansu Lantuo Group Limited\* (甘肅蘭駝集團有限責任公司), including general manager and chairman of the board of directors. During his tenure in Gansu Lantuo Group Limited\*, he was also appointed as a researcher of the board of supervisors of the Gansu Provincial State-owned Assets Supervision and Administration Commission. Since July 2015, he has acted as the chairman of the board of directors of Gansu Province Xinye Asset Management Co. Ltd.\* (甘肅省新業資產經營有限責任公司). He currently serves as the director of Baiyin Nonferrous Group Co., Ltd., the shares of which are listed on the Shanghai Stock Exchange (Stock Code: 601212). He has extensive experience in financial management and operation management.

## 非執行董事

### 劉建

劉建先生，50歲，於二零零五年從位於中國的蘭州理工大學獲得本科學歷，主修會計專業。彼現任本公司最終股東金川財務部總經理。自一九九四年起，彼於金川及其附屬公司擔任不同崗位，當中包括金川財務部成本副科長及內部審計與風險管理部副總經理、廣西金川有色金屬有限公司總經理及財務總監及蘭州金川科力遠電池有限公司財務總監。彼自二零二一年十二月十七日起於蘭州金川新材料科技股份有限公司(該公司股票自二零二二年三月十七日起終止在全國中小企業股份轉讓系統掛牌)擔任董事。彼在財務報告及管理方面有豐富經驗。

### 王橋忠

王橋忠先生，58歲，具有高級工程師資格，於一九八六年七月畢業於江西冶金學院(現稱江西理工大學)，主修採礦工程。彼於二零零一年六月於上海財經大學獲得有關上市公司財務管理的文憑並於二零一一年六月於蘭州大學獲得工商管理碩士學位。於二零零五年至二零一四年間，彼在甘肅蘭駝集團有限責任公司擔任包括總經理、董事長等多個職位。在甘肅蘭駝集團有限責任公司任職期間，彼同時獲委任為甘肅省國有資產監督管理委員會監事會的調研員。自二零一五年七月起，彼於甘肅省新業資產經營有限責任公司擔任董事長。彼現時擔任白銀有色集團股份有限公司(其股份於上海證券交易所上市，股份代碼：601212)的董事職務。彼於財務管理及營運管理方面擁有豐富經驗。

**INDEPENDENT NON-EXECUTIVE DIRECTORS**

**YEN Yuen Ho, Tony**

Mr. Yen Yuen Ho, Tony, aged 75, was appointed as an independent non-executive director of the Company since August 2010. He is a solicitor of Hong Kong and the United Kingdom. He is also a barrister and solicitor of Australia, and was a member of The Law Reform Commission of Hong Kong. Mr. Yen has been practicing law in Hong Kong since 1983 and was the Law Draftsman of the Department of Justice in Hong Kong from 1995 to 2007. Currently, Mr. Yen is an Adjunct Professor of the Beijing Normal University and an Honorary Court Member of the court of the Hong Kong University of Science and Technology. He was an Adjunct Professor of the City University of Hong Kong from July 2011 to June 2014. He is a Director of the Hong Kong Institute for Public Administration and an Honorary Legal Adviser to the Friends of Scouting, Scout Association of Hong Kong. Additionally, Mr. Yen serves as the Director of two secondary schools, the Chairman of the Neighbourhood Advice Action Council and a Member of Heep Hong Society's Executive Council. He is also an Honorary Adviser to the Pok Oi Hospital, Honorary Adviser to the Hong Kong Academy of Nursing and the Honorary Legal Adviser to the Shanghai Fraternity Association. Mr. Yen was appointed as an Honorary Fellow of the School of Education, University of Hong Kong in 2014. In the past years, he was appointed by the HKSAR Government as a member of the Education Bureau's Panel of Review Board on School Complaints and as the Vice-Chairman of the Social Welfare Lump Sum Grant Independent Complaints Handling Committee. Mr. Yen also serves as a guest speaker to various universities in Hong Kong. He is an independent non-executive director of Alltronics Holdings Limited and WWPKG Holdings Company Limited (the shares of which are listed on the Stock Exchange). He also served as an independent nonexecutive director of Beijing Energy International Holding Co., Ltd. (from 6 April 2011 to 18 June 2021). Mr. Yen was in October 2015 appointed by China Minsheng Jiaye Investment Co. Limited as an independent director.

**獨立非執行董事**

**嚴元浩**

嚴元浩先生，75歲，自二零一零年八月起獲委任為本公司獨立非執行董事。彼乃香港及英國律師。彼亦為澳洲大律師及事務律師，並曾任香港法律改革委員會委員。嚴先生自一九八三年起為香港執業律師，於一九九五年至二零零七年期間，彼於香港政府律政司擔任法律草擬專員一職。現時，嚴先生為北京師範大學特聘教授及香港科技大學顧問委員會榮譽委員。彼曾於二零一一年七月至二零一四年六月期間任香港城市大學兼任教授。彼為香港公共行政學院之董事及香港童軍總會童軍之友社之義務法律顧問。此外，嚴先生在兩間中學擔任校董，嚴先生同時亦為香港鄰舍輔導會主席及香港協康會的執行委員會委員。彼亦為香港博愛醫院的名譽顧問、香港護理專科學院的名譽顧問及香港上海總會的名譽法律顧問。嚴先生在二零一四年獲香港大學教育學院頒授為榮譽院士。於過往年度，彼曾獲香港特區政府委任為教育局學校投訴覆檢委員會的委員及社會福利整筆撥款獨立處理投訴委員會的副主席。嚴先生亦在香港多所大學講課。彼為於聯交所上市公司華訊股份有限公司及縱橫遊控股有限公司之獨立非執行董事。彼也曾擔任北京能源國際控股有限公司的獨立非執行董事(二零一一年四月六日至二零二一年六月十八日)。嚴先生於二零一五年十月獲中民嘉業投資有限公司委任為獨立董事。

### POON Chiu Kwok

Mr. Poon Chiu Kwok, aged 60, was appointed as an independent non-executive director of the Company since March 2017, holds a master's degree in international accounting, a post-graduate diploma in laws, a bachelor's degree in laws and a bachelor's degree in business studies. He has years of experience in regulatory affairs, corporate finance and governance. He is an executive director, vice president and company secretary of Huabao International Holdings Limited, whose shares are listed on the Stock Exchange. He currently serves as an independent non-executive director of the following companies listed on the Stock Exchange: AUX International Holdings Limited, Changan Minsheng APLL Logistics Co., Ltd., Greentown Service Group Co. Ltd., Sany Heavy Equipment International Holdings Company Limited, Sunac China Holdings Limited, Yuanda China Holdings Limited and Yankuang Energy Group Company Limited. He is also an independent non-executive director of Tonly Electronics Holdings Limited (whose shares were formerly listed on the Stock Exchange until 8 March 2021). He also served as an independent non-executive director of Honghua Group Limited (from 15 June 2017 to 1 December 2021) and an independent non-executive director of TUS International Limited (now known as Titan Invo Technology Limited) (from 1 September 2015 to 17 July 2020). Mr. Poon is a fellow member of CPA Australia Ltd., the Hong Kong Securities and Investment Institute, The Chartered Governance Institute of UK, The Hong Kong Chartered Governance Institute and a member of its Technical Consultation Panel.

### 潘昭國

潘昭國先生，60歲，自二零一七年三月起獲委任為本公司獨立非執行董事，持有國際會計學碩士學位、法學深造文憑、法學學士學位和商業學學士學位。彼於規管事宜、企業融資及管治方面擁有多年經驗。彼為一間在聯交所上市的公司華寶國際控股有限公司的執行董事、副總裁及公司秘書。彼現時於以下聯交所上市公司擔任獨立非執行董事：奧克斯國際控股有限公司、重慶長安民生物流股份有限公司、綠城服務集團有限公司、三一重裝國際控股有限公司、融創中國控股有限公司、遠大中國控股有限公司及兗礦能源集團股份有限公司。彼亦擔任通力電子控股有限公司(該公司股份先前於聯交所上市直至二零二一年三月八日退市)的獨立非執行董事。彼也曾擔任宏華集團有限公司的獨立非執行董事(二零一七年六月十五日至二零二一年十二月一日)及啟迪國際有限公司(現名為泰坦智華科技有限公司)的獨立非執行董事(由二零一五年九月一日至二零二零年七月十七日)。潘先生為澳洲會計師公會有限公司之資深註冊會計師、香港證券及投資學會、英國特許公司治理公會資深會員、香港公司治理公會資深會員以及其技術諮詢小組之成員。



#### YU Chi Kit

Mr. Yu Chi Kit, aged 43, was appointed as an independent non-executive director of the Company since November 2021, holds a bachelor's degree in business administration from The Chinese University of Hong Kong. He is also a member of the Hong Kong Institute of Certified Public Accountants. Since 3 May 2022, he is the financial controller, authorised representative and company secretary of Central China Real Estate Limited (Stock Code: 832), whose shares are listed on the Main Board of the Stock Exchange. He was previously the chief financial officer, authorised representative and company secretary of Xiwang Property Holdings Company Limited (Stock Code: 2088) and Xiwang Special Steel Company Limited (Stock Code: 1266) from 1 November 2019 from to 31 March 2022; the company secretary and authorized representative of China Development Bank International Investment Limited (Stock Code: 1062) from 20 June 2016 to 25 April 2019, and, South China Assets Holdings Limited (Stock Code: 8155) from 1 April 2010 to 10 January 2011, whose shares are listed on the Main Board and GEM of the Stock Exchange respectively. Mr. Yu is a Chartered Secretary, a Chartered Governance Professional and an associate member of The Hong Kong Chartered Governance Institute. He has extensive experience in accounting, auditing and company secretarial practice in Hong Kong.

#### HAN Ruixia

Ms. Han Ruixia, aged 38, was appointed as an independent non-executive director of the Company since July 2022, obtained her PhD in Economics (Finance), master degree in Economics (Venture Capital) and bachelor degree of Economics (Finance) from Renmin University of China. She is the deputy chief executive officer and executive director of Mason Group Holdings Limited (HKEx Stock Code: 273) since 16 April 2020, and an independent non-executive director of China Gold International Resources Corp. Ltd. (HKEx Stock Code: 2099; Toronto Stock Exchange Stock Code: CGG) since 25 June 2019. Prior to joining Mason Group Holdings Limited in late 2019, Ms. Han was head of operations and risk of MEC Advisory Limited, which was the sole investment advisor to Can-China Global Resource Fund. Ms. Han's role in MEC Advisory Limited included investment, accounting, finance treasury and investor relationships related matters. Prior to joining MEC Advisory Limited in early 2014, Ms. Han was an investment manager at The Export-Import Bank of China responsible for sourcing, evaluating and negotiating investment opportunities in the banking and direct investment industry.

\* For identification purposes only

#### 余志傑

余志傑先生，43歲，自二零二一年十一月起獲委任為本公司獨立非執行董事，持有香港中文大學工商管理學士學位。彼亦為香港會計師公會會員。自二零二二年五月三日起彼為建業地產股份有限公司(股份代號：832)的財務總監、授權代表及公司秘書。建業地產股份有限公司的股份於聯交所主板上市。彼曾於二零一九年十一月一日至二零二二年三月三十一日擔任西王置業控股有限公司(股份代號：2088)及西王特鋼有限公司(股份代號：1266)的財務總監、授權代表及公司秘書；二零一六年六月二十日至二零一九年四月二十五日擔任國開國際投資有限公司(股份代號：1062)及於二零一零年四月一日至二零一一年一月十日擔任南華資產控股有限公司(股份代號：8155)的公司秘書及授權代表，其股份分別於聯交所主板及GEM上市。余先生為特許秘書、特許管治專業人員、以及香港公司治理公會會士。彼於香港會計、審計及公司秘書實務方面擁有豐富經驗。

#### 韓瑞霞

韓瑞霞女士，38歲，自二零二二年七月起獲委任為本公司獨立非執行董事。於中國人民大學取得經濟學(金融)博士學位、經濟學(風險投資)碩士學位及經濟學(金融)學士學位。彼自二零二零年四月十六日起擔任茂宸集團控股有限公司(香港聯交所股份代號：273)的副首席執行官及執行董事，及自二零一九年六月二十五日起擔任中國黃金國際資源有限公司(香港聯交所股份代號：2099；多倫多交易所股份代號：CGG)的獨立非執行董事。於二零一九年底加入茂宸集團控股有限公司前，韓女士為MEC Advisory Limited(中國一加拿大自然資源投資合作基金的唯一投資顧問)的營運及風險主管。韓女士於MEC Advisory Limited的職責包括投資、會計、融資庫務及投資者關係的相關事宜。於二零一四年初加入MEC Advisory Limited前，韓女士為中國進出口銀行的投資經理，負責就銀行和直接投資行業尋找、評估及商討投資機會。

\* 僅供識別

## SENIOR MANAGEMENT

### Chairman of JCI and Metorex

#### CHENG Yonghong

For details of Mr. Cheng Yonghong's biography, please see the sub-section headed "Executive Directors" on page 60.

### Chief Executive Officer

#### GAO Tianpeng

For details of Mr. Gao Tianpeng's biography, please see the sub-section headed "Executive Directors" on page 60.

### Chief Financial Officer

#### WONG Hok Bun Mario

Mr. Wong joined the Company in August 2018 and has been acting as, among others, the company secretary and authorised representatives of the Company since 5 September 2018. Mr. Wong holds a Bachelor of Economics and Finance from The University of Hong Kong and is a fellow member of the Hong Kong Institute of Certified Public Accountants (FCPA). He is a CFA charterholder and a member of The Australasian Institute of Mining and Metallurgy (MAusIMM). He has over 20 years of experience in auditing, accounting, financial management and corporate finance. Mr. Wong was previously an independent non-executive director of Good Resources Holdings Limited (for the period from 31 May 2017 to 1 June 2022), a company previously listed on the Main Board of the Stock Exchange.

## 高級管理層

### 金川國際及Metorex主席

#### 程永紅

有關程永紅先生之詳細履歷，請參閱第60頁「執行董事」分節。

### 行政總裁

#### 郜天鵬

有關郜天鵬先生之詳細履歷，請參閱第60頁「執行董事」分節。

### 首席財務官

#### 黃學斌

黃先生於二零一八年八月加入本公司並自二零一八年九月五日起出任(其中包括)本公司之公司秘書及授權代表。黃先生擁有香港大學經濟金融學學士學位，並為香港會計師公會資深會員(FCPA)。彼為特許財務分析師(CFA)及澳大利亞礦業與冶金學會會員(MAusIMM)。彼擁有逾20年的審計、會計、財務管理及企業融資經驗。黃先生曾為天成國際集團控股有限公司(一家曾於聯交所主板上市之公司)之獨立非執行董事(於二零一七年五月三十一日至二零二二年六月一日期間)。

#### Chief Risk Officer

##### XUE Huiqin

Ms. Xue joined the company in December 2022 as the Chief Risk Officer. Ms. Xue holds a master's degree in Computational Mathematics from Northwest Normal University. She has worked in JCG headquarters since 2008 and has more than 15 years of experience in financial management, risk management, project investment and financing management, and procurement management. She worked in various key departments of JCG Group headquarters such as the investment office and cost office of the finance department, and served as the manager of the revenue office of the finance department, the financial manager of the procurement and supply centre of JCG.

#### Chief Financial Officer of Metorex

##### YIN Weiwu

Mr. Yin Weiwu was appointed as the CFO of Metorex since January 2018. He joined JCG in July 1997 and his duties involved risk control, auditing and financial management. He was formerly the financial manager of JCG Nickel Smelter and Jinchuan Group Marketing Company.

#### 風控總監

##### 薛會琴

薛女士於二零二二年十二月加入本公司出任風控總監。薛女士擁有西北師範大學計算數學碩士學位。自二零零八年起在金川總部工作，擁有逾15年的財務管理、風險管理、專案投融資管理、採購管理工作經驗。先後在金川集團總部財務部投資室、成本室等關鍵科室工作，曾任金川財務部收益室經理及採購供應中心財務經理等職。

#### Metorex財務總監

##### 尹緯武

尹緯武先生自二零一八年一月起獲委任為Metorex財務總監。彼於一九九七年七月加入金川，從事過風險控制、審計、財務管理工作。彼曾任金川鎳冶煉廠及金川集團營銷公司財務經理。

### General Manager of Ruashi

#### WANG Tao

Mr. Wang Tao, a senior engineer, joined the Group in November 2016 as the deputy general manager of Ruashi. He is currently the general manager of Ruashi and a director of Metorex. Mr. Wang studied electrical engineering as an in-service graduate student at Xi'an University of Technology. He has more than 31 years of experience in non-ferrous smelting production, technology and engineering management. He has served, among other positions, as the deputy plant manager of the nickel smelter and the deputy plant manager of the copper smelter of JCG.

### General Manager of Kinsenda

#### QIN Guoyu

Mr. Qin Guoyu, a senior engineer, joined the Group in April 2015 as the general manager of Kinsenda. Mr. Qin holds a bachelor's and master's degree in mining engineering from Xi'an University of Science and Technology. He has over 16 years of working experience in non-ferrous metal mining services, and is experienced in mining technology and mine management. He had served as the deputy head of Longshou Mine of JCG.

### General Manager of Musonoi Project

#### YUN Erwei

Mr. Yun Erwei joined the Group in May 2022 as the general manager of Musonoi Project. Mr. Yun holds a bachelor degree in electrification and automation from Lanzhou Polytechnic University. He started work in 2004 at JCG Mine Area 3 and has over 18 years of working experience in mine management, safety management, equipment management, project management, etc. He had served as deputy head of transportation division, deputy head of mechanical fuel department, head of refilling division and hoisting division, deputy mine manager of JCG Mine Area 3. He obtained professional certificates in specialised equipment safety management engineer, electrification professional engineer, etc..

### Ruashi總經理

#### 王濤

王濤先生，高級工程師，於二零一六年十一月加入本集團，擔任Ruashi副總經理。彼現任Ruashi總經理及Metorex董事。王先生曾就讀西安理工大學在職研究生電氣工程專業。彼擁有31多年的有色冶煉生產、技術和工程管理工作經驗。彼先後擔任金川鎳冶煉廠副廠長、銅冶煉廠副廠長等職務。

### Kinsenda總經理

#### 秦國玉

秦國玉先生，高級工程師，於二零一五年四月加入本集團，擔任Kinsenda總經理。秦先生擁有西安科技大學採礦工程學士和碩士學位。彼擁有逾16年有色金屬礦山服務的工作經驗，在採礦技術和礦山管理方面經驗豐富。彼曾經擔任過金川龍首礦副礦長職務。

### Musonoi項目總經理

#### 貧二偉

貧二偉先生於二零二二年五月加入本集團，擔任Musonoi項目總經理職位。貧二偉擁有蘭州理工大學電氣及其自動化學士學位。自二零零四年起在金川三礦區工作，擁有逾18年的礦山管理、安全管理、設備管理、項目管理等工作經驗。先後擔任金川三礦區運輸工區副主任、機動能源科副科長、充填工區主任、提升工區主任、三礦區副礦長等職，擁有特種設備安全管理工程師、電氣專業技術工程師等資格證書。

The Directors present their report and the audited financial statements of the Company and the Group for the year ended 31 December 2022.

### PRINCIPAL ACTIVITIES

The Company is an investment holding company. The principal activities of its subsidiaries are set out in note 41 to the consolidated financial statements. During the year, there were no significant changes in the nature of the Group's principal activities.

### BUSINESS REVIEW

A fair review of the Group's business and a description of the principal risks and uncertainties being faced by the Group are provided in the "Chairman's Statement", "CEO's Report" and "Management Discussion and Analysis" sections of this Annual Report. Indication of likely future development in the Group's business can also be found in these sections and this "Report of the Directors". An analysis of the Group's performance during the year using financial key performance indicators is set out on page 13 and in "Management Discussion and Analysis" section on pages 41 to 59. A discussion on the Company's environmental policies and performance can be found in the "Environmental, Social and Governance Report", which was prepared in accordance with the Environmental, Social and Governance Reporting Guide under Appendix 27 of the Listing Rules, on pages 118 to 232. An account of the Group's relationship with its shareholders and investors can be found on pages 109 to 117. These discussions form part of this "Report of the Directors".

### COMPLIANCE WITH LAWS AND REGULATIONS

As far as the Board is aware, there was no material breach of or non-compliance with the Cayman Islands Companies Law, Listing Rules, SFO and other applicable laws and regulations that have a significant impact on the Group's business and operation by the Group.

### RESULTS AND DIVIDENDS

The Group's results for the year ended 31 December 2022 and the state of affairs of the Company and the Group at that date are set out in the consolidated financial statements on pages 240 to 366.

董事謹提呈截至二零二二年十二月三十一日止年度之董事會報告以及本公司及本集團之經審核財務報表。

### 主要業務

本公司乃一間投資控股公司，其附屬公司之主要業務載於綜合財務報表附註41。於年內，本集團的主要經營業務活動性質並未出現任何重大變動。

### 業務回顧

本集團業務的公允回顧及本集團正面臨的主要風險及不確定因素的概述載於本年報「主席報告」、「行政總裁報告」以及「管理層討論及分析」章節中。本集團業務的可能未來發展方向亦載於該等章節及本「董事會報告」內。採用財務關鍵績效指標對本集團於年內的表現作出的分析載於第13頁及第41至59頁的「管理層討論及分析」一節。就本公司的環保政策及表現的討論載於第118至232頁的「環境、社會及管治報告」(按上市規則附錄27《環境、社會及管治報告指引》編製)。本集團與其股東及投資者的關係論述載於第109至117頁。該等討論構成本「董事會報告」之一部分。

### 遵守法律及法規

就董事會所知，本集團並無嚴重違反或不遵守開曼群島公司法、上市規則、證券及期貨條例，以及其他適用於本集團且對本集團業務及運作構成重大影響的法例及法規。

### 業績及股息

本集團截至二零二二年十二月三十一日止年度之業績以及本公司及本集團於該日之業務狀況載於第240至366頁之綜合財務報表。

The Directors recommended the payment of a 2022 final dividend of HK0.2 cent per share (2021: HK0.2 cent per share), totaling approximately HK\$25,004,000 (2021: approximately HK\$25,220,000). Subject to obtaining the approval at the forthcoming annual general meeting, the final dividend is expected to be paid on or before 29 June 2023.

## FIVE-YEAR FINANCIAL SUMMARY

A summary of the published results and of the assets, liabilities and non-controlling interests of the Group for the last five financial years, as extracted from the Group's audited consolidated financial statements and restated as appropriate, is set out on page 367. The summary does not form part of the audited consolidated financial statements.

## PROPERTY, PLANT AND EQUIPMENT

Details of the movements in the property, plant and equipment of the Group during the year are set out in note 16 to the consolidated financial statements.

## BANK BORROWINGS

Particulars of bank borrowings of the Group as at 31 December 2022 are set out in note 28 to the consolidated financial statements.

## DISCLOSURES PURSUANT TO RULE 13.21 OF THE LISTING RULES

On 29 May 2014, Kinsenda (as borrower), a 77% owned subsidiary of the Company, and JCG (as guarantor) entered into a facility agreement ("**Kinsenda Facility Agreement**") with China Development Bank Corporation ("**CDBC**") (as lender) in relation to a term loan facility in an amount of US\$225,000,000. The final repayment date of the term loan facility will be the date falling 10 years from the date of the first drawdown of such facility, which had taken place on 30 May 2014.

Pursuant to the Kinsenda Facility Agreement, JCG, the controlling shareholder of the Company, is required, at all times, to (directly or indirectly) own more than 50% of the shares of Kinsenda (the "**Specific Performance Obligation**"). However, for sake of future development, the Group had obtained a waiver from strict compliance with the Specific Performance Obligation from CDBC in August 2017.

董事建議派付二零二二年度末期股息每股0.2港仙(二零二一年：每股0.2港仙)，合共約25,004,000港元(二零二一年：約25,220,000港元)。待於應屆股東週年大會上取得批准後，預期末期股息將於二零二三年六月二十九日或之前派付。

## 五年財務概要

本集團過往五個財政年度之已公佈業績及資產、負債及非控股權益概要載於第367頁，摘錄自本集團經審核綜合財務報表及已重新編列(如適用)。有關概要並不構成經審核綜合財務報表之一部分。

## 物業、廠房及設備

本集團於年內之物業、廠房及設備之變動詳情載於綜合財務報表附註16。

## 銀行借款

本集團於二零二二年十二月三十一日之銀行借款詳情載於綜合財務報表附註28。

## 根據上市規則第13.21條規定進行的披露

於二零一四年五月二十九日，本公司持股77%的附屬公司Kinsenda(作為借款人)及金川(作為擔保人)與國家開發銀行股份有限公司(「**國開行**」)(作為貸款人)訂立一項融資協議(「**Kinsenda融資協議**」)，內容有關金額為225,000,000美元之有期貸款融資。該筆有期貸款融資之最後還款日期將為首次提取該筆融資當日起計十年，而該筆融資已於二零一四年五月三十日動用。

根據Kinsenda融資協議，本公司控股股東金川須於所有時候直接或間接擁有Kinsenda超過50%股份(「**特定履約責任**」)。然而，考慮到未來發展，本集團於二零一七年八月從國開行取得毋須嚴格遵守特定履約責任的豁免。

On 18 December 2020, Ruashi, a 75% owned subsidiary of the Company and the owner of the Musonoi Project, entered into a facility agreement (the “**Ruashi Facility Agreement**”) with CDBC Gansu Branch (as lender) in relation to a term loan facility in an amount of US\$350,000,000 for financing the development and construction of Musonoi Project. The final repayment date of the term loan facility will be the date falling 10 years from the date of the first drawdown of such facility, which utilisation should take place within 48 months from the date of the Ruashi Facility Agreement. The first drawdown of such facility had taken place on 11 June 2021.

Pursuant to the Ruashi Facility Agreement, the term loan facility may be cancelled and all the outstanding amounts may become immediately due and payable if (i) JCG (as guarantor), the controlling shareholder of the Company, ceases directly or indirectly to own and control 55% of the issued shares capital of the Company or the control of the Company; (ii) the State-owned Assets Supervision and Administration Commission of Gansu Province ceases directly or indirectly to legally or beneficially own and control 51% of the issued share capital of JCG; or (iii) the Company ceases directly or indirectly to own 75% of the issued share capital of Ruashi or the control of Ruashi except where the issued share capital of Ruashi or any part thereof is required to be transferred or sold down to comply with the requirements of the applicable mining legislation the DRC in connection with or arising from the renewal of the exploitation permit under the project in Kolwezi, Lualaba Province of the DRC provided that, however, after the renewal of the exploitation permit, the Company still directly or indirectly owns and controls 70% of Ruashi’s issued share capital.

## SHARE CAPITAL

Details of movements in the Company’s share capital during the years ended 31 December 2022 and 2021 are set out in note 33 to the consolidated financial statements.

於二零二零年十二月十八日，本公司持股75%的附屬公司及Musonoi項目之持有人Ruashi與國開行甘肅省分行(作為貸款人)訂立一項融資協議(「**Ruashi融資協議**」)，內容有關金額為350,000,000美元之有期貸款融資，為Musonoi項目的發展及建設融資。有期貸款融資之最後還款日期將為首次提取該筆融資當日起計十年，而該筆融資須於Ruashi融資協議日期起計48個月之內動用。該筆融資已於二零二一年六月十一日首次提取。

根據Ruashi融資協議，倘(i)本公司之控股股東金川(作為擔保人)不再直接或間接擁有及控制本公司55%之已發行股本或對本公司之控制權；(ii)甘肅省國有資產監督管理委員會不再直接或間接擁有及控制金川51%之已發行股本的法定權益及實益擁有權；或(iii)本公司不再直接或間接擁有Ruashi 75%之已發行股本或對Ruashi之控制權，惟因須遵守剛果(金)適用礦業的法定規定於剛果(金)盧阿拉巴省科盧韋齊項目下的開採許可證續期時而予以轉讓或出售Ruashi之已發行股本或其任何部分(惟於開採許可證續期後，本公司仍直接或間接擁有及控制Ruashi 70%之已發行股本)除外，則該筆有期貸款融資可能會被註銷，而所有未償還款項可能會即時到期及須予償還。

## 股本

本公司於截至二零二二年及二零二一年十二月三十一日止年度內之股本變動詳情載於綜合財務報表附註33。

## EQUITY-LINKED AGREEMENTS

Save as (i) the Company's share option scheme disclosed in the section headed "Share Option Scheme" and note 34 to the consolidated financial statements; (ii) the Company's share incentive scheme disclosed in the section headed "Share Incentive Scheme"; and (iii) the PSCS disclosed in note 35 to the consolidated financial statements, no equity-linked agreements that will or may result in the Company issuing shares were entered into by the Company during the year and subsisted at the end of the year.

## CONTRACT OF SIGNIFICANCE

Apart from disclosed in the sections headed "Connected Transactions" and "Continuing Connected Transactions", no contract of significance has been entered into between the Company or any of its subsidiaries and the controlling shareholder or any of its subsidiaries during the year.

## PURCHASE, SALES OR REDEMPTION OF LISTED SECURITIES

During the year ended 31 December 2022, a wholly-owned subsidiary of the Company, Golden Harbour International Trading Limited ("GHL"), repurchased a total of 107,791,000 Shares on the Stock Exchange at an aggregate consideration (excluding expenses) of HK\$82,767,650 (approximately US\$10,611,237). Further details are set out as follows:

Month of repurchase 回購月份	Number of ordinary shares repurchased 回購普通股數目	Highest purchase price per share 最高每股購買價 HK\$ 港元	Lowest purchase price per share 最低每股購買價 HK\$ 港元	Purchase consideration (excluding expenses) 購買代價 (不包括開支) HK\$ 港元
June 2022 二零二二年六月	11,320,000	0.94	0.86	10,254,160
July 2022 二零二二年七月	21,271,000	0.91	0.81	17,904,110
August 2022 二零二二年八月	19,000,000	0.86	0.80	15,920,240
September 2022 二零二二年九月	28,200,000	0.85	0.75	22,677,880
October 2022 二零二二年十月	28,000,000	0.70	0.53	16,011,260
	107,791,000			82,767,650

## 股權掛鈎協議

除(i)於「購股權計劃」一節及綜合財務報表附註34內披露之本公司購股權計劃；(ii)於「股份激勵計劃」一節披露之本公司股份激勵計劃；及(iii)於綜合財務報表附註35披露之永久次級可換股證券外，本公司並無於年內訂立且於年結日存續之股權掛鈎協議將會或可能令本公司發行股份。

## 重大合約

除「關連交易」及「持續關連交易」兩節披露者外，本公司或其任何附屬公司於年內並無與控股股東或其任何附屬公司訂立任何重大合約。

## 購買、出售或贖回上市證券

於截至二零二二年十二月三十一日止年度，本公司之全資附屬公司金港源國際貿易有限公司（「金港源」）於聯交所以總代價（不包括開支）82,767,650港元（約10,611,237美元）合共回購107,791,000股股份。有關更多詳情列載如下：



All the said shares repurchased were cancelled respectively on 29 and 30 June 2022 (11,320,000 Shares), 29 July 2022 (21,271,000 Shares) and 29 December 2022 (75,200,000 Shares). Shares repurchased by GHIL in the year ended 31 December 2022 were carried out pursuant to the general mandate to repurchase shares granted by the shareholders of the Company at the annual general meeting held on 25 May 2022 and were made in the interest of the Company and the shareholders of the Company as a whole. Save as disclosed above, neither the Company nor any of its subsidiaries purchased, redeemed or sold any of the Company's listed securities during the year ended 31 December 2022.

## RESERVES

Details of movements in the reserves of the Company and the Group during the year are set out in note 42 to the consolidated financial statements and in the consolidated statement of changes in equity, respectively.

## DISTRIBUTABLE RESERVES

The Company's reserves available for distribution to shareholders as at 31 December 2022, representing the aggregate of share premium account, contributed surplus and accumulated losses, amounted to US\$675,180,000 (2021: US\$689,438,000).

## DIRECTORS

The Directors of the Company during the year and up to the date of this report were:

### Executive Directors

Mr. CHENG Yonghong (*Chairman of the Board*)<sup>1</sup>  
Mr. GAO Tianpeng (*Chief Executive Officer*)

### Non-executive Directors

Ms. CAI Juan (*former Chairlady of the Board*)<sup>2</sup>  
Mr. ZHANG Youda (*former Chairman of the Board*)<sup>3</sup>  
Mr. LIU Jian  
Mr. WANG Qiangzhong

所有上述回購股份已分別於二零二二年六月二十九日及三十日(11,320,000股股份)、二零二二年七月二十九日(21,271,000股股份)和二零二二年十二月二十九日(75,200,000股股份)告註銷。金港源於截至二零二二年十二月三十一日止年度回購股份乃根據本公司股東於二零二二年五月二十五日舉行之股東週年大會上所授出回購股份之一般授權及乃以本公司及本公司股東之整體利益進行。除上文所披露者外，截至二零二二年十二月三十一日止年度，本公司或其任何附屬公司概無購買、贖回或出售本公司任何上市證券。

## 儲備

本公司及本集團於年內之儲備變動詳情已分別載於綜合財務報表附註42及綜合權益變動表。

## 可供分派儲備

本公司可供分派予股東之儲備相當於股份溢價賬、實繳盈餘及累計虧損之總和，其於二零二二年十二月三十一日為675,180,000美元(二零二一年：689,438,000美元)。

## 董事

年內及截至本報告日期止期間之本公司董事如下：

### 執行董事

程永紅先生(*董事會主席*)<sup>1</sup>  
鄧天鵬先生(*行政總裁*)

### 非執行董事

蔡娟女士(*前董事會主席*)<sup>2</sup>  
張有達先生(*前董事會主席*)<sup>3</sup>  
劉建先生  
王檣忠先生

## Independent Non-executive Directors

Mr. YEN Yuen Ho, Tony  
Mr. POON Chiu Kwok  
Mr. YU Chi Kit  
Ms. HAN Ruixia<sup>4</sup>

- <sup>1</sup> redesignated from member to Chairman with effect from 21 April 2022
- <sup>2</sup> appointment with effect from 19 February 2022 and resignation with effect from 21 April 2022
- <sup>3</sup> resignation with effect from 19 February 2022
- <sup>4</sup> appointment with effect from 20 July 2022

Pursuant to Article 16.18 of the Articles of Association, at every annual general meeting of the Company, one-third of the Directors for the time being shall retire from office by rotation provided that every Director shall be subject to retirement by rotation at least once every three years.

Pursuant to Article 16.2 of the Articles of Association, any Director appointed by the Board to fill a casual vacancy shall hold office only until the next following general meeting of the Company and be subject to re-election at such meeting.

## CHANGE IN INFORMATION OF DIRECTORS

Pursuant to Rule 13.51B(1) of the Listing Rules, the change in the information of the Directors is set out below:

Mr. Yu Chi Kit resigned as the chief financial officer, authorised representative and company secretary of Xiwang Property Holdings Company Limited (Stock Code: 2088) and Xiwang Special Steel Company Limited (Stock Code: 1266) with effect from 1 April 2022. Mr. Yu Chi Kit was appointed as the financial controller, authorised representative and company secretary of Central China Real Estate Limited (Stock Code: 832) with effect from 3 May 2022. The shares of Xiwang Property Holdings Company Limited, Xiwang Special Steel Company Limited and Central China Real Estate Limited are listed on the Main Board of the Stock Exchange.

## DIRECTORS' SERVICE CONTRACTS

None of the Directors being proposed for re-election at the Company's forthcoming annual general meeting has service contracts with the Company or any of its subsidiaries which is not terminable by the Group within one year without payment of compensation (other than statutory compensation).

## 獨立非執行董事

嚴元浩先生  
潘昭國先生  
余志傑先生  
韓瑞霞女士<sup>4</sup>

- <sup>1</sup> 由成員調任為主席，於二零二二年四月二十一日生效
- <sup>2</sup> 委任於二零二二年二月十九日生效及辭任於二零二二年四月二十一日生效
- <sup>3</sup> 辭任於二零二二年二月十九日生效
- <sup>4</sup> 委任於二零二二年七月二十日生效

根據組織章程細則第16.18條，於本公司每次股東週年大會，時任董事中之三分之一應輪值退任，惟每名董事須每三年輪值退任至少一次。

根據組織章程細則第16.2條，董事會委任以填補臨時空缺之任何董事，其任期將於本公司下屆股東大會舉行時屆滿，並有資格於該大會上膺選連任。

## 董事資料變動

以下載列根據上市規則第13.51B(1)條有關董事資料之變動：

余志傑先生已辭任西王置業控股有限公司(股份代號：2088)及西王特鋼有限公司(股份代號：1266)的財務總監、授權代表及公司秘書，自二零二二年四月一日起生效。余志傑先生獲委任為建業地產股份有限公司(股份代號：832)的財務總監、授權代表及公司秘書，自二零二二年五月三日起生效。西王置業控股有限公司、西王特鋼有限公司及建業地產股份有限公司的股份均於聯交所主板上市。

## 董事服務合約

概無於本公司應屆股東週年大會膺選連任之董事與本公司或其任何附屬公司訂有任何不可由本集團於一年內終止而毋須作出賠償(法定賠償除外)之服務合約。

## DIRECTORS' RIGHTS TO ACQUIRE SHARES AND DEBENTURES

Save as disclosed in the section headed "Share Option Scheme" and "Share Incentive Scheme" below, neither at the end of nor at any time during the year there subsisted any arrangement to which the Company or any of its subsidiaries or its parent companies or its fellow subsidiaries was a party and the objectives of or one of the objectives of such arrangement are/is to enable the Directors, their respective spouse or children under the age of 18 to acquire benefits by means of the acquisition of shares in or debentures of the Company or any other body corporate.

## DIRECTORS' INTERESTS IN TRANSACTIONS, ARRANGEMENTS OR CONTRACTS

No contracts, transactions or arrangements of significance, to which the Company, its subsidiaries, its holding company or any of its subsidiaries was a party and in which a Director or entity connected with a Director had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

## MANAGEMENT CONTRACTS

No contracts concerning the management and administration of the whole or any substantial part of the business of the Group were entered into or existed during the year ended 31 December 2022.

## PERMITTED INDEMNITY PROVISION

The Company's articles of association state that every Director is entitled to be indemnified out of the assets of the Company against all losses or liabilities incurred or sustained by him as a Director in defending any proceedings, whether civil or criminal, in which judgment is given in his favour, or in which he is acquitted. The Company has arranged for appropriate insurance cover for potential liabilities of Directors and officers of the Company to third parties arising out of their corporate activities. All Directors have the benefit of directors' and officers' liability insurance.

This permitted indemnity provision was in force for the benefit of the Directors during the financial year ended 31 December 2022, and remains to be in force as at the date of this "Report of the Directors".

## 董事購買股份及債券之權利

除下文「購股權計劃」及「股份激勵計劃」一節所披露者外，於年結日及年內任何時間，本公司或其任何附屬公司或其母公司或其同系附屬公司概無訂有任何安排，而有關安排之目的或其中一項目的為使董事、其各自之配偶或十八歲以下之子女能以收購本公司或任何其他法人團體之股份或債券之方式獲得利益。

## 董事於交易、安排或合約之權益

於年結日或年內任何時間，本公司、其附屬公司、其控股公司或其任何附屬公司概無訂有董事或與董事有關連的實體直接或間接擁有重大權益之重大合約、交易或安排。

## 管理合約

截至二零二二年十二月三十一日止年度，本集團並無訂立或存續任何涉及管理及行政管理其全部或任何主要部分業務的合約。

## 獲准許之彌償條文

本公司組織章程細則訂明，每位董事均可獲本公司以其資產彌償其作為董事因就任何民事或刑事訴訟作出抗辯（限於其獲判勝訴或無罪之訴訟）而招致或蒙受之一切損失或負債。本公司已為董事及高級職員安排合適保險保障，針對因進行公司業務而可能需向第三方承擔的責任。所有董事均享有董事及高級職員責任保險裨益。

前述准許的裨益董事的彌償條文在截至二零二二年十二月三十一日止財政年度中有效，且在本「董事會報告」刊發日期仍然有效。

## SHARE OPTION SCHEME

A share option scheme of the Company (the “**Share Option Scheme**”) was approved and adopted by the shareholders of the Company at the extraordinary general meeting held on 19 June 2019. As of the date of this report, the Share Option Scheme is the only existing share option scheme of the Company. The Share Option Scheme, unless otherwise terminated or amended, will remain in force for a period of 10 years from 19 June 2019. No options were granted or exercised under the Share Option Scheme during the year ended 31 December 2022. The Company had no share option outstanding as at 31 December 2022. A summary of the Share Option Scheme is set out below:

### (1) Purpose

To provide incentive or reward to the participants (as defined in paragraph (2) below) for their contribution to, and continuing efforts to promote the interests of, the Group and for such other purposes as the Board may approve from time to time.

### (2) Participants

Any Director (whether executive or non-executive, including any independent non-executive director); and employee (whether full time or part time) of the Group.

### (3) Total number of shares available for issue

(a) Mandate Limit – Subject to paragraph (b) below, the total number of shares in the Company, which may be issued upon exercise of all options to be granted under the Share Option Scheme and any other share option schemes of the Company must not in aggregate exceed 10% of the Company’s issued shares as of 19 June 2019, being 1,260,987,305 shares.

## 購股權計劃

本公司股東在二零一九年六月十九日舉行之股東特別大會上已批准及採納本公司購股權計劃（「購股權計劃」）。於本報告日期，購股權計劃為本公司唯一現存之購股權計劃。除非以其他方式予以終止或修訂，否則購股權計劃由二零一九年六月十九日起計十年內維持生效。於截至二零二二年十二月三十一日止年度，概無購股權根據購股權計劃獲授出或行使。於二零二二年十二月三十一日，本公司並無購股權尚未獲行使。購股權計劃之摘要載列如下：

### (1) 目的

旨在獎勵或酬謝為本集團作出貢獻及努力不懈地促進本集團利益之參與人士（定義見下文第(2)段），以及用於董事會不時批准之有關其他用途。

### (2) 參與人士

任何董事（無論執行或非執行董事，包括任何獨立非執行董事）；及本集團僱員（無論全職或兼職）。

### (3) 可予發行之股份總數

(a) 授權限額 – 在下文(b)段之規限下，根據購股權計劃及本公司任何其他購股權計劃將予授出之購股權獲全數行使時可予發行之本公司股份總數合共不可超逾本公司於二零一九年六月十九日之已發行股份之10%，即1,260,987,305股。

- (b) Overriding Limit – The Company may by ordinary resolutions of its shareholders refresh the Mandate Limit as referred to in the above paragraph (a) provided that the Company shall issue a circular to its shareholders before such approval is sought. The overriding limit on the number of shares in the Company, which may be issued upon exercise of all outstanding options granted and yet to be exercised under the Share Option Scheme and any other share option schemes of the Company must not exceed 30% of the Company's issued shares from time to time.
- (c) As of the date of this report, the total number of shares in the Company available for issue under the Share Option Scheme was 1,260,987,305 shares.

#### (4) Maximum entitlement of each participant

The total number of shares of the Company issued and to be issued upon exercise of options (whether exercised or outstanding) in any 12-month period granted to each participant must not exceed 1% of the shares of the Company in issue, or, if the grantee is a substantial shareholder (as defined in the Listing Rules) or an independent non-executive director (or any of their respective close associate), 0.1% of the shares of the Company in issue with an aggregate value not exceeding HK\$5 million. However, subject to separate approval by the shareholders of the Company in general meeting with the relevant participant and his close associates (as defined in the Listing Rules) (or core connected person (as defined in the Listing Rules) if the participant is a connected person (as defined in the Listing Rules)) abstaining from voting and provided that the Company shall issue a circular to its shareholders before such approval is sought, the Company may grant a participant options which would exceed the aforesaid limit.

- (b) 主要限額—本公司可透過其股東通過普通決議案更新上文(a)段所述之授權限額，惟於尋求此批准前，本公司須向其股東發出通函。根據購股權計劃及本公司任何其他購股權計劃授出而尚未行使之購股權於獲全數行使時可予發行之本公司股份數目之主要限額為不得超逾本公司之不時已發行股份之30%。
- (c) 於本報告日期，根據購股權計劃可予發行之本公司股份總數為1,260,987,305股。

#### (4) 每名參與人士可享之最大權利

每名參與人士於任何12個月期間內獲授之購股權(無論已行使或尚未行使)在行使時獲發及將獲發之本公司股份總數不得超逾本公司之已發行股份之1%(倘擬向主要股東(定義見上市規則)或獨立非執行董事或彼等各自之任何緊密聯繫人授出購股權，則為本公司已發行股份之0.1%而總值並不超過5百萬港元)。然而，待本公司股東於股東大會上另行批准，而有關參與人士及其緊密聯繫人(定義見上市規則)(或假若參與人士是關連人士(定義見上市規則)，核心關連人士(定義見上市規則))放棄投票，及本公司在尋求此批准前向其股東發出通函，則本公司可向參與人士授出超出前述限額之購股權。

#### (5) Grant of options

Each offer of an option (the “Offer”) shall be in writing made to an eligible person by letter in such form as the Board may from time to time determine at its discretion (the “Offer Letter”). The Offer Letter shall state, among others, the period during which the option may be exercised (the “Option Period”), which period is to be determined and notified by the Board but shall expire in any event not later than the last day of the 10 year period after the date of grant of the option.

The Board may specify in the Offer Letter any conditions which must be satisfied before the option may be exercised, including without limitation such performance targets and minimum periods for which an option must be held before it can be exercised, as the Board may determine from time to time.

The Board shall specify in the Offer Letter a date by which the grantee must accept the Offer, being a date no later than 14 days after the date on which the option is offered (the “Offer Date”) or the date on which the conditions for the Offer are satisfied. Payment of option price of HK\$1.00 shall be made upon acceptance of the Offer.

#### (6) Subscription Price

The price at which each Share subject to an option may be subscribed for on the exercise of that option (the “Subscription Price”) shall be a price solely determined by the Board and notified to an eligible person and shall be at least the highest of: (a) the closing price of the Shares as stated in the Stock Exchange’s daily quotations sheet on the Offer Date, which must be a business day; (b) the average of the closing price of the Shares as stated in the Stock Exchange’s daily quotations sheets for the five business days immediately preceding the Offer Date; and (c) the nominal value of the Share.

No share option was granted or exercised under the Share Option Scheme during the year ended 31 December 2022. The Company had no share option outstanding as at 31 December 2022.

#### (5) 授出購股權

每份購股權要約(「要約」)均須以董事會不時酌情釐定之形式向合資格人士發出書面函件(「要約函件」)作出。要約函件須列明(其中包括)可行使購股權之期間(「購股權期間」)，該期間將由董事會釐定及通知，惟無論如何不遲於授出購股權日期後十年期最後一日屆滿。

董事會可於要約函件中列明行使購股權前須達成之任何條件，包括但不限於董事會可能不時釐定之表現目標及購股權於行使前須持有之最短期限。

董事會須於要約函件內列明承授人接納要約之限期，當日須不遲於要約授出購股權日期(「要約日期」)後14日或要約之條件獲達成日期。購股權價格1.00港元須於接納要約時支付。

#### (6) 認購價

於行使購股權時認購該購股權所涉及股份之每股價格(「認購價」)須為董事會全權釐定並知會合資格人士之價格，該價格最少相等於以下各項之最高者：(a)股份於要約日期(須為營業日)在聯交所每日報價表所報之收市價；(b)股份於緊接要約日期前五個營業日在聯交所每日報價表所報之平均收市價；及(c)股份之面值。

於截至二零二二年十二月三十一日止年度，概無購股權根據購股權計劃獲授出或獲行使。本公司於二零二二年十二月三十一日概無尚未行使之購股權。

## SHARE INCENTIVE SCHEME

A share incentive scheme (the “**Share Incentive Scheme**”) was approved by the then shareholders at the annual general meeting of the Company held on 2 June 2015 (the “**Adoption Date**”). The purpose of the Share Incentive Scheme is to provide incentive or reward to Directors or employees of the Group for their contributions to, and continuing efforts to promote the interests of, the Group and its business. Pursuant to the Share Incentive Scheme, performance-based shares of the Company may be granted to eligible persons. The Share Incentive Scheme permits the granting of the performance-based shares to the eligible persons that are either new shares of the Company or existing shares of the Company that are purchased pursuant to the terms of the Share Incentive Scheme.

The aggregate number of the performance-based shares which may be allotted and issued and/or purchased upon vesting of the performance-based shares granted under the Share Incentive Scheme is limited to 10% of the total number of shares of the Company in issue as at the Adoption Date. Pursuant to the Share Incentive Scheme, the maximum aggregate number of shares of the Company which may be allotted and issued or purchased upon the vesting of performance-based shares granted under the Share Incentive Scheme and yet to be vested in relation to shares of the Company or options granted under other long-term incentive schemes of the Company (including the Share Option Scheme) must not, in aggregate, exceed 30% of the total number of shares of the Company in issue from time to time.

At the Company’s annual general meeting held on 25 May 2022 (“**2022 AGM**”), a scheme mandate was granted to the Board to exercise the powers of the Company to issue new shares of the Company not exceeding 2% of the issued share capital of the Company as at the date of 2022 AGM. Such mandate has not been used and will lapse at the conclusion of the annual general meeting of the Company in 2023. Power of the Company to issue new shares under the Share Incentive Scheme will be subject to further scheme mandate from the shareholders and in accordance with applicable laws and regulations (e.g. the applicable provisions of Chapter 17 of the Listing Rules).

## 股份激勵計劃

股份激勵計劃(「**股份激勵計劃**」)於二零一五年六月二日(「**採納日期**」)舉行之本公司股東週年大會上獲當時之股東批准。股份激勵計劃之目的是為向董事或本集團僱員提供獎勵或獎賞，以嘉獎彼等對提高本集團及其業務之利益作出之貢獻及持續作出的努力。根據股份激勵計劃，本公司可向合資格人士授出本公司之業績股份。股份激勵計劃允許本公司向合資格人士授出本公司之新股份，或本公司根據股份激勵計劃之條款所購買之現有股份作為業績股份。

於根據股份激勵計劃授出之業績股份歸屬時，可能配發及發行及／或購買之業績股份總數以採納日期本公司已發行股份總數10%為限。根據股份激勵計劃，於根據股份激勵計劃授出之業績股份歸屬時可能配發及發行或購買之股份，連同根據本公司其他長期激勵計劃(包括購股權計劃)所授出之股份或購股權之相關未歸屬股份總數，合共最多不得超過本公司不時已發行股份總數之30%。

於二零二二年五月二十五日舉行之本公司股東週年大會(「**二零二二年股東週年大會**」)上，董事會獲授予計劃授權，藉此可行使本公司之權力發行不超過於二零二二年股東週年大會日期本公司已發行股本2%之本公司新股份。該授權尚未動用，且將於本公司之二零二三年股東週年大會結束時失效。本公司就股份激勵計劃發行新股份之權力將視乎股東進一步授出之計劃授權及適用之法規(如上市規則第17章的適用條文)。

## DISCLOSURE OF INTERESTS

### (a) Directors' and chief executive's interests and short positions in shares, underlying shares and debentures of the Company or its associated corporations

As at 31 December 2022, none of the Directors or chief executive of the Company had any interest or short position in the shares, underlying shares or debentures of the Company or its associated corporations (within the meaning of Part XV of the SFO) which were required: (a) pursuant to section 352 of the SFO, to be entered in the register referred to therein; (b) to be notified to the Company and the Stock Exchange pursuant to Divisions 7 and 8 of Part XV of the SFO; or (c) to be notified to the Company and the Stock Exchange pursuant to the Model Code as set out in Appendix 10 to the Listing Rules.

### (b) Interests and short positions of substantial shareholders in the shares and underlying shares of the Company

As at 31 December 2022, so far as is known to the Directors, the following persons (i) had interests or short positions in the shares and/or underlying shares of the Company which were recorded in the register required to be kept by the Company under section 336 of the SFO; or (ii) were, directly or indirectly, interested in 5% or more of the nominal value of any class of share capital carrying the right to vote in all circumstances at general meetings of the Company or any options in respect of such capital.

## 權益披露

### (a) 董事及最高行政人員於本公司或其相聯法團之股份、相關股份及債券之權益及淡倉

於二零二二年十二月三十一日，概無董事或本公司最高行政人員於本公司或其相聯法團(定義見證券及期貨條例第XV部)之股份、相關股份或債券中，擁有任何：(a)須記錄於根據證券及期貨條例第352條所規定存置之登記冊之權益或淡倉；(b)根據證券及期貨條例第XV部第7及8分部須知會本公司及聯交所之權益或淡倉；或(c)根據上市規則附錄10所載的標準守則須知會本公司及聯交所之權益或淡倉。

### (b) 主要股東於本公司股份及相關股份之權益及淡倉

於二零二二年十二月三十一日，就董事所知，下列人士(i)於本公司股份及／或相關股份中持有根據證券及期貨條例第336條須登記於本公司所保存登記冊內之權益或淡倉；或(ii)直接或間接擁有附有權利可於任何情況下在本公司股東大會投票之任何類別股本面值5%或以上之權益或該等股本之任何相關購股權。



Long positions and short positions in the shares and underlying shares of the Company:

於本公司股份及相關股份之好倉及淡倉：

Name of shareholder 股東名稱	Notes 附註	Capacity/Nature of interest 身份/ 權益性質	Number of Shares interested (Note 1) 擁有權益之 股份數目 (附註1)	Number of Shares which may be converted from PSCS (Note 1) 永久次級可換股證券 可轉換之股份數目 (附註1)	Percentage of the total number of Shares in issue (%) (Note 3) 佔已發行股份 總數之百分比(%) (附註3)
Jinchuan Group Co., Ltd.* 金川集團股份有限公司	(2) & (4)	Interest of controlled corporation 受控法團權益	7,593,009,857 (L)	690,000,000 (L)	66.25%
Jinchuan Group (Hongkong) Resources Holdings Limited 金川集團(香港)資源控股有限公司	(2) & (4)	Interest of controlled corporation 受控法團權益	7,593,009,857 (L)	690,000,000 (L)	66.25%
Jinchuan (BVI) Limited 金川(BVI)有限公司	(2) & (4)	Interest of controlled corporation/ Beneficial owner 受控法團權益/實益擁有人	7,593,009,857 (L)	690,000,000 (L)	66.25%
Jinchuan (BVI) 1 Limited 金川(BVI) 1有限公司	(2)	Beneficial owner 實益擁有人	1,888,449,377 (L)	-	15.11%
Jinchuan (BVI) 2 Limited 金川(BVI) 2有限公司	(2)	Beneficial owner 實益擁有人	583,518,372 (L)	-	4.67%
Jinchuan (BVI) 3 Limited 金川(BVI) 3有限公司	(2)	Beneficial owner 實益擁有人	534,922,108 (L)	-	4.28%
Gansu Province Economy Cooperation Co., Ltd.* 甘肅省經濟合作有限公司		Beneficial owner 實益擁有人	1,090,000,000 (L)	-	8.72%
Gansu Province Xinye Assets Management Co. Ltd.* 甘肅省新業資產經營有限責任公司		Beneficial owner 實益擁有人	1,110,000,000 (L)	-	8.88%

\* for identification purposes only

\* 僅供識別

Notes:

1. The letter "L" denotes the long position in such Shares and the letter "S" denotes the short position in such Shares.
2. Jinchuan Group Co., Ltd\* directly owned 100% of the issued share capital of Jinchuan Group (Hongkong) Resources Holdings Limited which in turn owned 100% of the issued share capital of Jinchuan (BVI) Limited which owned 100% of the issued share capital of each of Jinchuan (BVI) 1 Limited, Jinchuan (BVI) 2 Limited and Jinchuan (BVI) 3 Limited. Therefore, Jinchuan Group Co., Ltd\*, Jinchuan Group (Hongkong) Resources Holdings Limited and Jinchuan (BVI) Limited were deemed to be interested in the 1,888,449,377 shares, 583,518,372 shares and 534,922,108 shares of the Company held by Jinchuan (BVI) 1 Limited, Jinchuan (BVI) 2 Limited and Jinchuan (BVI) 3 Limited respectively under the SFO.
3. The calculation is based on the total number of issued shares of the Company (i.e. 12,502,082,051 Shares) as at 31 December 2022.
4. Jinchuan (BVI) Limited directly held 4,586,120,000 Shares and PSCS in the amount of US\$88,461,539 (equivalent to approximately HK\$690,000,000) which may be converted into 690,000,000 shares of the Company at an initial conversion price of HK\$1.00 per share. Based on the relations set out in note 2 above, Jinchuan Group Co., Ltd\* and Jinchuan Group (Hongkong) Resources Holdings Limited were deemed to be interested in the 4,586,120,000 shares of the Company and 690,000,000 underlying shares which may be converted from PSCS of the Company held by Jinchuan (BVI) Limited under the SFO.

Save as disclosed below, as at 31 December 2022, none of the Directors is a director or employee of a company which had interests or short positions in the Shares or underlying Shares of the Company which would fall to be disclosed to the Company and the Stock Exchange under the provisions of Division 2 and 3 Part XV of the SFO.

附註：

1. 字母「L」代表於有關股份之好倉，字母「S」代表於有關股份之淡倉。
2. 金川集團股份有限公司直接持有金川集團(香港)資源控股有限公司已發行股本之100%，金川集團(香港)資源控股有限公司持有金川(BVI)有限公司已發行股本之100%，金川(BVI)有限公司持有金川(BVI) 1有限公司、金川(BVI) 2有限公司及金川(BVI) 3有限公司各自已發行股本之100%。因此，根據證券及期貨條例，金川集團股份有限公司、金川集團(香港)資源控股有限公司及金川(BVI)有限公司被視為於金川(BVI) 1有限公司、金川(BVI) 2有限公司及金川(BVI) 3有限公司分別所持之1,888,449,377股、583,518,372股及534,922,108股本公司股份中擁有權益。
3. 佔已發行股份總數之百分比乃根據於二零二二年十二月三十一日本公司已發行股份總數(即12,502,082,051股股份)計算。
4. 金川(BVI)有限公司直接持有4,586,120,000股股份及金額合共88,461,539美元(相當於約690,000,000港元)之永久次級可換股證券，據此可按初步換股價每股1.00港元轉換為690,000,000股本公司股份。基於上述附註2所述的關係，根據證券及期貨條例，金川集團股份有限公司及金川集團(香港)資源控股有限公司被視作於金川(BVI)有限公司所持之4,586,120,000股本公司股份及690,000,000股永久次級可換股證券可轉換之本公司相關股份中擁有權益。

除下文披露者外，於二零二二年十二月三十一日，概無董事出任擁有本公司股份或相關股份之權益或淡倉並須根據證券及期貨條例第XV部第2及3分部之規定而向本公司及聯交所作出披露之公司之董事或僱員。

<b>Name of Director</b> <b>董事姓名</b>	<b>Posts held in JCG</b> <b>於金川擔任之職位</b>
Mr. Liu Jian 劉建先生	General Manager of Finance Department 財務部總經理
Mr. Cheng Yonghong 程永紅先生	Africa Regional Director 非洲區域總監
<b>Name of Director</b> <b>董事姓名</b>	<b>Posts held in JCHK</b> <b>於金川香港擔任之職位</b>
Mr. Liu Jian 劉建先生	Director 董事
Mr. Cheng Yonghong 程永紅先生	Director 董事
Mr. Gao Tianpeng 郜天鵬先生	Director 董事
<b>Name of Director</b> <b>董事姓名</b>	<b>Posts held in Jinchuan (BVI) Limited, Jinchuan (BVI) 1 Limited, Jinchuan (BVI) 2 Limited and Jinchuan (BVI) 3 Limited</b> <b>於金川(BVI)有限公司、金川(BVI)1有限公司、金川(BVI)2有限公司及金川(BVI)3有限公司擔任之職位</b>
Mr. Cheng Yonghong 程永紅先生	Director 董事
Mr. Gao Tianpeng 郜天鵬先生	Director 董事
<b>Name of Director</b> <b>董事姓名</b>	<b>Posts held in Gansu Province Xinye Asset Management Co. Ltd.*</b> <b>於甘肅省新業資產經營有限責任公司擔任之職位</b>
Mr. Wang Qiangzhong 王橋忠先生	Chairman 董事長

Save as disclosed above, as at 31 December 2022, so far as is known to the Directors, no other person (i) had interests or short positions in the shares and underlying shares of the Company which were recorded in the register required to be kept by the Company under Section 336 of the SFO, or (ii) were, directly or indirectly, interested in 5% or more of the nominal value of any class of share capital carrying the right to vote in all circumstances at general meetings of the Company or any options in respect of such capital.

\* for identification purposes only

除上文披露者外，於二零二二年十二月三十一日，就董事所知，概無其他人士(i)於本公司股份及相關股份中擁有須記入本公司根據證券及期貨條例第336條所規定存置之登記冊之權益或淡倉；或(ii)直接或間接擁有附帶權利可於所有情況下在本公司股東大會上投票之任何類別股本面值5%或以上權益，或有關該等股本之任何購股權。

\* 僅供識別

## MAJOR CUSTOMERS AND SUPPLIERS

During the year under review, sales to the Group's five largest customers accounted for 94% (2021: 86%) of the total sales for the year and sales to the Group's largest customer accounted for 35% (2021: 28%) of the total sales for the year. Purchases from the Group's five largest suppliers accounted for 64% (2021: 67%) of the total purchases for the year and purchases from the largest supplier accounted for 40% (2021: 48%) of the total purchases for the year.

At no time during the year did a Director, a close associate of a Director, or a shareholder of the Company (which to the knowledge of the Directors own more than 5% of the Company's number of issued shares) had any beneficial interest in any of the Group's five largest customers or suppliers for the year ended 31 December 2022 and 2021, except that Jin Gang was the fifth largest supplier of the Group for the year ended 31 December 2022. Please refer to the section of "Continuing Connected Transactions" of this report and the announcement of the Company published on 30 December 2021.

## RETIREMENT BENEFIT SCHEMES

The Group strictly complies with the Mandatory Provident Fund Schemes Ordinance in making mandatory contributions for its staff in Hong Kong, and also makes contributions to staff retirement fund for those staff in South Africa, the DRC and Zambia. Details of the Group's retirement benefit schemes for the year ended 31 December 2022 are set out in note 38 to the consolidated financial statements.

## PRE-EMPTIVE RIGHTS

There are no provisions for pre-emptive rights under the Company's articles of association, or the laws of the Cayman Islands, where the Company is incorporated, which oblige the Company to offer new shares on a pro-rata basis to existing shareholders.

## COMPETING INTERESTS

None of the Directors and their respective associates (as defined in the Listing Rules) had an interest in a business which competes or is likely to compete with the business of the Group throughout the year ended 31 December 2022.

## 主要客戶及供應商

於回顧年度，本集團的五大客戶銷售額佔年度銷售總額的94%(二零二一年：86%)，而本集團最大客戶銷售額佔年度銷售總額的35%(二零二一年：28%)。本集團的五大供應商採購額佔年度採購總額的64%(二零二一年：67%)，而最大供應商採購額佔年度採購總額的40%(二零二一年：48%)。

於年內任何時間，本公司董事、董事之緊密聯繫人或股東(就董事所知擁有本公司已發行股份數目5%以上)於截至二零二二年及二零二一年十二月三十一日止年度概無於本集團之五大客戶或供應商中擁有任何實益權益，除Jin Gang為本集團截至二零二二年十二月三十一日止年度第五大供應商外。請參閱本報告「持續關連交易」一節及本公司於二零二一年十二月三十日刊發的公告。

## 退休福利計劃

本集團嚴格遵照強制性公積金計劃條例，為香港員工作出強制性供款，並為南非、剛果(金)及贊比亞之員工作出員工退休金供款。本集團截至二零二二年十二月三十一日止年度之退休福利計劃詳情載於綜合財務報表附註38。

## 優先購買權

本公司組織章程細則或本公司註冊成立地點開曼群島之法例並無有關優先購買權之規定，本公司毋須按比例向現有股東提呈新股份。

## 競爭性權益

董事及彼等各自之聯繫人(定義見上市規則)於截至二零二二年十二月三十一日止整個年度內概無於對本集團之業務構成或可能構成競爭之業務中擁有權益。

## EMOLUMENT POLICY

The emolument policy of the employees of the Group is set out by the Board on the basis of their merit, qualifications and competence.

The emoluments of the Directors are decided by the Board, having regard to the Company's operating results, individual performance and comparable market statistics as well as the recommendations of the Remuneration and Nomination Committee of the Board.

The Company has adopted a share option scheme on 19 June 2019 and a share incentive scheme on 2 June 2015 as an incentive to directors and eligible employees of the Group. Further details of the said share option scheme and the share incentive scheme are set out on pages 75 to 78 of this report.

## SUFFICIENCY OF PUBLIC FLOAT

Based on information that is publicly available to the Company and within the knowledge of the Directors, as at the date of this report, the Company has maintained a sufficient public float of not less than 25% of the Company's total number of issued shares as required under the Listing Rules.

## CONNECTED TRANSACTIONS

During the year under review, the Group had the following connected transactions which were subject to reporting and announcement requirements pursuant to the Listing Rules, but were exempted from the independent shareholder's approval requirements.

### (i) Construction Contract

#### Contract Date

24 November 2022

#### Parties

Service Receiver: Ruashi, an indirect non wholly-owned subsidiary of the Company

Service Provider: Concrease, 49% owned indirectly by JCG through Jinchuan E&C, whilst the remaining 51% of Concrease is owned by two DRC shareholders

## 薪酬政策

本集團之僱員薪酬政策乃由董事會按彼等之優點、資歷及能力釐定。

董事之薪酬乃由董事會經考慮本公司經營業績、個別表現、可資比較市場數據以及董事會薪酬及提名委員會的建議而定。

本公司已於二零一九年六月十九日採納購股權計劃及於二零一五年六月二日採納股份激勵計劃，以向本集團董事及合資格僱員提供獎勵。上述之購股權計劃及股份激勵計劃之進一步詳情載於本報告第75至78頁。

## 足夠公眾持股量

根據本公司可取得之公開資料及據董事所知悉，於本報告日期，本公司維持根據上市規則之規定不少於本公司已發行股份總數25%之足夠公眾持股量。

## 關連交易

於回顧年度，本集團已進行下列根據上市規則須遵守申報及公告規定但獲豁免遵守獨立股東批准規定之關連交易。

### (i) 建築合約

#### 合同日期

二零二二年十一月二十四日

#### 訂約方

服務接收方：Ruashi，本公司的一間間接非全資附屬公司

服務提供方：Concrease，金川通過金川工程建設間接擁有49%，Concrease餘下51%由兩名剛果(金)股東擁有

### Principal Terms

Ruashi and Concrease entered into a construction contract in relation to the construction and installation of mineral dressing, tailing pond and filling station of Musonoi Project. Please refer to the announcement published by the Company on 24 November 2022.

### Consideration

The contract price for the work under the construction contract is US\$30,730,000 (exclusive of any value-added tax, subcontracting tax of DRC and insurance charges but inclusive of electricity and compressed air incurred or to be incurred by Concrease in the project), together with such additions or deductions as are provided for in the construction contract. By the end of December 2022, the project was still at a preliminary stage.

## (ii) Survey Contract

### Contract Date

31 December 2018

### Parties

Service Receiver: Chibuluma, an indirect non wholly-owned subsidiary of the Company.

Service Provider: Jinchuan R&E, a direct wholly-owned subsidiary of JCG.

### Principal Terms

Chibuluma and Jinchuan R&E entered into the survey contract relating to the provision of geochemical and ground-geophysical surveys in the Northwestern Province Exploration Projects by Jinchuan R&E to Chibuluma. Please refer to the announcement published by the Company on 31 December 2018 for details.

### Consideration

The basic contract price for geochemical work shall be approximately US\$620,000, whilst the basic contract price for ground-geophysical work shall be approximately US\$120,000. The total contract price shall be subject to adjustments based on actual work to be undertaken. By the end of December 2022, approximately 70% of contracted work was completed by Jinchuan R&E.

### 主要條款

Ruashi 與 Concrease 就 Musonoi 項目的選礦、尾礦庫及充填攪拌站的建築及安裝工程訂立建築合約。請參閱本公司於二零二二年十一月二十四日刊發的公告。

### 代價

建築合約項下工程之合約價格為30,730,000美元(不包括剛果(金)之任何增值稅、分包稅及保險費，惟包括Concrease於項目中產生或將產生之電力及壓縮空氣)，連同建築合約規定之相關增減。於二零二二年十二月底，該項目仍處於初期階段。

## (ii) 勘查合同

### 合同日期

二零一八年十二月三十一日

### 訂約方

服務接收方：Chibuluma，本公司之間接非全資附屬公司。

服務提供方：鎳鈷設計院，金川之直接全資附屬公司。

### 主要條款

Chibuluma 與鎳鈷設計院訂立勘查合同，內容有關鎳鈷設計院就西北省勘探項目向Chibuluma提供地球化學和地面地球物理勘查服務。有關詳情請參閱本公司於二零一八年十二月三十一日刊發之公告。

### 代價

地球化學工作之基本合同價格將約為620,000美元，而地面地球物理工作之基本合同價格將約為120,000美元。合同總價格將根據實際將予進行之工作予以調整。直至二零二二年十二月底，鎳鈷設計院完成合同工作的約70%。

**(iii) Design Supervision Contract**

**Contract Date**

31 December 2018

**Parties**

Service Receiver: Ruashi, an indirect non wholly-owned subsidiary of the Company

Service Provider: Jinchuan R&E, a direct wholly-owned subsidiary of JCG

**Principal Terms**

Ruashi and Jinchuan R&E entered into the design supervision contract relating to the provision of design supervision services for Musonoi Project by Jinchuan R&E to Ruashi. Please refer to the announcement published by the Company on 31 December 2018 for details.

**Consideration**

The basic contract price for design supervision services shall be approximately US\$242,409. Approximate 80% of the contract work was completed by Jinchuan R&E by the end of December 2022.

During the year under review, the Group had the following connected transactions which were subject to reporting, announcement and independent shareholders' approval requirements pursuant to the Listing Rules.

**(i) Procurement Contract**

**Contract Date**

2 December 2022 (effective upon the approval obtained in the shareholder's meeting held on 7 March 2023)

**Parties**

Service Receiver: Ruashi, an indirect non wholly-owned subsidiary of the Company

Service Provider: Jinchuan Cooperation Company, direct wholly-owned subsidiary of Jinchuan E&C

**(iii) 設計監理合同**

**合同日期**

二零一八年十二月三十一日

**訂約方**

服務接收方：Ruashi，本公司之間接非全資附屬公司

服務提供方：鎳鈷設計院，金川之直接全資附屬公司

**主要條款**

Ruashi與鎳鈷設計院訂立設計監理合同，內容有關鎳鈷設計院就Musonoi項目向Ruashi提供設計監理服務。有關詳情請參閱本公司於二零一八年十二月三十一日刊發之公告。

**代價**

設計監理服務之基本合同價格將約為242,409美元。直至二零二二年十二月底，鎳鈷設計院完成合同工作的約80%。

於回顧年度，本集團已進行下列根據上市規則須遵守申報、公告及獨立股東批准規定之關連交易。

**(i) 採購合約**

**合同日期**

二零二二年十二月二日(經二零二三年三月七日召開的股東大會批准後生效)

**訂約方**

服務接收方：Ruashi，本公司的一間間接非全資附屬公司

服務提供方：金川合作公司，金川工程建設的直接全資附屬公司

### Principal Terms

Ruashi entered into a procurement contract with Jinchuan Cooperation Company in relation to the material and equipment procurement, export and logistics transportation required for mineral dressing, tailing pond and filling station of Musonoi Project. Please refer to the announcement and circular published by the Company on 2 December 2022 and 14 February 2023 respectively.

### Consideration

The sum of the procurement contract is US\$81,308,900, which comprise of the estimated agency purchase service fee of US\$1,594,000, estimated purchase price of engineering equipment, engineering materials and steel structure products of US\$75,164,000 and sea-land combined transportation fee of US\$4,550,900. The contract has not commenced by the end of December 2022.

## CONTINUING CONNECTED TRANSACTIONS

During the year under review, the Group had the following continuing connected transactions which were subject to reporting and announcement requirements pursuant to the Listing Rules, but were exempt from the independent shareholders' approval requirement.

### (i) Jin Gang Framework Agreement

#### Contract Date

30 December 2021

#### Parties

Services Receiver: the Group

Services Provider: Jin Gang, an indirect non wholly-owned subsidiary of JCG

#### Term

For a term of three years commencing on 1 January 2022 and ending on 31 December 2024 (both days inclusive)

### 主要條款

Ruashi與金川合作公司就Musonoi項目的選礦、尾礦庫及充填攪拌站所須的材料及設備採購、出口及物流運輸訂立採購合約。請參閱本公司於二零二二年十二月二日刊發的公告及二零二三年二月十四日刊發的通函。

### 代價

採購合約總額為81,308,900美元，其中包括代理採購服務1,594,000美元、採購工程設備、工程材料及鋼結構產品75,164,000美元及海陸聯運費4,550,900美元。於二零二二年十二月底，該合同尚未啟動。

## 持續關連交易

於回顧年度，本集團已進行下列根據上市規則須遵守申報及公告規定但獲豁免遵守獨立股東批准規定之持續關連交易。

### (i) Jin Gang 框架協議

#### 合同日期

二零二一年十二月三十日

#### 訂約方

服務接收方：本集團

服務提供方：Jin Gang，金川之間接非全資附屬公司

#### 年期

二零二二年一月一日起計及截至二零二四年十二月三十一日止(包括首尾兩日)，為期三年



### Principal Terms

On 30 December 2021, Jin Gang and the Company entered into the Jin Gang Framework Agreement for the period from 1 January 2022 to 31 December 2024. Pursuant to which Jin Gang as contractor shall provide mining, maintenance, bagging and loading and various mining related service to the Group. For details, please refer to the Company's announcement dated 30 December 2021.

### Consideration

The Group incurred mining and maintenance expenses of US\$17,559,000 for the year ended 31 December 2022, which did not exceed the annual cap for 2022 of US\$23,500,000.

### (ii) Leasing of Kinsenda's Equipment

#### Contract Date

17 July 2018

#### Parties

Lessor: Kinsenda, an indirect non wholly-owned subsidiary of the Company

Lessee: Jin Gang, an indirect non wholly-owned subsidiary of JCG

### Principal Terms

Pursuant to a mining contract entered into between Kinsenda and Jin Gang on 17 July 2018, if Jin Gang shall request Kinsenda to make available to Jin Gang certain equipment belonging to Kinsenda for the performance of its work under the contract and if Kinsenda shall agree to such a request the equipment or facilities may be changed at agreed rental rates. The rental cost shall be deducted from mining expenses payment to Jin Gang by Kinsenda. Please refer to the announcements published by the Company on 17 July 2018 and 20 November 2019 for details.

### Consideration

The annual cap for the rental income for 2022 was US\$2,000,000. No rental income was received by the Group for the year ended 31 December 2022.

### 主要條款

於二零二一年十二月三十日，Jin Gang與本公司訂立Jin Gang框架協議，期限為二零二二年一月一日至二零二四年十二月三十一日。據此，Jin Gang作為承包商須向本集團提供採礦、維護、裝袋及貨物裝載及多項採礦有關服務。有關詳情請參閱本公司日期為二零二一年十二月三十日的公告。

### 代價

本集團截至二零二二年十二月三十一日止年度產生採礦開支、維護開支17,559,000美元，其並未超過二零二二年之年度上限23,500,000美元。

### (ii) Kinsenda設備租賃

#### 合同日期

二零一八年七月十七日

#### 訂約方

出租人：Kinsenda，本公司之間接非全資附屬公司

承租人：Jin Gang，金川之間接非全資附屬公司

### 主要條款

根據Kinsenda與Jin Gang於二零一八年七月十七日訂立之採礦合同，倘Jin Gang將要求Kinsenda向Jin Gang出租屬於其的若干設備，以履行合同項下的工作及倘Kinsenda同意該要求，設備或設施費用可按協定租金費率承擔，租金成本將由Kinsenda向Jin Gang支付的採礦開支付款中扣除。有關詳情請參閱本公司於二零一八年七月十七日及二零一九年十一月二十日刊發之公告。

### 代價

二零二二年租金收入之年度上限為2,000,000美元。本集團截至二零二二年十二月三十一日止年度並無收取租金收入。

During the year under review, the Group had the following continuing connected transactions which were subject to reporting, announcement and independent shareholders' approval requirements pursuant to the Listing Rules.

於回顧年度，本集團已進行下列根據上市規則須遵守申報、公告及獨立股東批准規定之持續關連交易。

**Trading of Mineral and Metal Products Framework Agreement ("2019 CCT Agreement" and "2022 CCT Agreement")**

買賣礦產品及金屬產品框架協議(「二零一九年持續關連交易協議」及「二零二二年持續關連交易協議」)

**Contract Date**

**合同日期**

5 June 2019 (2019 CCT Agreement)

二零一九年六月五日(二零一九年持續關連交易協議)

14 April 2022 (2022 CCT Agreement)

二零二二年四月十四日(二零二二年持續關連交易協議)

**Parties**

**訂約方**

Buyer: JCG

買方：金川

Seller: The Company

賣方：本公司

**Term**

**期限**

3 years from 1 June 2019 to 31 May 2022 (2019 CCT Agreement)

由二零一九年六月一日至二零二二年五月三十一日三年期間(二零一九年持續關連交易協議)

3 years from 1 June 2022 to 31 May 2025 (2022 CCT Agreement)

由二零二二年六月一日至二零二五年五月三十一日三年期間(二零二二年持續關連交易協議)

## Principal Terms

Pursuant to the 2019 CCT Agreement and 2022 CCT Agreement, the Company has agreed to cause the Group to sell to JCG Group, and JCG has agreed to cause JCG Group (for the purpose of this contract, excluding the Group) to purchase from the Group, the Mineral and Metal Products that the Group may source from third parties or produce by the mines of the Group during the term of the 2019 CCT Agreement and 2022 CCT Agreement. The quantity of each type of Mineral and Metal Products to be sold to JCG Group is not fixed under the terms of the 2019 CCT Agreement and 2022 CCT Agreement but is to be determined and agreed between the relevant parties from time to time.

Please refer to the announcement dated 5 June 2019 and circular dated 21 June 2019 published by the Company for more details of 2019 CCT Agreement.

Please refer to the announcement dated 14 April 2022 and circular dated 29 April 2022 published by the Company for more details of 2022 CCT Agreement.

## Basis of the selling prices of the Mineral and Metal Products

The consideration of the Mineral and Metal Products sold will be determined with reference to the prevailing market price of the Mineral and Metal Products at the time of each specific agreement to be entered into pursuant to the 2019 CCT Agreement and 2022 CCT Agreement, subject to certain adjustments mainly involving the basis coefficient pricing, the moisture content, the percentage of metal content and the impurity element content in the metals. Market prices of copper, cobalt, nickel and other relevant metals refer to (i) the copper price quoted on the LME; or (ii) the cobalt price quoted on the MB; or (iii) the nickel price quoted on the LME; or (iv) when the market price of other Mineral and Metal Products could not be adequately reflected through (i), (ii) and (iii) at the place of sale or the receiving market, the price shall be reasonably determined by both parties after making reference to the price of Mineral and Metal Products at the place of sale or the receiving market. Such price will be determined by making reference to the selling price charged by other renowned mining companies at the place of sale or receiving market, and a recognized stock index that is comparable to the LME or the MB, such as SMM Information & Technology Co., Ltd., Shanghai Futures Exchange or Chicago Mercantile Exchange. This mechanism is intended to ensure that the selling prices for the Mineral and Metal Products provided by the Group to JCG Group will be determined on normal commercial terms.

## 主要條款

根據二零一九年持續關連交易協議及二零二二年持續關連交易協議，於二零一九年持續關連交易協議及二零二二年持續關連交易協議期間，本公司同意促使本集團向金川集團出售，而金川同意促使金川集團（就本合同而言，不包括本集團）向本集團購買由本集團向第三方採購或由本集團礦場生產的礦產品及金屬產品。出售予金川集團之每種礦產品及金屬產品的數量並未於二零一九年持續關連交易協議及二零二二年持續關連交易協議之條款中訂定，而是不時由有關訂約各方釐定及協商。

有關二零一九年持續關連交易協議之更多詳情請參閱本公司於二零一九年六月五日刊發之公告以及於二零一九年六月二十一日刊發之通函。

有關二零二二年持續關連交易協議之更多詳情請參閱本公司於二零二二年四月十四日刊發之公告以及於二零二二年四月二十九日刊發之通函。

## 礦產品及金屬產品之售價基準

所售礦產品及金屬產品之代價將參考根據二零一九年持續關連交易協議及二零二二年持續關連交易協議訂立各項特定協議當時之礦產品及金屬產品市價釐定，惟可進行若干調整，主要涉及基本價格系數釐定、水份含量、金屬含量百分比及金屬雜質元素含量。銅、鈷、鎳及其他相關金屬的市價指(i)倫敦金所報銅的價格；或(ii)金屬導報所報鈷的價格；或(iii)倫敦金所報鎳的價格；或(iv)當其他礦產品及金屬產品的市場價格無法透過(i)、(ii)及(iii)在銷售地或收貨市場予以充分反映時，價格應由雙方經參考礦產品及金屬產品於銷售地或收貨市場的價格後合理釐定。該價格將參考其他知名礦業公司於銷售地或收貨市場所索之銷售價格，以及與倫敦金所或金屬導報可資比較的認可商品交易指數（如上海有色網信息科技股份有限公司、上海期貨交易所或芝加哥商品交易所）而釐定。此機制旨在確保本集團向金川集團提供之礦產品及金屬產品售價將按一般商業條款釐定。

## Consideration

The Group sold 3,621 tonnes of copper contained in copper concentrates to JCG Group and recognised revenue of US\$26,139,000 for the period from 1 January 2022 to 30 May 2022 which did not exceed the cap of 2019 CCT Agreement for the five months ended 31 May 2022 of US\$204,000,000.

The Group sold 1,007 tonnes of copper contained in copper cathodes to JCG Group and recognised revenue of US\$8,744,000 for the period from 1 June 2022 to 31 December 2022 which did not exceed the cap of 2022 CCT Agreement for the seven months ended 31 December 2022 of US\$260,000,000.

The transactions contemplated under the agreements between them constituted connected transactions as defined in Listing Rules.

All the above continuing connected transactions for the year ended 31 December 2022 have been reviewed by the independent non-executive Directors. The independent non-executive Directors have confirmed that the continuing connected transactions have been entered into:

- (a) in the ordinary and usual course of business of the Group;
- (b) either on normal commercial terms or on terms no less favourable to the Group than terms available to or from independent third parties; and
- (c) in accordance with the respective agreements governing them on terms that are fair and reasonable and in the interests of the shareholders of the Company as a whole.

## 代價

於二零二二年一月一日至二零二二年五月三十一日止期間，本集團向金川集團出售含銅量3,621噸的銅精礦並確認收益26,139,000美元，其並未超過二零一九年持續關連交易協議中截至二零二二年五月三十一日止五個月的上限204,000,000美元。

於二零二二年六月一日至二零二二年十二月三十一日止期間，本集團向金川集團出售含銅量1,007噸的電解銅並確認收益8,744,000美元，其並未超過二零二二年持續關連交易協議中截至二零二二年十二月三十一日止七個月的上限260,000,000美元。

彼等於該等協議項下擬進行之交易構成上市規則界定之關連交易。

上述截至二零二二年十二月三十一日止年度之持續關連交易均已經獨立非執行董事審閱。獨立非執行董事確認，所訂立之持續關連交易：

- (a) 於本集團之日常及一般業務過程中進行；
- (b) 按正常商業條款進行，或對本集團而言按不遜於給予獨立第三方或從獨立第三方取得之條款進行；及
- (c) 按照規管有關交易之各自之協議進行，其條款屬公平合理，並符合本公司股東之整體利益。

The Company's auditors were engaged to report on the Group's continuing connected transactions in accordance with the Hong Kong Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information" and with reference to Practice Note 740 "Auditor's Letter on Continuing Connected Transactions under the Hong Kong Listing Rules" issued by the Hong Kong Institute of Certified Public Accountants. The auditors have issued an unqualified letter containing their findings and conclusions in respect of the continuing connected transactions for the year ended 31 December 2022 in accordance with Rule 14A.56 of Listing Rules. A copy of the auditors' letter has been provided by the Company to the Stock Exchange.

Save as disclosed above, no contracts, transactions or arrangements of significance to which the Company or any of its subsidiaries was a party and in which a Director or any entity connected with a Director had a material interest, whether directly or indirectly, subsisted at the end of the year or at any time during the year.

The Directors confirmed that the material related party transactions as disclosed in note 39 to the consolidated financial statements fall under the definition of connected transactions or continuing connected transactions. The Directors confirmed that those transactions complied with the disclosure requirements in accordance with Chapter 14A of the Listing Rules.

## AUDITOR

There has been no change to the Company's auditors for the past three years. During the year, Deloitte Touche Tohmatsu ("**Deloitte**") were the auditor of the Company. A resolution for the re-appointment of Deloitte as auditor of the Company will be proposed at the forthcoming annual general meeting.

On behalf of the Board

**Cheng Yonghong**  
Chairman

23 March 2023

本公司的核數師已獲委聘，按照香港會計師公會頒佈之香港鑒證業務準則第3000號(經修訂)「非審核或審閱過往財務資料的鑒證工作」，並參照實務說明第740號「關於香港上市規則所述持續關連交易的核數師函件」，就本集團之持續關連交易作出報告。核數師已發出無保留意見函件，內含其按照上市規則第14A.56條就截至二零二二年十二月三十一日止年度之持續關連交易所進行鑒證的結果及結論。本公司已將核數師函件副本交予聯交所。

除上文披露者外，本公司或其任何附屬公司並無訂立其為訂約一方，且董事或與董事有關連的任何實體擁有重大權益(不論直接或間接)而於年結日或本年度任何時間存續之重大合約、交易或安排。

董事確認，於綜合財務報表附註39披露之重大關聯人士交易符合關連交易或持續關連交易之定義。董事確認該等交易已符合上市規則第14A章之披露規定。

## 核數師

過去三年本公司核數師沒有更換。年內，本公司核數師為德勤•關黃陳方會計師行(「**德勤**」)。於應屆股東週年大會上將提呈決議案重新委聘德勤為本公司核數師。

代表董事會

**程永紅**  
主席

二零二三年三月二十三日

The Company is committed to the establishment of good corporate governance practices and procedures. The corporate governance principles of the Company emphasize accountability and transparency to Shareholders. Periodic review will be made to the corporate governance practices to comply with the regulatory requirements.

#### CORPORATE GOVERNANCE CODE

The Company has complied throughout the year ended 31 December 2022 with the code provisions of the CG Code in force during the year of the Listing Rules. Key corporate governance principles and practices of the Company are summarised below.

#### DIRECTORS' SECURITIES TRANSACTIONS

The Company has adopted the Model Code as its own code of conduct regarding the Directors' dealings in the Company's securities. Based on specific enquiry made to the Directors, all of the Directors have confirmed that they had complied with the required standard set out in the Model Code for the year ended 31 December 2022.

#### BOARD OF DIRECTORS

The main duty of the Board is to act in good faith for the benefit of the Company and the Shareholders as a whole with proper delegation to the management of the Company according to the articles of association of the Company. The Company's purpose, values and strategy form the foundations of the Company's corporate culture. Our corporate culture is based upon adherence to high ethical standards and practices, and striving for sustainable corporate development.

The Board, as at the date of this report, comprised eight Directors of whom two were executive Directors, two were non-executive Directors and four were independent non-executive Directors ("INED"). The Company will continuously evaluate its Board structure to ensure sound corporate governance is in place.

The Company has arranged appropriate directors' and officers' liability insurance in respect of legal action against Directors.

本公司致力建立良好的企業管治常規及程序。本公司企業管治原則強調給予股東問責及透明度，對企業管治常規作出定期檢討以遵守監管規定。

#### 企業管治守則

本公司已於截至二零二二年十二月三十一日止年度內一直遵守上市規則年內有效的企管守則之守則條文。本公司主要企業管治原則及常規於下文概述。

#### 董事進行證券交易

本公司已就董事買賣本公司證券採納標準守則作為其本身的行為守則。在對董事作出特定查詢後，所有董事均已確認，彼等已於截至二零二二年十二月三十一日止年度一直遵守標準守則所載之規定標準。

#### 董事會

董事會的主要職責是以本公司及股東整體利益真誠行事，並根據本公司組織章程細則正確地授予本公司管理層職能。本公司的目標、價值觀及策略構成本公司企業文化的基礎。我們的企業文化乃築基於嚴守高道德標準及實踐，並致力於可持續的企業發展。

於本報告日期，董事會由八名董事組成，包括兩名執行董事、兩名非執行董事及四名獨立非執行董事（「獨立非執行董事」）。本公司將持續評估其董事會結構，以確保健全的企業管治。

本公司已就針對董事之法律行動安排適當的董事及高級職員責任保險。

## INDEPENDENT VIEWS

The Company has established the following mechanisms to ensure that independent views and input are available to the Board:

- when selecting and recommending candidates for directorship, the Remuneration and Nomination Committee is required to consider whether the candidates for INEDs satisfy the independence requirements of the Listing Rules;
- the chairman would hold meetings with the INEDs without the presence of other directors at least annually; and
- the Board may seek independent professional advice, at the Company's expense, to ensure that they will have access to accurate and relevant professional views in the performance of their responsibilities.

During the reporting period, the chairman has held 1 meeting with the INEDs without the presence of other directors to discuss the Company's strategy, director's contributions, and their independent view. The Board will review the implementation and effectiveness of the above mechanisms on an annual basis.

The Directors of the Company as at 31 December 2022 and up to the date of this report were:

### Executive directors:

Mr. CHENG Yonghong (*Chairman of the Board*)  
Mr. GAO Tianpeng (*Chief Executive Officer*)

### Non-executive directors:

Mr. LIU Jian  
Mr. WANG Qiangzhong

### Independent non-executive directors:

Mr. YEN Yuen Ho, Tony  
Mr. POON Chiu Kwok  
Mr. YU Chi Kit  
Ms. HAN Ruixia

The biographical details of the Directors are set out under the section headed "Directors and Senior Management" in this Annual Report. None of the members of the Board is related to one another.

## 獨立意見

本公司已建立以下機制，確保董事會可獲得獨立意見及投入：

- 在甄選及推薦董事候選人時，薪酬及提名委員會應考慮獨立非執行董事候選人是否符合上市規則的獨立性要求；
- 主席至少每年與獨立非執行董事在其他董事缺席的情況下舉行會議；及
- 董事會可尋求獨立專業意見，費用由本公司承擔，確保其在履行職責時能夠獲得準確及相關的專業意見。

於報告期間，主席在其他董事缺席的情況下與獨立非執行董事舉行了1次會議，討論本公司策略、董事貢獻及獨立意見。董事會將每年檢討上述機制的實施情況及成效。

於二零二二年十二月三十一日及截至本報告日期為止，本公司之董事如下：

### 執行董事：

程永紅先生(*董事會主席*)  
鄒天鵬先生(*行政總裁*)

### 非執行董事：

劉建先生  
王檣忠先生

### 獨立非執行董事：

嚴元浩先生  
潘昭國先生  
余志傑先生  
韓瑞霞女士

董事履歷詳情載於本年報「董事及高級管理層」一節。董事會成員之間概無任何關聯。

## MEETINGS ATTENDANCE

A total of 14 Board meetings, 3 Audit Committee meetings, 5 Remuneration and Nomination Committee meetings, 1 Risk Management Committee meeting, 1 Strategy and Investment Committee meeting, 1 Independent Board Committee meeting, 1 annual general meeting and 1 extraordinary general meeting were held during the year ended 31 December 2022. In addition, the Chairman held a meeting during the year ended 31 December 2022 with independent non-executive Directors without the presence of executive Directors or non-executive Directors. The following is a summary of the attendance of meetings of each Director in 2022:

## 會議出席情況

截至二零二二年十二月三十一日止年度，本公司共舉行十四次董事會會議、三次審核委員會會議、五次薪酬及提名委員會會議、一次風險管理委員會會議、一次戰略及投資委員會會議、一次獨立董事委員會會議、一次股東週年大會及一次股東特別大會。此外，主席於截至二零二二年十二月三十一日止年度曾與獨立非執行董事舉行一次會議，當時並無執行董事或非執行董事出席。於二零二二年每位董事之會議出席情況概述如下：

Directors	董事	Board 董事會	Audit Committee 審核 委員會	Remuneration and Nomination Committee 薪酬及提名 委員會	Risk Management Committee 風險管理 委員會	Strategy and Investment Committee 戰略及投資 委員會	Independent Board Committee 獨立董事 委員會	Independent Directors Meeting with Chairman 獨立董事 與主席會議	Annual General Meeting 股東 週年大會	Extraordinary General Meeting 股東 特別大會
GAO Tianpeng	鄒天鵬	14/14	-	-	1/1	1/1	-	-	1/1	1/1
CAI Juan	蔡娟	1/2	1/1	1/2	1/1	-	-	-	-	-
CHENG Yonghong	程永紅	14/14	2/2	2/2	-	1/1	-	1/1	1/1	1/1
ZHANG Youda	張有達	1/2	-	0/1	-	-	-	-	-	-
WANG Qiangzhong	王樞忠	8/14	-	-	-	-	-	-	0/1	0/1
LIU Jian	劉建	3/14	-	1/5	-	1/1	-	-	0/1	0/1
YEN Yuen Ho, Tony	嚴元浩	14/14	3/3	5/5	1/1	-	1/1	1/1	1/1	1/1
POON Chiu Kwok	潘昭國	14/14	3/3	5/5	1/1	-	1/1	1/1	1/1	1/1
YU Chi Kit	余志傑	14/14	3/3	5/5	1/1	-	1/1	1/1	1/1	1/1
HAN Ruixia	韓瑞霞	6/6	-	-	-	-	-	1/1	-	-

The Board met regularly during the year and on an ad hoc basis as required by business needs. The Board's primary focus is to determine and review the overall strategic development of the Company and its subsidiaries and to oversee the achievement of the plans in relation thereto. Daily operational decisions are delegated to the executive Directors and the senior management of the Company. The delegated functions and work tasks are periodically reviewed by the Board. The management needs to provide all necessary information to the Board to enable the Board to make a comprehensive consideration in the meeting. Approval has to be obtained from the Board prior to any significant transactions entered into by the above-mentioned officers.

董事會於年內定期及按業務所需不時舉行會議。董事會的主要重點為制訂及檢討本公司及其附屬公司的整體策略發展，以及監督有關計劃之達成。日常營運決策權乃授予執行董事及本公司高級管理層。董事會定期檢討所授予之職能及工作任務。管理層須向董事會提供一切所需資料，讓董事會能於會上作出全盤考慮。上述高級職員在訂立任何重大交易前，必須取得董事會批准。



## CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER

During the year ended 31 December 2022, the roles of Chairman of the Board (“**Chairman**”) and Chief Executive Officer (“**CEO**”) of the Company were separated and performed by different individuals. As at 31 December 2022, the Chairman is Mr. Cheng Yonghong and the CEO is Mr. Gao Tianpeng. The Chairman provides leadership and is responsible for the effective functioning and leadership of the Board. He is also responsible for realising the long-term objectives set by the Board by developing and implementing the Group’s policies and strategies. The CEO focuses on the Company’s business development and daily management and operations generally.

## INDEPENDENCE OF INDEPENDENT NON-EXECUTIVE DIRECTORS

The Company has received, from each of the independent non-executive Directors, an annual confirmation of his independence pursuant to Rule 3.13 of the Listing Rules.

The independent non-executive Directors are independent of the management and hence the Company considers that they are free of any relationship that could potentially interfere with the exercise of their independent judgment. None of the independent non-executive Directors has any business or financial interests with the Company nor has any relationship with other Directors. The Company considers all of the independent non-executive Directors are independent.

## TERMS OF APPOINTMENT OF NON-EXECUTIVE DIRECTORS

As at 31 December 2022, all non-executive Directors are appointed for fixed terms: (1) Mr. Yen Yuen Ho, Tony, Mr. Poon Chiu Kwok and Mr. Liu Jian entered into letters of appointment with the Company with a term or revised term ending on 31 December 2025; (2) Mr. Wang Qiangzhong entered into a letter of appointment with the Company with a term ending 19 June 2025; (3) Mr. Yu Chi Kit entered into a letter of appointment with the Company ending on 5 November 2024; and (4) Ms. Han Ruixia entered into a letter of appointment with the Company ending on 19 July 2025, or the date on which the relevant director(s) shall retire from office in accordance with the articles of association of the Company and the Listing Rules and not having been re-elected or his/her appointment is terminated before that.

## 董事會主席及行政總裁

截至二零二二年十二月三十一日止年度，董事會主席（「**主席**」）及本公司行政總裁（「**行政總裁**」）之角色已分離並由不同人士擔任。於二零二二年十二月三十一日，主席為程永紅先生，而行政總裁為郗天鵬先生。主席發揮領導作用並負責董事會之有效運作及領導董事會。彼亦負責制定落實本集團制度及策略以實現董事會訂立之長期目標。行政總裁專注於本公司之業務發展、日常管理及一般營運。

## 獨立非執行董事之獨立性

本公司已收取每位獨立非執行董事根據上市規則第3.13條之年度獨立性確認書。

獨立非執行董事獨立於管理層，因此，本公司認為彼等不受可潛在干擾彼等行使其獨立判斷能力之任何關係影響。獨立非執行董事概無擁有本公司任何業務或財務權益，亦與其他董事無任何關係。本公司認為全體獨立非執行董事均為獨立人士。

## 非執行董事之任期

於二零二二年十二月三十一日，全體非執行董事之委任均設有固定任期：(1)嚴元浩先生、潘昭國先生及劉建先生與本公司訂立的委任函年期或經修訂年期至二零二五年十二月三十一日為止；(2)王檣忠先生與本公司訂立的委任函年期至二零二五年六月十九日為止；(3)余志傑先生與本公司訂立的委任函年期至二零二四年十一月五日為止；及(4)韓瑞霞女士與本公司訂立的委任函年期至二零二五年七月十九日為止，或相關董事須按照本公司組織章程細則及上市規則退任且並無獲重選或於該日前被終止委任之日為止。

## BOARD COMMITTEES

### (a) Audit Committee

The Company has established an Audit Committee with written specific terms of reference in compliance with the CG Code provisions. As at 31 December 2022, the Audit Committee of the Company comprised an executive Director, namely Mr. Cheng Yonghong, and three independent non-executive Directors, namely Mr. Poon Chiu Kwok (being the Chairman of Audit Committee), Mr. Yen Yuen Ho, Tony and Mr. Yu Chi Kit, who together have the relevant accounting and financial management expertise, industrial knowledge, legal and business experience to discharge their duties. The Audit Committee has held 3 meetings during the year ended 31 December 2022. During the year, the Audit Committee reviewed and approved the interim and annual results of the Company, reviewed and recommended the internal control and risk management matters and internal audit function of the Group, considered and recommended the re-appointment and the remuneration of the external auditors and reviewed the continuing connected transactions of the Group and discussed audit issues with the external auditors.

The principal duties of the Audit Committee are as follows:

- to review the interim and annual consolidated financial statements before they are submitted to the Board for approval;
- to make recommendations to the Board on, the appointment, the re-appointment and removal of the external auditors, and approve the remuneration and terms of engagement of the external auditors, and any questions of resignation or dismissal of that auditors;
- to review and monitor the external auditors' independence and objectivity and the effectiveness of the audit process in accordance with applicable standards;
- to review the Company's financial controls, internal controls, and risk management systems;

## 董事委員會

### (a) 審核委員會

本公司已按照企管守則之條文成立審核委員會，並書面訂明特定職權範圍。於二零二二年十二月三十一日，本公司之審核委員會由一名執行董事程永紅先生以及三名獨立非執行董事潘昭國先生（為審核委員會主席）、嚴元浩先生及余志傑先生組成，彼等共同具備相關之會計及財務管理專業知識、行業知識、法律及業務經驗，以履行彼等職責。審核委員會已於截至二零二二年十二月三十一日止年度舉行三次會議。年內，審核委員會已審閱及批核本公司之中期及全年業績、審查本集團內部監控及風險管理事宜及內部審計職能並提供建議、審議重新委任本集團外聘核數師及其酬金並提供建議、審閱本集團之持續關連交易及與外聘核數師商討審計事項。

審核委員會之主要職務如下：

- 在中期及全年綜合財務報表提呈董事會批核前審閱有關報表；
- 就委任、續聘及罷免外聘核數師向董事會提出建議，批核外聘核數師的酬金及委聘條款，以及處理任何有關該核數師辭任或解聘的問題；
- 按照適用準則，檢討及監察外聘核數師的獨立性及客觀性，以及核數程序的效用；
- 檢討本公司的財務控制、內部監控及風險管理系統；

- to review the Company's financial and accounting policies and practices;
  - to report to the Board on the matters set out in the CG Code as required by the Stock Exchange; and
  - to review the terms and conditions of continuing connected transactions of the Company.
- 檢討本公司的財務及會計政策及慣例；
  - 就聯交所要求之企管守則事項向董事會報告；及
  - 審閱本公司持續關連交易的條款及條件。

#### (b) Remuneration and Nomination Committee

The Company has established a Remuneration and Nomination Committee with written specific terms of reference in compliance with the CG Code provisions. As at 31 December 2022, the Remuneration and Nomination Committee comprised five members, including one executive Director, namely Mr. Cheng Yonghong, one non-executive Director, namely Mr Liu Jian, and three independent non-executive Directors, namely Mr. Yen Yuen Ho, Tony (being the Chairman of Remuneration and Nomination Committee), Mr. Poon Chiu Kwok and Mr. Yu Chi Kit. The remuneration and nomination committee comprises a majority of independent non-executive directors and is chaired by an independent non-executive director, which fulfils the requirement under Rule 3.25 of the Listing Rules.

The principal duties of the Remuneration and Nomination Committee are to perform the remuneration and nomination functions delegated by the Board.

#### Remuneration functions

In terms of the remuneration functions, the duties of the Remuneration and Nomination Committee are as follows:

- to make recommendations with respect to the remuneration of directors and senior management of the Group for approval by the Board;
- to review the remuneration package and recommend salaries, bonuses, including the incentive awards for directors and senior management of the Group;

#### (b) 薪酬及提名委員會

本公司已按照企管守則之條文成立薪酬及提名委員會，並書面訂明特定職權範圍。於二零二二年十二月三十一日，薪酬及提名委員會由五名成員組成，包括一名執行董事程永紅先生、一名非執行董事劉建先生，以及三名獨立非執行董事嚴元浩先生（為薪酬及提名委員會主席）、潘昭國先生及余志傑先生。薪酬及提名委員會符合上市規則第3.25條規定委員會成員以獨立非執行董事佔大多數及由獨立非執行董事出任委員會主席。

薪酬及提名委員會之主要職責為執行董事會所授予之薪酬及提名職能。

#### 薪酬職能

就薪酬職能而言，薪酬及提名委員會的職責如下：

- 提出有關董事及本集團高級管理層薪酬之建議，待董事會批核；
- 檢討薪酬待遇及建議薪金、花紅，包括給予董事及本集團高級管理層之激勵獎勵；

- to administer and make determinations with regard to the Company's long term incentive schemes, embracing the share option scheme and share incentive scheme (when appropriate); and
- to administer and make determinations with regard to the Group's Key Performance Indicators system for short term incentive purposes.

The Remuneration and Nomination Committee sets out annually its recommendations on the remuneration packages of directors and senior management. In determining the packages for a director and senior management, the Remuneration and Nomination Committee considers various factors, including market comparability, complexity of duties, and performance.

In order to attract, retain, and motivate executives and key employees serving the Company, the Company has adopted a share option scheme on 19 June 2019 and a share incentive scheme on 2 June 2015. Such incentive schemes enables the eligible persons to obtain an ownership interest in the Company and thus to reward the participants who contribute to the success of the Company's operation.

### Nomination functions

In terms of the nomination functions, the duties of the Remuneration and Nomination Committee are as follows:

- to perform evaluation of the Board regarding the structure, size and composition (including the skills, knowledge and experience) of the Board on a regular basis and make recommendations on any proposed changes to the Board to complement the Company's corporate strategy;
- to identify, select and nominate individuals suitably qualified to become Board members and make recommendations to the Board;
- to assess the independence of independent non-executive Directors on its appointment or when their independence is called into question;

- 管理及就本公司之長期激勵計劃作出決策，包括於適當時候採納購股權計劃及股份激勵計劃；及
- 就本集團為短期激勵目的而採用的關鍵績效指標體系作出管理及決定。

薪酬及提名委員會每年就董事及高級管理層之薪酬待遇作出建議。在決定董事及高級管理層之薪酬待遇時，薪酬及提名委員會考慮不同因素，包括市場之可比較性、職務之複雜性及表現。

為招攬、挽留及激勵在本公司任職之行政人員及主要僱員，本公司於二零一九年六月十九日採納一項購股權計劃及於二零一五年六月二日採納一項股份激勵計劃。有關激勵計劃使合資格人員可獲得本公司之所有權權益，從而對本公司業務成功作出貢獻之參與者提供獎勵。

### 提名職能

就提名職能而言，薪酬及提名委員會的職責如下：

- 定期評估董事會的架構、人數及構成（包括技能、知識及經驗方面），並就任何為配合本公司的公司策略而擬對董事會作出的變動提出建議；
- 物色具備合適資格可擔任董事會成員的人士，並甄選及提名有關人士出任董事及就此向董事會提供建議；
- 於委任獨立非執行董事時或其獨立性受到質疑時，評核其獨立性；

- to review the Board diversity policy, as appropriate, and review the measurable objectives that the Board has set for implementing the Board diversity policy, and the progress on achieving the objectives; and
- to make recommendations to the Board on the appointment or re-appointment of the Directors and their succession plans.
- 在適當情況下檢討董事會成員多元化政策及檢討董事會為執行董事會成員多元化政策而制定的可計量目標和達標進度；及
- 就董事委任或重新委任，以及彼等的繼任計劃向董事會提出建議。

The Remuneration and Nomination Committee has held 5 meetings in 2022. During the year ended 31 December 2022, the Remuneration and Nomination Committee reviewed and recommended to the Board on the compensation packages, policy and structure of the Directors and the senior management of the Group, reviewed the management structure of the Group and the composition of the Board, considered and recommended to the Board on the re-election of the retiring Directors at the Company's 2022 AGM, considered and recommended to the Board on the change in compositions of the Board and Board Committees during the year, assessed the independence of the independent non-executive Directors newly appointed during the year, considered and recommended to the Board on the remuneration packages for the directors newly appointed/re-designated during the year.

薪酬及提名委員會於二零二二年舉行了五次會議。截至二零二二年十二月三十一日止年度，薪酬及提名委員會已審閱本集團董事及高級管理層之薪酬待遇、政策及架構並向董事會提供建議、檢討本集團之管理架構及董事會的構成、審議有關於本公司二零二二年股東週年大會上重選退任董事並向董事會提供建議、審議有關董事會及董事委員會於年內之人員變動並向董事會提供建議、評估年內新委任之獨立非執行董事之獨立性、審議年內新委任／調任董事之薪酬待遇並向董事會提供建議。

Pursuant to Code Provision E.1.5 of the CG Code, the annual remuneration of the members of the senior management (excluding Directors) by band for the year ended 31 December 2022 is set out below:

根據企管守則第E.1.5條守則條文，高級管理層成員(董事除外)於截至二零二二年十二月三十一日止年度之年度薪酬範圍載列如下：

Remuneration band	薪酬範圍		
For the year ended 31 December	截至十二月三十一日止年度	2022 二零二二年 Number of individuals 人數	2021 二零二一年 Number of individuals 人數
HK\$1,000,000 or below (equivalent to US\$128,205 or below)	1,000,000港元或以下 (相當於128,205美元或以下)	3	1
HK\$1,000,001 to HK\$1,500,000 (equivalent to US\$128,206 to US\$192,308)	1,000,001港元至1,500,000港元 (相當於128,206美元至 192,308美元)	1	–
HK\$1,500,001 to HK\$2,000,000 (equivalent to US\$192,309 to US\$256,410)	1,500,001港元至2,000,000港元 (相當於192,309美元至 256,410美元)	3	5
HK\$2,500,001 to HK\$3,000,000 (equivalent to US\$320,514 to US\$384,615)	2,500,001港元至3,000,000港元 (相當於320,514美元至 384,615美元)	1	1
Total	總數	8	7

Details of the remuneration of each Director for the year ended 31 December 2022 are set out in note 11 to the consolidated financial statements.

截至二零二二年十二月三十一日止年度之各名董事薪酬詳情載於綜合財務報表附註11。

(c) Other Committees

As at 31 December 2022, apart from Audit Committee and Remuneration and Nomination Committee, the Company has 2 other Board Committees, namely Risk Management Committee and Strategy and Investment Committee.

(c) 其他委員會

於二零二二年十二月三十一日，除審核委員會以及薪酬及提名委員會外，本公司另設有兩個董事會轄下委員會，即風險管理委員會及戰略及投資委員會。

As at 31 December 2022, the Risk Management Committee of the Company comprised two executive Directors, namely Mr. Cheng Yonghong and Mr. Gao Tianpeng, and three independent non-executive Directors, namely Mr. Yen Yuen Ho, Tony (being the Chairman of Risk Management Committee), Mr. Poon Chiu Kwok and Mr. Yu Chi Kit.

於二零二二年十二月三十一日，本公司之風險管理委員會由兩名執行董事程永紅先生及邰天鵬先生，以及三名獨立非執行董事嚴元浩先生(為風險管理委員會主席)、潘昭國先生及余志傑先生組成。

The function of Risk Management Committee is to oversee the Group's risk management activities and provide recommendations to the Board on risk strategy and control measures to mitigate the overall risk arise from market fluctuation and other external factors.

One committee meeting was held during the year ended 31 December 2022 for the Risk Management Committee. During the year, the report from Chief Risk Officer of the Company was presented to the Risk Management Committee and the Board for deliberation. Besides, Risk Management Committee received requests from the management and reviewed and enhanced the risk management system of the Company, assessed the potential risk of the significant trading contracts and loan agreements, and made relevant recommendations to the Board.

As at 31 December 2022, the Strategy and Investment Committee of the Company comprised two executive Directors, namely Mr. Gao Tianpeng and Mr. Cheng Yonghong (being the Chairman of Strategy and Investment Committee), and one non-executive Director, namely Mr. Liu Jian.

The functions of Strategy and Investment Committee is to formulate the long term strategic development of the Group and provide recommendations to the Board on the acquisition and disposal of investments, as well as to oversee the Company's overseas assets and provide advice and recommendations to the Board on managing overseas assets in a sustainable manner and enhancing better return.

The Strategy and Investment Committee has held 1 meeting during the year ended 31 December 2022. During the year, the Strategy and Investment Committee discussed the potential investment opportunities, the strategic planning of the Group, and made relevant recommendations to the Board.

風險管理委員會之職能為監督本集團之風險管理活動及向董事會提供有關風險策略及監控措施之建議，以減低因市場波動及其他外在因素而產生之整體風險。

風險管理委員會於截至二零二二年十二月三十一日止年度舉行了一次委員會會議。年內，本公司的風控總監報告已提呈予風險管理委員會及董事會審議。此外，風險管理委員會接獲管理層要求，檢討並提升本公司之風險管理系統、評估重大交易合約及貸款協議之潛在風險，並向董事會提供相關推薦建議。

於二零二二年十二月三十一日，本公司之戰略及投資委員會由兩名執行董事郜天鵬先生及程永紅先生（為戰略及投資委員會主席）以及一名非執行董事劉建先生組成。

戰略及投資委員會之職能為制定本集團之長遠策略發展及向董事會提供有關收購及出售投資項目之推薦建議，以及監督本公司之海外資產並就可持續性地管理海外資產及提高回報向董事會提供意見及推薦建議。

截至二零二二年十二月三十一日止年度內，戰略及投資委員會舉行了一次會議。年內，戰略及投資委員會已討論潛在投資機會、本集團之戰略規劃並向董事會作出有關推薦建議。

## CORPORATE GOVERNANCE FUNCTIONS

The Board is responsible for performing the corporate governance functions with written specific terms of reference in compliance with the CG Code provisions.

The duties of the Board in respect of the corporate governance functions are summarized as follows:

- to develop and review the Company's policies and practices on corporate governance;
- to review and monitor the training and continuous professional development of directors and senior management;
- to review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;
- to develop, review and monitor the code of conduct and compliance manual applicable to Directors and employees; and
- to review the Company's compliance with the CG Code and disclosure in the Corporate Governance Report in the Company's annual report.

## BOARD DIVERSITY POLICY AND NOMINATION POLICY

The Company recognises and embraces the benefits of having a diverse Board to enhance the quality of its performance. As such, the Board has implemented a board diversity policy in accordance with the CG Code and nomination policy of the Board. The purposes of the policies are to set out the approach to achieve diversity on the Board and nomination procedure for the Board.

With a view to achieving a sustainable and balanced development, the Company sees increasing diversity at the Board level as an essential element in supporting the attainment of its strategic objectives and its sustainable development. In designing the Board's composition as well as the selection of candidates for directorship, Board diversity has been considered from a number of aspects, including but not limited to gender, age, cultural and educational background, ethnicity, professional experience, skills, knowledge and length of service.

## 企業管治職能

董事會按照企管守則之條文負責履行企業管治職能，並書面訂明特定職權範圍。

董事會有關企業管治職能之職責概述如下：

- 建立及檢討本公司的企業管治政策及實務；
- 檢討及監督董事及高級管理層之培訓及持續專業發展；
- 檢討及監督本公司在遵守法律及監管規定方面之政策及實務；
- 建立、檢討及監督適用於董事及僱員之行為守則及合規手冊；及
- 檢討本公司遵守企管守則之情況，以及本公司年報企業管治報告內之披露。

## 董事會多元化政策及提名政策

本公司明白並深信董事會成員多元化對提升公司的表現素質裨益良多。因此，根據企管守則及董事會提名政策，董事會已落實董事會成員多元化政策。該等政策旨在列載董事會為達致成員多元化及董事會提名程序而採取的方針。

為達致可持續的均衡發展，本公司視董事會層面日益多元化為支持其達到戰略目標及維持可持續發展的關鍵元素。本公司在設定董事會成員組合及甄選董事人選時，會從多個方面考慮董事會成員多元化，包括但不限於性別、年齡、文化及教育背景、種族、專業經驗、技能、知識及服務任期。



## Board Diversity

Diverse board composition ensures a wide range of business and professional experience on the Board, so that the decision-making process includes different perspectives and supports the achievement of the Company's strategic objectives. All Board appointments are merit-based. The Company has adopted a Board Diversity Policy that takes into account, among other aspects, each candidate's age, cultural and educational background, professional and mining field experience, skills, knowledge and length of service. All candidates are considered against these criteria.

The executive and non-executive Directors have a diverse background. Each of them possesses the depth of relevant experience and expertise to oversee the businesses of the Group. The current mix of the Board members represents a balance of business, academia and the professions, which helps to deliver sustainable value and safeguard shareholders' interests.

While the Listing Rules stipulated the requirement for a single gender board to appoint a director of a different gender no later than 31 December 2024, the Company has early adopted and has since February 2022 appointed director(s) of a different gender.

The age group diversity of the Board of Directors as at 31 December 2022 are set out below:

Age Group	年齡組別	Number of individuals 人數
31-40	31-40歲	1
41-50	41-50歲	2
51-60	51-60歲	4
Over 70	70歲以上	1
Total	總數	8

## NOMINATION PROCEDURE

All Board appointments will be based on the above-mentioned criteria and meritocracy. Candidates will be considered against objective criteria, having due regard for the benefits of diversity on the Board.

The ultimate decision will be made by Board on merit and contribution that the selected candidates will bring to the Board.

## 董事會多元化

董事會的多元化組成可為董事會帶來廣泛的業務和專業經驗，同時確保決策過程考慮不同觀點，並支持公司實現策略目標。董事會以用人唯才的原則委任董事。本公司採納《董事會多元化政策》，從多個方面考慮董事會的多元性，包括董事人選的年齡、文化及教育背景、專業及採礦領域的經驗、技能、知識及服務年期，並根據該等客觀準則甄選所有董事人選。

執行董事及非執行董事來自不同背景，並具備相關經驗及專業知識的深度以監管本集團的業務。現有董事會的成員來自商界、學術界和專業界別的代表，組合均衡，確保締造可持續增值和保障股東權益。

上市規則要求，董事會成員全屬單一性別的須在不遲於二零二四年十二月三十一日前委任至少一名其他性別的董事，本公司提早採納並自二零二二年二月起委任其他性別的董事。

於二零二二年十二月三十一日，董事會的年齡組別分佈載列如下：

## 提名程序

董事會所有委任均以上述標準及用人唯才為原則。在考慮人選時以客觀條件充分顧及董事會成員多元化的裨益。

董事會將按人選的長處及可為董事會提供的貢獻而作最終決定。

The Director appointed will be subject to re-election by shareholders at the first general meeting after appointment.

During the year, the Board has reviewed its composition under diversified perspectives and considered the Board to be adequately diversified. The Board has also reviewed the Board Diversity Policy and monitored the implementation of this policy.

#### ACCOUNTABILITY AND AUDIT

The Directors acknowledge their responsibility for preparing the consolidated financial statements of the Company for the year ended 31 December 2022. The Directors were not aware of any material uncertainties relating to events or conditions which may cast significant doubt upon the Company's ability to continue as a going concern. Accordingly, the Directors have prepared the consolidated financial statements on a going concern basis.

The Audit Committee and the Board have reviewed the consolidated financial statements of the Group for the year ended 31 December 2022.

The responsibilities of the external auditor with respect to the audit are set out in the independent auditor's report in pages 233 to 239 of this Annual Report.

#### DIVIDEND POLICY

The Group adopted a dividend policy which aimed to allow Shareholders to participate in the Group's profits whilst preserving the Group's liquidity to capture future growth opportunities.

Before declaring dividends, the Board shall mainly consider the following aspects of the Group:

- (i) actual and expected financial performance of the Group;
- (ii) general economic conditions, business cycle of the industries and other internal or external factors that may have an impact on the business or financial performance and position; and
- (iii) other factors that the Board deems relevant.

This policy will be reviewed and amended by the Board from time to time.

獲委任董事將須由股東於獲委任後首次股東大會上重選。

於年內，董事會已審閱在多元化層面的組成，並認為董事會多元化達足夠水平。董事會亦審閱《董事會多元化政策》，並監察該政策的執行。

#### 問責性及審核

董事知悉其就編製本公司截至二零二二年十二月三十一日止年度之綜合財務報表所承擔之責任。董事並不知悉任何可能會對本公司持續經營能力造成重大疑慮之事件或情況之重大不確定因素。因此，董事按持續經營基準編製綜合財務報表。

審核委員會及董事會已審閱本集團截至二零二二年十二月三十一日止年度之綜合財務報表。

外聘核數師就審計所承擔之責任載於本年報第233頁至第239頁的獨立核數師報告。

#### 股息政策

本集團採納旨在讓股東分享本集團溢利同時保留本集團流動資金以把握未來增長機遇之股息政策。

於宣派股息前，董事會將主要考慮本集團以下方面：

- (i) 本集團實際及預期財務表現；
- (ii) 整體經濟狀況、行業的商業週期，以及對業務或財務業績及狀況可能有影響的其他內在或外在因素；及
- (iii) 董事會視為相關的其他因素。

此政策將由董事會不時檢討及修訂。

## RISK MANAGEMENT AND INTERNAL CONTROLS

### Responsibilities of the Board

The Board acknowledges its responsibility to establish, maintain and review the effectiveness of the Group's risk management and internal control systems. While, it is management's role to set the appropriate tone from the top and take charge of the designing, operating and implementing an appropriate system of internal control and risk management to manage risks.

### Our Risk Management Framework

The Board has established on-going and responsive risk management and internal control systems and processes, which are designed to manage rather than eliminate risks of failure to achieve strategic objectives, and can only provide reasonable and not absolute assurance against material misstatement or loss. Such processes involve:

- Understanding organisational objectives;
- Identifying risks associated with achieving or not the organisational objectives and assessing the likelihood and potential impact of particular risks; and
- Developing preventive and corrective action plans to address and monitor identified risks.

Through the works of the Chief Risk Officer, the Risk Management Committee oversees the day-to-day risks of the major activities across the Group. The business units of the Group, being the risk owners, identify, evaluate, monitor and mitigate their own risks and report to Chief Risk Officer on a monthly basis. The Chief Risk Officer assesses and liaises with the risk owners at each scheduled meeting, the results of their activities during the preceding period pertaining to the adequacy and effectiveness of internal controls, including but not limited to, any indication of failings or material weaknesses in those controls. The Chief Risk Officer is accountable to CEO, where the CEO is accountable to the Board for the Group's performance and the implementation of the Board's strategies and policies, including policies on risk management and internal control.

## 風險管理及內部監控

### 董事會之責任

董事會承擔建立、維持及檢討本集團風險管理及內部監控系統有效健全之責任。管理層之角色則是從上而下確立對公司適宜之業務基調，負責設計、操作及實施合適之內部監控及風險管理系統，以管理各項風險。

### 我們的風險管理框架

董事會已制定持續反饋風險管理及內部監控系統及程序，旨在管理(而非消除)未能達成策略目標之風險，且只能就不會有重大失實陳述或損失提供合理(而非絕對)之保證。有關程序涉及以下步驟：

- 了解企業目標；
- 識別與達致或不達致企業目標所涉及之風險，並評估特定風險之發生機率及潛在影響；及
- 編製多項預防及修正行動計劃以便處理及監察所識別之風險。

透過風控總監執行，風險管理委員會監察本集團各個主要業務層面之日常風險。本集團各業務單位，作為風險責任人，負責識別、評價、監察及減輕自身面對之風險並每月向風控總監匯報。風控總監評估上期風險管理工作表現並就此召開會議與風險責任人檢討內部監控之充分性及成效，包括但不限於檢討是否有任何跡象顯示有關監控正逐漸失效或存在重大缺陷。風控總監向行政總裁負責，而行政總裁就本集團表現及所實施之董事會策略及政策(包括有關風險管理及內部監控之政策)，向董事會負責。

## Internal Control

The Company has outsourced its internal audit function to independent external consultants. The independent external consultants are responsible for conducting internal control reviews on operational, financial and compliance controls of the major operating entities and key business units in Africa and Hong Kong using a risk-based approach. Internal control reviews have been conducted during the year according to the annual internal audit plan approved by the Audit Committee. During the process of internal audit reviews, the independent external consultants identified internal control deficiencies and weaknesses, proposed recommendations for improvements and remedial actions with management and process owners. The management has taken certain remedial actions accordingly. The results of the internal control reviews and the management's remedial actions have been reported to the Audit Committee.

## Review of Risk Management and Internal Control Systems

An overall review of the effectiveness of the risk management and internal control systems is conducted annually. Through the Audit Committee, the Board has conducted an annual review of the effectiveness of the risk management and internal control systems of the Group for the year ended 31 December 2022 and considered the risk management and internal control systems effective and adequate. The review covers all material controls, including financial, operational and compliance controls, risk management functions and making any necessary updates to the systems. The scope and quality of ongoing monitoring of risk management and the internal control systems have been assessed.

The Board has also reviewed and confirmed the adequacy of resources, qualifications and experience of staff of the Group's accounting and financial reporting functions, and their training programmes and budget.

## 內部監控

本公司已外判其內部審計職能予獨立外部顧問。該獨立外部顧問須負責採用以風險為本的方法對位於非洲及香港之主要營運實體及主要業務單位進行營運、財務及合規監控之內部監控檢討工作。年內，該等獨立外部顧問按照審核委員會批准之年度內部審核計劃，進行內部監控檢討，過程中發現有內部監控缺陷和不足，並向管理層及流程負責人提出改善及補救建議。管理層已就此採取若干補救措施。內部監控之檢討結果及管理層補救措施已向審核委員會匯報。

## 進行風險管理及內部監控系統之檢討

風險管理及內部監控系統之成效每年均作全面檢討。董事會已通過審核委員會對本集團截至二零二二年十二月三十一日止年度之風險管理及內部監控系統成效進行年度檢討，並認為風險管理及內部監控系統有效及完備。該檢討涵蓋所有重大監控，包括財務、營運及合規監控，亦包含多個風險管理職能，並會對系統作出任何必要更新。我們已評估風險管理及內部監控系統持續監察之範圍及質素。

董事會亦已對資源之充足度、本集團會計及財務申報部門之員工的資歷及經驗，及其培訓計劃及預算進行審閱及確認。

## INSIDE INFORMATION

All employees are bound by the Group's Code of Conduct to keep all inside information strictly confidential until the disclosure of such information is appropriately approved and refrain from accepting personal benefits through the power or authority derived from their positions. The Company will continue to review the effectiveness of its internal procedures and internal controls over handling and dissemination of inside information and update its Code of Conduct and/or internal procedures from time to time.

## PROFESSIONAL TRAINING AND DEVELOPMENT

Directors keep abreast of responsibilities as a director of the Company and of the conduct, business activities and development of the Company.

Directors participate in appropriate continuous professional development to develop and refresh their knowledge and skills to ensure that their contribution to the Board remains informed and relevant. Internally facilitated briefings for Directors are arranged and reading materials on relevant topics are provided to Directors where appropriate. All Directors are encouraged to attend relevant training courses. During the year, the Company has arranged in-house briefings or provided reading materials to all of the Directors, namely Mr. Gao Tianpeng, Mr. Cheng Yonghong, Mr. Wang Qiangzhong, Mr. Liu Jian, Mr. Yen Yuen Ho, Tony, Mr. Poon Chiu Kwok, Mr. Yu Chi Kit and Ms. Han Ruixia and provided update to the Directors on the latest developments regarding the Listing Rules and other applicable regulatory requirements to ensure compliance and enhance the Directors' awareness of good corporate governance practices for the purpose of Code Provision C.1.4 of the CG Code. All Directors have participated in continuous professional development and provided a record of training they received for the financial year ended 31 December 2022 to the Company.

## COMPANY SECRETARY

In compliance with Rule 3.29 of the Listing Rules, Mr. Wong Hok Bun Mario (the company secretary of the Company) has undertaken no less than 15 hours of relevant professional training during the year ended 31 December 2022.

## 內幕消息

所有僱員均受本集團之行為守則約束，在內幕消息獲妥當批准可予披露前，彼等須嚴格保守所有內幕消息，並嚴禁利用職權謀取個人利益。本公司將持續檢討有關處理及發放內幕消息之內部程序及內部監控之成效，並不時更新其行為守則及／或內部程序。

## 專業培訓及發展

董事不斷留意作為本公司董事的責任，以及本公司的行為、業務活動及發展事宜。

董事參與適用的持續專業發展，務求發展及更新彼等的知識及技能，確保其繼續在知情及切合所需情況下對董事會作出貢獻。本公司為董事安排內部籌辦的簡報，於適用情況下向董事提供相關題材的守則資料，並鼓勵全體董事出席相關培訓課程。於本年度，就企管守則第C.1.4條守則條文而言，本公司向全體董事(即鄧天鵬先生、程永紅先生、王橋忠先生、劉建先生、嚴元浩先生、潘昭國先生、余志傑先生及韓瑞霞女士)安排內部簡報或提供閱讀材料，以向董事提供有關上市規則及其他適用監管規定的最新發展情況，確保合規及提高董事在良好企業管治常規方面的意識。全體董事已參與持續專業發展，並已向本公司提供彼等於截至二零二二年十二月三十一日止財政年度接受培訓之記錄。

## 公司秘書

依照上市規則第3.29條，黃學斌先生(本公司之公司秘書)已於截至二零二二年十二月三十一日止年度完成不少於15個小時之相關專業培訓。

## SHAREHOLDERS' COMMUNICATION AND RIGHTS

The Company is committed to ensuring the Group's compliance with its disclosure obligations under the Listing Rules and other applicable laws and regulations. The Company would ensure all shareholders and potential investors have equal opportunities to receive and obtain the information published by the Company.

The Company welcomes its shareholders to attend the general meetings to express their opinions and encourages all Directors to attend the general meetings to get into direct communications with shareholders. The external auditors are also required to attend the annual general meeting to assist the Directors in answering any pertinent questions from shareholders. The Company regularly releases information to its shareholders such as annual and interim reports, circulars and notices of general meetings in accordance with the Listing Rules.

Set out below are procedures for shareholders of the Company to convene an extraordinary general meeting, put enquiries to the Board and put proposals at shareholders' meetings. These procedures are generally governed by the articles of association of the Company and applicable laws, rules and regulations, which prevail over the below information in case of any inconsistencies.

### (a) Procedures for shareholders of the Company to convene an extraordinary general meeting

1. One or more shareholders of the Company holding, at the date of deposit of requisition, not less than one-tenth of the paid up capital of the Company carrying the right of voting at general meetings of the Company shall at all time have the right, by written requisition, to require an extraordinary general meeting to be called by the Board for the transaction of any business specified in such requisition.
2. The requisition must be deposited at the principal office of the Company in Hong Kong or, in the event the Company ceases to have such a principal office, the registered office.
3. The requisition must specify the objects of the meeting and be signed by the requisitionist(s). The signature(s) of such requisitionist(s) will be verified by the Company's principal share registrars or branch share registrars (where applicable).

## 股東溝通及權利

本公司致力於確保本集團遵守上市規則及其他適用法例及法規項下之披露義務。本公司會確保全部股東及潛在投資者有平等機會收取及取得本公司所刊發之資料。

本公司歡迎其股東出席股東大會發表意見，亦鼓勵全體董事出席股東大會與股東直接溝通。外聘核數師亦須出席股東週年大會，協助董事解答股東提出之有關問題。本公司按上市規則之規定，定期向股東發放資訊，如年報及中期報告、通函及股東大會通告。

下文載列本公司股東召開股東特別大會、向董事會查詢及於股東大會上提出建議之程序。該等程序一般受本公司組織章程細則及適用法律、法規及規例監管，如與下文有歧義，概以上述法律、法規及規例為準。

### (a) 本公司股東召開股東特別大會的程序

1. 在提交要求當日持有不少於本公司十分之一已繳足股本並有權在本公司股東大會上投票之一名或多名本公司股東，有權隨時以書面方式提出要求，要求董事會召開股東特別大會，處理在要求內所列明之任何事務。
2. 要求必須提交至本公司於香港之主要辦事處，或若本公司停止設立該主要辦事處，則須提交至註冊辦事處。
3. 要求必須列明大會之目的，並由要求者簽署。該要求者之簽署將由本公司之主要股份過戶登記處或股份過戶登記分處(視何者適用)核實。

4. On the condition that the requisition from the requisitioner(s) is proper and in order, the Board will within 21 days from the date of deposit of the requisition proceed to convene an extraordinary general meeting and such meeting for transacting the business specified in the requisition shall be held within 2 months after the deposit of such requisition.
  5. If the Board fails to proceed to convene an extraordinary general meeting within 21 days from the date of deposit of a valid requisition, the requisitioner(s) themselves or any of them may convene an extraordinary general meeting in the same manner as that in which extraordinary general meeting is to be convened by the Board, and all reasonable expenses incurred by the requisitioner(s) as a result of the failure of the Board shall be reimbursed to them by the Company.
4. 如要求者所提出之要求妥善而適當，董事會將於提交要求當日起計21日內著手召開股東特別大會，而該處理要求所列明事項之大會須於提交有關要求後兩個月內舉行。
  5. 若董事會未能於提交有效要求當日起計21日內召開股東特別大會，要求者可自行以同一方式召開股東特別大會，該股東特別大會與董事會所召開之股東特別大會無異，而要求者因董事會未能召開大會所致之一切合理開支將由本公司向彼等付還。

**(b) Procedures for shareholders to put enquiries to the Board**

Shareholders of the Company who have enquiries for the Board are most welcomed to contact the Company at any time and such enquiries will be forwarded to the Board. The contact details are as follows:

Address: Unit 3101, 31/F, United Centre,  
95 Queensway, Hong Kong  
Facsimile: (852) 3919 7208  
E-mail: comsec@jinchuan-intl.com

**(c) Procedures for shareholders to put proposals at general meetings**

Shareholders of the Company are advised to follow Article 12.3 of the Articles of Association for including a resolution through a valid requisition of an extraordinary general meeting. Details are set out in paragraph (a) above.

**(b) 股東向董事會查詢的程序**

本公司股東如擬向董事會查詢，敬請隨時與本公司聯繫，有關查詢將轉交董事會處理。聯繫詳情如下：

地址：香港金鐘道95號統一中心  
31樓3101室  
傳真：(852) 3919 7208  
電郵：comsec@jinchuan-intl.com

**(c) 股東在股東大會上提出建議的程序**

本公司股東可按照組織章程細則第12.3條之規定，經合理要求下在股東特別大會上加入一項決議案。詳情載於上文(a)段。

(d) Shareholder communication policy

The Company recognises the value of providing current and relevant information to our shareholders. Our Shareholder Communications Policy sets out how the Company communicates relevant information to its shareholders which is (available on the Company's website) and set out below:

1. Purpose

The Company is committed to enhancing ongoing shareholder value through regular and effective communication with its shareholders, both individual and institutional (collectively, "Shareholders"). This policy is set out to ensure that all Shareholders are provided with ready, equal and timely access to all publicly available information of the Company, in order to enable Shareholders to exercise their rights in an informed manner, and enable Shareholders to engage actively with the Company.

2. Communication with Shareholders

A. Shareholders' Meetings

Shareholders are encouraged to participate in the annual general meetings and other general meetings or to appoint proxy(ies) to attend and vote at meeting(s) for an on their behalf if they are unable to attend physically.

Appropriate arrangements for the general meeting(s) shall be in place to encourage Shareholders' participation.

Board members, including the Chairman of the Board, and where appropriate, Chairmen of Board committees or their delegates, appropriate management executives and external auditors will attend the general meetings to answer Shareholders' questions.

(d) 股東通訊政策

本公司深明向我們的股東提供當前和相關信息的價值。我們的股東通訊政策規定了本公司如何向其股東傳達相關信息(可在本公司網站上查閱)並載列如下：

1. 目的

本公司致力與股東(包括個人及機構股東(統稱「股東」))保持經常及有效溝通，以加強持續股東價值。於本政策旨在確保股東可以全面、相同及及時地取得本公司一切公開資料，一方面使股東可在知情情況下行使權力，另一方面也讓股東與本公司積極接洽。

2. 與股東溝通

A. 股東大會

鼓勵股東參與股東週年大會及其他股東大會，如無法親身出席，可委派代表代其出席並於會上投票。

股東大會應有適當安排，以鼓勵股東參與。

董事會成員包括董事會主席及董事會轄下各委員會的主席及其代表(如適用)、適當的行政管理人員及外聘核數師均會出席股東大會回答股東提問。



B. *Corporate Communications*

From time to time, the Company communicates with the Shareholders and the investing public through the following corporate communication materials:

- Financial reports (interim and annual reports);
- Announcements and notices, circulars and other disclosures in compliance with the regulatory requirements or otherwise; and
- Other corporate communications, such as presentations, press releases and publications of the Company.

C. *Company Website*

A dedicated “Investor Relations” section is available on our website ([www.jinchuan-intl.com](http://www.jinchuan-intl.com)) in which all information of the Company, including, but not limited to, the annual reports, interim reports, announcements and notice and circulars of the Company are posted as soon as practicable following their release on the website of the Stock Exchange ([www.hkexnews.hk](http://www.hkexnews.hk)).

The following information are also available on the Company website:

- The Company’s memorandum and articles of association;
- Terms of reference of Audit Committee, Remuneration and Nomination Committee, Risk Management Committee, Strategy and Investment Committee and (if any) other board committees;
- A summary of the procedures for Shareholders to propose person(s) for election as director(s); and
- Presentations, press releases and other publications of the Company.

B. *公司通訊*

本公司不時與股東及公眾投資人士傳達企業資訊的主要渠道為：

- 財務報告（中期報告及年報）；
- 公告及通告、通函及按監管規定或其他要求所作出的其他披露資料；及
- 其他公司通訊，如簡報、新聞稿及刊物等。

C. *公司網站*

本公司網站([www.jinchuan-intl.com](http://www.jinchuan-intl.com))專設「投資者關係」欄目，所有公司通訊資料（包括但不限於本公司年報、中期報告、公告、通告及通函）登載於聯交所網站([www.hkexnews.hk](http://www.hkexnews.hk))後將盡快上傳至該欄目下。

以下資料亦登載在本公司網站：

- 本公司組織章程大綱及細則；
- 審核委員會、薪酬及提名委員會、風險管理委員會、戰略及投資委員會及其他董事會轄下委員會（如有）的職權範圍；
- 股東提名人選參選董事的程序概要；及
- 本公司簡報、新聞稿及其他刊物。

D. *Investment Market Communications*

Investor/analysts briefings and one-on-one meetings, roadshows (both local and international), media interviews, marketing activities for investors and specialist industry forums etc. will be available from time to time in order to facilitate communication between the Company, Shareholders and the investment community.

Directors and employees who have contacts or dialogues with investors, analysts, media or other interested outside parties are required to comply with the disclosure obligations and requirements as set out by the Company.

E. *Shareholders' enquiries*

Shareholders should direct their questions about their shareholdings to the Company's Share Registrar in Hong Kong.

Shareholders and investment community may at any time make a request for the Company's publicly available information and provide comments and suggestions to Directors or management of the Company by mail or by email to the designated contacts and email address of the Company.

**3. Shareholder Privacy**

The Company recognises the importance of Shareholders' privacy and will not disclose any Shareholder's information without their consent, unless required by law to do so.

The Company will review the effectiveness of the policy on an annual basis.

D. *投資市場溝通*

本公司會定期舉辦各種活動，包括為投資者／分析師舉行簡報會及一對一會議、在本地及國際巡迴推介、傳媒訪問及投資者推廣活動，以及舉辦／參與業界專題論壇等等，以促進本公司與股東及投資人士之間的溝通。

董事及僱員但凡與投資者、分析師、傳媒或其他外界相關人士聯絡接觸或溝通對話，均須遵守本公司所制定的披露責任及規定。

E *股東查詢*

股東如對名下持股有任何問題，應向本公司的香港股份過戶登記處提出。

股東及投資人士可隨時要求索取本公司的公開資料及向本公司之董事或管理層提供意見及建議，以郵遞方式或以電郵傳送至本公司指定的聯絡人及電郵地址。

**3. 股東私隱**

本公司深知保障股東私隱之重要性，除法例規定外，將不會在未獲得股東同意前擅自披露任何股東資料。

本公司將每年審閱政策的有效性。

**(e) Annual General Meeting**

2022 AGM was held on 25 May 2022 and the matters resolved are summarised below:

As ordinary resolution:

- Approval of the audited financial statements and reports of the Directors and auditors for the year ended 31 December 2021;
- Approval of an ordinary final dividend of HK0.2 cent per share for the year ended 31 December 2021;
- Re-election of Mr. Gao Tianpeng, Mr. Poon Chiu Kwok and Mr. Yu Chi Kit as Directors;
- Re-appointment of Deloitte Touche Tohmatsu as auditors of the Company, and authorisation of the Board to fix their remuneration;
- Fixing the remuneration of the Directors;
- Granting of a general mandate to the Board to issue shares;
- Granting of a general mandate to the Board to exercise the powers of the Company to purchase its own shares;
- Extending the share issue mandate granted to the Board; and
- Granting power to the Board to issue shares under the share incentive scheme.

The details and poll voting results of the 2022 AGM were published on the websites of the Company and the Stock Exchange on 25 May 2022.

**(e) 股東週年大會**

於二零二二年五月二十五日召開的二零二二年股東週年大會，議決的事項概述如下：

作為普通決議案：

- 批准截至二零二一年十二月三十一日止年度的經審核財務報表以及董事會報告與核數師報告；
- 批准截至二零二一年十二月三十一日止年度的普通股末期股息每股0.2港仙；
- 重選郜天鵬先生、潘昭國先生及余志傑先生為董事；
- 續聘德勤•關黃陳方會計師行為本公司核數師，並授權董事會釐定其酬金；
- 釐定董事薪酬；
- 授予董事會發行股份之一般授權；
- 授予董事會行使本公司權力以購回公司股份之一般授權；
- 擴大授予董事會發行股份之授權；及
- 授予董事會根據股份激勵計劃發行股份之權利。

有關二零二二年股東週年大會會議的詳情及投票結果已於二零二二年五月二十五日刊載於本公司及聯交所的網站內。

The 2023 Financial Calendar of the Company is set out as follows:

- Announcement of 2022 final results 23 March 2023
- Dispatch of 2022 Annual Report and accompanying circular to shareholders 29 April 2023
- Last day to register transfer to qualify to attend and vote at annual general meeting 2023 17 May 2023
- Book closure for annual general meeting 2023 (both dates inclusive) 18 May 2023 – 24 May 2023
- Date of annual general meeting 2023 24 May 2023
- Last day to register transfer to qualify for 2022 final dividend 2 June 2023
- Book closure for 2022 final dividend (both dates inclusive) 5 June 2023 – 9 June 2023
- Payment of 2022 final dividend On or before 29 June 2023

以下為本公司二零二三年度財政紀要：

- 二零二二年全年業績公佈 二零二三年三月二十三日
- 向股東寄發二零二二年年報及隨附的通函 二零二三年四月二十九日
- 符合資格出席二零二三年股東週年大會及於會上投票的最後登記過戶日期 二零二三年五月十七日
- 就二零二三年股東週年大會暫停辦理股份過戶登記(首尾兩天包括在內) 二零二三年五月十八日至二零二三年五月二十四日
- 二零二三年股東週年大會舉行日期 二零二三年五月二十四日
- 符合資格享有二零二二年末期股息的最後登記過戶日期 二零二三年六月二日
- 就二零二二年末期股息暫停辦理股份過戶登記(首尾兩天包括在內) 二零二三年六月五日至二零二三年六月九日
- 派發二零二二年末期股息 二零二三年六月二十九日或之前

## CONSTITUTIONAL DOCUMENTS

During the year under review, the Company has not made any changes to its Articles of Association. An up-to-date version of the Articles of Association is available on the websites of the Company and the Stock Exchange. Shareholders may refer to the Articles of Association for further details of the rights of shareholders.

## 章程文件

於回顧年度內，本公司並無對其組織章程細則作出任何更改。組織章程細則之最新版本可於本公司及聯交所網站查閱。股東可就有關股東權利之進一步詳情參閱組織章程細則。

In order to comply with the latest requirements under the Listing Rules, the Board proposed to put forward relevant resolution(s) for Shareholders' approval at the forthcoming AGM for adoption of the new articles of association of the Company. The relevant details will be disclosed in the circular of the Company to be despatched to Shareholders together with this Annual Report.

## INVESTOR RELATIONS

Updated information of the Company is available to investors via the Company's website [www.jinchuan-intl.com](http://www.jinchuan-intl.com). All material information such as circulars, annual and interim reports and procedures for nomination of directors for election can be accessed via the Company's website.

### Communication with Shareholders and Investors

Investor relations have always been regarded as highly important by the Company, the Board, and our management.

The Company continues to help our shareholders understand the Company in a timely and comprehensive manner through various communication channels. Meanwhile, we highly value the views and feedback of shareholders and investors. We earnestly consider the advice and comments of shareholders and investors on the Company's development strategy, operation and other aspects and provide feedback to the Board, the management and relevant departments of the Company through briefings, special reports and other means, in order to achieve the alignment between the Company's business development and shareholder value and to protect the interests of the shareholders, thereby achieving effective and smooth two-way communication.

### Communication Activities with Shareholders and Investors

Main channels of communication with shareholders and investors and the communication activities in 2022:

- Regular report: Annual report, interim report, quarterly operational update and ESG report of the Company are released from time to time.
- General meetings: the 2022 AGM and extraordinary general meeting were held in Hong Kong on 25 May 2022.

為遵守上市規則最新規定，董事會建議於應屆股東週年大會上提呈相關決議案供股東批准採納本公司新組織章程細則。相關詳情將於本公司連同本年報寄發予股東的通函中披露。

## 投資者關係

投資者可通過本公司網站[www.jinchuan-intl.com](http://www.jinchuan-intl.com)得悉本公司最新資訊。通函、年報、中期報告及提名董事參選程序等全部重大資料，均可從本公司網站獲取。

### 與股東、投資者溝通

本公司、董事會及管理層一貫高度重視投資者關係。

公司持續通過各種溝通渠道，幫助股東及時且全面地了解公司。同時，我們也高度重視股東和投資者的意見和反饋，認真把股東和投資者對公司發展戰略和生產經營等方面的意見或建議，通過簡報、專題報告等多種形式，反饋給公司董事會、管理層和相關部門，促進公司經營發展與股東價值的統一，注重保護股東權益，實現有效和順暢的雙向溝通。

### 與股東、投資者的溝通情況

與股東和投資者溝通的主要途徑及二零二二年溝通情況：

- 定期報告：不時發佈本公司年度報告、中期報告、季度最新營運情況和環境、社會及管治報告。
- 股東大會：於二零二二年五月二十五日在香港舉行的二零二二年股東週年大會及股東特別大會。

- Results announcement conference: The 2021 annual results announcement conference call was held on 16 March 2022; the 2022 interim results announcement conference call was held on 24 September 2022.
- Results roadshow: The Company organized annual results roadshow in March and April 2022 and interim results roadshow in September 2022.
- Research activities: We arranged interviews between the management and the investors and analysts from time to time to listen to their opinions and suggestions and respond to their concerns.
- Analyst teleconference: The Company organizes analyst teleconference to facilitate detailed communication with the capital market after publishing annual and interim reports or in case of internal and external material matters.
- Online communication: The Company participated in several online conferences in 2022.
- Daily communication: Timely response to the concerns of shareholders and investors on the investor relation management platform, investor hotline, and investor relationship mailbox.
- Company website (www.jinchuan-intl.com): The Company publishes information and materials relevant to investors in the Investor Relations column.
- 業績發佈會：於二零二二年三月十六日舉行的二零二一年年度業績發佈電話會；二零二二年九月二十四日舉行的二零二二年中期業績發佈電話會。
- 業績路演：二零二二年三月及四月開展年度業績路演及二零二二年九月開展中期業績路演。
- 調研活動：不定期安排管理層與投資者、分析師會面，聽取彼等的意見和建議、回應關注的問題。
- 分析師電話會議：在公司發佈中報、年報或出現內外部重大事項時組織面向分析師的電話會議，與資本市場進行詳實溝通。
- 網上交流：本公司二零二二年參加若干線上會議。
- 日常溝通：針對股東和投資者在投資者關係管理平台、投資者熱線、投資者查詢郵箱的關注問題進行及時回覆。
- 本公司網站(www.jinchuan-intl.com)：通過投資者關係專欄，公佈與投資者有關的信息及資料。

#### AUDITOR'S REMUNERATION

The Group's external auditor is Deloitte Touche Tohmatsu, Certified Public Accountants. The auditor's remuneration for the year ended 31 December 2022 is US\$764,000 out of which US\$466,000 was related to audit services for the consolidated financial statements (including US\$229,000 for Deloitte overseas member firms) and US\$298,000 was related to non-audit services regarding the construction and tax consultancy services paid to other Deloitte organizations and other professional services.

#### 核數師酬金

本集團之外聘核數師為執業會計師德勤•關黃陳方會計師行。截至二零二二年十二月三十一日止年度，核數師薪酬為764,000美元，其中466,000美元與綜合財務報表之核數服務有關(當中包括德勤海外成員公司的229,000美元)，另外298,000美元則為支付其他德勤機構與工程及稅務諮詢服務及其他專業服務有關的非核數服務。

## ABOUT THIS REPORT

Jinchuan Group International Resources Co. Ltd. (hereafter referred to as “JCI”, “the Company” or “We”) has published an annual environmental, social and governance report since 2013, providing updates on the environmental, social, and economic matters and disclosure of the operations status, risk assessment, including the sustainability perspective that are of greatest interest to our management, our employees, our nearby communities and our stakeholders.

## REPORTING ORGANIZATIONAL BOUNDARY

The organizational boundary of this report covers all the entities that are operated and controlled by JCI.

## REPORTING TIME FRAME

The reporting period of this report is from 1 January 2022 to 31 December 2022. Certain comparative figures are included to provide readers a more comprehensive understanding. Content included discussion about the past and also future, as appropriate, to make this report more comparable and forward-looking. This report is issued annually, in line with our annual report.

## REPORTING PRINCIPLES

This report is prepared in accordance with the following mainstream principles, guidance, or standards:

- The Global Reporting Initiative (“GRI”) Standard: Core Option;
- The Task Force on Climate-related Financial Disclosures (“TCFD”);
- The Sustainability Accounting Standards Board (“SASB”);
- Corporate Governance Code and Corporate Governance Report (Appendix 14) and Environmental, Social and Governance Reporting Guide (Appendix 27) of the Listing Rules; and
- Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (“CASS-CSR5.0”)

## 關於本報告

金川集團國際資源有限公司(以下簡稱「金川國際」、「本公司」或「我們」)自二零一三年起發佈年度環境、社會及管治報告，提供有關環境、社會和經濟事項的最新資訊以及運營狀況披露、風險評估，包括備受管理層、僱員、毗鄰社區和持份者密切關注的可持續發展視角。

## 報告組織邊界

本報告的組織邊界涵蓋金川國際旗下經營及控制的所有實體。

## 報告的時間範圍

本報告的報告期為二零二二年一月一日至二零二二年十二月三十一日，為令讀者有更全面的瞭解，其納入若干比較數據。內容包含對過往和未來的適當討論，以使本報告更具可比性和前瞻性。本報告每年度發佈一次，與我們的年度報告一致。

## 報告原則

本報告乃按照下列主流原則、指南或標準編製：

- 全球報告倡議組織(「GRI」)標準：核心選項；
- 氣候相關財務信息披露工作組(「TCFD」)；
- 可持續會計準則委員會(「SASB」)；
- 上市規則附錄十四《企業管治守則及企業管治報告》及附錄二十七《環境、社會及管治報告指引》；及
- 《中國企業社會責任報告編寫指南》(「CASS-CSR5.0」)

## DATA SOURCE AND STATEMENT

The data in the report is obtained from JCI's internal statistics and documented materials including policies, procedures, handbooks, and information from the public domain. All currencies in this report are expressed in US\$ unless otherwise stated.

## ABOUT JCI

### 1.1 About us

JCI's shares are listed on The Stock Exchange of Hong Kong Limited and is majority owned by JCG as a flagship for the development of international mining and mineral resources operations. JCI's future is based upon a clearly defined corporate strategy which will enable the Company to become a leading company in the international mining industry.

#### Our vision

Our vision is to become a major top-tier international non-ferrous metal mining company which focus in the mining and trading of copper, cobalt, nickel, and other non-ferrous metals.

#### Our strategy

Our strategy is to leverage the brand, expertise, experience, and financial resources of JCG and the Hong Kong capital market to invest in and operate sustainable, high-quality, cost-competitive mines around the world. Focusing mainly on JCG's traditional core business areas of nickel, copper, and cobalt, we will pursue acquisitions and cooperation in regions with attractive resources and favorable investment environments.

Consistent with this strategy, we are optimizing our existing mining and mineral operations, building new mines that we are currently developing, and examining growth opportunities through mergers and acquisitions. In addition, we will maintain the highest standards of health, safety, environmental protection, and community relations, and manage the Company for the long-term benefit of our stakeholders, shareholders and employees.

## 數據來源及聲明

本報告所載數據均源自金川國際的內部統計數據和檔案資料，包括政策、程序、手冊及公開情報。除非另有指明，本報告所有貨幣均以美元列示。

## 關於金川國際

### 1.1 關於我們

金川國際的股份在香港聯合交易所有限公司上市，由金川控股，為發展國際採礦和礦產資源業務的旗艦。金川國際的未來立足於明確定義的公司戰略，賦能本公司躋身國際採礦業的龍頭企業行列。

#### 我們的願景

我們的願景是矢志成為一家舉足輕重的頂級國際有色金屬礦業公司，專注於銅、鈷、鎳和其他有色金屬的開採和貿易。

#### 我們的策略

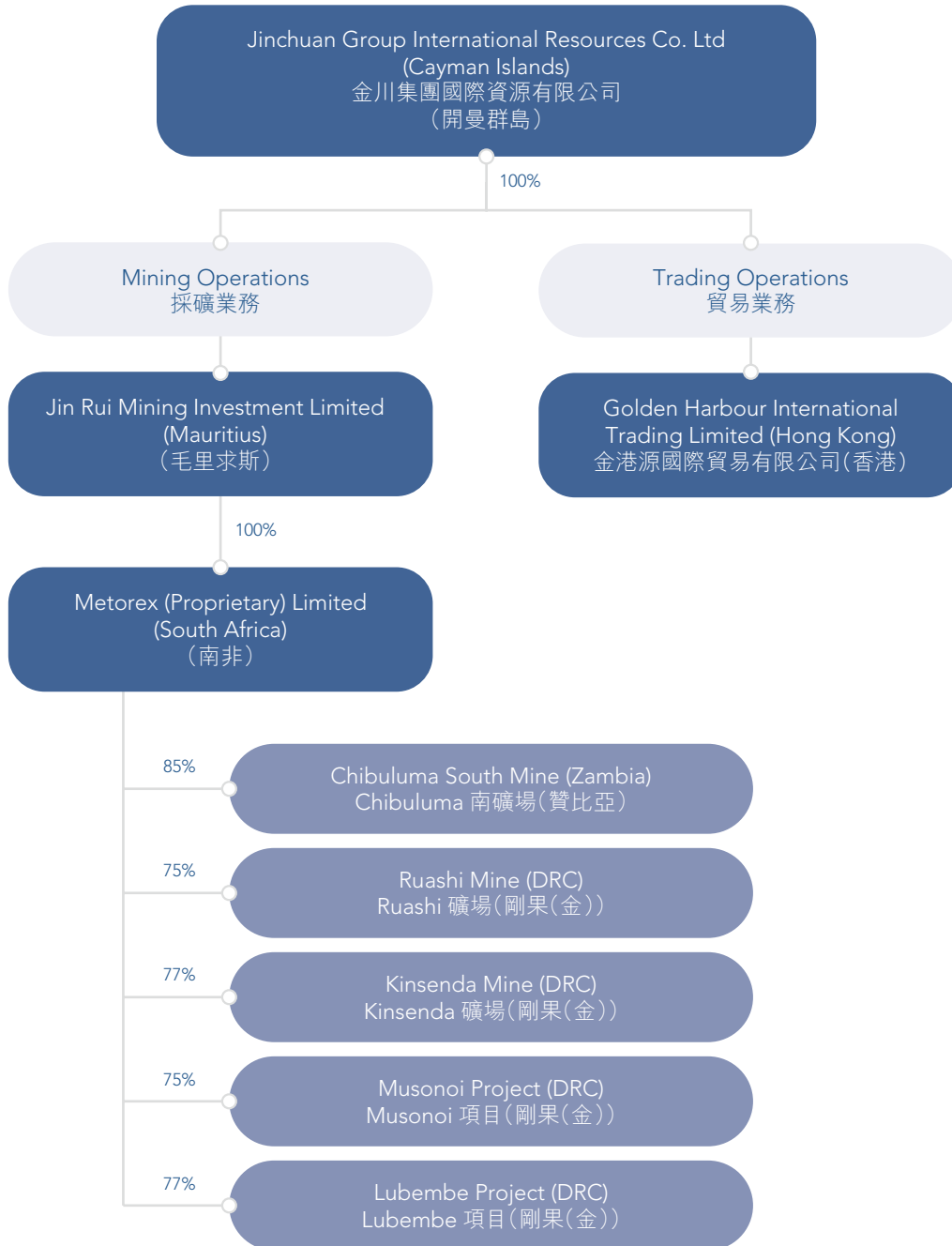
我們的戰略是利用金川和香港資本市場的品牌效應、專業知識、經驗和財務資源，在全球投資和運營可持續、高質量、具有成本競爭力的礦山。重點圍繞金川鎳、銅、鈷傳統核心業務領域，在資源優勢和投資環境優越的地區開展併購合作。

根據這一戰略，我們持續優化現有採礦和礦產業務，建設我們目前著力開發的新礦山，並通過併購探索增長機會。此外，我們將維持最高標準的健康、安全、環境保護和社區關係，並為我們的持份者、股東和僱員的長遠利益管理公司。



Group Structure (extract)

集團架構(節錄)



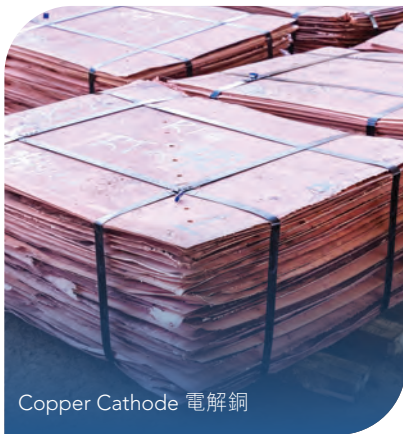
## 1.2 Our business

### 1.2.1 Overview

Our operations consist of two business segments, namely the mining and processing of copper and cobalt, and the trading of mineral and metal products. In terms of the location of our operations, our mining operations are based in the DRC and Zambia in Southern Africa while our trading segment is based in Hong Kong and is active purchasing mineral and metal products from the DRC and the PRC.

Our mining operations in Africa sell copper cathode, copper concentrate and cobalt hydroxide to customers under long-term contracts, while our trading operations source mineral and metal products mainly from the DRC and the PRC and sell the products to third-party customers mainly based in Singapore, Hong Kong and the PRC.

#### Mining operations' products



Copper Cathode 電解銅



Cobalt Hydroxide 氫氧化鈷



Copper Concentrate 銅精礦

## 1.2 我們的業務

### 1.2.1 概覽

我們的業務包括兩大業務板塊，即銅鈷礦開採及冶煉，以及礦產品及金屬產品貿易。就我們的業務地點而言，採礦業務位於剛果(金)和南部非洲的贊比亞，而貿易分部則駐於香港，積極自剛果(金)和中國採購礦產品和金屬產品。

我們於非洲的採礦業務面向長期合約客戶，銷售電解銅、銅精礦和氫氧化鈷。貿易業務主要自剛果(金)和中國採購礦產品和金屬產品，並將產品銷往主要位於新加坡、香港和中國的第三方客戶。

#### 採礦業務產品

1.2.2 Mining operations

JCI has two operating mines in Central African Copperbelt, namely, the Ruashi copper and cobalt mine and the Kinsenda copper mine in the DRC. JCI has a project under construction in Kolwezi, the DRC (Musonoi Project) and an exploration project (Lubembe Project) in the DRC, which serve as reliable resource protection for the Company's continued developments in the future. JCI is also the owner of Chibuluma South Mine in Zambia which is operating under a finance lease agreement.

1.2.2 採礦業務

金川國際於中非銅礦帶擁有兩座運營中的礦山，分別是位於剛果(金)的Ruashi銅鈷礦和Kinsenda銅礦。金川國際在剛果(金)科盧韋齊擁有一個在建項目(Musonoi項目)和一個在剛果(金)的勘探項目(Lubembe項目)，為本公司未來的持續發展提供值得信賴的資源保障。金川國際亦為贊比亞Chibuluma南礦場的所有者，該礦場按融資租賃協議的方式運轉。



### 1.2.3 Trading of mineral & metal products

As part of our strategy to expand our business in the mining and minerals sector, JCI engages in international trading of selected mineral and metal products such as copper cathode, copper matte and cobalt hydroxide.

Leveraging on our network in the DRC and the PRC, we sourced mineral and metal products from these two countries and sell it to users in Hong Kong and the PRC. Meanwhile, it extended our accessibility and presence in the international metals and mining market. We expect to continue to grow our business volume in the future and to diversify into new products and markets as conditions permit.

### 1.2.4 Business development

JCI continuously exploring global investment opportunities in mineral resources projects and strive to develop and grow into a first tier international mining company.

In developing our existing copper and cobalt mines in Africa, we hope to leverage the strengths of our parent company, JCG, in terms of technology, capital, resources, and global operating network. While optimizing the efficiency of our existing operations and construction projects, we strictly follow the Group's core principles of advanced technology, environmental protection and social harmony for the benefit of our internal and external stakeholders.

### 1.2.5 Memberships and associations

Involvement in member and industry associations keeps us abreast of public policy, new industry and sustainability trends, regulatory changes, stakeholder concerns, and the sharing of industry best practices. As of the end of the reporting period, we have participated in several associations, such as the Federation of Enterprises in the DRC, the Chamber of Mines, and the Association of Chinese-Funded Mining Enterprises, etc.

### 1.2.3 礦產品與金屬產品貿易

作為採礦和礦產領域業務擴張策略的一環，金川國際從事電解銅、冰銅和氫氧化鈷等礦產品及金屬產品的國際貿易。

依託於剛果(金)及中國佈局的業務網，我們自這兩個國家覓得礦產品和金屬產品來源，並將其售予香港和中國的用戶。同時，其延伸了我們在國際金屬及採礦市場的可及性和業務版圖。我們期望日後持續擴大我們的業務量，並在條件允許的情況下達致新產品和市場多元化。

### 1.2.4 業務發展

金川國際持續探索全球礦產資源項目投資機遇，竭力發展壯大成為一流的國際礦業公司。

於開發我們在非洲的現有銅鈷礦時，我們希望藉助母公司金川在技術、資金、資源和全球運營網絡等方面的優勢。在優化現有運營和建設項目效率的同時，我們嚴格遵循本集團技術先進、環境保護和社會和諧的核心原則，旨在為內外持份者創造福祉。

### 1.2.5 會員資格及協會

成員和行業協會的參與，助力我們及時跟進公共政策、新業態和可持續發展趨勢、監管變化、持份者的關切以及行業最佳實踐的分享。截至報告期末，我們已加入剛果(金)企業聯合會、礦業協會、中資礦業企業協會等多個協會。

1.3 Validation of sustainability topics

JCI has always taken the concerns and requests of its stakeholders very seriously. We recognize that materiality assessments may help us identify areas that have a particular impact on JCI and that are of interest to our key stakeholders.

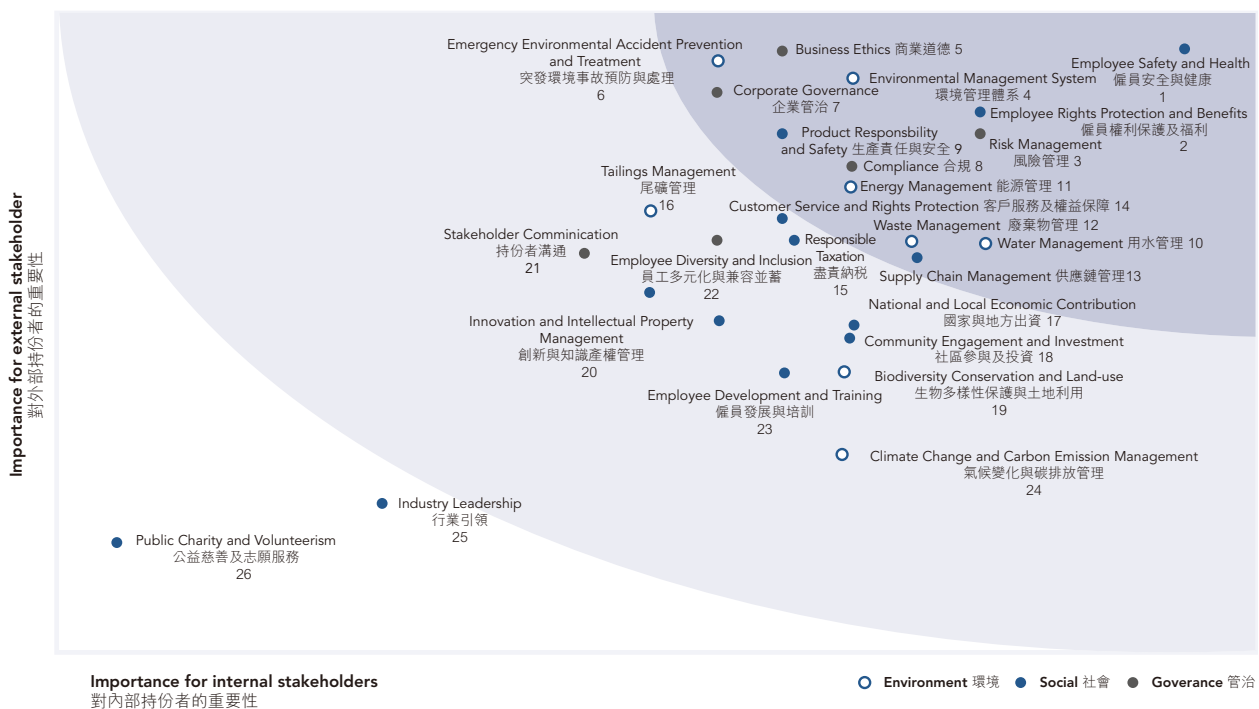
During the year, we conducted dedicated research for internal and external stakeholders (including our employees, customers, suppliers, contractors, etc.) with the assistance of an independent external ESG expert in accordance with GRI Standard's process regarding materiality analysis. The research was conducted in the form of anonymous questionnaires, and a total of 118 valid questionnaires were collected. Combined with insights from JCI executives on the materiality assessment results, we identified 26 material topics for our sustainability.

1.3 可持續發展主題的驗證

金川國際始終高度重視持份者的關切和訴求。我們深知，重要性評估有助於確定對金川國際有特殊影響以及與主要持份者的利益密切相關的範疇。

年內，我們根據GRI標準有關重要性分析的流程，在獨立外部ESG專家的協助下，針對內部和外部持份者(包括我們的僱員、客戶、供應商、承包商等)進行了專門研究。本次調研以匿名問卷的形式進行，共回收有效問卷118份。結合金川國際高管對重要性評估結果的見解，我們確定了26個可持續發展的重要主題。

ESG Materiality Matrix  
ESG重要性矩陣



**High-Materiality Topics**  
高重要性主題

1 Employee Safety and Health 1 僱員安全與健康	2 Employee Rights Protection and Benefits 2 僱員權利保護及福利	3 Risk Management 3 風險管理
4 Environmental Management System 4 環境管理體系	5 Business Ethics 5 商業道德	6 Emergency Environmental Accident Prevention and Treatment 6 突發環境事故預防與處理
7 Corporate Governance 7 企業管治	8 Compliance 8 合規	9 Product Responsibility and Safety 9 生產責任與安全
10 Water Management 10 廢棄物管理	11 Energy Management 11 能源管理	12 Waste Management 12 廢棄物管理
13 Supply Chain Management 13 供應鏈管理	14 Customer Service and Rights Protection 14 客戶服務及權益保障	

**Medium-Materiality Topics**  
中等重要性主題

15 Responsible Taxation 15 盡責納稅	16 Tailings Management 16 尾礦管理	17 National and Local Economic Contribution 17 國家與地方出資
18 Community Engagement and Investment 18 社區參與及投資	19 Biodiversity Conservation and Land-use 19 生物多樣性保護與土地利用	20 Innovation and Intellectual Property Management 20 創新與知識產權管理
21 Stakeholder Communication 21 持份者溝通	22 Employee Diversity and Inclusion 22 員工多元化與兼容並蓄	23 Employee Development and Training 23 僱員發展與培訓
24 Climate Change and Carbon Emission Management 24 氣候變化與碳排放管理		

**Low-Materiality Topics**  
低重要性主題

25 Industry Leadership 25 行業引領	26 Public Charity and Volunteerism 26 公益慈善及志願服務
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#### 1.4 SDGs focus

In 2015, the United Nations created 17 Sustainable Development Goals (“**SDGs**”) and aimed to achieve them by 2030. Each company should be clear about its role in achieving the SDGs, starting with an awareness of where its priorities and strengths lie. Sustainability is the foundation for the success of JCI’s strategy, and we continue to contribute to the socio-economic growth of the regions in which we operate and the communities in which we locate.

Our approach to sustainable development is applied across all of our operations. We are committed to operating the business in a sustainable manner by maximizing the social, environmental, and economic benefits of our mining and mineral activities, minimizing environmental impacts, and working with our communities to build our stakeholders’ trust.

Our vision and mission are in line with the United Nations Global Compact (“**UNGC**”) Principles and SDGs. As we continue to advance our efforts to integrate the SDGs into our business strategy, operations, and enterprise culture, we have prioritized the SDGs that are most relevant to our material topics and will commence more pertinent mapping of the SDGs. Details of the SDGs relating to our ESG topics identified are presented in appendix 2.

#### 1.4 可持續發展目標重點

於二零一五年，聯合國制定17項可持續發展目標(「**可持續發展目標**」)，旨在到二零三零年前實現該等目標。各公司均應知悉其於實現可持續發展目標方面的責任，以意識到本身的優先事項及優勢所在為啟程第一步。可持續發展是金川國際策略成功的基石，我們將繼續為營運所在地區及社區的社會經濟增長做出貢獻。

我們的可持續發展理念可適用於我們所有的營運。我們致力於以可持續方式經營業務，最大限度地提高採礦與成礦活動的社會、環境及經濟效益，並盡量減輕對環境的影響，同時與社區攜手建立起持份者信任。

我們的願景及使命與聯合國全球契約(「**UNGC**」)的原則及可持續發展目標契合。隨着我們不斷推動將可持續發展目標融入業務策略、營運及企業文化，我們已優先考慮與重要議題最相關的可持續發展目標，並將開始進一步就可持續發展目標作貼切籌劃。與環境、社會及管治主題有關的可持續發展目標詳情載於附錄二。

## ENVIRONMENT

### 2.1 Environmental management

JCI believes in sustainable development and is committed to the effective management of safety, health, environment, and community relations as an integral part of our business. All of our sites and projects adhere to a strict environmental management system that comprehensively protects the environment and surrounding communities in which we operate while complying with local legal requirements. We have established Environmental, Community and Zero Harm policies at the corporate and operational levels. Safety, Health, Environment and Community (“**SHEC**”) management is undertaken at the operational level using an electronic management system (IsoMetrix), which includes environmental incident and risk management. Ruashi Mine operates in compliance with environmental management systems certified under the international standard ISO14001:2015 and has obtained the latest recertification in February 2022 while Musonoi Project is establishing its environmental systems while working towards its operating stage.

JCI has established the Safety, Health & Environment (“**SHE**”) Structure at mining sites and is constantly improving the internal environmental management system by referring to international advanced practices, formulating and strictly implementing various management policies within the system, and urging all employees to consciously fulfill their responsibilities for environmental protection.

## 環境

### 2.1 環境管理

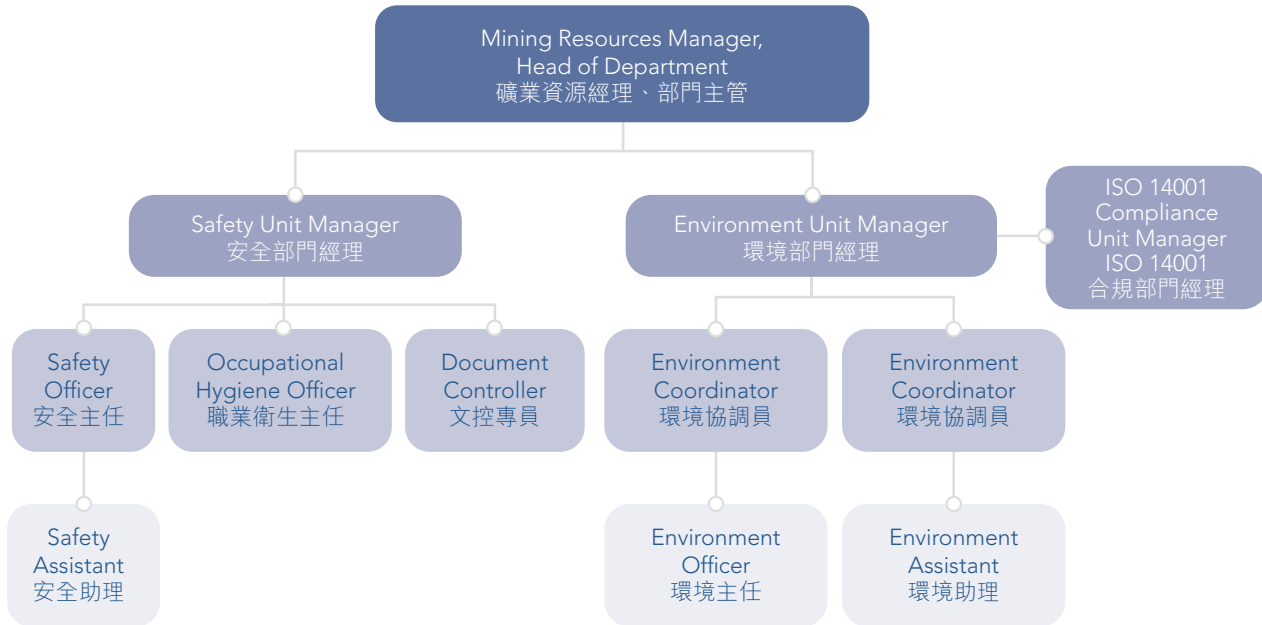
金川國際秉承可持續發展理念，並致力於安全、健康、環境及社區關係的有效管理，此乃我們業務不可分割的一部分。我們所有的礦址及項目均遵守嚴格的環境管理體系，並在遵守當地法律要求的同時，全面保護我們營運所在地的環境及周邊社區。我們在公司及營運層面確立了環境、社區及零損害政策。安全、健康、環境及社區（「**SHEC**」）管理通過在營運層面使用電子管理系統(IsoMetrix)進行，其中包括環境事件及風險管理。Ruashi礦場的營運符合國際標準ISO14001:2015認證的環境管理體系，並於二零二二年二月取得最新的再認證，而Musonoi項目正向着營運階段邁進，並開始著手建立其環境體制。

金川國際於礦區確立了安全、健康及環境（「**SHE**」）架構，並參照國際先進常規，不斷完善內部環境管理體系，制定系統內各項管理政策並嚴格落實，督促全體僱員自覺履行環境保護責任。



SHE Structure of Ruashi Mine

Ruashi礦場的SHE架構



Throughout the mining life of our operations, JCI is totally committed to the following initiatives:

- Comply with the environmental regulations in the various jurisdictions JCI operates, primarily including the Mining Code (2002, amended by Law No. 18/001 dated 9 March 2018), the Mining Regulations, the Environmental Protection Act Law No. 11/009 of 2011 and the Forest Code Law No. 011/2002 of 2002 as promulgated in the DRC, and the Environmental Management Act, 12 of 2011 administered by the Zambian Environmental Management Agency (“ZEMA”);
- Avoid violation of law or fines, and regularly submit revised environmental impact studies, annual environmental reports, both rainy and dry seasons follow-up and control reports as well as audit reports as required by law to the relevant authorities;

在營運的整個採礦週期中，金川國際盡心竭力實施以下舉措：

- 遵守金川國際營運所在的各司法權區的環境法規，主要包括剛果(金)頒佈的《礦業法》(二零零二年，經二零一八年三月九日第18/001號法律修訂)、《礦業條例》、二零一一年第11/009號《環境保護法》及二零零二年第011/2002號《森林法》，以及贊比亞環境管理局(「ZEMA」)管轄的《環境管理法》(二零一一年第12號法)；
- 避免違反法律或招致罰款，定期向有關當局提交更新的環境影響研究報告、年度環境報告、雨季及旱季跟蹤控制報告以及法律規定的審核報告；

- Conduct environmental impact assessment (“EIA”) in accordance with the laws and regulations of the country where the project is located, and carry out environmental management work during the pre-construction, construction, operation, and closure phases of the project according to the environmental management requirements stipulated in the EIA report to ensure that environmental protection is carried out throughout the life cycle of the mine projects;
- Maintain strict emission control and energy consumption management, ensure emission control facilities are operating efficiently and pollution prevention guidelines are adhered, conduct environmental monitoring, and strengthening pollutant management (including air, water, soil, noise, solid waste, etc.) during the production and operation phases of the project, as well as by optimizing extraction technology, applying energy-saving equipment and raising energy-saving awareness among employees to achieve environmental management goals;
- Continuously improve environmental management policies and adjust them in respond to new issues emerging at each site and new international environment practices to ensure that operations comply with the environmental laws and regulations of the host country and the requirements of JCI’s environmental management system (e.g. Ruashi Mine introduced two new procedures on Chemical Handling and Operational Control of Significant Environmental Aspects in 2022, and updated the Hazardous Waste Management procedures to improve the management of cartridges and batteries);
- 按照項目所在國的法律法規進行環境影響評價(「環評」)，並按照環評報告規定的環境管理要求，在項目建設前期、建設階段、營運階段和關停階段開展環境管理工作，確保礦場項目在整個生命週期均踐行環境保護；
- 堅持嚴格的排放控制及能源消耗管理，確保排放控制設施高效運行，遵守污染防治指引，開展環境監測，加強項目生產營運階段的污染物(包括廢氣、水、土壤、噪音、固體廢棄物等)管理，並通過優化提煉技術、應用節能設備、提高僱員節能意識以實現環境管理目標；
- 不斷完善環境管理政策，並根據各礦場出現的新問題及國際環境新常規作出調整，確保營運符合所在國家環境法律法規以及金川國際環境管理體系的要求(例如，Ruashi礦場於二零二二年推出《化學品處理》及《重大環境因素操作管治》兩項新程序，並更新《有害廢棄物管理程序》，以優化墨盒及電池的管理)；

- Improve emergency management capabilities by establishing emergency policies and plans for each mine site based on factors such as climatic and geological conditions, as well as their respective environmental policies, objectives, and targets, and by organizing regular emergency drills to ensure the feasibility of the plans (e.g. Ruashi Mine established Corrective Preventative Action and Operational Control of Significant Environmental, Chibuluma South Mine established Emergency Preparedness and Response Procedure and Incident Reporting and Investigation, both in 2022. JCI conducted regular fire drill to improve emergency management);
- Provide training to employees and subcontractors on topics such as Waste Management, Management of Accidental Spills of Industrial Liquids, Chemical Management, etc., and the training includes courses, procedures, and audit skills (e.g. total number of employee attended environmental protection training conducted by Ruashi Mine reached 1,093 in 2022).
- 提高應急管理能力，根據各礦區的氣候、地質條件以及各自的環境政策、目標及指標等因素，制定應急政策與計劃，並定期組織應急演練，確保計劃的可行性(例如，於二零二二年，Ruashi礦場制定《重大環境糾正預防行動及操作管治》以及Chibuluma南礦場製定《應急準備及響應程序》以及《事故報告及調查》。金川國際定期進行消防演練，提高應急管理水平)；
- 為僱員及分包商提供有關廢棄物管理、工業液體意外洩漏管理、化學品管理等主題的培訓，培訓內容包括課程、程序及審核技巧(例如，參加Ruashi礦場於二零二二年開展的環保培訓的僱員總數達1,093人)。

During the reporting period, Ruashi Mine, Kinsenda Mine, Musonoi Project and Chibuluma South Mine did not have any material violations of laws related to safety and environmental matters, nor were they subject to any material fines.

於報告期間內，Ruashi礦場、Kinsenda礦場、Musonoi項目及Chibuluma南礦場並無任何與安全及環境事項有關的重大違法行為，亦無面臨任何重大罰款。

## 2.2 Tackling climate change

Climate change is one of the most fundamental challenges ever to confront humanity. In light of the energy intensive nature of the extractive industry, tackling climate change and enhancing energy management have been substantial issues that are of high concern to JCI, and our climate-related disclosures are of increasing interest to our stakeholders. Our operations are located in areas experiencing tropical climates with high summer rainfall, which can be exacerbated by the effects of climate change. Extreme rainfall conditions, for example, may cause flooding, impede or halt operations, and ultimately affect factors such as insurance costs for current and future projects. Consequently, we are taking various initiatives to effectively address the challenges posed by climate change.

### 2.2.1 Greenhouse gas emissions

Greenhouse gas (“GHG”) management at JCI’s mining sites is undertaken by the respective SHE Departments. To eventually reach the target of lower GHG emissions and lower carbon emission intensity, we gradually improve the supervision and management policy of controlling GHG emissions, and plan to optimize the working mechanism of GHG accounting, strengthen the communication and coordination among internal departments, and put the work accountability system into place.

## 2.2 應對氣候變化

氣候變化是人類有史以來所面臨的最根本的挑戰之一。鑒於採掘業的性質屬能源密集型，故應對氣候變化及加強能源管理一直為金川國際高度重視的重大事項，而我們的氣候相關披露也日益受到持份者的關注。我們的業務位於熱帶氣候地區，夏季降雨量大且可能會因氣候變化的影響而加劇。舉例而言，極端降雨狀況可能導致洪水，或會妨礙或中斷營運，並最終影響當前及未來項目的投保成本等因素。因此，我們正採取各項舉措，以有效應對氣候變化帶來的挑戰。

### 2.2.1 溫室氣體排放

金川國際礦區的溫室氣體（「溫室氣體」）管理由各自的SHE部門負責。為最終實現降低溫室氣體排放及降低碳排放密度的目標，我們逐步完善控制溫室氣體排放的監督管理政策，並計劃優化溫室氣體核算的工作機制，加強內部各部門之間的溝通協調，將工作問責制落實到位。

In January 2021, Ruashi Mine, Kinsenda Mine and Chibuluma South Mine jointly published the 2018 and 2019 Corporate Carbon Footprint Report, which was written by an independent third party institution. This carbon footprint report provide the latest carbon emission data for the years 2018 and 2019 and compare the latest data to the 2010 baseline result to show the development over the years. In addition, comparative data for 2016 and 2017 were also presented and was used to show JCI's overall carbon footprint trend since 2016. In total, the three operating mines emitted a total of 29,790 tonnes of CO<sub>2</sub>-e in 2019, which in absolute terms, is approximately 9.9% higher than the same period in 2018 of 27,108 tonnes of CO<sub>2</sub>-e, including those emissions for which the three mines are indirectly responsible for (Scope 2 and 3).

In 2022, a commitment to comply with the GHG emissions strategy was added to JCI's Zero Damage policy. JCI is committed to comply with all national and/or international initiatives on climate change mitigation by introducing energy friendly equipment, increasing the use of renewable energy, reducing carbon dioxide emissions, and adopting any other best practices or technologies. Future GHG management plans for each mine site will be available following the completion of the 2022 Carbon Footprint Report.

二零二一年一月，Ruashi 礦場、Kinsenda 礦場及Chibuluma 南礦場聯合發佈《二零一八年及二零一九年企業碳足跡報告》，該報告由獨立第三方機構撰寫。該碳足跡報告提供二零一八年及二零一九年的最新碳排放數據，並將最新數據與二零一零年基準結果進行比較，以呈現數年來的發展情況。此外，亦有提供二零一六年及二零一七年的比較數據，以呈現金川國際自二零一六年起的總體碳足跡趨勢。二零一九年，三處營運礦場總共排放了29,790噸二氧化碳當量，按絕對值計算，較二零一八年同期的27,108噸二氧化碳當量高出約9.9%，其中包括此三處礦場間接造成的排放（範圍2及3）。

二零二二年，金川國際將遵守溫室氣體排放策略的承諾納入零損害政策中。金川國際承諾遵守所有關於減緩氣候變化的國家及／或國際倡議，引進能源友好型設備、增加對可再生能源的使用、減少二氧化碳排放以及採納任何其他最佳常規或技術。二零二二年碳足跡報告編製完成後，各礦區未來的溫室氣體管理計劃將獲公佈。

**Our performance**

**我們的表現**

Total GHG Emissions:

溫室氣體排放總量：

		Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Scope 1	範圍1	tCO <sub>2</sub> -e 每噸二氧化碳當量	15,859	21,725	<b>22,770</b>
Scope 2	範圍2	tCO <sub>2</sub> -e 每噸二氧化碳當量	1,031	1,026	<b>1,080</b>
Total Scope 1+ Scope 2	範圍1+範圍2 總量	tCO <sub>2</sub> -e 每噸二氧化碳當量	16,890	22,751	<b>23,850</b>
GHG Emissions Intensity	溫室氣體排放 密度	tCO <sub>2</sub> -e/ tCu produced 每噸二氧化碳當量/ 噸銅產量	0.23	0.37	<b>0.40</b>

Scope 1 and Scope 2 GHG Emissions, by  
Operation 2022

二零二二年按營運劃分的範圍1及範圍2溫室氣體排放

		Unit 單位	Corporate Offices 公司 辦事處	Ruashi Mine Ruashi 礦場	Kinsenda Mine Kinsenda 礦場	Musonoi Project Musonoi 項目	Chibuluma South Mine <sup>1</sup> Chibuluma 南礦場 <sup>1</sup>
Scope 1	範圍1	tCO <sub>2</sub> -e 每噸二氧化碳當量	4	15,836	6,745	145	40
Scope 2	範圍2	tCO <sub>2</sub> -e 每噸二氧化碳當量	124	580	340	22	14

<sup>1</sup> Chibuluma South Mine has been leased out to an independent third party under a finance lease agreement since 1 April 2021. Therefore, the Scope 1 calculation for the year 2022 takes into account the electricity consumption of JCI employees in administrative offices and living areas only.

<sup>1</sup> 自二零二一年四月一日起，Chibuluma南礦場已根據融資租賃協議出租予一名獨立第三方。因此，截至二零二二年範圍1的計算僅會計入行政辦公室及生活區域金川國際僱員的耗電量。

## 2.2.2 Energy management

Metal mining is an energy intensive industry, which has led to managing energy consumption being an essential task for JCI and has driven our transition to low-carbon operations. We insist that all mine sites are obligated to make continuous efforts to improve energy efficiency and reduce reliance on fossil fuels, using clean, renewable and/or recycled energy to the greatest extent possible, thereby reducing GHG emissions. It is worth noting that the DRC and Zambia, where we operate, generate most of their power from hydroelectricity, which has significant low-carbon emission characteristics.

- Ruashi Mine has established Guideline for Energy & Water Management in 2022 to define the process of efficient consumption of energy and water to decrease the consumption and negative impact on the environment, which is the main policy on which Ruashi Mine's energy management efforts are based. The environmental manager is responsible for analyzing energy equipment practices, checking energy efficiency ratings, specifying equipment operation and maintenance practices, and overall environmental protection, as well as identifying opportunities for energy savings during the analysis. The mine site will enforce targeted energy saving actions for interior and exterior lighting, office equipment, computer and electronic (operational) equipment, air conditioning, domestic refrigeration, heating & ventilation, and miscellaneous equipment. In addition, Ruashi Mine has developed a system for preparing daily, monthly, semi-annual, and annual power reports, which will facilitate real-time monitoring of energy consumption. Lastly, Ruashi Mine plans to deploy a 2MW/1MWh high voltage seamless switching energy storage system at the mine site intending to increase the proportion of renewable energy utilized, and the relevant equipment is already in the shipping process.

## 2.2.2 能源管理

金屬礦開採屬能源密集型行業，因此管理能源消耗已成為金川國際的重要任務，並推動我們向低碳營運轉型。我們始終認為，所有礦場均有義務不斷努力提高能源效率，減少對化石燃料的依賴，最大限度地使用清潔、可再生及／或可回收能源，從而減少溫室氣體排放。值得注意的是，我們於剛果(金)及贊比亞開展業務，大部分電力來自水力發電，擁有明顯的低碳排放特點。

- Ruashi礦場制定了《二零二二年能源及用水管理指引》，明確高效耗能用水過程，以減少消耗和對環境的負面影響，該指引為Ruashi礦場能源管理工作的主要政策依據。環保負責人負責分析能源設備實操、檢查能源效率等級、規定設備操作和維護方法，以及整體環境保護，並在分析過程中甄別節能時機。礦區將對室內外照明、辦公設備、計算機及電子(作業)設備、空調、冰箱、供暖通風及雜項設備實施有針對性的節能行動。此外，Ruashi礦場還開發有可編製每日、月度、半年度及年度電力報告的系統，實時監測能源消耗情況。最後，Ruashi礦場計劃在礦區部署2MW/1MWh的高壓無縫切換儲能系統，以提高可再生能源的利用比例，相關設備已在運輸過程中。

- Kinsenda Mine has undertaken several energy management projects in 2022, including the technical renovation of the existing power supply system to form a double-circuit power supply system; the redesign of the underground power supply system to form a ladder-type power supply circuit in each middle section to reduce the scope of the impact caused by failures of high-voltage cables and transformers. In addition, we started using energy-saving lamps assisted by time switches for our ground public lighting system, as well as soft starters for high-powered electric motors in the mine to save energy. In 2023, Kinsenda Mine will focus on the construction of the double circuit of the power supply system to ensure power security.
- Musonoi Project has a high-voltage power line that crosses the mine site to provide the power supply. Musonoi Project has secured a power purchase agreement with SNEL in exchange for the refurbishment of a 50MW hydroelectric turbine that will provide an emergency power supply in the event of a power outage or other emergency. In addition, Musonoi Project advises its employees to save energy by turning off the lights in the camp accommodations and administration buildings.
- Kinsenda礦場於二零二二年開展多個能源管理項目，包括對現有供電系統進行技術改造以建構雙迴路供電系統；對地下供電系統進行重新設計，在各中段形成階梯式供電迴路，減小高壓電纜及變壓器故障造成的影響範圍。此外，我們開始在地面公共照明系統中使用節能燈，輔以定時開關，並在礦場的大功率電動機中使用軟起動器以節省能源。於二零二三年，Kinsenda礦場將重點建設雙迴路供電系統，確保用電安全。
- Musonoi項目由一條橫穿礦區的高壓電線提供電力。Musonoi項目已與SNEL訂立購電協議，以換取對一台50兆瓦水力發電渦輪機的整修，其將於停電時或其他緊急情況下提供緊急電力供應。此外，Musonoi項目亦建議僱員關閉營地住宿及行政大樓燈具，以節約能源。

### Our performance

Total Energy Consumption:

		Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Electricity	電力	kWh 千瓦時	237,733,951	233,112,051	259,742,223
Steam	蒸汽	t 噸	162,733	163,753	145,626
LPG	液化石油氣	t 噸	N/A 不適用	10.48	9.83
Diesel	柴油	t 噸	2,577.48	5,118.07	9,048.44
Petrol	汽油	t 噸	12.20	15.05	22.86

### 我們的表現

能源消耗總量：



Energy Consumption, by Operation:

按營運劃分的能源消耗：

Corporate Offices	公司辦事處	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Electricity	電力	kWh 千瓦時	27,326	59,931	60,513
Ruashi Mine	Ruashi礦場	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Electricity	電力	kWh 千瓦時	152,959,000	151,756,000	159,381,000
Steam	蒸汽	t 噸	162,733	163,753	145,626
Diesel	柴油	t 噸	763.00	2,277.24	4,605.83
Kinsenda Mine	Kinsenda礦場	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Electricity	電力	kWh 千瓦時	74,396,900	77,144,000	86,748,550
Diesel	柴油	t 噸	1,799	2,358	2,977
Petrol	汽油	t 噸	12.20	12.50	15.60
Musonoi Project	Musonoi項目	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Electricity	電力	kWh 千瓦時	2,097,953	4,152,120	13,552,160
LPG	液化石油氣	t 噸	N/A 不適用	10.48	9.83
Diesel	柴油	t 噸	N/A 不適用	482.83	1,465.61
Petrol	汽油	t 噸	N/A 不適用	2.55	7.26
Chibuluma South Mine	Chibuluma南礦場	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Electricity	電力	kWh 千瓦時	8,252,772	N/A 不適用	N/A 不適用
Diesel	柴油	t 噸	15.48	N/A 不適用	N/A 不適用

## 2.3 Water resources management

Responsible water resources management is an essential topic for JCI, as mining involve the treatment of large volume of underground water while concentration and refining require the use of huge amount of water for refining processes. We strictly comply with the relevant laws and regulations and consider many key operational aspects in our water management, such as water stewardship and water discharge, ensuring that adverse impacts on water resources are minimized.

### 2.3.1 Water stewardship

Clean water plays a vital role in maintaining healthy natural ecosystems. As stated by the United Nations, safe drinking water and sanitation are recognized as basic human rights, as they are indispensable to sustaining healthy livelihoods and fundamental in maintaining the dignity of all human beings. JCI did not encounter any problems in accessing water in 2022. We require each mine to develop separate water management policies and initiatives based on factors such as the climatic and geological conditions of each site and the characteristics of the mining process to ensure that freshwater consumption and unnecessary wastewater discharge are minimized.

- Water at Ruashi Mine is recycled from the return water dams as well as from the stormwater dam for use in the plant. The mine site supplies groundwater directly from dewatering boreholes to a local water utility, which then treats the water and distributes it to the local community for daily use. Water management at the mine site is carried out based on the Guideline for Energy & Water Management issued in 2022, with the environmental unit manager responsible for planning, implementing, and monitoring water management work. Ruashi Mine has already established rules for water supply installations, including the installation of water-saving devices such as cistern dams or cistern volume adjusters in the toilet systems, reducing water pressure to 45psi, replacing conventional turn taps in toilet and bathroom areas with water-efficient models, installing flow restrictors in all shower and/or aerated showerheads to optimize water consumption. Meanwhile, the mine site has made it obligatory for employees to shut off the water supply to equipment and unused areas, discontinue water circulation pumping in areas that are not in use, and shut down water-cooled air conditioning units when not needed.

## 2.3 水資源管理

負責任的水資源管理是金川國際的一項重要議題，因採礦涉及大量地下水的處理，同時選礦與冶煉過程需要使用巨量的水。我們嚴格遵守相關法律法規，並在用水管理中慮及用水治理及排放等諸多關鍵的操作方面，確保盡量降低對水資源的不利影響。

### 2.3.1 用水治理

淨水在維持健康的自然生態系統方面屬至關重要。聯合國指出，擁有安全飲用水及衛生設施為基本人權，因其乃維持健康生計所不可或缺之物，亦乃維護人類尊嚴所必需。二零二二年，金川國際在取水方面並無遇到難處。我們要求每個礦場根據每一礦址的氣候及地質條件以及採礦過程的特點等因素制定單獨的用水管理政策及舉措，以確保盡量減少淡水消耗及不必要的廢水排放。

- Ruashi礦場的水回收自回水壩及雨水壩，供工廠使用。礦區直接經排水井向當地自來水公司供應地下水，而後經該公司處理分配給當地社區供日常使用。礦區的用水管理根據二零二二年發佈的《能源及用水管理指引》進行，由環保單位負責人負責規劃、實施及監測用水管理工作。Ruashi礦場已製定供水裝置規則，包括在廁所系統中安裝節水裝置（如蓄水壩或蓄水容量調節器），將水壓降至45psi，將廁所及浴室區域的傳統旋轉水龍頭更換為節水型號，以及在所有淋浴器及/或加氣淋浴器安裝節流器以改善耗水。同時，礦區要求員工必須關閉設備及未使用區域的供水，在未使用區域停止水循環泵送，並且在不需時關閉水冷空調機組。

- The main source of water for Kinsenda Mine is underground dewatering. During the reporting period, the mine site has advanced the extension of the underground water supply and carried out the replacement of pipelines from the domestic water source to the water treatment plant. In terms of the drainage system, Kinsenda Mine has further improved the assembly and maintenance capacity of the main pump, and the efficiency of a single pump has increased by about 30% on average, leading to a further reduction in the electricity consumption of the main pumping station (0.8MWh of electricity consumption saving per day since June 2022, with an estimated electricity cost saving of US\$274,000 in 2022). Kinsenda Mine will next communicate with the Clean Energy Design Institute to advance the construction of the 435ml pumping station, which is scheduled to form a central pumping station with a normal discharge of 100,000m<sup>3</sup>/day and an ultimate discharge of 120,000m<sup>3</sup>/day by the end of 2023.
- Water at Musonoi Project comes from boreholes and underground development drainage. The mine is now in construction phase and underground water is stored at temporary settling pond waiting for discharge. In the detailed feasibility study design, mine water will be directed to settling ponds for filtration before being used in the plant, and water from the mine site and other working areas will be protected by conservation measures, such as ensuring that tap water is shut off after use. In addition, the mine site is in the process of implementing a water management system to capture and control stormwater on the concession. Runoff water from uncontaminated surfaces will be separated by drains and will be collected by the main sewer within the perimeter and discharged into the plant wastewater storage ponds. Such water will be pumped and recycled in the plant. Musonoi Project is applying for discharge authorisation and is expect to obtain the right in 2023.
- Kinsenda礦場的主要水源為地下排水。於報告期內，礦區推進地下供水擴建，並將生活水源至水處理廠的管道進行更換。就排水系統而言，Kinsenda礦場進一步提高主泵的裝配及維護能力，單泵效率平均提高約30%，從而再度降低主泵站的用電量(自二零二二年六月起，每天節約用電0.8兆瓦時，預計二零二二年可節約電力成本27.4萬美元)。Kinsenda礦場後續將與清潔能源設計院溝通，推進435ml泵站建設，計劃於二零二三年底前建成一處中央泵站，正常排量為10萬立方米/天，最終排量為12萬立方米/天。
- Musonoi項目的用水來自鑽孔及地下開發排水。該礦場目前正處於施工階段，地下水儲存在臨時沉澱池中等待排放。在詳細的可行性研究設計中，礦井水在用於工廠之前將引入沉澱池進行過濾，而礦址及其他工作區域的用水將經節水措施得到保護，例如確保自來水在使用後關閉。此外，礦場正落實用水管理系統，以收集及管控特定雨水。來自未受污染地表的徑流將由排水管分離並由周邊主下水道收集，排入工廠的廢水儲存池中。該等用水將於工廠內泵送並循環利用。Musonoi項目正在申請排放許可，預計將於二零二三年獲得授權。

- For Chibuluma South Mine, although the mine is now operated by the finance lessee, JCI, as the legal owner of the mine, maintained close supervision on the water discharge cycle of the mine. Over 90% of the water consumed at the Chibuluma South Mine plant is recycled from the tailings dam while the remaining 10% of the water is from underground water pumped out by the mining operations, which is transported to the concentrator plant for ore washing. Groundwater monitoring at the mine site is based on the commitments made by the Environmental Management Plan adopted since April 2009. At the end of the reporting period, the mine site has had 6 monitoring boreholes which have been put in place to monitor the quality and water levels around the mine.
- 就Chibuluma南礦場而言，雖然該礦場目前是融資租賃承租方在營運，但金川國際作為該礦場的合法所有者仍對其排水循環進行密切監督。Chibuluma南礦場廠房90%以上的耗水乃循環回收自尾礦壩，其餘10%的用水則來自採礦作業抽出的地下水，其被輸送至選礦廠用於礦石清洗。礦址的地下水監測乃根據自二零零九年四月獲通過的《環境管理計劃》所作承諾進行。於報告期末，該礦址有6個監測鑽孔，用於監測礦場周圍的水質及水位。

**Our performance**

**我們的表現**

Total Water Usage:

用水總量：

		Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	2,461,055	2,214,754	<b>2,877,876</b>
Water Intensity	耗水密度	m <sup>3</sup> /t Cu produced 立方米/ 噸銅產量	33.96	36.15	<b>48.42</b>

Water Usage, by Operation<sup>2</sup>:

按營運劃分的用水<sup>2</sup>：

Ruashi Mine	Ruashi礦場	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	2,048,254	1,925,674	<b>2,571,276</b>
Recycled Water Consumption	循環水耗量	m <sup>3</sup> 立方米	2,190,122	2,436,066	<b>1,830,634</b>
Water Intensity	耗水密度	m <sup>3</sup> /t Cu 立方米/ 噸銅產量	125.04	131.92	<b>145.02</b>
Recycled Water as percentage of Total Water Consumed	循環用水佔 總耗水量比例	%	51.67	55.85	<b>41.59</b>

Kinsenda Mine	Kinsenda礦場	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	262,800	289,080	<b>306,600</b>
Water Intensity	耗水密度	m <sup>3</sup> /t Cu 立方米/ 噸銅產量	8.60	10.25	<b>10.54</b>

Chibuluma South Mine <sup>3</sup>	Chibuluma南礦場 <sup>3</sup>	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	150,001	N/A 不適用	<b>N/A 不適用</b>
Water Intensity	耗水密度	m <sup>3</sup> /t Cu 立方米/ 噸銅產量	18.70	N/A 不適用	<b>N/A 不適用</b>

<sup>2</sup> As Musonoi Project is under construction, only minimal water was consumed during construction phase. Musonoi will start measuring water consumption data when production commenced in future.

<sup>2</sup> 由於Musonoi項目正在建設中，故僅於施工階段產生極少的用水。Musonoi將於未來投產時開始測量耗水數據。

<sup>3</sup> Chibuluma South Mine has been leased out to an independent third party under a finance lease agreement since 1 April 2021. Therefore, the emission data was not included as part of JCI's operation.

<sup>3</sup> 自二零二一年四月一日起，Chibuluma南礦場已根據融資租賃協議出租予一名獨立第三方。因此，排放數據不計入金川國際的營運。

### 2.3.2 Water discharge

Industrial wastewater is mainly generated from the operational process of mining and beneficiation. Pollutants from wastewater are monitored at each of our mine sites. We insist that all wastewater and sewage should be recycled to the plant as much as possible after proper treatment and that wastewater should minimally be discharged to the outside.

- Ruashi Mine's main source of process water is the open-pit drainage water, which we manage in a closed-loop system. The decanted water is collected in two dams called returned water dams and then sent back to the plant. Rainwater and all water collected from the drains is collected in so-called storm water drains and also sent back to the plant. At the end of the process, the water is neutralized to a pH above 7 and sent to the tailing dams. In addition, sewage and domestic water are treated and recirculated.

### 2.3.2 排水

工業廢水主要產生自採礦及選礦的營運過程。我們在每個礦場均會對廢水污染物進行監測。我們堅持所有的廢水及污水待經過適當處理後，應盡量於工廠中循環利用，且應盡量減少向外排放廢水。

- Ruashi礦場的生產用水主要來自露天礦排水，我們對其採用閉環系統管理。濾出的水將滙集在兩個水壩(即回水壩)中，隨後運回工廠。雨水及所有自排水管收集的水將收集在所謂的雨水排水管中且亦會運回工廠。於流程結束時，水被中和至pH值高於7並輸送至尾礦壩。此外，污水及生活用水亦得到處理和再循環。



Returned water dam, Ruashi Mine  
回水壩，Ruashi礦場

- Kinsenda Mine stores drinking water in cisterns and treats it before use. Water from underground mines is treated with lime before being poured into the ground.
- Musonoi Project has pre-surveyed wastewater treatment patterns and locations during the environmental impact assessment and planning stages, and a Water Treatment Options Appraisal has been prepared and approved by the relevant authorities. In future, the wastewater/contaminated water generated by the operating workshop and garage will be collected in a closed-loop system. The resulting water will be decanted and recycled to the plant after a quality control treatment.
- JCI conducts monitoring initiatives for wastewater generated by Chibuluma South Mine's lessee and has prepared the Water Quality Monitoring Program Assessment. In addition, the mine site has commissioned a third-party company to prepare the Water Analysis Report regularly, including testing the pollutant content of raw water, treated water, water discharge to the environment, and canteen water, which aims to prevent the discharge of water pollutants exceeding the standard.
- Kinsenda礦場將飲用水儲存在蓄水池中，並於使用前對其進行處理。來自地下礦井的水在注入地下之前會用石灰處理。
- Musonoi項目於環境影響評估及規劃階段已經預先調查廢水處理模式及地點，《水處理方案評估》已經編製完成並經有關部門批准。未來，營運車間及車庫產生的廢水／污水將於閉環系統中收集。所產生的水經過質量控制處理後將濾出至工廠進行回收利用。
- 金川國際對Chibuluma南礦場承租人產生的廢水採取監測舉措，並編製《水質監測方案評估》。此外，礦場亦委聘第三方公司定期編製《水質分析報告》，對原水、處理水、排入環境的水、食堂水等進行污染物含量檢測，旨在防止水污染物超標排放。

## 2.4 Solid waste and air emissions management

The process of ore mining and beneficiation generates a large amount of extractive waste, mostly solid waste, and air emissions. JCI recognizes that responsible waste and air emissions management is of great importance to the mining sector. The bottom line of our environmental policy is to meet the compliance requirements of local laws, and our goal is to minimize the disturbance of solid waste and air pollutants to surrounding communities and environment. During the reporting period, we had no environmental emergencies or hazardous waste violations that is material.

### 2.4.1 Solid and hazardous waste management

The solid wastes generated by the mines are mainly non-hazardous wastes such as waste rocks from the mining and beneficiation processes, and hazardous wastes such as waste oil and waste batteries. Our operating mines have established specific environmental policies for the proper disposal of these wastes in compliance with local legislation, such as the new Mining Code and Mining Regulations in the DRC. We require employees to strictly enforce relevant regulations and standards.

#### **Solid (non-hazardous) waste**

- Waste management at Ruashi Mine is considered a core function. Non-hazardous waste generated on-site is managed following non-hazardous waste management procedures to ensure that it is disposed of in an environmentally sound manner. The mine classifies waste at the source of generation and stores it in waste storage facilities and stipulates that under no circumstances should hazardous waste be combined with non-hazardous waste. Disposal of non-hazardous waste is only permitted at designated sites and waste incineration is not permitted as a method of disposal. In addition, a portion of the non-hazardous waste is sold to external contractors for reuse.

## 2.4 固體廢棄物及廢氣排放物管理

礦石開採及選礦過程中會產生大量採掘廢棄物(大部分為固體廢棄物)及廢氣排放物。金川國際意識到負責任的廢棄物及廢氣排放物管理對採礦業而言尤為重要。我們環境政策的底線是符合當地法律的合規要求，旨在盡量減少固體廢棄物及廢氣排放物對周圍社區與環境的干擾。於報告期內，我們概無發生重大環境突發事件或有害廢棄物違規行為。

### 2.4.1 固體及有害廢棄物管理

礦場產生的固體廢棄物主要為採礦、選礦過程中產生的廢棄石料等無害廢棄物及廢油、廢棄電池等有害廢棄物。我們的營運礦場已制定具體的環境政策，以符合剛果(金)新《礦業法》及《礦業條例》等當地法律，妥善處理該等廢棄物。我們要求僱員嚴格執行相關法規及標準。

#### **固體(無害)廢棄物**

- Ruashi礦場的廢物管理被視為一項核心職能。現場產生的無害廢棄物按照無害廢棄物管理程序進行管理，以確保以環保方式進行處置。礦場將廢棄物按產生源頭分類儲存於廢棄物儲存設施，並規定在任何情況下不得將有害廢棄物與無害廢棄物合堆。無害廢棄物僅允許於指定地點處置，不得將廢棄物焚燒作為處置方法。此外，部分無害廢棄物出售予外部承包商進行重複利用。



- Kinsenda Mine's waste management system is fully compliant with the DRC laws and regulations related to waste management. The waste generated at the mine site is stored in a well-ventilated area where the gas purifiers are installed.
- As Musonoi Project is under construction, management is developing a waste management policy for the mine. A temporary waste dump has been constructed and a temporary waste dump is constructing and be available for future use as our mine development ramps up. Musonoi Project is actively recruiting professional and qualified recycling personnel.
- Chibuluma South Mine has guidelines for safe and environmentally friendly methods of waste management and disposal in place for lessee to comply with. The guidelines are based on the following established principles: cradle-to-grave, where the waste generator is responsible for ensuring that all waste is managed from generation to final disposal; and source segregation, where waste is separated at the point of generation to ensure that contamination of non-hazardous waste by hazardous waste does not occur. During the reporting period, non-hazardous waste recorded by the mine was collected by Kalulushi City Council and dumped at authorized dumpsites in Kalulushi.
- Kinsenda礦場的廢棄物管理系統完全符合剛果(金)有關廢棄物管理的法律法規。礦場產生的廢棄物儲存在通風良好區域，並安裝有氣體淨化器。
- 由於Musonoi項目正在建設中，管理層正在制定礦場的廢棄物管理政策。已經建成一處臨時廢棄物堆場，且另一處臨時廢棄物堆場正在建設，隨着礦場開發進度加快，其未來可供使用。Musonoi項目正積極招募專業合資質回收人士。
- Chibuluma南礦場擁有廢棄物安全環保管理及處置方法指引，以供承租人遵守。該指引的依據為下列既定原則：從開採到廢棄，廢棄物生產者負責確保所有廢棄物自產生起到最終處置均受到管理；以及源頭隔離，廢棄物在產生地點即進行隔離，確保不會發生有害廢棄物污染無害廢棄物的情況。於報告期內，該礦場記錄的無害廢棄物由Kalulushi市政局收集並傾倒於Kalulushi的授權廢棄物堆場。

**Our performance**

**我們的表現**

Total Non-hazardous Waste Disposal and Recycling:

無害廢棄物處置及回收總量：

		Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Non-hazardous Waste Disposal	無害廢棄物處置	t 噸	114.43	121.02	<b>137.40</b>
Non-hazardous Waste Recycled	已回收無害廢棄物	t 噸	419.04	600.82	<b>637.80</b>

Non-hazardous Waste Disposal and Recycling, by Operation 2020 to 2022:

二零二零年至二零二二年按營運劃分的無害廢棄物處置及回收：

<b>Ruashi Mine</b>	<b>Ruashi礦場</b>	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Non-hazardous Waste Disposal	無害廢棄物處置	t 噸	37.50	43.47	<b>49.90</b>
Non-hazardous Waste Recycled	已回收無害廢棄物	t 噸	70.62	68.17	<b>58.30</b>

<b>Kinsenda Mine</b>	<b>Kinsenda礦場</b>	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Non-hazardous Waste Disposal	無害廢棄物處置	t 噸	61.05	65.55	<b>69.50</b>
Non-hazardous Waste Recycled	已回收無害廢棄物	t 噸	307.10	532.65	<b>579.50</b>

<b>Musonoi Project</b>	<b>Musonoi項目</b>	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Non-hazardous Waste Disposal	無害廢棄物處置	t 噸	0	12	<b>18</b>
Non-hazardous Waste Recycled	已回收無害廢棄物	t 噸	0	0	<b>0</b>

Chibuluma South Mine <sup>4</sup>	Chibuluma 南礦場 <sup>4</sup>	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Non-hazardous Waste Disposal	無害廢棄物處置	t 噸	15.88	N/A 不適用	N/A 不適用
Non-hazardous Waste Recycling	無害廢棄物回收	t 噸	41.32	N/A 不適用	N/A 不適用

#### Hazardous waste

- Hazardous waste at Ruashi Mine is managed by the Hazardous Waste Management Procedure, which was developed based on the DRC laws and the Ruashi Mining Environmental Management Plan. Hazardous waste including waste oil, waste oil filters, waste batteries, waste fluorescent tubes, waste ink cartridges, etc., must be stored and disposed of properly in areas that are inaccessible to unauthorized personnel, have bonded and impermeable floors, and are adequately ventilated. The main disposal strategy for hazardous waste is to engage qualified third parties for recycling where possible.
- Hazardous waste at Kinsenda Mine is stored in a well-ventilated space with gas purifiers and is disposed of by qualified third parties.
- The hazardous waste management system at Musonoi Project is in the developing process and is expected to be available when mining activities are ramped up.
- Chibuluma South Mine manages hazardous waste following the Disposal of Hazardous Waste Materials, Spill Prevention, Control and Counter Measures, and Emergency Procedure during Major Oil Spillage or Leakage. Hazardous waste materials, such as used oil, used batteries, etc., are sold to licensed dealers certified by ZEMA.

#### 有害廢棄物

- Ruashi 礦場的有害廢棄物受《有害廢棄物管理程序》管理，該程序乃根據剛果(金)法律及《Ruashi 礦場環境管理計劃》制定。有害廢棄物(包括廢油、廢油過濾器、廢棄電池、廢棄熒光燈管、廢棄墨盒等)必須妥善儲存和處置於地面粘合不透水且通風良好的區域，未經授權人員不得進出。有害廢棄物的主要處置策略是盡可能委聘合資質第三方進行回收。
- Kinsenda 礦場的有害廢棄物儲存於通風良好場所，配有氣體淨化器，並由合資質第三方處理。
- Musonoi 項目的有害廢棄物管理系統正在開發過程中，預計可於採礦活動增加時應用。
- Chibuluma 南礦場根據《有害廢棄物處置辦法》、《洩漏預防、控制及應對措施》以及《重大石油溢出或洩漏中緊急處理程序》管理有害廢棄物。有害廢棄物材料(如廢油、廢棄電池等)將出售予贊比亞環境管理局認證的持牌經銷商。

<sup>4</sup> Chibuluma South Mine has been leased out to an independent third party under a finance lease agreement since 1 April 2021. Therefore, the emission data was not included as part of JCI's operation.

<sup>4</sup> 自二零二一年四月一日起，Chibuluma 南礦場已根據融資租賃協議出租予一名獨立第三方。因此，排放數據不計入金川國際的營運。

**Our performance**

**我們的表現**

Total Hazardous Waste:

有害廢棄物總量：

		Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Waste Oil	廢油	L 升	77,630	41,440	<b>43,360</b>
Medical Waste	醫療廢物	t 噸	0.35	0.37	<b>1.86</b>
Spent Catalyst	廢棄催化劑	t 噸	5.60	66.00	<b>37.20</b>
Sulphur Ash	硫渣	t 噸	67	53	<b>52</b>
IT Waste (Cartridges)	IT廢棄物(墨盒)	t 噸	3.78	0.22	<b>0.26</b>
Waste Batteries	廢棄電池	t 噸	1.08	N/A 不適用	<b>N/A 不適用</b>

Hazardous Waste Quantity, by Operation  
2020 to 2022<sup>5</sup>:

二零二零年至二零二二年按營運劃分的  
有害廢棄物數量<sup>5</sup>:

Ruashi Mine	Ruashi礦場	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Waste Oil	廢油	L 升	43,520	21,180	<b>21,360</b>
Medical Waste	醫療廢物	t 噸	0.28	0.37	<b>0.31</b>
Spent Catalyst	廢棄催化劑	t 噸	5.60	66.00	<b>37.20</b>
Sulphur Ash	硫渣	t 噸	67	53	<b>52</b>
IT Waste (Cartridges)	IT廢棄物(墨盒)	t 噸	3.78	0.22	<b>0.26</b>

<sup>5</sup> Musonoi Project is under construction, only minimal hazardous waste was produced during construction phase. Musonoi will start measuring hazardous waste data when production commenced in future.

<sup>5</sup> 由於Musonoi項目正在建設中，故僅於施工階段產生極少的有害廢棄物。Musonoi將於未來投產時開始測量有害廢棄物數據。

Kinsenda Mine	Kinsenda礦場	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Waste Oil	廢油	L 升	18,540	20,220	<b>22,000</b>
Medical Waste	醫療廢物	t 噸	0	0	<b>1.55</b>

Chibuluma South Mine <sup>6</sup>	Chibuluma南礦場 <sup>6</sup>	Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Waste Oil	廢油	L 升	15,570	N/A 不適用	<b>N/A</b> 不適用
Medical Waste	醫療廢物	t 噸	0.07	N/A 不適用	<b>N/A</b> 不適用
Waste Batteries	廢棄電池	t 噸	1.08	N/A 不適用	<b>N/A</b> 不適用

#### 2.4.2 Air emissions control

The main air emissions from the mine site are dust and fumes from the mining process and sulfur dioxide and nitrogen oxides from fuel combustion. We have set limit values corresponding to each type of air emission. In addition, our operations have appropriate controls and procedures in place to manage particulate emissions on and off-site, as well as regular monitoring to assess and adjust the effectiveness of controls.

- The principles for setting gas emission targets at Ruashi Mine are based primarily on the provisions of local laws. Air emissions are monitored according to the schedule established by local regulations, and the concentration of outgoing air emissions is dynamically monitored in real-time.

#### 2.4.2 廢氣排放物控制

礦區的主要廢氣排放物乃採礦過程產生的粉塵及煙霧以及燃料燃燒產生的二氧化硫及氮氧化物。我們就每一種廢氣排放物設定相應限值。此外，我們的營運具備適當控制和程序以管理場內外的顆粒物排放，並定期展開監測以評估及調整管控效力。

- Ruashi礦場氣體排放物指標的制定原則主要基於當地法律釐定。廢氣排放物按照經當地法規制定的時間表進行監測，並實時動態監測廢氣排放物濃度。

<sup>6</sup> Chibuluma South Mine has been leased out to an independent third party under a finance lease agreement since 1 April 2021. Therefore, the emission data was not included as part of JCI's operation.

<sup>6</sup> 自二零二一年四月一日起，Chibuluma南礦場已根據融資租賃協議出租予一名獨立第三方。因此，排放數據不計入金川國際的營運。

**Major Air Emission Types and Emission Limit Values at Ruashi Mine**

**Ruashi礦場的主要廢氣排放物類型及排放限值**

		Unit 單位	Limit Value 限值
Carbon monoxide (CO)	一氧化碳(CO)	mg/m <sup>3</sup> 毫克/立方米	29.00
Hydrogen sulfide (H <sub>2</sub> S)	硫化氫(H <sub>2</sub> S)	mg/m <sup>3</sup> 毫克/立方米	14.00
Nitrogen dioxide (NO <sub>2</sub> )	二氧化氮(NO <sub>2</sub> )	mg/m <sup>3</sup> 毫克/立方米	6.00
Sulfur dioxide (SO <sub>2</sub> )	二氧化硫(SO <sub>2</sub> )	mg/m <sup>3</sup> 毫克/立方米	5.00
Solid particles	固體顆粒物	mg/m <sup>3</sup> 毫克/立方米	10.00

- Kinsenda Mine, Musonoi Project, and Chibuluma South Mine are committed to reducing air emissions and pollutant concentrations in air emissions through process improvements, process controls, and end-of-pipe treatments to ensure that air emissions comply with local emission standards.

- Kinsenda礦場、Musonoi項目和Chibuluma南礦場力求通過流程改進、流程控制及末端處理減少廢氣排放以及廢氣排放中的污染物濃度，以確保廢氣排放符合當地排放標準。

**Our performance**

**我們的表現**

Total Air Emissions<sup>7</sup>:

廢氣排放總量<sup>7</sup>：

		Unit 單位	2020 二零二零年	2021 二零二一年	2022 二零二二年
Sulfur dioxide (SO <sub>2</sub> )	二氧化硫(SO <sub>2</sub> )	t 噸	126.00	144.00	133.80

<sup>7</sup> Data is based on sulfuric acid production and a 99.8% conversion rate.

<sup>7</sup> 數據基於硫酸產量及轉化率為99.8%。

## 2.5 Biodiversity and land-use

Biodiversity and land provide food, fuel, and freshwater that are vital to productive operations, while also mitigating the effects of climate change and fundamentally supporting economic development. JCI recognizes the importance of biodiversity conservation and is dedicated to minimizing the risks and impacts of production activities on biodiversity. We have taken actions such as afforestation, legal logging, and setting up emergency procedures for soil contamination incidents to contribute to global biodiversity conservation.

### 2.5.1 Biodiversity

Our four mines carry out biodiversity conservation initiatives respectively to enhance ecosystem diversity and stability based on local conditions and are committed to making positive impacts on the mine sites and their surroundings.

- To protect biodiversity, Ruashi Mine organizes annual reforestation activities and plants thousands of trees. We also invite local students to plant trees alongside our employees to raise public awareness of biodiversity conservation.
- Kinsenda Mine is committed to fighting against deforestation, water pollution, and erosion to protect local flora and fauna.
- The DRC laws, mining code article 42, and mining regulations article 527 stipulate the legal provision and the biodiversity protection which is controlled by government service. In light of this, Musonoi Project deforests without violating local laws and will develop a reforestation plan following the legal requirements of the DRC.
- Chibuluma South Mine complies with the Zambia Environmental Management Act, the Agriculture Lands Act, and the Wildlife Act. Tree felling in mining areas is in full compliance with local legal requirements and we are committed to minimizing its environmental impact.

## 2.5 生物多樣性及土地利用

生物多樣性與土地為生產經營提供攸關重要的食物、燃料及淡水，同時亦對氣候變化的影響有所緩解，從根本上支持經濟發展。金川國際意識到保護生物多樣性的重要性，並致力於將生產活動對生物多樣性的風險和影響降至最低。我們採取植樹造林、合法採伐、設立土壤污染事故應急程序等舉措，為全球生物多樣性保護作出貢獻。

### 2.5.1 生物多樣性

為根據當地情況提高生態系統的多樣性與穩定性，我們的四個礦場分別開展生物多樣性保護行動，致力於對礦區及其周圍環境產生積極影響。

- 為保護生物多樣性，Ruashi礦場每年組織植樹造林活動，種植有數千棵樹。我們亦邀請本地學生與我們員工一同植樹，以提高公眾保護生物多樣性的意識。
- Kinsenda礦場力圖抵禦森林砍伐、水污染以及水土流失，以保護當地動植物。
- 剛果(金)法律、《礦業法》第42條及《礦業條例》第527條對法律條款以及生物多樣性保護(由政府部門掌管)作出規定。有鑒於此，Musonoi項目在不違反當地法律的情況下砍伐森林，並會根據剛果(金)的法律要求制定重新造林計劃。
- Chibuluma南礦場遵守贊比亞環境管理法、農業用地法及野生動物法。在礦區砍伐樹木完全符合當地法律規定，我們致力於將其對環境的影響降至最低。



Tree planting with students, Ruashi Mine  
與學生一起植樹造林，Ruashi礦場



Arbor day, Ruashi Mine  
植樹節，Ruashi礦場



### 2.5.2 Soil conservation

Ruashi Mine has already established the Soil Pollution Prevention and Remediation Procedure to comply with the ISO14001:2015 standard. This document provides guidelines for the storage and disposal of fuels and lubricants, as well as the maintenance of fuel and lubricant tanks, pipelines, and fuel transfer areas.

In case of soil contamination, Ruashi Mine will bioremediate the contaminated soil using Mono-Ammonium Phosphate and water or microorganisms, as specified in the Procedure (the method used depends on the substance spilled and the extent of the spill). The Environmental Section will make recommendations on remediation methods. In setting up and managing the bioremediation area, the contaminated soil must be kept damp and aerated to allow microorganisms to break down the hydrocarbons; nutrients in the form of Mono-Ammonium Phosphate must be added to the soil; the soil needs to be aerated to accelerate the decomposition of the oil and fuel; and to ensure that the soil in the remediation area must be turned over every two weeks.

In addition, spills that may cause soil contamination should be reported as environmental incidents in IsoMetrix according to the environmental incident classification, and the classification and extent of the required investigation will depend on the extent of the spill. The spill incidents may be required to be reported to the environmental authority in the country of operation.

### 2.5.2 土壤保育

Ruashi 礦場已設立符合 ISO14001:2015 標準的土壤污染防治與修復程序。本文件提供燃料及潤滑劑的儲存與處置，以及燃料及潤滑劑儲罐、管道及燃料轉運場維護的指引。

如遇土壤污染，Ruashi 礦場將按照程序規定，使用磷酸一銨及水或微生物對受污染土壤進行生物修復（所採用方法取決於洩漏物質及洩漏程度）。環境部門將就補救方法提出建議。在建立及管理生物修復區時，受污染土壤必須保持潮溼通氣，以便微生物分解碳氫化合物；必須向土壤中添加磷酸一銨形式的營養物質；土壤需要通氣，以加速石油及燃料的分解；同時保證修復區域的土壤必須每兩週翻耕一次。

此外，可能造成土壤污染的洩漏事件應根據環境事件分類在 IsoMetrix 中呈報為環境事件，須予調查事件的分類及程度將取決於洩漏程度。洩漏事件可能須報告給營運所在國的環境主管部門。

## 2.6 Tailings management

Tailings storage facilities are one of the most visible legacies of mining operations, and it is imperative that these facilities remain stable and avoid harming the environment after closure and rehabilitation. JCI recognizes that the responsible management of tailings storage facilities is one of the major topics in our ESG management, the safety of tailings facilities is a key priority. We implement life-cycle management of tailings facilities from design, construction, operation, closure, and post-closure management.

We take social, environmental, territorial requirements, and technical factors into account, and urge each mine site to take various initiatives to ensure the safety of tailings storage facilities. We aim to minimize the environmental damage, social impact, and property loss due to improper tailings management.

- Ruashi Mine engaged a third party to prepare a Residue Disposal Design Report for Tailings Dam during the construction phase of the tailing's storage facilities, and also commissioned an external company to prepare a Design Continuation Report for the Tailings Storage Facility to refine the tailings dam reclamation strategy. In terms of tailings dam monitoring, Ruashi Mine insists on engaging third-party organizations to conduct safety audits, and write Annual Audit Reports and Vigilance Reports to identify the risks of tailings facilities and propose optimizations.

## 2.6 尾礦管理

尾礦儲存設施乃為採礦作業最不容忽視的遺留問題之一，該等設施必須保持穩定，並在關閉及修復後避免損害環境。金川國際明白尾礦儲存設施的負責任管理乃我們環境、社會及管治管理的主要議題之一，尾礦設施的安全為一個關鍵首要事項。我們對尾礦設施實施自設計、建設、營運、關閉至關閉後管理的全週期管理。

我們考慮到社會、環境、地域要求及技術等因素，敦促各礦區採取各項措施，確保尾礦儲存設施的安全。我們旨在盡量減少因尾礦管理不當而造成的環境損害、社會影響及財產損失。

- Ruashi礦場在尾礦儲存設施建設階段委聘第三方編製尾礦壩殘渣處理設計報告，並委聘外部公司編製尾礦儲存設施設計延續報告，以完善尾礦壩復墾策略。在尾礦壩監測方面，Ruashi礦場堅持委聘第三方機構進行安全審核，並撰寫年度審核報告及警戒報告，以識別尾礦設施的風險並提出優化建議。

- Kinsenda Mine tailings dam management is mainly focused on daily operation management, facility maintenance and inspection, which gradually forms the OMS (Operation, Maintenance, Surveillance) tailings dam management system. The OMS management system consists of various daily operating procedures including tailings dams, tailings fineness management, tailings dam reports, monthly tailings dam reports, free space control, etc. During the reporting period, the mine site reduced the safety risks of tailings dams by conducting benchmarking analysis with GISTM standards, conducting CPTu testing of tailings dams, and installing VW pressure sensing systems, which kept the safety risks under control. In addition, Kinsenda Mine monitors the average density, tail-to-backfill, tail-to-dam, and rainfall data of tailings dams daily to enhance the early warning response to tailings dam disasters.
- Musonoi Project is under construction and not yet operational. The construction of the mine's tailings storage facilities will be in full compliance with local laws.
- Management of tailings storage facilities at Chibuluma South Mine complies with Zambian legal requirements to protect human health and avoid adverse impacts on the environment. During the reporting period, the mine site engaged a consultant to prepare a Tailings Storage Facility Stability Report to ascertain the status of the tailings dam to fulfill legal requirements. No significant stability issues with the tailings dam were noted by the consultant after on-site inspection and information review. Furthermore, the mine requires employees to continuously dredge the tailings pond and inspect the ponds daily.
- Kinsenda礦場尾礦壩管理以日常營運管理、設施維護及檢查為主，逐步形成OMS(營運、維護、監察)尾礦壩管理體系。OMS管理系統包括尾礦壩、尾礦細度管理、尾礦壩報告、尾礦壩月報、剩餘採礦空間控制等各項日常操作流程。報告期內，礦場通過開展GISTM標準對標分析、進行尾礦壩CPTu測試、安裝VW壓力傳感系統等措施，降低了尾礦壩安全風險，從而使安全風險得到控制。此外，Kinsenda礦場每天監測尾礦壩的平均密度、尾礦回填、尾礦堆壩、降雨量等數據，加強對尾礦壩災害的預警應對。
- Musonoi項目正在建設中，尚未投入使用。該礦場的尾礦儲存設施建設將完全遵守當地法律。
- Chibuluma南礦場就尾礦儲存設施的管理符合贊比亞保護人類健康及避免產生不利環境影響的法律要求。於報告期間，該礦場已委聘顧問編製尾礦儲存設施穩定性報告，以確定尾礦壩的狀況滿足法律要求。經過現場檢查及資料審閱後，顧問並未發現尾礦壩存在重大的穩定性問題。此外，該礦場要求僱員持續疏浚尾礦庫，並每天對尾礦庫進行檢查。

## SOCIAL

### 3.1 Human rights

JCI adheres to the United Nations Declaration of Human Rights and the International Labour Organization's fundamental conventions. Our Human Rights Policy Statement outlines our commitment and standards set out for our people, including the eradication of child and forced labour, non-discrimination, the right to freedom of association, and collective bargaining. To uphold and promote respect for human rights within the Company, we strive to ensure that every individual within the Company recognizes and respects basic human rights and freedom, and secure our Human Rights Policy is effectively recognized and observed. Our Human Rights Policy Statement applies to all employees, contractors, consultants, and other third parties employed or engaged in all operations and projects that are owned by us. Mine workers' unions are established in all operations to protect the mine workers' rights.

#### 3.1.1 Prevention of child and forced labour

The recruitment practices of JCI fully comply with local legislation, including Hong Kong, South Africa, the DRC, and Zambia. In the DRC, local recruitment practices adhere to the International Labour Organization Conventions No. 138 on the Minimum Age of Employment and No. 182 on the Worst Forms of Child Labour, and DRC law makes specific provisions for the employment of children under the age of 16, while in Zambia, the Employment Code Act No. 3 of 2019 and the International Labour Organization's labour standards specify that the minimum age for employment is 15 years of age. To comply with the local legislation, we have a strict age requirement that we do not employ anyone younger than 18 years of age, all employees are required to present identity documentation and complete background checks when hiring and joining the Company. The policy also applies to contractors, we do not collaborate with suppliers, contractors, or other third parties that use child labour. No cases of child labour and forced labour have occurred at our operation sites in 2022.

## 社會

### 3.1 人權

金川國際堅持聯合國人權宣言以及國際勞工組織的基本公約。我們的人權政策聲明概述了我們對員工作出的承諾及制定的標準，包括消除童工及強迫勞動、不歧視、有權自由結社及集體談判。為於本公司內部維護並促進對人權的尊重，我們努力確保本公司內部每個個體均承認及尊重基本人權與自由，並確保人權政策得到有效認可與遵守。我們的人權政策聲明適用於所有僱員、承包商、顧問和其他受僱於或參與我們擁有的所有業務及項目的第三方。所有經營活動中均有設立礦工工會，以保護礦工權利。

#### 3.1.1 防止童工及強迫勞動

金川國際的招聘常規完全符合香港、南非、剛果(金)及贊比亞等地的當地法律。在剛果(金)，當地的招聘常規遵守國際勞工組織《關於最低就業年齡的第138號公約》及《關於最惡劣形式童工的第182號公約》，剛果(金)法律對僱傭16歲以下兒童作出具體規定，而在贊比亞，2019年第3號《就業法》及國際勞工組織勞工標準則規定，最低就業年齡為15歲。為遵守當地法律，我們有嚴格的年齡要求，禁止僱傭任何年齡低於18歲人員，所有員工在獲錄用及加入本公司時均須出示身份證件並完成背景調查。該政策亦適用於承包商，我們不與使用童工的供應商、承包商或其他第三方合作。二零二二年，我們的作業現場概無發生童工及強迫勞動情形。

Ruashi Mine also formulated the Ruashi Child Labour & Modern Slavery Policy and Procedure, which ensures child labour and modern slavery are noted, corrected, and monitored when governing and conducting the company's businesses. The policy specifies cases handling processes where child labour and modern slavery have been noticed, as detailed below:

- The Human Resource Management Department should:
  - Immediately prepare a report and inform the Company;
  - Immediately remove the child from the abnormal situation;
  - Investigate to find out what went wrong, especially determine whether it is a case of the worst form of child labour or modern slavery, and take appropriate corrective measures.
- In specific cases of modern slavery, when the financial situation of the person will be impacted, appropriate corrective measures should be envisaged, to ensure that the person's dignity is preserved.

### 3.1.2 Non-discrimination

To create an inclusive work environment where every employee is treated with the respect they deserve, the behavior of JCI and its employees should be based on mutual respect. We do not accept any form of bullying, harassment, discrimination, and other behavior that may be regarded as threatening or humanly degrading across our organization.

Ruashi礦場亦制定Ruashi童工及現代奴役政策及程序，確保在管理及經營公司業務時就童工與現代奴役情況有所注意、糾正及監督。該政策規定當留意到童工及現代奴役情形時的處理程序，詳述如下：

- 人力資源管理部應：
  - 立即編製報告並告知本公司；
  - 立即將兒童調離異常情況；
  - 探查定位問題所在，特別是確定其是否為最惡劣形式的童工或現代奴役，並採取適切的糾正措施。
- 根據現代奴役所規定情形，倘當事人經濟狀況將受到影響，應考慮採取適當糾正措施，以確保當事人的尊嚴得到維護。

### 3.1.2 反歧視

為創造包容的工作環境，令每位僱員得到應有尊重，金川國際及其僱員一切行為應基於相互尊重。我們不接受組織內出現任何形式的霸凌、騷擾、歧視及其他可能被視為威脅或有辱人格的行為。

We have a Corporate Sexual Harassment Policy that aims to prevent and protect employees against any form of sexual harassment in the workplace, and this policy applies to all permanent, fixed-term, and temporary employees. The objective of the policy is to provide employees with credible, accessible, and fair mechanisms to deal with allegations of sexual harassment. We are committed to deal with all sexual harassment incidents in a serious manner and will take the appropriate action against those who are found guilty of such an offense. All employees have the right to report sexual harassment incidents in a confidential way without fear of victimization. We will investigate the reported cases according to our sexual harassment procedure, and ensure that the identities of the persons involved are kept confidential.

### 3.1.3 Employee relations

JCI strives to create a fair and respectful working environment for all employees, we also seek to exchange ideas, information, and feelings with all employees on matters of mutual concern. Our Group Employee Relations Policy helps us manage our industrial relations, maintain the existence of healthy relationships among the company, management, employees, and worker's unions, and promote justice, fairness, equity, reasonableness, and consistency in the treatment of employees. The policy and related procedures are aligned with the local legislation in the countries where our operation sites are. There were no strikes or lockouts at any of our mining operations in 2022.

我們的企業性騷擾政策旨在防止並保護僱員於工作場所免受任何形式的性騷擾，這項政策適用於所有長期、定期及臨時僱員。該政策的目的是為僱員提供可信、可靠及公正的機制來處理性騷擾的指控。我們致力於嚴肅處理所有性騷擾事件，並對該等被發現有此行徑的人採取適當的行為。所有僱員有權秘密舉報性騷擾事件，而不必擔心受到傷害。我們將根據性騷擾程序對已舉報事件進行調查，並確保保密相關人員身份。

### 3.1.3 僱員關係

金川國際竭力為所有僱員創造公平、尊重的工作環境，我們亦就共同關注事項尋求所有僱員的交流意見、信息及感受。本集團僱員關係政策有助於我們管理勞資關係，維護公司、管理層、僱員及勞工聯盟之間的良好關係，並於僱員待遇方面促進公正、公平、平等、合理及一致。政策及相關程序與經營地所在國家的當地法例保持一致。於二零二二年，我們的採礦營運地均未發生罷工或停工的情況。

We recognize and uphold the rights of our employees to freedom of association and collective bargaining. Our employees can choose to join or not to join Trade Union, without interference or fear of retaliation. We maintain a positive and collaborative relationship with Trade Union. Ruashi Mine (including Musonoi Project) and Kinsenda Mine have established Trade Union according to local laws and regulations. The Trade Union regularly elect employee representatives, and understand and respond to employees' expectations and demands. Chibuluma South Mine's finance lessee are currently in the process of setting up a union structure for the mine.

To respond quickly to changes and seek long-term development, we regularly monitor and audit both the internal and external Industrial Relations environment, relevant political, social, and economic development, monitoring labour turnover, grievance statistics, and salary surveys.

### 3.2 Our people

JCI strictly adhered to the labour law of the country where our mining operations located. Mines in Zambia and the DRC are required to follow the Labour Code, Ministerial Decrees, and Collective Agreements. Therefore, we formulate internal policies in strict compliance with relevant local legislation, regulating matters such as working hours, rest periods, equal opportunity, remuneration, leave, work conditions and vocational qualifications, etc. Moreover, we aim to attract and retain employees by providing quality employment opportunities, fair compensation and benefits, diversified health and well-being, and opportunities for development and growth.

As of 31 December 2022, JCI globally employed 1,598 employees across our operating mines and corporate offices in Hong Kong, the DRC, Zambia and South Africa.

我們承認並維護僱員結社自由及集體談判的權利。我們的僱員可以選擇加入或不加入工會，而不必擔心受到干擾或遭到報復。我們與工會保持積極的合作關係。Ruashi礦場(包括Musonoi項目)及Kinsenda礦場已根據當地法律法規建立工會。工會定期推選僱員代表，了解並回應僱員的期望與訴求。Chibuluma南礦場的融資承租人目前正為該礦場建立工會組織。

為了迅速應對變動及尋求長期發展，我們定期監察及審核內部及外部工業關係環境、相關政治、社會及經濟發展、監察勞工流失、申訴統計及薪酬調查。

### 3.2 我們的員工

金川國際嚴格遵守採礦業務所在國家勞動法。贊比亞及剛果(金)兩地的礦場必須遵守勞工守則、部長法令及集體協議。因此，我們制定的內部政策嚴格遵守相關地方法例，規範事項如下：工作時間、休息時段、平等機會、薪酬、離職、工作條件及職業資格等。此外，我們旨在通過提供優質就業機會、公平補償及福利、多樣化的健康福利以及發展及成長機會吸引及挽留員工。

截至二零二二年十二月三十一日，金川國際全球僱用1,598名僱員，包含我們於香港、剛果(金)、贊比亞及南非之營運礦場及公司辦事處。

Our performance

我們的表現

Total Workforce 2022 by Gender<sup>8</sup>

二零二二年按性別劃分的勞工總數<sup>8</sup>

		Male 男性	Female 女性	Total 總計
Corporate Offices	公司辦事處	21	15	36
Ruashi	Ruashi	939	54	993
Kinsenda	Kinsenda	380	39	419
Musonoi	Musonoi	121	17	138
Chibuluma	Chibuluma	10	2	12
<b>Total</b>	<b>總數</b>	1,471	127	1,598

Total Workforce 2022 by Employment Type<sup>9</sup>

二零二二年按僱傭類型劃分的勞工總數<sup>9</sup>

		Full Time 全職	Contractor 承建商	Total 總計
Corporate Offices	公司辦事處	36	0	36
Ruashi	Ruashi	993	1,408	2,401
Kinsenda	Kinsenda	419	1,271	1,690
Musonoi	Musonoi	138	1,371	1,509
Chibuluma	Chibuluma	12	0	12
<b>Total</b>	<b>總數</b>	1,598	4,050	5,648

<sup>8</sup> Workforce data statistics are calculated by reporting and summarizing each operating mine, total workforce includes full-time and part-time employees.

<sup>8</sup> 勞工數據統計乃通過各營運礦場上報及匯總計算，勞工總數包括全職及兼職僱員。

<sup>9</sup> Total workforce by employment type includes contractors.

<sup>9</sup> 按僱傭類型劃分的勞工總數包括承建商。



**Total Workforce 2022 by Age Group<sup>8</sup>**

二零二二年按年齡組別劃分的勞工總數<sup>8</sup>

		Under 25 25歲 以下	25-35 25歲至 35歲	36-40 36歲至 40歲	41-45 41歲至 45歲	46-50 46歲至 50歲	51-54 51歲至 54歲	55 and above 55歲及 以上	Total 總計
Corporate Offices	公司辦事處	1	8	7	8	4	6	2	36
Ruashi	Ruashi	1	64	201	260	214	102	151	993
Kinsenda	Kinsenda	2	82	49	33	38	53	162	419
Musonoi	Musonoi	12	52	19	16	19	16	4	138
Chibuluma	Chibuluma	0	2	2	7	1	0	0	12
<b>Total</b>	<b>總數</b>	16	208	278	324	276	177	319	1,598

**Total Workforce 2022 by Employee Category<sup>8</sup>**

二零二二年按僱員類別劃分的勞工總數<sup>8</sup>

		Senior Level 高級管理 人員	Middle Level 中級管理 人員	General Level 一般員工	Total 總數
Corporate Offices	公司辦事處	12	14	10	36
Ruashi	Ruashi	74	335	584	993
Kinsenda	Kinsenda	100	104	215	419
Musonoi	Musonoi	8	15	115	138
Chibuluma	Chibuluma	3	6	3	12
<b>Total</b>	<b>總數</b>	197	474	927	1,598

Employee Turnover 2022<sup>10</sup>

二零二二年僱員流失率<sup>10</sup>

Total Employee Turnover 2022  
(Unit: %)

二零二二年總僱員流失率  
(單位：%)

Corporate Offices	公司辦事處	8
Ruashi	Ruashi	1
Kinsenda	Kinsenda	8
Musonoi	Musonoi	15
Chibuluma	Chibuluma	8

Total Employee Turnover  
by Gender (Unit: %)

按性別劃分的總僱員  
流失率(單位：%)

Male  
男性

Female  
女性

Corporate Offices	公司辦事處	12	0
Ruashi	Ruashi	1	0
Kinsenda	Kinsenda	9	5
Musonoi	Musonoi	1	59
Chibuluma	Chibuluma	9	0

Total Employee Turnover by Age Group (Unit: %)	按年齡組別劃分 的總僱員流失率 (單位：%)	Under	25-35	36-40	41-45	46-50	51-54	55 and above
		25歲 以下	25歲至 35歲	36歲至 40歲	41歲至 45歲	46歲至 50歲	51歲至 54歲	55歲及 以上
Corporate Offices	公司辦事處	0	11	0	0	20	14	0
Ruashi	Ruashi	0	0	1	1	1	2	3
Kinsenda	Kinsenda	0	8	6	8	3	4	12
Musonoi	Musonoi	8	17	0	16	10	27	33
Chibuluma	Chibuluma	0	0	0	0	0	100	0

<sup>10</sup> Calculation formula: Annual employee turnover rate = Number of employee who left in the year / (number of employee at the beginning of the year + number of new recruits in the year) \* 100%

<sup>10</sup> 計算公式：年度僱員流失率 = 全年離職僱員數目 / (年初僱員數目 + 全年新聘僱員數目) \* 100%

### 3.2.1 Fair remuneration and welfare

JCI is committed to providing equal employment opportunities for employees in accordance with the relevant Employment Act and Labour Act in Hong Kong, Zambia, South Africa, and the DRC, and respecting the rights of fair and equal wages. According to our Group Reward and Recognition Policy, a clear remuneration system is in place to ensure that all remuneration elements are managed equitably, consistently, and fairly throughout the Company.

We are committed to providing equal pay for equal work. The value and contribution of jobs are evaluated with the Paterson grading system, which is a scientific analytical method of job evaluation. All employees will be paid fairly for their roles, key performance indicators (“KPI”) results, and their achievement of agreed results, regardless of origin, gender, race, ethnicity, and age. Our remuneration, comprises of total guaranteed remuneration package, allowances, non-salary benefits, and other non-financial rewards, is market-based and maintains reasonable and competitive by comparing with the target labour market, the mining market in different operating locations, and our competitors. When necessary, we will participate in an ad-hoc remuneration survey conducted by third parties. We administer and implement employee performance bonuses through our Performance Steering Committee to ensure that each employee participates in a fair performance appraisal.

### 3.2.1 公平薪酬及福利制度

金川國際致力根據香港、贊比亞、南非及剛果(金)相關就業法及勞工法向僱員提供平等的就業機會，及尊重公平及平等工資權利。根據本集團之獎勵及表彰政策，制定清晰的薪酬體系以確保整個公司之所有薪酬元素管理公平、統一及公正。

我們致力於同工同酬。工作價值及貢獻由Paterson評分系統(一種工作評估之科學分析法)評估。全體僱員就彼等之職位、關鍵績效指標(「KPI」)結果、以及彼等約定之成果公平地獲取報酬，不因血統、性別、種族、民族及年齡而有異。我們的薪酬(包括保障性薪酬待遇、津貼、非薪酬福利，及其他非財務獎勵)乃基於市場，並通過與不同管運地目標勞工市場、礦業市場及競爭者對比保持合理性及競爭優勢。倘必要，我們將參與由第三方進行的臨時薪酬調查。我們通過表現指導委員會管理及實施僱員績效花紅，以確保每名僱員參與公平的表現評價。

We provide diversified welfare for our employees, for example, at Ruashi Mine and Kinsenda Mine, our benefits include:

- Daily meal;
- Medical care for all employees and their families;
- Medical Insurance for all expatriates and senior local employees;
- Life insurance benefits for all expatriates;
- Annual leave;
- Transport allowance; and
- Maize meal 100kg per month to all local employees etc.

### 3.2.2 Inclusion and diversity

JCI focuses on creating an inclusive and diverse work environment. We accept diverse cultures, religions, races and gender of the employee. We value diversity and strive to build a diverse talent system, also committed to developing a diverse and talented workforce based on skills and potential.

We have been promoting the localization of our overseas mining operations. As at 31 December 2022, the local employment rates of Ruashi Mine, Chibuluma South Mine and Kinsenda Mine was 95%, 67% and 89%.

我們為僱員提供多樣化的福利，如於 Ruashi 礦場及 Kinsenda 礦場，福利包括：

- 每日膳食；
- 全體僱員及彼等家庭之醫療關懷；
- 全體外籍人士及當地高級僱員購買醫療保險；
- 全體外籍人士之人壽保險福利；
- 年假；
- 交通津貼；及
- 全體當地僱員每月發放100千克玉米粉等。

### 3.2.2 多元共融

金川國際專注於創造共融多元的工作環境。我們接納僱員文化、宗教、種族及年齡的多元化，重視多元化且力求構建多元化人才系統，亦致力於以技能及潛能為基礎培養多元的優秀人才。

我們致力推動海外採礦業務的本土化。於二零二二年十二月三十一日，Ruashi 礦場、Chibuluma 南礦場及 Kinsenda 礦場的當地就業率分別為 95%、67% 及 89%。

**Our performance**

Total Workforce 2022 by Nationality

**我們的表現**

二零二二年按國籍劃分的勞工總數

		Local Employee 當地僱員	Chinese 中國	Other Nationality 其他國籍	Local Employment Rate <sup>11</sup> 當地就業率 <sup>11</sup>
Corporate Offices	公司辦事處	20	13	3	56%
Ruashi	Ruashi	942	39	12	95%
Kinsenda	Kinsenda	374	42	3	89%
Musonoi <sup>12</sup>	Musonoi <sup>12</sup>	57	81	0	41%
Chibuluma	Chibuluma	8	4	0	67%

**3.2.3 Training and development**

The growth of our employees is a key part of our success and ensuring our workforce's continued training and development is critical to our sustainability. Our employees are provided with promotion opportunities, they will complete the promotion by going through formal selection processes or succession planning processes. Past work performance, past attendance record, required skills and competencies, minimum qualifications, career path, and development plan will be considered in the evaluation.

Our Group Training and Development Policy supports all the mines to conduct training and development programs based on organizational needs and operational requirements. We provide resources and opportunities to make sure that employees have the professional skills they need to be effective in operations, and perform their assignments safely and efficiently. All training, including courses, workshops, seminars and conferences, will be coordinated through the Training/HR Department.

**3.2.3 培訓及發展**

僱員成長是我們成功的關鍵部分，而確保勞工繼續培訓及發展是可持續發展的關鍵。向僱員提供晉升機會，彼等將通過正式篩選過程或繼任計劃過程完成晉升。過往工作表現、過往出勤記錄、必備技能及勝任能力、基本資質、職業道路及發展計劃均將納入評估。

本集團培訓及發展政策支持所有礦場根據組織需要及營運要求開展培訓及發展計劃。我們提供資源及機會，確保僱員掌握高效運營所需專業技能，並安全有效地執行任務。所有培訓（包括課程、工作坊、研討會及會議）將通過培訓／人力資源部統籌安排。

<sup>11</sup> Calculation formula: Local employment rate = Local employee/Total employee

<sup>12</sup> Musonoi Project is in construction phase and the proportion of local employees are less than other operation.

<sup>11</sup> 計算公式：當地就業率 = 當地僱員／僱員總數

<sup>12</sup> Musonoi項目處於建設階段，當地僱員人數比例相對其他礦山較少。

We established a Group Study Assistance Policy, which aims to provide employees with opportunities to participate in education, training, and development initiatives. We provide study leave for our employees, which is defined as leave taken to study and write examinations towards qualification for studies approved by the Company. All employees have the opportunity to apply for study assistance with financial and other types of support being provided.

我們設有集體學習援助政策，旨在為僱員提供參與教育、培訓和發展計劃的機會。我們為僱員提供學習假期，其被界定為本公司批准的參與學習和學習資格筆試的假期。所有僱員均有機會申請學習援助，並獲提供財務和其他類型的支持。

At Ruashi Mine, the 2022 annual training plan formulated by the Training Department mainly consisted of 5 sections, including training related to partnership agreements, law and regulation training, targeted technical training based on audit findings and recommendations, internal training, and safety training. Key elements of the training plan are shown in the table below.

Ruashi礦場培訓部門頒佈的二零二二年度培訓計劃主要由五個板塊組成，包括合夥協議相關培訓、法律及法規培訓、基於審核結果及推薦建議之針對性技能培訓、內部培訓及安全培訓。培訓計劃的關鍵因素載列下表：

Partnership Agreements  
合夥協議

- The National Institute of Vocational Training provided training courses, skills assessment, and National Certification for maintenance teams in specialized skills such as Industrial Hydraulics and Maintenance of Generators.  
國家職業培訓機構為專科技能維護團隊提供培訓課程、技能評估及專業技能國家證書，如工業液壓及發電機維護。
- Visited partner plant, and learned about best process plant and engineering practices.  
參觀合夥人工廠，並學習最佳選廠及工藝方案。

Law and Regulation  
 法律法規

- Renewal of blasting certificates, 13 blasters were trained.  
 更新燃爆證書，13名爆破師已完成培訓。
- Training on the Code of Business Ethics and Corporate Governance in Mining Company, which included all the international standards requiring the implementation of a code of ethics, Sustainable Development Goals, and OECD requirements were covered, and 104 employees were trained.  
 礦業公司商業操守守則及企業管治培訓包括所有要求實施操守守則之國際標準、可持續發展目標、及經合組織規定。已有104名僱員完成培訓。
- Training on the Labour Code requirement and Human Rights related to Harassment, Grievance, Child Labour, and Modern Slavery, 60 managers and supervisors were trained.  
 勞工法及騷擾、申訴、童工及現代奴隸制相關人權之培訓，已有60名經理及監理完成培訓。
- Training on Suppliers: Know your customer, customer diligence, and responsible supply chain, 13 employees from the foreign ore team were trained.  
 對供應商之培訓：了解你的客戶、客戶盡職調查及負責任的供應鏈，已有13名外購礦石團隊僱員完成培訓。

Technical Training  
 技能培訓

- Training on Radiation & Ionization.  
 輻射及電離培訓。
- Training on ISO Lead Implementor Information Security Certification.  
 ISO首席實施者信息安全認證培訓。
- Training on monitoring the environment and community.  
 環境及社區監管培訓。

Internal Training  
內部培訓

- Training on approval procedures.  
審批流程培訓。

Safety Training  
安全培訓

- Zero Harm policy.  
零傷害政策。
- Environmental and safety induction training.  
環境及安全就職培訓。
- Safe production rules.  
安全生產規則。



Renewal of blasting certificates, Ruashi Mine  
Ruashi礦場續期燃爆證書



Labour code training, Ruashi Mine  
Ruashi礦場勞工法培訓

Musonoi undertakes safety training and induction training on site and is developing its training plan to be adopted in 2023. Training at Kinsenda falls under the Human Capital department, and training needs are identified with the assistance of the National Professional Institute.

Musonoi提供安全培訓及現場就職培訓，並擬於二零二三年制定並採納培訓計劃。Kinsenda的培訓為人力資源部門轄下，且培訓需求經國家專業學院協助確定。



**Our performance**

**我們的表現**

Training by Employee Category and Gender  
in 2022<sup>13</sup>

二零二二年按僱員類別及性別劃分之  
培訓<sup>13</sup>

Total Number of Employee Trained	已培訓僱員總數	1,047
% of Employee Trained	已培訓僱員所佔百分比	66%

Percentage of Trained Employees by Employee Category (Unit: %)	按僱員類別劃分之已培訓僱員百分比 (單位：%)	Senior Level 高級管理 人員	Middle Level 中級管理 人員	General Level 一般員工
Corporate Offices	公司辦事處	50	7	80
Ruashi	Ruashi	92	79	69
Kinsenda	Kinsenda	39	72	68
Musonoi	Musonoi	100	100	11
Chibuluma	Chibuluma	33	33	0

Percentage of Trained Employees by Gender (Unit: %)	按性別劃分之已培訓僱員百分比 (單位：%)	Male 男性	Female 女性
Corporate Offices	公司辦事處	48	33
Ruashi	Ruashi	74	65
Kinsenda	Kinsenda	60	79
Musonoi	Musonoi	20	71
Chibuluma	Chibuluma	20	50

<sup>13</sup> The statistics of training data are collected by each mine and Corporate Offices. Due to the diversity of training categories in each mine, some mines do not include daily safety training, so the training data of each mine is quite different.

<sup>13</sup> 培訓數據統計由各礦場和公司辦公室收集。因各礦場培訓類別多樣，所以一些礦場不包含日常安全培訓，因此各礦場培訓數據各不相同。

**Training Hours by Employee Category and Gender in 2022 (Unit: hours)**

二零二二年按僱員類別及性別劃分之培訓時長(單位：小時)

Total Training Hours	培訓總時數	17,006
Average Training Hours per Employee	每名僱員平均培訓時數	16

Average Training Hours by Employee Category in 2022 (Unit: hours)	二零二二年按僱員類別劃分之平均培訓時數(單位：小時)	Senior Level 高級管理人員	Middle Level 中級管理人員	General Level 一般員工
Corporate Offices	公司辦事處	39	40	28
Ruashi	Ruashi	29	15	15
Kinsenda	Kinsenda	10	11	11
Musonoi	Musonoi	44	40	40
Chibuluma	Chibuluma	12	12	0

Average Training Hours by Gender in 2022 (Unit: hours)	二零二二年按性別劃分之平均培訓時數(單位：小時)	Male 男性	Female 女性
Corporate Offices	公司辦事處	32	34
Ruashi	Ruashi	17	18
Kinsenda	Kinsenda	11	12
Musonoi	Musonoi	58	6
Chibuluma	Chibuluma	12	12

### 3.3 Health and safety

Safety ranks the highest priority for JCI as our mining employees are engaged in high risk activities every day, including drilling, blasting, working at height and underground, exposure to high-voltage electricity, using chemicals, and operating heavy machinery. The health and safety of our employees, contractors, visitors and the community or any other persons who might be impacted by the mines where we operate are of paramount importance.

We have a group-wide Zero Harm Policy which applies to all mining operations and each mining site has its own safety and health policies that apply to all employees and contractors. Our mines are also operated by applicable national, regional, and local safety regulations, statutory obligations, and other requirements as appropriate, such as the Mining Code and Regulations in the DRC and the Occupational Health and Safety Act of 2010 in Zambia. We are committed to ensuring safety at our operations in a reasonably practicable manner and actively work towards eliminating hazards inherent in our working environment. We allocate permanent safety management personnel at all mine sites and will investigate sites where safety incidents have occurred and take measures to prevent recurrence.

JCI aims to develop, implement, and maintain our safety management system following our commitments, beliefs, and world-class standards. We use the electronic SHEC management system IsoMetrix to manage safety and health. Moreover, we develop and review safety objectives, manage safety indicators, identify hazards and apply appropriate practices, as well as evaluate safety performance. Along with this, we provide the necessary training to our employees and disseminate our safety policies to third parties to continuously promote and improve our safety systems.

Musonoi Project is implementing their safety management system during mine development, and has appointed a Safety Manager, Safety Officers, and representatives.

### 3.3 健康與安全

金川國際始終將安全視為企業發展的重中之重，因礦場僱員每天從事於高風險活動，包括鑽探、爆破、高空及地下作業、接觸高壓電、使用化工品及操作重型機械。僱員、承建商、來訪者，以及社區或任何其他或會受到營運礦場影響人士之健康實屬至關重要。

我們設有全集團零傷害政策，其適用於所有採礦業務，且各礦場設有自身的安全及健康政策，其適用於所有僱員及承建商。礦場亦遵守適用的國家、地區及地方安全法規、法定義務及其他適宜的規定（如剛果（金）的《礦業法》與《礦業條例》及贊比亞於二零一零年頒佈的《職業健康及安全法》）進行營運。我們致力以合理切實的方式確保營運安全，積極消除工作環境的固有風險。本集團全體礦場均有常駐現場的安全管理人員及將對發生安全事故之礦場進行調查及採取措施以防止再發生。

遵循我們的承諾、信念及世界級標準，金川國際旨在制定、實施及維護安全管理體系。我們使用電子SHEC管理系統IsoMetrix進行安全及健康管理。此外，我們制定及檢討安全目標、管理安全指標、識別危害及應用適當的實踐，以及評估安全表現。同時，向僱員提供必要的培訓及向第三方傳播安全政策，以持續推廣及完善安全系統。

於礦場開發期間，Musonoi項目正落實安全管理制度，並已委任一名安全管理人員、若干安全主任及代表。

No fatalities were recorded at all operating mines in 2022, three Lost Time Injuries (LTIs) were recorded at Chibuluma South Mine, with 3 days lost, Ruashi Mine recorded 7 LTIs with a loss of 79 days, one of the injured employees took longer to recuperate.

**Our performance**

**Health and Safety:**

二零二二年全體營運礦場錄得零宗死亡事故，Chibuluma南礦場錄得損失工時工傷事故三宗，造成三日損失工作日，Ruashi礦場錄得損失工時工傷事故七宗，造成七十九日損失工作日，其中一名受傷僱員耗費較長時間恢復身體。

**我們的表現**

**健康與安全：**

		2020 二零二零年	2021 二零二一年	2022 二零二二年
<b>Number of Fatalities</b>	<b>死亡事故數目</b>			
Ruashi	Ruashi	0	0	0
Kinsenda	Kinsenda	0	2	0
Musonoi	Musonoi	0	0	0
Chibuluma	Chibuluma	0	0	0
<b>Fatality Frequency Rate per Million-man Hours Worked</b>	<b>每百萬工時的死亡頻率</b>			
Ruashi	Ruashi	0	0	0
Kinsenda	Kinsenda	0	0.83	0
Musonoi	Musonoi	0	0	0
Chibuluma	Chibuluma	0	0	0
<b>Number of Lost Days Due to Work Injury (Unit: days)</b>	<b>因工傷損失工作日數 (單位：天)</b>			
Ruashi	Ruashi	62	1	79
Kinsenda	Kinsenda	299	0	0
Musonoi	Musonoi	29	2	0
Chibuluma	Chibuluma	0	5	3

One employee has fractured and was hospitalized for 79 days in 2022.

於二零二二年，一名僱員骨折住院七十九天。

### 3.3.1 Safety hazard identified

Based on the safety management policies of each mine site, JCI strives to proactively identify potentially fatal risks on-site and apply the most critical control measures to avoid these risks. We believe that all accidents can be prevented and all incidents can be avoided through the scientific forethought of safety risks and the proper management of safety hazards. Importantly, we expect all employees and contractors to take responsibility for their own safety, the safety of their colleagues, and the safety of the communities in which we operate, and to create a culture of safe work together.

The mines typically have a Safety Manager, Safety Officer(s) and at times an Occupational Hygiene Officer. Health and safety meetings are held monthly and a record of these maintained. Quarterly SHE committee meetings continue.

The area of responsibility plan has been reviewed and senior managers have signed their letters defining their SHE responsibilities. Departmental and some Unit Managers have also been appointed in terms of the safety program.

At Musonoi Project, a team of health & safety has been formed during the mine development. The team conducts daily, weekly, and monthly special safety inspections and hazard management, and monthly summaries of occupational SHE performance, and develops plans for the following month. The team is also responsible for setting expectations for safety and implementing safety control activities, including weekly toolbox meetings, weekly SHE meetings, weekly walkthrough inspections, and monthly SHE meetings. From January to October 2022, 658 safety issues and concerns/problems were identified, 419 hazards were rectified on the spot under safety supervision and 239 hazards were recorded into the IsoMetrix system at Musonoi Project.

### 3.3.1 安全隱患

根據各礦場之安全管理政策，金川國際積極識別現場致命隱患及應用最重要的控制措施來避免該等風險。我們相信通過對安全風險之科學預想及對安全危害之適當管理，一切事故均可預防及避免。重中之重，我們期望全體僱員及承建商對彼等自身之安全、對同事之安全及對營運所在社區之安全負責，並共同創造安全生產文化。

礦場一般配備一名安全管理人員、一名／若干安全主任及不時配備一名職業衛生主任。每月舉行一次健康及安全會議並保留會議記錄。SHE委員會會議每季度召開一次。

責任計劃之範疇已獲審閱，且高級經理已簽署界定SHE責任之文書。部門及一些單位經理就安全計劃獲委任。

Musonoi項目於礦場開發時已建立健康及安全團隊。該團隊每日、每週、每月進行專項安全檢查及危害管理，並每月對職業SHE表現進行匯總，以制定下一個月計劃。該團隊亦負責設定安全期望及實施安全控制活動，包括每週的班前會、每週的SHE會議、每週的實地檢查及每月的SHE會議。自二零二二年一月至十月，Musonoi項目已識別658個安全問題及隱患／難題，419個危害已在現場安全監督下整改及239個危害已錄進IsoMetrix系統。

### 3.3.2 Safety protection

To prevent injuries and occupational diseases, JCI provides each employee and visitor with the necessary personal protective equipment (“PPE”) related to the job at hand and makes its use mandatory. We clarify in our policy the PPE requirements for specific job categories and the exchange frequency for different types of PPE. We will regularly update and maintain PPE, supervise and inspect PPE use, and take safety protection as a part of the performance measurement and management of employees/supervisors/coordinators. Employees found to be misusing or not wearing PPE may be subject to disciplinary action in accordance with our relevant policies. Our PPE includes hard hats, eye and face protection, hearing protection, hand protection, safety shoes, one and two-piece overalls, respiratory equipment, falling protection, electrical shock protection, welding, grinding and cutting protection, medical protection, etc.

### 3.3.2 安全防護

為預防損傷及職業病，金川國際向每名僱員及參觀者提供與其工作相關之必備個人防護設備（「個人防護設備」）並強制使用。我們於政策中明確了特殊工種個人防護設備之規定以及各類個人防護設備之更換頻率，將定期更新及維護個人防護設備，監督及檢查個人防護設備之使用，並將安全防護作為表現評估及僱員／監理／協調員管理之一部分。僱員一經發現濫用或未穿著個人防護設備則須根據相關政策進行處分。個人防護設備包括安全帽、眼部及面部防護、聽力防護、手部防護、安全鞋、一體式及兩件式工作裝、呼吸器、防墜防護、電擊保護器、焊接、打磨及切割防護及醫學防護等。



Underground PPEs, Kinsenda Mine  
Kinsenda礦場，地下個人防護設備

### 3.3.3 Emergency preparedness

We aim to ensure, as far as practicable, the safety, health, and well-being of all people who could potentially be impacted by emergency events at or near one of our sites. Therefore, all JCI mines have an emergency management plan in place to effectively respond to potential emergencies or crises. Emergency response programs include disaster management, emergency evacuation, emergency warning systems installed, first aid, management in case of spillage, firefighting and rescue, and familiarization with various emergency alarms and signals, evacuation routes, emergency exits, and assembly areas. To ensure that the emergency programs are effectively implemented, formal crisis management training and practices are conducted annually at all mine sites.

At Ruashi Mine, annual fire demonstrations and monthly fire evacuation drills are required for all employees. To ensure the efficiency of employee response to emergencies, supervisors should brief all employees on the Site Emergency Procedures, and each department must conduct an accident/incident simulation at intervals not exceeding 12 months.

### 3.3.3 應急準備

我們旨在切實可行地確保全體或會受某處現場或附近之緊急事件影響的人員之安全、健康及福祉。因此，金川國際全體礦場已制定應急管理預案以有效應對潛在緊急事件或危機。應急方案包括災難管理、應急撤離、已安裝緊急預警系統、急救、洩漏管理、消防及救援、以及熟悉各種緊急警報及信號、疏散路線、緊急出口和集合區。為確保應急程序有效實施，全體礦場每年進行正式的危機管理培訓及演練。

Ruashi礦場全體僱員每年須進行消防演練及每月進行消防疏散演練。為確保僱員有效應急，監理須向全體僱員介紹現場應急處置程式，且各部門須每隔不超過十二個月進行一次意外／事故模擬演練。



Evacuation drill, Ruashi Mine  
Ruashi礦場消防疏散演練

Chibuluma South Mine formed an emergency response team to assist in the development and implementation of Emergency Response and Recovery Procedures, and coordinate emergency drills and simulations. In terms of fire prevention, the mine has formulated a fire prevention and protection strategy for each workplace, installed fire detection equipment and firefighting equipment, and regularly inspected and maintained them.

The emergency management system at Kinsenda Mine, which includes first aid and firefighting systems, consists of fire hydrants, fire extinguishers, fire trucks, and underground shelters. Fire extinguishers are maintained by the government every 6 months, fire hydrants and fire trucks are inspected weekly, first aid equipment must be replaced every 3 years, and refuge bays are inspected by the Safety Officer once a week. Kinsenda Mine has also established a Flood Control Headquarter, which is responsible for the flood control of the mine site.

Chibuluma南礦場創建應急團隊以協助應急響應及恢復程序之制定與實施，及統籌安排應急演練。就防火而言，礦場為每個工作間制定火災預防及防護策略，安裝火災探測裝備及消防設備，且定期進行檢測及維護。

Kinsenda礦場之應急管理系統包括急救及由消防栓、滅火器、消防車及地下避難所組成的急救消防系統。滅火器由政府每六個月維護一次，消防栓及消防車每週檢測一次，急救設備須每三年更換一次，及避難所由安全主任每週檢測一次。Kinsenda礦場亦建立防汛指揮部，其對礦場防洪負責。



Training on the fire truck, Kinsenda Mine  
Kinsenda礦場消防車培訓



### 3.3.4 Occupational health

JCI is committed to preventing illness among employees by providing a safe and healthy working environment and by reducing risks associated with occupational hazards. Our health approach, covered by each mine's safety management policy, focuses on mental health, physical work environment, chemical, biological or physical agents, and other issues that can lead to acute illness or long-term chronic occupational disease, which includes the following items in detail:

- Provide periodic medical examinations;
- Provide employees and their families with free medical services such as surgical, obstetric, dental, and pharmaceutical products;
- Establish professional infirmaries at mine sites;
- Monitor and inspect noise, dust, thermal stress, gas, organic vapors, and radiation within the plant;
- Prevent mental health issues and help employees avoid sleep disorders and stress;
- Apply interventions such as alcohol testing to reduce the harms associated with unhealthy habits such as alcohol abuse;
- Promote HIV/AIDS prevention programs, and encourage employees to conduct voluntary counseling and testing (VCT) for HIV;
- Implement COVID-19 protocols at all mine sites, including social de-escalation, flash thermometer assessment at mine entrances, hand washing, and disinfection of public areas.

### 3.3.4 職業健康

金川國際致力於通過提供安全健康的工作環境及減少職業危害相關風險預防僱員患病。我們的健康方案涵蓋各礦場之安全管理政策，關注於心理健康、現場工作環境、化學、生物或物理因素，以及其他可導致急性病或長期慢性職業疾病的問題，其中具體包括以下項目：

- 提供定期醫療檢查；
- 為僱員及彼等家屬提供免費醫療服務，例如外科、產科、牙科及醫藥產品；
- 在礦場設立專業的醫務室；
- 監督及檢測工廠內噪音、粉塵、熱應力、氣體、有機蒸氣及輻射；
- 預防心理健康問題及幫助僱員避免睡眠障礙及壓力；
- 採取干擾措施(如酒精檢測)以減少如酗酒等不良習慣相關傷害；
- 推行愛滋病病毒／愛滋病預防計劃，及鼓勵僱員進行愛滋病病毒自願諮詢檢測(VCT)；
- 全體礦場實施新冠疫情預案，包括社交降級、礦區入口閃點溫度計測溫、洗手及公共區域消毒。

### **Malaria**

All the mining operations fall within areas where malaria is a significant health risk. Prevention measures include indoor residual spraying as well as malaria prevention programs at each operating mine. These programs involve the donation of mosquito nets, removal of stagnant water and improvement of drainage, and support to existing government and non-governmental organisation programs and education of the workforce and community.

Malaria prevention mechanisms were implemented including weekly spraying of the offices, use of mosquito nets at night in the camp and the use of insect repellent.

### **Medical Facilities**

Kinsenda continues to operate a hospital and primary health care facility on site which treats employees and their dependents and provides a limited service to the local population. Ruashi Mine and Chibuluma South Mine have clinics on site.

### **瘧疾**

所有採礦業務所處區域均受瘧疾影響，構成重大健康隱患。預防措施包括進行的室內殘留噴灑，以及於各營運礦場實行的瘧疾預防方案。該等計劃涉及捐獻蚊帳、掃除積水及改善排水系統，以及支持政府和非政府組織現行計劃及對員工和社區進行的教育。

實行的瘧疾預防機制包括每週辦公室噴灑、在營區晚間使用蚊帳及使用驅蟲劑。

### **醫療設施**

Kinsenda礦址內持續經營一座醫院及初級護理醫療設施，負責治療僱員、彼等家眷，及為當地人提供限量服務。Ruashi礦場及Chibuluma南礦場均在現場設有診所。



Medical examination, Ruashi Mine  
Ruashi礦場醫療檢查

### 3.3.5 Safety training

Depending on the training requirements of each mine site, corresponding departments responsible for safety training will develop Safety and Occupational Health Training Program, review the effectiveness of the program and follow up on continuous improvement. New employees and employees returning from long leave must attend Induction Training, SPR (Safe Production Rules), and Pre-work HIRA (Hazard Identification & Risk Assessment) training before starting work. The training covers safety procedures, standard operating procedures, and emergency procedures.

## 3.4 Product responsibility

JCI's products are sold primarily to a variety of global traders and/or smelters. Our stakeholders are interested in understanding how our products are sampled, inspected, handled, and transported, and the measures that we take to reduce any potential risks associated with these materials.

Our materials and product stewardship initiatives focus on being a preferred and responsible supplier by providing sustainable products, technology, marketing support, and reliable and timely delivery.

### 3.4.1 Product quality management

Different sampling management methods have been developed according to different product categories, states, packaging styles, etc. At Kinsenda Mine, we have established comprehensive quality and technical standards to control the quality of our products (copper concentrate), such as ensuring stable grade and controlling the moisture of concentrate at approximately 11.5%, which is affirmed by our customers.

### 3.3.5 安全培訓

根據各礦址之培訓要求，安全培訓責任部門將相應地制定職業安全衛生培訓計劃，檢討計劃的有效性及持續完善。新僱員及長假歸來僱員開始工作前須參加入職培訓、安全生產規章制度及班前危害識別和風險評估培訓。該培訓涵蓋安全流程、標準操作流程及應急流程。

## 3.4 產品責任

金川國際之產品主要出售予全球貿易商及／或冶煉廠。我們的持份者需知悉我們的產品如何取樣、檢測、處理、及運輸，以及我們為該等材料相關的潛在危險減少所採取的措施。

我們的材料和產品管理措施注重通過提供可持續產品、技術、營銷支持以及可靠且及時的交付，成為優先選擇及負責任的供應商。

### 3.4.1 產品品質管理

根據不同的產品類別、狀態、包裝樣式等製定不同的抽樣管理方法。我們於Kinsenda礦場已建立全面的品質及技術標準來控制我們的產品（銅精礦）質量，如確保穩定品位且將精礦水分控制在11.5%左右，得到客戶的肯定。

At Ruashi Mine, copper cathode produced is placed in bundles of 2 to 2.5 tonnes each (approximately 60 cathode sheets). Samples are taken on each bundle by a third-party inspection body using random number generation. The samples are taken diagonally on each sheet selected. All increments are mixed to get one sample for one specific lot allocated to client. Visual inspection is done to provide any evidence of surface contamination and or physical issues.

Samples are analysed with an emission spectrometer to determine impurities and the results will classify the grade of each copper lot.

Notably, in 2022, no products have been recalled for product safety or quality reasons.

### 3.4.2 Our data privacy and cybersecurity

JCI is committed to providing a safe work environment with robust information systems. Our mining activities are supported by responsible information and communication technology (“ICT”) systems and world-class standard infrastructure, which are subject to external and internal audits.

We have adopted a proactive approach to mitigating cybersecurity risks and have conducted business continuity planning and disaster recovery planning to ensure the resilience of our business. In 2013, we established a policy called Group Information and Communication and provided guidelines to employees regarding the effective use of ICT facilities and the possible forms of abuse and/or misuse thereof. In 2015, we established another policy called the Group Information System Policy Manual, which is a more detailed corporate cybersecurity function to safeguard against the increasing risks posed by cybersecurity threats and to ensure compliance with the data protection regulations of the countries in which we operate.

於Ruashi礦場生產的電解銅以每捆2至2.5噸(約60塊陰極板)的形式放置。第三方檢測機構使用隨機數生成法對每捆電解銅進行抽樣。於所選陰極板上沿對角線取樣。混合所有的子樣，以獲得配給客戶的一個特定批次的樣品。進行目視檢查以提供表面污染及或實物問題的任何證據。

使用發射光譜儀對樣品進行分析以確定雜質，其結果將對每個銅批次的品位進行分類。

值得一提的是，於二零二二年，概無產品出於產品安全或質量原因被召回。

### 3.4.2 數據隱私及網絡安全

金川國際致力於通過強大的信息系統提供安全的工作環境。我們的採礦活動得到負責任的信息及通信技術(「ICT」)系統及世界級標準基礎設施的支持，該等基礎設施均須接受外部及內部審計。

我們採取積極主動的方法來降低網絡安全風險，並開展業務連續性計劃及災難恢復計劃，以確保業務彈性。於二零一三年，我們制定一項名為「集團信息通信」的政策，並就有效使用ICT設施以及濫用及／或誤用該等設施的可能形式向員工提供指導方針。於二零一五年，我們制定另一項名為「集團信息系統政策手冊」的政策，其為一項更詳細的企業網絡安全職能，旨在防範網絡安全威脅帶來的日益增加的風險，並確保遵守我們運營所在國家／地區的數據保護法規。

The policies being implemented to maintain information security and protect privacy, as well as to provide theoretical and practical inspection tools, will be available for process improvement across all operations. Meanwhile, these policies are aligned with best practices in addressing the prevention, detection, response, and recovery functions of data security management.

The Group also takes steps to upgrade the security features of computer system regularly and change their password on a regular basis to prevent customers' personal information from being stolen or misused. No major incidents of data loss or other major data breaches occurred in 2022.

### 3.4.3 Technology innovation in product development

At the Group level, JCI adheres to the innovation-driven, technology-led sustainable development strategy to gain a competitive advantage and low-cost advantage through technological innovation and management innovation. At the mining site level, specific technological innovation is also carried out in product development according to the characteristics of each mine site. In addition, we are also actively engaged in intellectual property protection actions to safeguard our innovations.

#### **Technology innovation in product development at Kinsenda Mine**

In May to July 2022, the high chalcopyrite content in the copper ore at Kinsenda Mine resulted in a low concentrate grade (around 43%–45%). To address the issue, therefore, Kinsenda Mine has stabilized the raw ore grade above 48% through a series of technological innovations since August 2022, including:

- Addition of agents or adjustment of agent addition points;
- Flotation process adjustment which increases the flotation time of the rougher concentrate from the original two selections to three selections.

為維護信息安全及保護隱私以及提供理論及實踐檢查工具而實施的政策將可用於所有業務的流程改進。同時，該等政策與解決數據安全管理的預防、檢測、響應及恢復功能的最佳實踐保持一致。

本集團亦採取措施定期升級電腦系統安全功能，並定期更改密碼，以防止客戶的個人資料被盜用或濫用。於二零二二年，並未發生重大數據丟失或其他重大數據洩露事件。

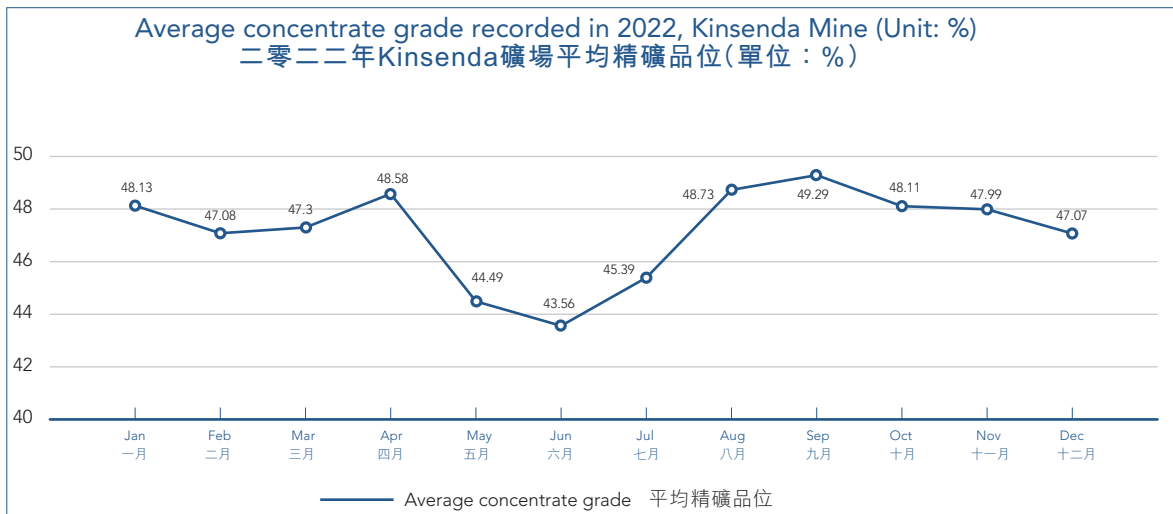
### 3.4.3 產品開發的技術創新

於集團層面，金川國際堅持創新驅動、科技引領的可持續發展戰略，通過技術創新及管理創新獲得競爭優勢及低成本優勢。於礦區層面，針對各礦區的特點，在產品開發上亦開展針對性技術創新。此外，我們亦積極開展知識產權保護行動，為我們的創新成果保駕護航。

#### **Kinsenda礦場產品開發的技術創新**

於二零二二年五至七月，Kinsenda礦場銅礦石中黃銅礦含量高，導致精礦品位較低（約43%–45%）。為此，Kinsenda礦場通過一系列技術創新，於二零二二年八月及以後將原礦品位穩定在48%以上，包括：

- 添加藥劑或調整藥劑加點；
- 浮選法工藝調整，將粗選精礦的浮選時間由原來的二選提高到三選。



### 3.5 Supply chain sustainability

JCI relies on national and international supplier networks of suppliers to provide the products and services required in support of the mining operations. For integrity in procurement, we have developed several policies such as the Group Supply Chain Policy, Group Code of Ethics and Human Rights Policy, Group Approval Framework, Group Supply Chain Master Data Standard Procedure, and Group Tender Committee Terms of Reference guideline, that apply to all of our suppliers to ensure that:

- All Group Supply Chain transactions are conducted in a fair, ethical, and business-like manner, enabling the implementation of a business model resulting in a constant, timely supply of goods and/or services ensuring the operations fulfilling their objectives;
- Defined regulations, which drive consistency and accuracy, are complied with, ensuring legally sound trading conclusions.

Contractors are also required to comply with all of our group policies, procedures, and rules, including the Group Community Policy, Group Environmental Policy, Group Health and Safety Plan, Group Zero Harm Policy, and Code of Business Conduct. In addition, contractors will be treated as employees for onboarding and compliance with mine rules and procedures. Contractors are expected to be fully aware of and trained in the mine rules and procedures relevant to the work they will perform.

### 3.5 供應鏈可持續性

金川國際倚靠國內及國際供應商網絡提供支持採礦業務所需的產品及服務。為實現誠信採購，我們制定多項政策，如集團供應鏈政策、集團道德準則及人權政策、集團審批框架、集團供應鍊主要數據標準程序及集團招標委員會職權範圍指南，該等政策適用於我們所有的供應商，以確保：

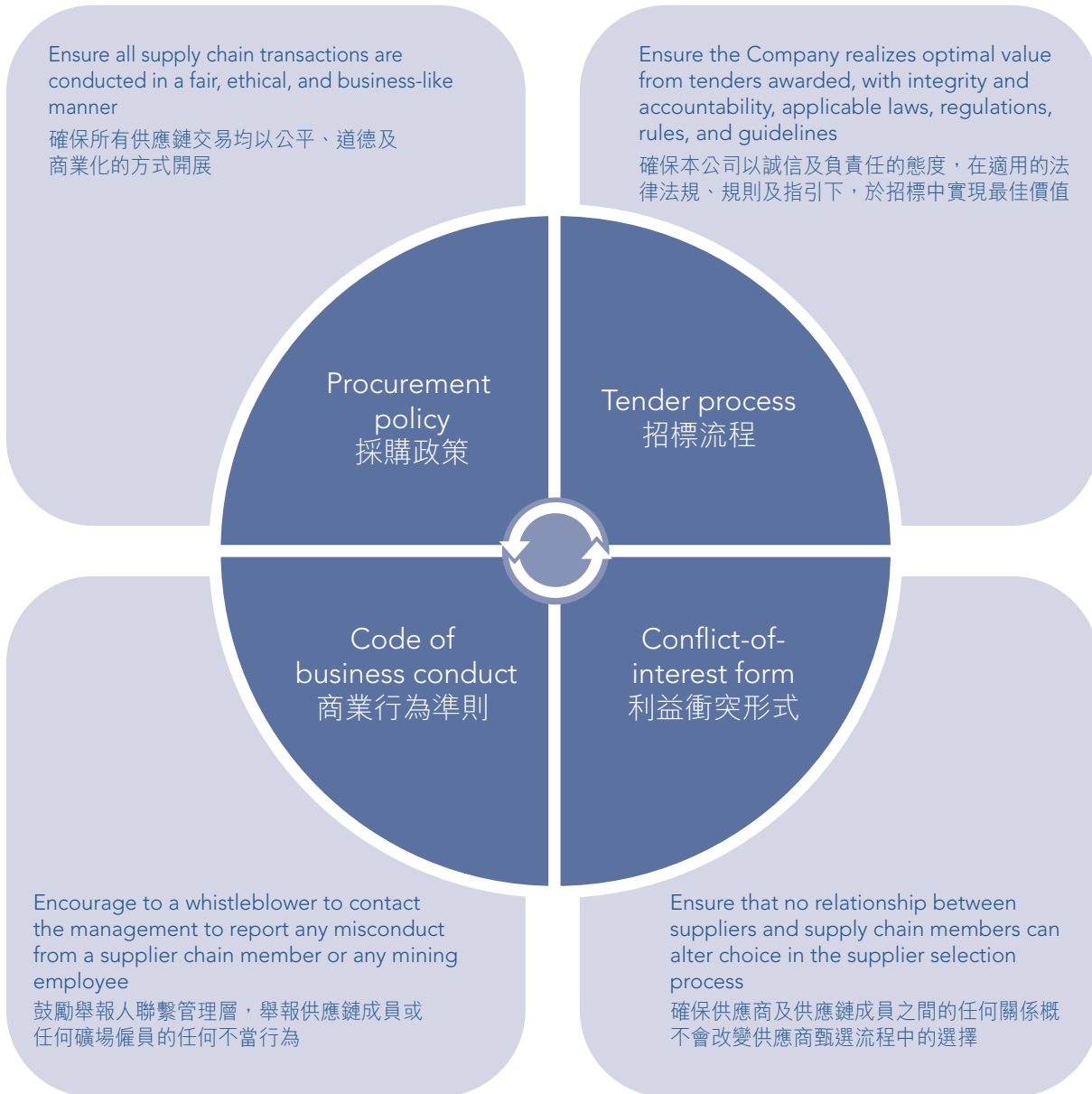
- 所有本集團供應鏈交易均以公平、道德及商業化的方式開展，使商業模式得以實施，從而持續、及時地供應商品及／或服務，確保運營可達到目標；
- 一致性和準確性的明確規定得以遵守，確保交易合法合理。

承包商亦須遵守我們所有的集團政策、程序及規則，包括集團社區政策、集團環境政策、集團健康安全計劃、集團零傷害政策及商業行為準則。此外，在入職及遵守礦山規則以及程序方面，承包商將和僱員一視同仁。承包商應充分了解與彼等將執行的工作相關的礦山規則及程序，並接受相關培訓。

In 2022, no actual and potentially significant negative environmental and social impacts from suppliers and contractors were identified.

於二零二二年，並未發現供應商及承包商對環境及社會造成實際及潛在重大負面影響。

Systems and procedures for achieving integrity in procurement  
 實現誠信採購的系統及程序



### 3.5.1 Supplier access evaluation

JCI requires suppliers to provide products and services based on the principles of “integrity and quality first”. Preference will be given to suppliers who have obtained third-party quality management system compliance certificates. We also require measures to be carried out to minimize any negative impacts on sustainability when signing contracts related to services, purchase or lease of equipment and material. To conduct business with JCI, suppliers/contractors should complete a vendor application, which must be approved by us. Approval will be granted when the supplier/contractor has completed all necessary questions, including sustainability matters. In addition, when selecting suppliers, we are committed to treating all suppliers equally and will inform them of the appeal channels if they have any concerns.

### 3.5.2 Supplier reassessment

We evaluate suppliers on a regular or irregular basis, applying the Group Code of Ethics at all times. We will establish long-term relationships and sign long-term cooperation agreements for suppliers with good performance. Instead, we will apply a systematic process to deal with defective suppliers, and unqualified ones will be released from long-term cooperation agreements.

### 3.5.1 供應商准入評估

金川國際要求供應商本著「誠信及質量第一」的原則提供產品和服務。優先考慮獲得第三方質量管理體系合規證書的供應商。我們亦要求於簽訂與服務、購買或租賃設備及材料相關的合約時，必須採取措施盡量減少對可持續性的任何負面影響。欲與金川國際開展業務的供應商／承包商應完成供應商申請，該申請須得到我們的批准。當供應商／承包商完成所有必要問題（包括可持續性事宜）後，將獲得批准。此外，於選擇供應商時，我們承諾對所有供應商一視同仁，如果彼等有任何顧慮，我們會告知申訴渠道。

### 3.5.2 供應商的再評估

我們始終應用集團道德準則定期或不定期地評估供應商。我們將與表現良好的供應商建立長期合作關係並且簽訂長期合作協議。反之，我們將採用系統流程來處理不合格供應商，不合格的供應商將被解除長期合作協議。



Process for dealing with defective suppliers, JCI  
金川國際處理不合格供應商的流程

A complaint is submitted to the Supply Chain Manager ("SCM")  
向供應鏈經理提交投訴

The SCM gathers all information and documentation  
and submits the finding to General Manager for approval  
供應鏈經理收集所有資料和文件，並將調查結果提交予總經理批准

The approved information is submitted to  
Supply Chain Corporate ("SCC")  
向供應鏈企業送交批覆信息

The Formal Tender Committee reviews the finding  
and approves the suspension of the Vendor  
正式招標委員會審查調查結果並批准暫停供應商

The SCM shall suspend the Vendor in the Delta ERP system and  
upload all information and approvals to the Delta ERP system  
供應鏈經理應暫停Delta ERP系統中的供應商，並將所有資料和  
批准上傳至Delta ERP系統

### 3.5.3 Local procurement

We recognize the significance of local procurement and the important role it plays in bringing benefits to local communities and their economies. We are committed to making local procurement decisions and processes to generate significant and positive impacts on the businesses in the regions of our operation sites.

#### **Our performance: Number of suppliers by geographical region**

*Ruashi Mine's suppliers by geographical region*

### 3.5.3 本地採購

我們深明本地採購的重要性及其在為當地社區及其經濟帶來利益方面發揮的重要作用。我們致力於制定本地採購決策及流程，以對我們營運地點所在地區的業務產生重大積極的影響。

#### **我們的表現：按地理區域劃分的供應商數量**

*按地理區域劃分的Ruashi礦場供應商*

		2020 二零二零年	2021 二零二一年	2022 二零二二年
The DRC	剛果(金)	272	173	187
South Africa	南非	74	49	48
Zambia	贊比亞	22	11	15
The PRC (including Hong Kong and Macau)	中國(包括香港及澳門)	11	8	6
Mauritius	毛里求斯	3	2	2
Germany	德國	2	2	2
United Arab Emirates	阿拉伯聯合酋長國	2	2	2
United Kingdom	英國	2	1	1
Australia	澳大利亞	2	1	–
Canada	加拿大	1	–	–
India	印度	1	–	–
Switzerland	瑞士	–	1	1
Tanzania	坦桑尼亞	–	–	2
Finland	芬蘭	–	–	1
Mozambique	莫桑比克	–	–	1
Portugal	葡萄牙	–	–	1
Singapore	新加坡	–	–	1
United States of America	美國	–	–	1
<b>Total</b>	<b>總數</b>	<b>392</b>	<b>250</b>	<b>271</b>

Kinsenda Mine's suppliers by geographical region

按地理區域劃分的Kinsenda礦場供應商

		2020 二零二零年	2021 二零二一年	2022 二零二二年
The DRC	剛果(金)	225	244	268
South Africa	南非	140	148	163
Zambia	贊比亞	78	83	89
The PRC (including Hong Kong and Macau)	中國(包括香港及澳門)	9	15	19
United Kingdom	英國	4	4	4
Netherlands	荷蘭	3	3	3
Mauritius	毛里求斯	2	2	3
Australia	澳大利亞	1	1	2
Belgium	比利時	1	1	1
Germany	德國	1	1	1
Sweden	瑞典	1	1	1
Switzerland	瑞士	1	1	1
India	印度	–	–	2
Spain	西班牙	–	–	1
<b>Total</b>	<b>總數</b>	466	504	558

Musonoi Project's suppliers by geographical region

按地理區域劃分的Musonoi項目供應商

		2020 二零二零年	2021 二零二一年	2022 二零二二年
The DRC	剛果(金)	–	6	122
The PRC (including Hong Kong and Macau)	中國(包括香港及澳門)	–	24	18
Zambia	贊比亞	–	1	3
South Africa	南非	–	–	16
United Kingdom	英國	–	–	2
France	法國	–	–	1
<b>Total</b>	<b>總數</b>	–	31	162

Chibuluma South Mine's suppliers by geographical region

按地理區域劃分的Chibuluma南礦場供應商

		2020 二零二零年	2021 二零二一年	2022 二零二二年
Zambia	贊比亞	276	N/A 不適用	N/A 不適用

**Our performance: Other data related to supplier management in 2022**

我們的表現：於二零二二年與供應商管理相關的其他數據

Percentage of suppliers who signed supplier code of conduct in 2022

於二零二二年簽署供應商行為準則的供應商比例

		Ruashi	Kinsenda	Musonoi
Percentage	百分比	86%	100%	76%

Percentage of total suppliers signing clauses that include environmental and labour requirements

簽署包含環境及勞工要求條款的供應商佔供應商總數百分比

		Ruashi	Kinsenda	Musonoi
Percentage	百分比	75%	100%	45%

Number of suppliers that have conducted social impact assessments

已開展社會影響評估的供應商數量

		Ruashi	Kinsenda	Musonoi
Number	數量	1	1	86

Number of suppliers that have conducted environmental impact assessments

已開展環境影響評估的供應商數量

		Ruashi	Kinsenda	Musonoi
Number	數量	4	1	54

Number of new suppliers and percentage using evaluation criteria

使用評估標準的新供應商數量及百分比

		Ruashi	Kinsenda	Musonoi
Number of New Suppliers	新供應商數量	40	49	31
Percentage	百分比			
Using Environmental Criteria	使用環境標準	40%	100%	45%
Using Social Criteria	使用社會標準	20%	100%	55%

### 3.6 Our community

JCI respects the community's culture, traditions, beliefs, and connection to the land, attends to their concerns, and resolves legitimate complaints appropriately. We also respect the right to participate and interact with the community in a manner consistent with local culture.

Our activities throughout the mining life cycle may have a range of social, economic, and environmental risks. We believe that legal and disciplined management processes help to effectively control such risks and help us to build good community relations. In addition, we comply with applicable national and local community regulations and other appropriate requirements, such as the Universal Declaration of Human Rights, the United Nations Guiding Principles on Business and Human Rights, the United Nations Declaration on the Rights of Indigenous Peoples, and UNGC. We develop, implement and maintain community management systems aligned with our commitments and kept consistent with world-class standards.

### 3.6 我們的社區

金川國際尊重社區文化、傳統、信仰及其與土地之關係，時刻關注彼等的憂慮，並妥善解決合理的投訴。我們亦尊重以符合當地文化的方式參與社區及與社區互動的權利。

我們於整個採礦服務年限中的活動可能會帶來一系列社會、經濟及環境風險。我們相信，合法、紀律嚴明的管理流程有助於有效控制此類風險，並幫助我們建立良好的社區關係。此外，我們遵守適用的國家及地方社區法規以及其他適當要求，如《世界人權宣言》、《聯合國工商業與人權指導原則》、《聯合國土著人民權利宣言》及《聯合國全球契約》。我們根據我們的承諾開發、實施及維護社區管理系統，並與世界級標準保持一致。

### 3.6.1 Community participation

JCI strives to minimize potential negative social impacts while promoting opportunities and benefits for host communities. Community stewardship is recognized as a high corporate priority and is a component of Zero Harm, one of our values.

We continually improve our community development and investment programs by monitoring, measuring, and managing our social and economic impact. In addition, we have developed a program that ensures the sustainable welfare of communities.

### 3.6.2 Community communication

JCI establishes and maintains stakeholder relationships with those who are directly affected or interested in our operations.

At Ruashi Mine, we have a social office for liaison with the local community and Non-Governmental Organizations, through which we engage openly and transparently with local stakeholders to facilitate our ability to operate and develop our business. Our community engagement strategy calls for collaboration with communities to reduce and mitigate negative impacts and increase opportunities to generate maximum benefits. Engagement and consultation ensure that communities have a voice in how we develop and operate projects, which promotes a better understanding of our business activities.

### 3.6.1 社區參與

金川國際努力將潛在負面社會影響降至最低，同時為東道主社區增加機會及利益。社區管理被公認為企業的高度優先事項，並且是我們價值觀之一零傷害的組成部分。

我們通過監測、衡量及管理我們的社會及經濟影響，不斷改進社區發展及投資計劃。此外，我們亦制定一項確保社區福利可持續的計劃。

### 3.6.2 社區交流

金川國際與直接受我們業務影響或於我們業務中擁有權益的人民建立及維持利益相關者關係。

我們於Ruashi礦場設有負責聯絡當地社區及非政府的社會事務辦公室，我們通過該辦公室與當地利益相關者進行公開透明的接觸，以促進我們經營及發展業務能力。我們的社區參與戰略要求與社區合作，以減少及減輕負面影響並增加產生最大利益的機會。參與及協商確保社區對我們如何開發及營運項目擁有發言權，這有助於更好地了解我們的業務活動。

Ruashi Mine's approach to communicating with the community includes:

- Dialogue with local stakeholders takes place formally through open houses and regulatory processes;
- Maintain communication through interactions with our community development representatives on the ground, community partnership panels, and community investment foundations;
- Use a community complaint management system to record, address and respond to community concerns.

At Kinsenda Mine, our proximity to Kinsenda village means that we are in constant and close contact with the community as well as with local leaders and authorities through various approaches.

At Musonoi Project, we have a social and community department responsible for holding quarterly meetings with community representatives to tackle issues that may arise. We communicate with the government through various local authorities whenever the company seeks government assistance or intervention on various issues, from the political and administrative levels up to the municipal and community levels.

Ruashi礦場與社區溝通的方法包括：

- 通過開放日及監管流程與當地利益相關者進行正式對話；
- 通過與我們在當地的社區發展代表、社區合作小組及社區投資基金會的互動保持溝通；
- 使用社區投訴管理系統記錄處理及回應社區關注的問題。

Kinsenda礦場靠近Kinsenda村莊，這意味著我們可通過各種方式與社區、當地領導及機關保持持續密切的聯繫。

我們於Musonoi項目設有社會及社區部門，負責與社區代表舉行季度會議，以解決可能出現的問題。每當公司就各種問題尋求政府援助或干預時，從政治及行政層面到市政及社區層面，我們都會通過各個地方機關與政府進行溝通。

**Grievance monitoring and resolution procedure at Musonoi Project**

We have a system in place that we have named: GRIEVANCE MONITORING AND RESOLUTION PROCEDURE (reporting and monitoring), which

- Allows us as a company to provide a mechanism to allow for the management of damage to community property, while assuming the monitoring and reporting of the team in charge;
- Allows not only us as a company but also the community or stakeholders to voice their concerns, real or perceived, to resolve difficulties before they escalate, the feedback;
- Allows us to show our genuine concern and support; promotes buy-in; and strengthens a respectful relationship based on communication and trust at all stages.

**Musonoi項目的申訴監控及解決程序**

我們有一個命名為申訴監測及解決程序(報告和監測)的系統，其：

- 允許我們作為一家公司提供一種機制來管理對社區財產的損壞，同時承擔負責團隊的監督和報告；
- 不僅允許我們作為一家公司，亦讓社區或利益相關者表達彼等真實或是感知到的擔憂以在事態升級前解決困難及反饋；
- 允許我們表達真誠的關心和支持；推崇支持；並在所有階段加強基於溝通和信任的尊重關係。



Government Workshop, Musonoi Project  
Musonoi項目政府工作坊



At Chibuluma South Mine, we communicate with our stakeholders on the progress and performance of community management.

我們於Chibuluma南礦場就社區管理的進展及表現與持份者進行溝通。



### 3.6.3 Indigenous rights protection and resettlement

Indigenous relation is a material topic for JCI. We recognize and respect indigenous people's culture, heritage, and traditional rights and support the identification, recording, management, and protection of indigenous cultural heritage.

At Ruashi Mine, we have invested more than US\$3 million in earlier years to relocate residents to a safe area outside the mine site, and we have maintained good community relations to date. At Musonoi Project, we have established a program to conduct quarterly meetings with local representatives to address issues affecting their communities, and we also recruit young people from the local community as temporary workers. At Chibuluma South Mine, we identify socially vulnerable groups and seek broad-based support for them.

### 3.6.4 Community development

We view community development as an integral part of our commitment to fulfilling our social obligations. During the reporting period, we engaged in community activities and worked with communities in a variety of ways to provide opportunities for them to benefit from our daily operations and to support sustainable community development.

We reach out to the communities in which our projects are located and mainly focus on the following areas:

- Provide them with skills training to improve their livelihoods;
- Develop local labour programs to improve local employment rates;
- Contribute to the improvement of local transportation, agriculture, education, health, environment, safety, medical and epidemic prevention, and other basic conditions.

### 3.6.3 原居民權利保護及安置

原居民關係為金川國際的重要議題。我們承認並尊重原住民的文化、傳承及傳統權利，支持鑑定、記載、管理及保護原居民的文化遺產。

我們早年於Ruashi礦場投資逾300萬美元，將居民搬遷到礦區外的安全區域，迄今為止我們一直保持著良好的社區關係。我們於Musonoi項目制定與當地代表舉行季度會議的計劃，以解決影響彼等社區的問題，我們亦於當地社區招募年輕人為臨時工。我們於Chibuluma南礦場識別社會弱勢群體並為彼等尋求廣泛的支持。

### 3.6.4 社區發展

我們認為社區發展是承諾履行社會責任的組成部分。報告期內，我們參與社區活動，並以多種方式與社區合作，向彼等提供受益於我們的日常營運的機會，並支持社區可持續發展。

我們向項目所在社區施以援手，主要集中在以下方面：

- 為彼等提供技能培訓，改善生計；
- 制定當地勞工計劃，提高當地就業率；
- 為改善當地交通、農業、教育、健康、環境、安全、醫療防疫、及其他基本狀況作出貢獻。

The tables below specify our financial investment in community projects in 2022. The Mining Code stipulates that 0.3% of the annual turnover must be allocated to the social and community department for the development of local communities after the mine steps into its production phase.

下表列明二零二二年社區項目的財政投資。《礦業法》規定，採礦步入生產階段後，須撥出年營業額的0.3%至社會及社區部門，用於當地社區的發展。

**Ruashi Mine Community Investment (Unit: US\$)**

**Ruashi礦場社區投資(單位：美元)**

		2020 二零二零年	2021 二零二一年	2022 二零二二年
Health	健康	287,467	65,000	247,000
Community Water Provision	社區供水	18,045	150,000	470,000
Education	教育	–	85,000	–
Community Feeding Schemes (Orphans and Widows)	社區糧食供給計劃 (孤兒及遺孀)	6,300	10,000	10,000
Agriculture Projects	農業項目	198,399	350,000	200,000
Ward Offices – Ruashi Township	病房 – Ruashi鎮區	292,340	85,000	390,000
Other Community Relations	其他社區關係	–	–	45,030
<b>TOTAL</b>	<b>總計</b>	<b>802,551</b>	<b>745,000</b>	<b>1,362,030</b>

**Kinsenda Mine Community Investment (Unit: US\$)**

**Kinsenda礦場社區投資(單位：美元)**

		2020 二零二零年	2021 二零二一年	2022 二零二二年
Agriculture Projects	農業項目	25,093	119,857	147,115
Community Electricity	社區電力	277,746	353,705	346,972
Community Feeding Schemes (Orphans and Widows)	社區糧食供給計劃 (孤兒及遺孀)	69,521	23,502	75,602
Education	教育	18,403	18,274	32,585
Sport and Recreation	體育與休閒	3,803	8,050	2,200
Community Sanitation	社區衛生	29,142	48,383	45,006
Community Relations	社區關係	78,427	67,598	92,577
<b>TOTAL</b>	<b>總計</b>	<b>502,135</b>	<b>639,369</b>	<b>742,057</b>

**Musonoi Project Community Investment  
(Unit: US\$)**

**Musonoi項目社區投資(單位：美元)**

Projects	項目	2020 二零二零年	2021 二零二一年	2022 二零二二年
Community Road Repair and Addition Drainage Pipes	社區道路維修及排水管道添置	0	0	3,300
Payments to Communities Impacted by the Installation of Power Lines	支付予受電力線安裝影響的社區費用	0	926,844	55,047
<b>Total</b>	<b>總計</b>	0	926,844	<b>58,347</b>

**Chibuluma South Mine Community Investment (Unit: US\$)**

**Chibuluma南礦場社區投資(單位：美元)**

Projects	項目	2020 二零二零年	2021 二零二一年	2022 二零二二年
Education	教育	5,351	1,194	605
Health	健康	470	1,519	0
Corporate Social Responsibility	企業社會責任	48,589	192	8,680
Sport and Recreation	體育與休閒	6,443	0	0
Community Road Repair and Maintenance	社區道路維修及保養	393	0	0
<b>Total</b>	<b>總計</b>	61,246	2,905	<b>9,285</b>

**Ruashi Mine actively participates in the community projects**

Ruashi Mine's involvement in the community is wide-ranging and covers the key areas of community life, including education, health, agriculture, drinking water supply, electricity, etc.

In 2022, we conducted industrial drilling to supply the Ruashi commune with drinking water, built an electrical cabinet, equipped Hakika hospital with scanners and radios, and constructed a clinic.

**Ruashi礦場積極參與社區項目**

Ruashi礦場參與的社區活動廣泛，涵蓋社區生活的主要領域，包括教育、健康、農業、飲用水供應，電力等。

於二零二二年，我們為向Ruashi公社提供飲用水進行工業鑽探，修建電器櫃，為Hakika醫院配備掃描儀及輻射設備，並且建造診所。



Building an electrical cabinet, Ruashi Mine  
Ruashi礦場，修建電器櫃



Farmers training, Ruashi Mine  
Ruashi礦場，農戶培訓





Tree planting with students in the community on Arbor Day, Ruashi Mine  
Ruashi礦場·植樹節與社區學生植樹



Employees volunteer to clean up trash and waste in the city center, Ruashi Mine  
Ruashi礦場·僱員義工於城市中心清理垃圾及廢物

**Kinsenda Mine implements infrastructure construction**

During the reporting period, Kinsenda Mine has effectively helped with community matters such as agricultural farming, community health and epidemic prevention, education, and skills training.

Kinsenda Mine has also been active in helping with many construction activities, including building electrical facilities, modern markets, administrative offices, health centers, and schools.

**Kinsenda礦場實施基礎設施建設**

報告期內，Kinsenda礦場有效協助農業耕作、社區健康及防疫、教育以及技能培訓等社區事項。

Kinsenda礦場亦積極協助開展許多建設活動，包括建設電力設備，現代市場，行政辦公室，保健中心及學校。





Building a Modern Market, Kinsenda Mine  
Kinsenda礦場，修建現代市場



Building a health center (left) and a primary school (right), Kinsenda Mine  
Kinsenda礦場，建造一家保健中心(左)及一所小學(右)

### Musonoi Project's Community Development Action Plan

In line with the Group's strategies in terms of commitment to the development of local communities, Musonoi Project has established its Community Development Action Plan and is ready to submit the plan to the provincial government for approval.

In 2022, Musonoi Project helped the local community mainly in the following aspects:

- Channeled the water to prevent erosion, especially with the rains on the north side;
- Repaired the road and built a bridge to facilitate the passage of the population;
- Recruited young people from the community for some temporary work;
- Compensated the manioc fields for the construction of the fence to the farmers;
- Set up a football team made up of agents from different departments of Musonoi and provided them with equipment (e.g. jackets, etc.).

### Musonoi項目的社區發展行動計劃

根據本集團就致力於當地社區發展方面的策略，Musonoi項目制定了社區發展行動計劃，並準備將該計劃遞交予省政府審批。

於二零二二年，Musonoi項目主要於以下方面幫助當地社區：

- 疏通水渠，防止水土流失，尤其是於北部雨季時；
- 修繕道路，搭建橋樑，方便居民通行；
- 為自社區招募的年輕人提供一些臨時工作；
- 補償木薯地的農民，修建圍欄；
- 成立一支由Musonoi不同部門代理人組建的足球隊，提供裝備（如夾克等）。



Construction Activities, Musonoi Project  
Musonoi項目·建設施工活動



## GOVERNANCE

### 4.1 Our governance

#### 4.1.1 Overview

JCI is committed to accountable corporate governance through the implementation of effective corporate governance policies and procedures and by ensuring that JCI's staff members are aware of and consistently adhere to relevant policies. JCI promotes an inclusive and diverse workplace with zero tolerance for harassment or discrimination based on gender, age, race, or any other personal characteristic protected by law. We aim to build robust corporate governance which will help make JCI a more successful business and a more desirable employer.

#### 4.1.2 The Board

The Board is responsible for JCI's business affairs, strategy, and management and is committed to a high standard of corporate governance practices, which are considered to be pivotal in enhancing sustainable shareholder value and meeting the Company's accountability and responsibility to shareholders and other stakeholders, and to ensure that the Company has adequate governance systems in place to monitor its development and continuously improve its environmental, economic and social performance.

Specifically, the Board shall be responsible for performing the following corporate governance duties, as outlined in the Terms of Reference – Corporate Governance Functions of the Board:

- Develop and review the Company's policies and practices on corporate governance;
- Review and monitor the training and continuous professional development of directors and senior management;
- Review and monitor the Company's policies and practices on compliance with legal and regulatory requirements;

## 管治

### 4.1 我們的管治

#### 4.1.1 概覽

金川國際致力於通過實施有效的企業管治政策及程序，並確保金川國際員工知悉並始終遵守相關政策，實現負責任的企業管治。金川國際推動建立一個包容、多元化的工作場所，對性別、年齡、種族或任何其他受法律保護的個人特徵的騷擾或歧視絕不容忍。我們旨在建立穩健的企業管治，這將有助於使金川國際成為一個更成功的企業及更理想的僱主。

#### 4.1.2 董事會

董事會負責金川國際業務事項、策略及管理，且致力於高水平企業管治慣例，這是提升可持續股東價值及履行本公司對股東及其他持份者的責任及義務的關鍵，並確保本公司有足夠且恰當的管治體系來監管其發展及不斷改善環境、經濟及社會表現。

具體而言，董事會將負責履行職權範圍－董事會企業管治職能中概述的下列企業管治職責：

- 建立及檢討本公司的企業管治政策及實務；
- 檢討及監督董事及高級管理層之培訓及持續專業發展；
- 檢討及監督本公司在遵守法律及監管規定方面之政策及實務；

- Develop, review, and monitor the code of conduct and compliance manual (if any) applicable to employees and directors; and
- Review the Company's compliance with the Corporate Governance Code and disclosure in the Corporate Governance Report in the Company's Annual Report.

Leadership plays a crucial role in the development of any organization and we place great value on the balance and diversity of our board member's backgrounds. At JCI, a team of visionary directors combined with a dynamic management team has been guiding the direction of the company, setting the strategy, and overseeing its operations.

The Board has 8 members, including 2 executive directors, 2 non-executive directors and 4 independent non-executive directors of which one of them is a female director. The members of the Board have expertise in various fields such as mining, finance, legal, accounting, engineering, etc., and have reasonable professional structure, knowledge, skills, and quality required to perform their duties.

#### JCI Board Composition

	數目	2	2	4	8
Number					
Percentage	百分比	25%	25%	50%	100%

In addition, under the Board of Directors, we have established four Board committees, namely, the Audit Committee, the Remuneration and Nomination Committee, the Risk Management Committee, and the Strategy and Investment Committee. Each committee oversees certain particular aspects of the Company's affairs in accordance with clearly defined written terms of reference.

- 建立、檢討及監督適用於僱員及董事之行為守則及合規手冊(如有); 及
- 檢討本公司遵守企管守則之情況, 以及本公司年報企業管治報告內之披露。

領導能力於任何組織發展中起著至關重要的作用, 我們高度重視董事會成員背景的平衡及多元化。於金川國際, 富有遠見的董事團隊結合充滿活力的管理層團隊, 指導本公司的發展方向, 制定戰略及監管其營運。

董事會有8名成員, 包括2名執行董事、2名非執行董事及4名獨立非執行董事, 其中一名為女性董事。董事會成員具有採礦、金融、法律、會計、工程等各領域的專業知識, 具備履行職責所需的合理專業構架、知識、技能及素質。

#### 金川國際董事會組成

Executive Director	Non-executive Director	Independent Non-executive Director	Total
執行董事	非執行董事	獨立非執行董事	總計

此外, 於董事會管轄下, 我們設立了四個董事委員會, 分別為審核委員會、薪酬及提名委員會、風險管理委員會以及戰略及投資委員會。各委員會根據書面訂明特定職權範圍, 監管本公司事務的若干特定範疇。

The Audit Committee comprises one executive director and three independent non-executive directors, with the duties of liaising with internal and external auditors, reviewing the Company's financial information and overseeing the financial reporting system and internal control procedures.

The Remuneration and Nomination Committee comprises three independent non-executive directors, one executive director and one non-executive director, who primarily perform the remuneration function and nomination function.

The Risk Management Committee comprises two executive directors and three independent non-executive directors, with duties of identifying risks and enhancing and strengthening the risk management system.

The Strategy and Investment Committee comprises two executive directors and one non-executive director, responsible for developing long-term development strategic plan, considering current investments and target investments in order to make recommendations on the appropriateness of acquisitions or disposals of investments, and providing the Board with advice on target investments, managing the overall investment strategy, etc.

審核委員會由一名執行董事及三名獨立非執行董事組成，職責為聯絡內部及外部核數師，審閱本公司財務資料以及監管財務報告系統及內部監控程序。

薪酬及提名委員會由三名獨立非執行董事、一名執行董事及一名非執行董事組成，主要履行薪酬職能及提名職能。

風險管理委員會由兩名執行董事及三名獨立非執行董事組成，職責為識別風險以及提升並加強風險管理系統。

戰略及投資委員會由兩名執行董事及一名非執行董事組成，負責制定長遠策略發展計劃，審議當前投資及目標投資，以便就有關收購或出售投資項目之適當性作出推薦建議，並向董事會提供有關目標投資之建議，管理整體投資戰略等。

## 4.2 Business ethics

### 4.2.1 Overview

JCI originated a Group Code of Ethics and Human Rights Policy (the "**Code of Ethics**") in 2016 and updated it most recently in October 2022. The Code of Ethics is applicable throughout the organization, regardless of location or role. The purpose of this policy is to ensure all employees of JCI and its subsidiaries adhere to and implement JCI's standards and values, and demonstrate a commitment to organizational integrity and ethics. In addition, we are committed to the timely disclosure of full, fair, accurate, and understandable information to our shareholders and the public.

## 4.2 商業操守

### 4.2.1 概覽

金川國際於二零一六年推出本集團《道德守則與人權政策》(「**道德守則**」)，近期於二零二二年十月更新。道德守則適用於整個組織，不管地點或角色。本政策的目的是為確保金川國際及其附屬公司之所有僱員遵守及實施金川國際的標準及價值觀，及彰顯組織誠信及道德的承諾。此外，我們致力於及時向我們的股東及公眾披露全面、公正、準確及易於理解的資料。

In pursuing these values, JCI requires its Directors, manager and employees to adhere to the Code of Ethics and be bound by it to uphold the following standards:

- Always behave in a way that is beyond reproach when representing JCI and taking responsibility for these actions;
- Act with integrity in all dealings with fellow Directors, managers and/or employees, advisors, suppliers, customers, shareholders, and other stakeholders;
- Comply with all applicable laws and the rules and regulations of all applicable governmental agencies;
- Comply with the Group Approval Framework and the Group Risk Management Framework;
- Recognize conflicts of interest when they arise and deal with them in the manner required in the Code of Ethics;
- Not use corporate information for any purpose other than that for which it was intended, and maintain the confidentiality thereof even after the tenure at JCI; and
- Refrain from engaging in practices or pursuing private interests which could conflict with those of JCI or that could result in JCI suffering loss or damage as a result.

於踐行該等價值觀中，金川國際要求其董事、經理及僱員遵守道德守則並受其約束，堅持以下標準：

- 代表金川國際時始終以無可非議的方式行事並為該等行動負責；
- 與其他董事、經理及／或僱員、顧問、供應商、客戶、股東及其他持份者的所有交易中誠信行事；
- 遵守所有適用政府機構的所有適用法律、規則及規例；
- 遵守本集團審批框架及本集團風險管理框架；
- 按照《道德守則》要求的方式識別並處理出現的利益衝突；
- 禁止將企業資料用作除擬定用途外的任何目的，即便於金川國際任期結束後仍需保密；及
- 不可從事或追求與金川國際相衝突或致使金川國際遭受虧損或損害之實務及個人利益。

#### 4.2.2 Anti-corruption and anti-bribery

JCI closely monitors company-wide policy regarding bribery and corruption, which are in accordance with UNGC Principles and United Nations Convention against Corruption etc.

Our bribery and corruption policy stipulates that it is not allowed to provide or offer to provide, either directly or indirectly (for example, through a third-party representative or agent) a benefit to a government official or any other person if the advantage is not legitimate or if the person does so to influence that person or government official.

At the mine site level, corruption and bribery-related practices are tailored to each mine site. For example, Ruashi Mine has put in place a comprehensive anti-corruption compliance program, which includes detailed policies and procedures regarding authorizations and recordkeeping for all the payments made to external parties at the Company. The program discourages facilitation payments to help ensure that public officials perform non-discretionary tasks as part of their normal job functions. All facilitation payments must be reviewed and approved in accordance with Company policies and local procedures and must be properly recorded in the Company's books.

In addition, in 2022, we engaged employees, senior management, suppliers, and contractors, among others, by organizing internal and external forums, talks, trainings, and presentations to widely propagate and strengthen our business ethics.

#### 4.2.2 反腐敗及反賄賂

金川國際密切監察全公司有關賄賂及腐敗的政策，其乃遵照《聯合國全球契約原則》及《聯合國反腐敗公約》等。

我們的賄賂及腐敗政策訂明不得直接或間接(例如透過一名第三方代表或代理)提供或要約提供利益予政府官員或任何其他人士，倘該利益屬非合法或倘該名人士如此行事以影響該名人士或政府官員。

在礦場層面，各個礦場均有量身定制的腐敗及賄賂相關慣例。舉例而言，Ruashi礦場已制定全面反腐敗合規計劃，其包括本公司向外部人士作出的所有付款的授權及記錄保存的詳細政策及程序。該計劃不鼓勵疏通費，以幫助確保公職人員執行作為其正常工作職能一部分的非自由決定性任務。所有疏通費須根據本公司政策及當地程序進行審閱及批准，並須妥善記錄於本公司的賬簿。

此外，於二零二二年，透過(其中包括)組織內外部座談會、講座、培訓及簡報，我們令僱員、高級管理層、供應商及承建商廣為宣貫及加強我們的商業操守。

For instance, Kinsenda Mine complied with and issued the “Implementation Measures for Senior Management to Pursue ‘One Position, Two Responsibilities’ Ideology”, which means all senior managers must not only focus on the business area they are responsible for, but also put consistent efforts on the corresponding business ethics work. Musonoi Project conducted interviews with the senior management on the anti-bribery performance and held special sessions with regard to the construction of anti-corruption governance. No cases of bribery and corruption occurred within JCI in 2022.

舉例而言，Kinsenda礦場遵守及發佈《高級管理層貫徹「一崗雙責」制實施辦法》，其意味著全體高級管理人員必須專注彼等負責的業務領域，同時貫徹相應的商業操守工作。Musonoi項目就反賄賂表現與高級管理層進行面談並舉辦反腐敗管治建設專題會議。二零二二年，金川國際內並無發生賄賂及腐敗案件。



Anti-corruption conferences, Musonoi Project  
Musonoi項目反腐倡廉會議

### 4.3 Risk assessment and management

#### 4.3.1 Risk management

JCI believes that a company-wide approach to risk management can successfully reduce risks and improve the overall risk management level. We adhere to a Group Risk Management Framework to ensure that risks are effectively and efficiently identified, managed, and mitigated in a way that maximizes values, and that risk considerations are integrated into the decision-making process.

By initiating the risk management framework, we are committed to ensuring that sound and effective systems of internal control and enterprise risk management are developed, embedded, cost-effectively implemented and consistently reviewed throughout the organization. Through the maintenance of the framework, we are dedicated to:

- Preserve and enhance the management of assets and earnings potential;
- Proactively anticipate and respond to changes in business environments;
- Create and maintain a safe and healthy working environment;
- Protect and promote the health, safety, and well-being of our people and the communities in which we operate; and
- Develop positive relationships with all stakeholders so that environmental needs and concerns are appropriately addressed.

### 4.3 風險評估及管理

#### 4.3.1 風險管理

金川國際相信制定適用於公司整體的風險管理方針可成功減少風險及提升整體風險管理水平。我們堅持集團風險管理框架以確保風險能有效及高效地識別、管理以及以最大化價值緩解，及確保風險考量獲納入決策程序。

透過制定風險管理框架，我們致力確保健全有效的內部監控及企業風險管理系統於整個組織內獲訂立、融入、以具成本效益的方式實施及持續檢討。透過維護框架，我們致力於：

- 維持及提高對資產及潛在盈利的管理；
- 積極預測及回應業務環境變動；
- 打造及維持安全與健康的工作環境；
- 保護及提高我們的員工及營運所在社區的健康、安全及福祉；及
- 與所有持份者培養積極關係，以便環境需求及關注獲妥當解決。

The Board has overall responsibility for the risk management process. The Board should comment and evaluate the effectiveness of the system and process of risk management through the Audit Committee. On an annual basis, the Board is required to review and approve the risk management policy, review the implementation of the policy, ensure that material risks are continuously monitored and reported, set the level of risk appetite, set the level of risk tolerance, monitor risks within the tolerance and appetite limits, etc.

The Chief Risk Officer (“**CRO**”) is the overall sponsor of JCI’s risk management process, ultimately responsible for all components of the risk management framework and process, and delegates responsibility for all aspects of risk management to key individuals on the Executive Management Team. Specifically, the CRO provides guidance and leadership to the executive management team, sets the values, principles, and key operational policies and procedures that enable JCI to achieve its strategic and operational objectives, facilitates regular meetings, and encourages lively discussions about the risk management process and the risks facing the organization to ensure effective risk management. In brief, the CRO ensures that the risk management process is practiced throughout the organization by ensuring that the ‘tone at the top’ is appropriate and that the corporate office embraces the process in the same manner as the operations.

Moreover, our employees and contractors who work in our daily operations play a fundamental role in controlling, minimizing, and eliminating risks through taking ownership of and actively participating in hazard identification and risk management programs and initiatives. They are expected to have an understanding of the overall risk management process and framework, which will facilitate embedding a risk culture throughout JCI that goes beyond the current safety, health, and environmental culture that is already ingrained.

董事會整體負責風險管理流程。董事會應透過審核委員會評論及評價風險管理制度及流程的成效。董事會須每年檢討及批准風險管理政策、檢討政策的實施情況，確保重大風險獲持續監察及報告、設定風險偏好水平、設定風險抵禦水平，在抵禦及偏好限制內監察風險等。

風險總監(「**風險總監**」)是金川國際風險管理流程的總保證人，負責最終風險管理框架及流程的所有組成部分，及向執行管理團隊的關鍵個人轉授風險管理全面責任。具體而言，風險總監指導及引領執行管理團隊，制定價值觀、原則及主要營運政策及程序，藉以使金川國際達致其戰略及營運目標，促使開展定期會議，及倡導積極討論風險管理流程和組織面臨的風險以確保有效的風險管理。簡而言之，風險總監藉確保「基調」合宜及公司辦事處以與營運所用的相同方式執行流程，確保風險管理流程貫徹於整個組織。

此外，我們日常營運工作中的僱員及承建商因主導及參與隱患識別及風險管理計劃及措施，而對控制、減低及消除風險發揮基礎性作用。了解整體的風險管理流程及框架，有助於將超越當下根深蒂固的安全、健康及環境文化之風險文化融入整個金川國際。



#### 4.3.2 Opportunities

In addition to the risks JCI faces, we keep seeking opportunities associated with our business strategy and operations. As one of our primary products, cobalt has a long industrial history with a variety of uses. Growing demand of cobalt is from portable consumer electronics, such as cell phones, laptops, and tablets, which are all powered by lithium-ion batteries. Demand for cobalt, an important component of lithium-ion batteries for electric vehicles, has also increased significantly as the electrification of automobiles has accelerated globally.

Our Ruashi Mine is an open-cast copper and cobalt mine site with 74,000 tonnes of cobalt resources and 32,000 tonnes of cobalt reserves. Ruashi Mine constructed a 600,000 tonnes per annum floatation and magnetic separation plant designed to process low grade oxide and sulfide material via magnetic separation. In 2022, Ruashi Mine produces approximately 3,961 tonnes of cobalt, an increase of approximately 17% over last year.

Through the identification of opportunities in future, we plan to continuously increase our cobalt production through the development of the Group's second cobalt producing mine, Musonoi Project, to fulfill the huge demand of cobalt all over the world and we believe we could embrace an even greener and greater future.

#### 4.3.2 機遇

除金川國際面臨之風險外，我們不斷尋找與我們的業務策略及營運相關的機遇。作為我們的主要產品之一，鈷具有悠久的工業歷史，且用途繁多。鈷的需求增加乃受惠於便攜式消費電子產品，如手機，平板及手提電腦，均由鋰離子電池供電。作為電動汽車鋰離子電池的重要組成部分，鈷的需求因全球加速汽車電氣化而大幅上升。

我們的Ruashi礦場是露天銅鈷礦，擁有74,000噸鈷資源量及32,000噸鈷儲量。Ruashi礦場建設了年產600,000噸的磁浮選廠，旨在透過磁選加工低品位的氧化物和硫化物材料。於二零二二年，Ruashi礦場生產約3,961噸鈷，較去年增加約17%。

藉物色日後機遇，我們擬透過開發本集團的第二個生產鈷的礦山Musonoi項目以不斷提高鈷的產量，從而滿足全球對鈷的巨大需求，我們相信我們可以擁抱更環保、更美好的未來。

APPENDIX 1: KEY PERFORMANCE DATA

附錄一：主要表現數據

Environment

環境

Greenhouse Gas Emissions<sup>14</sup>

溫室氣體排放<sup>14</sup>

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Total GHG Emissions (Scope 1 and Scope 2)	溫室氣體排放總量 (範圍1及範圍2)	tCO <sub>2</sub> -e 每噸二氧化碳當量	23,850	22,751	16,890
GHG Emissions Intensity	溫室氣體排放密度	tCO <sub>2</sub> -e/tCu produced 每噸二氧化碳當 量/噸銅產量	0.40	0.37	0.23
Direct GHG Emissions (Scope 1)	直接溫室氣體排放 (範圍1)	tCO <sub>2</sub> -e 每噸二氧化碳當量	22,770	21,725	15,859
Indirect GHG Emissions (Scope 2)	間接溫室氣體排放 (範圍2)	tCO <sub>2</sub> -e 每噸二氧化碳當量	1,080	1,026	1,031
<b>Total GHG Emissions by Operation</b>	<b>按經營地劃分的溫室氣體排放總量</b>				
Corporate Offices Scope 1	公司辦事處 範圍1	tCO <sub>2</sub> -e 每噸二氧化碳當量	4	2	2
Scope 2	範圍2	tCO <sub>2</sub> -e 每噸二氧化碳當量	124	121	109
Ruashi Scope 1	Ruashi 範圍1	tCO <sub>2</sub> -e 每噸二氧化碳當量	15,836	10,214	3,903
Scope 2	範圍2	tCO <sub>2</sub> -e 每噸二氧化碳當量	580	562	593
Kinsenda Scope 1	Kinsenda 範圍1	tCO <sub>2</sub> -e 每噸二氧化碳當量	6,745	9,418	7,216
Scope 2	範圍2	tCO <sub>2</sub> -e 每噸二氧化碳當量	340	327	289
Musonoi Scope 1	Musonoi 範圍1	tCO <sub>2</sub> -e 每噸二氧化碳當量	145	2,091	2,643
Scope 2	範圍2	tCO <sub>2</sub> -e 每噸二氧化碳當量	22	16	8
Chibuluma Scope 1	Chibuluma 範圍1	tCO <sub>2</sub> -e 每噸二氧化碳當量	40	N/A 不適用	2,095
Scope 2	範圍2	tCO <sub>2</sub> -e 每噸二氧化碳當量	14	N/A 不適用	32

<sup>14</sup> Activity data was provided by JCI. In order to be consistent with JCI's Corporate Carbon Footprint Report, which discloses JCI's carbon footprint for consecutive years, GHG emission factors are based primarily on published country-specific data and referenced to sources provided by professional third-party organizations that produce the Corporate Carbon Footprint Report, including the following hierarchy of sources:

1. Emission factors reported in the European Life Cycle Data System (ELCD);
2. Emission factors reported in ELCD-compliant databases;
3. Emission factors reported in international or national (government-produced) publications;
4. Emission factors reported in published national and international industry guidelines.

<sup>14</sup> 活動數據由金川國際提供。為與金川國際之企業碳足跡報告保持一致，該報告披露金川國際連續幾年的碳足跡，溫室氣體排放係數主要基於已發佈國家數據及參考制定企業碳足跡報告之專業第三方機構提供的來源，包括以下層次來源：

1. 歐洲生命週期數據系統(ELCD)報告的排放係數；
2. 符合ELCD標準數據庫中報告的排放係數；
3. 國際或國家(政府制定)出版刊物中報告的排放係數；
4. 已刊發的國家及國際行業準則中的排放係數。

Energy Consumption

能源消耗

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Total Electricity Consumption	電力消耗總量	kWh 千瓦時	259,742,223	233,112,051	237,733,951
Total Steam Consumption	蒸汽消耗總量	t 噸	145,626	163,753	162,733
Total LPG Consumption	液化氣消耗總量	t 噸	9.83	10.48	N/A 不適用
Total Diesel Consumption	柴油消耗總量	t 噸	9,048.44	5,118.07	2,577.48
Total Petrol Consumption	汽油消耗總量	t 噸	22.86	15.05	12.20
<b>Energy Consumption by Operation</b>	<b>按經營地劃分的能源消耗</b>				
Corporate Offices Electricity	公司辦事處電力	kWh 千瓦時	60,513	59,931	27,326
Ruashi Electricity	Ruashi 電力	kWh 千瓦時	159,381,000	151,756,000	152,959,000
Steam	蒸汽	t 噸	145,626	163,753	162,733
Diesel	柴油	t 噸	4,605.83	2,277.24	763.00
Kinsenda Electricity	Kinsenda 電力	kWh 千瓦時	86,748,550	77,144,000	74,396,900
Diesel	柴油	t 噸	2,977	2,358	1,799
Petrol	汽油	t 噸	15.60	12.50	12.20
Musonoi Electricity	Musonoi 電力	kWh 千瓦時	13,552,160	4,152,120	2,097,953
LPG	液化氣	t 噸	9.83	10.48	N/A 不適用
Diesel	柴油	t 噸	1,465.61	482.83	N/A 不適用
Petrol	汽油	t 噸	7.26	2.55	N/A 不適用
Chibuluma Electricity	Chibuluma 電力	kWh 千瓦時	N/A 不適用	N/A 不適用	8,252,772
Diesel	柴油	t 噸	N/A 不適用	N/A 不適用	15.48

Water Consumption			水源消耗		
Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Total Freshwater Consumption	淡水消耗總量	m <sup>3</sup> 立方米	<b>2,877,876</b>	2,214,754	2,461,055
Water Intensity of JCI	金川國際耗水密度	m <sup>3</sup> /tCu produced 立方米/ 噸銅產量	<b>48.42</b>	36.15	33.96
<b>Water Consumption by Operation</b>					
按經營地劃分的水源消耗					
Ruashi	Ruashi				
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	<b>2,571,276</b>	1,925,674	2,048,254
Recycled water Consumption	循環水耗量	m <sup>3</sup> 立方米	<b>1,830,634</b>	2,436,066	2,190,122
Water Intensity	耗水密度	m <sup>3</sup> /tCu produced 立方米/ 噸銅產量	<b>145.02</b>	131.92	125.04
Water Conservation Rate	節水率	%	<b>41.59</b>	55.85	51.67
Kinsenda	Kinsenda				
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	<b>306,600</b>	289,080	262,800
Water Intensity	耗水密度	m <sup>3</sup> /tCu produced 立方米/ 噸銅產量	<b>10.54</b>	10.25	8.60
Musonoi	Musonoi				
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	<b>N/A 不適用</b>	N/A 不適用	N/A 不適用
Water Intensity	耗水密度	m <sup>3</sup> /tCu produced 立方米/ 噸銅產量	<b>N/A 不適用</b>	N/A 不適用	N/A 不適用
Chibuluma	Chibuluma				
Freshwater Consumption	淡水耗量	m <sup>3</sup> 立方米	<b>N/A 不適用</b>	N/A 不適用	150,001
Water Intensity	耗水密度	m <sup>3</sup> /tCu produced 立方米/ 噸銅產量	<b>N/A 不適用</b>	N/A 不適用	18.70

Non-hazardous Waste Disposal and Recycling

無害廢物處置及回收

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Total Non-hazardous Waste Disposal	無害廢物處置 總量	t 噸	137.40	121.02	114.43
Total Non-hazardous Waste Recycling	無害廢物回收 總量	t 噸	637.80	600.82	419.04
<b>Non-hazardous Waste Disposal and Recycling by Operation</b>	<b>按經營地劃分的 無害廢物處置 及回收</b>				
Ruashi Disposal	Ruashi 處置	t 噸	49.90	43.47	37.50
Recycled	回收	t 噸	58.30	68.17	70.62
Kinsenda Disposal	Kinsenda 處置	t 噸	69.50	65.55	61.05
Recycled	回收	t 噸	579.50	532.65	307.10
Musonoi Disposal	Musonoi 處置	t 噸	18	12	0
Recycled	回收	t 噸	0	0	0
Chibuluma Disposal	Chibuluma 處置	t 噸	N/A 不適用	N/A 不適用	15.88
Recycled	回收	t 噸	N/A 不適用	N/A 不適用	41.32

Hazardous Waste			有害廢物		
Disclosure Item	披露項目	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Total Waste Oil	廢油總量	L 升	43,360	41,400	77,630
Total Medical Waste	醫療廢物總量	t 噸	1.86	0.37	0.35
Total Spent Catalyst	廢棄催化劑總量	t 噸	37.20	66.00	5.60
Total Sulphur Ash	硫渣總量	t 噸	52	53	67
Total IT Waste (Cartridges)	IT廢物(墨盒) 總量	t 噸	0.26	0.22	3.78
Total Waste Batteries	廢棄電池總量	t 噸	N/A 不適用	N/A 不適用	1.08
<b>Hazardous Waste Quantity by Operation</b>	<b>按經營地劃分的 有害廢物量</b>				
Ruashi Waste Oil	Ruashi 廢油	L 升	21,360	21,180	43,520
Medical Waste	醫療廢物	t 噸	0.31	0.37	0.28
Spent Catalyst	廢棄催化劑	t 噸	37.20	66.00	5.60
Sulphur Ash	硫渣	t 噸	52	53	67
IT Waste (Cartridges)	IT廢物(墨盒)	t 噸	0.26	0.22	3.78
Kinsenda Waste Oil	Kinsenda 廢油	L 升	22,000	20,220	18,540
Medical Waste	醫療廢物	t 噸	1.55	0	0
Chibuluma Waste Oil	Chibuluma 廢油	L 升	N/A 不適用	N/A 不適用	15,570
Medical Waste	醫療廢物	t 噸	N/A 不適用	N/A 不適用	0.07
Waste Batteries	廢棄電池	t 噸	N/A 不適用	N/A 不適用	1.08

**Air Emissions**

**氣體排放**

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Total Sulfur Dioxide (SO <sub>2</sub> ) Emissions	二氧化硫排放總量	t 噸	133.80	144.00	126.00

**Packaging Bag Consumption**

**包裝袋消耗**

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Total Consumption of 1m<sup>3</sup> Packaging Bags</b>	<b>一立方米的包裝袋總消耗</b>				
Ruashi	Ruashi	number 數量	45,620	31,600	27,872
Kinsenda	Kinsenda	number 數量	105,680	32,839	0
Total	總數	number 數量	151,300	64,439	27,872

**SOCIAL**

**社會**

**Workforce**

**勞工**

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Total Workforce</b>	<b>勞工總數</b>				
Corporate Offices	公司辦事處	number 數目	36	28	45
Ruashi	Ruashi	number 數目	993	1,005	1,016
Kinsenda	Kinsenda	number 數目	419	449	426
Musonoi	Musonoi	number 數目	138	80	53
Chibuluma	Chibuluma	number 數目	12	13	24
Total	總數	number 數目	1,598	1,575	1,564

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Total Workforce by Gender</b>	按性別劃分的勞工總數				
Corporate Offices	公司辦事處				
Male	男性	number 數目	21	16	23
Female	女性	number 數目	15	12	22
Ruashi	Ruashi				
Male	男性	number 數目	939	950	964
Female	女性	number 數目	54	55	52
Kinsenda	Kinsenda				
Male	男性	number 數目	380	409	392
Female	女性	number 數目	39	40	34
Musonoi	Musonoi				
Male	男性	number 數目	121	71	48
Female	女性	number 數目	17	9	5
Chibuluma	Chibuluma				
Male	男性	number 數目	10	11	20
Female	女性	number 數目	2	2	4



Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Total Workforce by Employment Type</b>	<b>按僱傭類型劃分 的勞工總數</b>				
Corporate Offices	公司辦事處				
Full Time	全職	number 數目	<b>36</b>	28	45
Contractor	承建商	number 數目	<b>0</b>	1	0
Ruashi	Ruashi				
Full Time	全職	number 數目	<b>993</b>	1,005	1,016
Contractor	承建商	number 數目	<b>1,408</b>	1,336	1,371
Kinsenda	Kinsenda				
Full Time	全職	number 數目	<b>419</b>	449	426
Contractor	承建商	number 數目	<b>1,271</b>	1,068	926
Musonoi	Musonoi				
Full Time	全職	number 數目	<b>138</b>	80	53
Contractor	承建商	number 數目	<b>1,371</b>	336	336
Chibuluma	Chibuluma				
Full Time	全職	number 數目	<b>12</b>	13	24
Contractor	承建商	number 數目	<b>0</b>	0	125

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Total Workforce by Age Group</b>	<b>按年齡組別劃分的勞工總數</b>				
Corporate Offices	公司辦事處				
Under 25	25歲以下	number 數目	1	0	0
25–35	25–35歲	number 數目	8	9	10
36–40	36–40歲	number 數目	7	3	5
41–45	41–45歲	number 數目	8	9	11
46–50	46–50歲	number 數目	4	5	11
51–54	51–54歲	number 數目	6	1	5
55 and above	55歲及以上	number 數目	2	1	3
Ruashi	Ruashi				
Under 25	25歲以下	number 數目	1	2	0
25–35	25–35歲	number 數目	64	97	118
36–40	36–40歲	number 數目	201	222	244
41–45	41–45歲	number 數目	260	258	251
46–50	46–50歲	number 數目	214	198	185
51–54	51–54歲	number 數目	102	100	101
55 and above	55歲及以上	number 數目	151	128	117
Kinsenda	Kinsenda				
Under 25	25歲以下	number 數目	2	5	3
25–35	25–35歲	number 數目	82	72	68
36–40	36–40歲	number 數目	49	52	46
41–45	41–45歲	number 數目	33	34	33
46–50	46–50歲	number 數目	38	39	45
51–54	51–54歲	number 數目	53	56	51
55 and above	55歲及以上	number 數目	162	191	180

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Musonoi	Musonoi				
Under 25	25歲以下	number 數目	12	8	4
25–35	25–35歲	number 數目	52	23	14
36–40	36–40歲	number 數目	19	14	6
41–45	41–45歲	number 數目	16	12	7
46–50	46–50歲	number 數目	19	8	11
51–54	51–54歲	number 數目	16	10	8
55 and above	55歲及以上	number 數目	4	5	3
Chibuluma	Chibuluma				
Under 25	25歲以下	number 數目	0	0	0
25–35	25–35歲	number 數目	2	2	3
36–40	36–40歲	number 數目	2	2	9
41–45	41–45歲	number 數目	7	7	5
46–50	46–50歲	number 數目	1	1	2
51–54	51–54歲	number 數目	0	1	3
55 and above	55歲及以上	number 數目	0	0	2

Disclosure Item	披露事項	Unit 單位	2022 二零二二年
<b>Total Workforce by Employee Category</b>	<b>按僱員類別劃分 的勞工總數</b>		
Corporate Offices	公司辦事處		
Senior Level	高級管理人員	number 數目	12
Middle Level	中層管理人員	number 數目	14
General Level	一般員工	number 數目	10
Ruashi	Ruashi		
Senior Level	高級管理人員	number 數目	74
Middle Level	中層管理人員	number 數目	335
General Level	一般員工	number 數目	584
Kinsenda	Kinsenda		
Senior Level	高級管理人員	number 數目	100
Middle Level	中層管理人員	number 數目	104
General Level	一般員工	number 數目	215
Musonoi	Musonoi		
Senior Level	高級管理人員	number 數目	8
Middle Level	中層管理人員	number 數目	15
General Level	一般員工	number 數目	115
Chibuluma	Chibuluma		
Senior Level	高級管理人員	number 數目	3
Middle Level	中層管理人員	number 數目	6
General Level	一般員工	number 數目	3

Disclosure Item	披露事項	Unit 單位	2022 二零二二年
<b>Total Workforce by Nationality</b>	<b>按國籍劃分的勞工總數</b>		
Corporate Offices	公司辦事處		
Local Employee	當地僱員	number 數目	20
Chinese	中國僱員	number 數目	13
Other Nationality	其他國籍僱員	number 數目	3
Local Employment Rate	當地就業率		56%
Ruashi	Ruashi		
Local Employee	當地僱員	number 數目	942
Chinese	中國僱員	number 數目	39
Other Nationality	其他國籍僱員	number 數目	12
Local Employment Rate	當地就業率		95%
Kinsenda	Kinsenda		
Local Employee	當地僱員	number 數目	374
Chinese	中國僱員	number 數目	42
Other Nationality	其他國籍僱員	number 數目	3
Local Employment Rate	當地就業率		89%
Musonoi	Musonoi		
Local Employee	當地僱員	number 數目	57
Chinese	中國僱員	number 數目	81
Other Nationality	其他國籍僱員	number 數目	0
Local Employment Rate	當地就業率		41%
Chibuluma	Chibuluma		
Local Employee	當地僱員	number 數目	8
Chinese	中國僱員	number 數目	4
Other Nationality	其他國籍僱員	number 數目	0
Local Employment Rate	當地就業率		67%

Employee Turnover

僱員流失

Disclosure Item	披露項目	Unit 單位	2022 二零二二年	2021 二零二一年
<b>Total Employee Turnover</b>	<b>總僱員流失率</b>			
Corporate Offices	公司辦事處	%	8	32
Ruashi	Ruashi	%	1	2
Kinsenda	Kinsenda	%	8	7
Musonoi	Musonoi	%	15	4
Chibuluma	Chibuluma	%	8	54
<b>Total Employee Turnover by Gender</b>	<b>按性別劃分的總僱員流失率</b>			
Corporate Offices	公司辦事處			
Male	男性	%	12	16
Female	女性	%	0	45
Ruashi	Ruashi			
Male	男性	%	1	2
Female	女性	%	0	0
Kinsenda	Kinsenda			
Male	男性	%	9	8
Female	女性	%	5	2
Musonoi	Musonoi			
Male	男性	%	1	4
Female	女性	%	59	0
Chibuluma	Chibuluma			
Male	男性	%	9	52
Female	女性	%	0	60

Disclosure Item	披露項目	Unit 單位	2022 二零二二年	2021 二零二一年
<b>Total Employee Turnover by Age Group</b>	<b>按年齡組別劃分的總僱員流失率</b>			
Corporate Offices	公司辦事處			
Under 25	25歲以下	%	0	0
25-35	25-35歲	%	11	18
36-40	36-40歲	%	0	0
41-45	41-45歲	%	0	25
46-50	46-50歲	%	20	29
51-54	51-54歲	%	14	83
55 and above	55歲及以上	%	0	50
Ruashi	Ruashi			
Under 25	25歲以下	%	0	0
25-35	25-35歲	%	0	2
36-40	36-40歲	%	1	1
41-45	41-45歲	%	1	2
46-50	46-50歲	%	1	0
51-54	51-54歲	%	2	2
55 and above	55歲及以上	%	3	5
Kinsenda	Kinsenda			
Under 25	25歲以下	%	0	0
25-35	25-35歲	%	8	8
36-40	36-40歲	%	6	9
41-45	41-45歲	%	8	8
46-50	46-50歲	%	3	5
51-54	51-54歲	%	4	5
55 and above	55及以上	%	12	8
Musonoi	Musonoi			
Under 25	25歲以下	%	8	0
25-35	25-35歲	%	17	8
36-40	36-40歲	%	0	0
41-45	41-45歲	%	16	8
46-50	46-50歲	%	10	0
51-54	51-54歲	%	27	0
55 and above	55歲及以上	%	33	0
Chibuluma	Chibuluma			
Under 25	25歲以下	%	0	0
25-35	25-35歲	%	0	33
36-40	36-40歲	%	0	75
41-45	41-45歲	%	0	13
46-50	46-50歲	%	0	75
51-54	51-54歲	%	100	67
55 and above	55歲及以上	%	0	100

Training by Employee Category and Gender

按僱員類別及性別劃分的培訓

Disclosure Item	披露事項	Unit 單位	2022 二零二二年
Total Number of Employee Trained	受訓僱員總數	number 數目	1,047
% of Employee Trained	受訓僱員百分比	%	66
<b>Percentage of Trained Employees by Employee Category</b>	<b>按僱員類別劃分的受訓僱員百分比</b>		
Corporate Offices	公司辦事處		
Senior Level	高級管理人員	%	50
Middle Level	中層管理人員	%	7
General Level	一般員工	%	80
Ruashi	Ruashi		
Senior Level	高級管理人員	%	92
Middle Level	中層管理人員	%	79
General Level	一般員工	%	69
Kinsenda	Kinsenda		
Senior Level	高級管理人員	%	39
Middle Level	中層管理人員	%	72
General Level	一般員工	%	68
Musonoi	Musonoi		
Senior Level	高級管理人員	%	100
Middle Level	中層管理人員	%	100
General Level	一般員工	%	11
Chibuluma	Chibuluma		
Senior Level	高級管理人員	%	33
Middle Level	中層管理人員	%	33
General Level	一般員工	%	0
<b>Percentage of Trained Employees by Gender</b>	<b>按性別劃分的受訓僱員百分比</b>		
Corporate Offices	公司辦事處		
Male	男性	%	48
Female	女性	%	33
Ruashi	Ruashi		
Male	男性	%	74
Female	女性	%	65
Kinsenda	Kinsenda		
Male	男性	%	60
Female	女性	%	79
Musonoi	Musonoi		
Male	男性	%	20
Female	女性	%	71
Chibuluma	Chibuluma		
Male	男性	%	20
Female	女性	%	50



Training Hours by Employee Category and Gender

按僱員類別及性別劃分的培訓時數

Disclosure Item	披露事項	Unit 單位	2022 二零二二年
Total Training Hours	培訓總時數	hours 時數	17,006
Average Training Hours per Employee	每名僱員平均培訓時數	hours 時數	16
<b>Average Training Hours by Employee Category</b>	<b>按僱員類別劃分的平均培訓時數</b>		
Corporate Offices	公司辦事處		
Senior Level	高級管理人員	hours 時數	39
Middle Level	中層管理人員	hours 時數	40
General Level	一般員工	hours 時數	28
Ruashi	Ruashi		
Senior Level	高級管理人員	hours 時數	29
Middle Level	中層管理人員	hours 時數	15
General Level	一般員工	hours 時數	15
Kinsenda	Kinsenda		
Senior Level	高級管理人員	hours 時數	10
Middle Level	中層管理人員	hours 時數	11
General Level	一般員工	hours 時數	11
Musonoi	Musonoi		
Senior Level	高級管理人員	hours 時數	44
Middle Level	中層管理人員	hours 時數	40
General Level	一般員工	hours 時數	40
Chibuluma	Chibuluma		
Senior Level	高級管理人員	hours 時數	12
Middle Level	中層管理人員	hours 時數	12
General Level	一般員工	hours 時數	0

Disclosure Item	披露事項	Unit 單位	2022 二零二二年
<b>Average Training Hours by Gender</b>	按性別劃分的平均培訓時數		
Corporate Offices	公司辦事處		
Male	男性	hours 時數	32
Female	女性	hours 時數	34
Ruashi	Ruashi		
Male	男性	hours 時數	17
Female	女性	hours 時數	18
Kinsenda	Kinsenda		
Male	男性	hours 時數	11
Female	女性	hours 時數	12
Musonoi	Musonoi		
Male	男性	hours 時數	58
Female	女性	hours 時數	6
Chibuluma	Chibuluma		
Male	男性	hours 時數	12
Female	女性	hours 時數	12

Health and Safety

健康與安全

Disclosure Item	披露事項	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Number of Fatalities</b>	<b>死亡事故數目</b>				
Ruashi	Ruashi	number 宗	0	0	0
Kinsenda	Kinsenda	number 宗	0	2	0
Musonoi	Musonoi	number 宗	0	0	0
Chibuluma	Chibuluma	number 宗	0	0	0
<b>Fatality Frequency Rate per Million- man Hours Worked</b>	<b>每百萬工時的死亡 頻率</b>				
Ruashi	Ruashi		0	0	0
Kinsenda	Kinsenda		0	0.83	0
Musonoi	Musonoi		0	0	0
Chibuluma	Chibuluma		0	0	0
<b>Number of Lost Days Due to Work Injury</b>	<b>因工傷損失工作日 數量</b>				
Ruashi	Ruashi	days 天數	79	1	62
Kinsenda	Kinsenda	days 天數	0	0	299
Musonoi	Musonoi	days 天數	0	2	29
Chibuluma	Chibuluma	days 天數	3	5	0

Number of Suppliers by Geographical Region

按地理區域劃分的供應商數量

Disclosure Item	披露項目	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Ruashi</b>					
Suppliers from the DRC	剛果(金)的供應商	number 數目	187	173	272
Suppliers from Zambia	贊比亞的供應商	number 數目	15	11	22
Suppliers from South Africa	南非的供應商	number 數目	48	49	74
Suppliers from the PRC (including Hong Kong and Macao)	中國(包括香港及澳門)的供應商	number 數目	6	8	11
Suppliers from Other Countries and Regions	其他國家及地區的供應商	number 數目	15	9	13
Total Number of Suppliers	供應商總數	number 數目	271	250	392
<b>Kinsenda</b>					
Suppliers from the DRC	剛果(金)的供應商	number 數目	268	244	225
Suppliers from Zambia	贊比亞的供應商	number 數目	89	83	78
Suppliers from South Africa	南非的供應商	number 數目	163	148	140
Suppliers from the PRC (including Hong Kong and Macao)	中國(包括香港及澳門)的供應商	number 數目	19	15	9
Suppliers from Other Countries and Regions	其他國家及地區的供應商	number 數目	19	14	14
Total Number of Suppliers	供應商總數	number 數目	558	504	466

Disclosure Item	披露項目	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
<b>Musonoi</b>	<b>Musonoi</b>				
Suppliers from the DRC	剛果(金)的 供應商	number 數目	122	6	0
Suppliers from Zambia	贊比亞的供應商	number 數目	3	1	0
Suppliers from South Africa	南非的供應商	number 數目	16	0	0
Suppliers from the PRC (including Hong Kong and Macao)	中國(包括香港及澳門)的供應商	number 數目	18	24	0
Suppliers from Other Countries and Regions	其他國家及地區的供應商	number 數目	3	0	0
Total Number of Suppliers	供應商總數	number 數目	162	31	0
<b>Chibuluma</b>	<b>Chibuluma</b>				
Suppliers from Zambia	贊比亞的供應商	number 數目	N/A 不適用	N/A 不適用	276
Total Number of Suppliers	供應商總數	number 數目	N/A 不適用	N/A 不適用	276

**Resources Contributed to Community Investment**

於社區投資所動用的資源

Disclosure Item	披露項目	Unit 單位	2022 二零二二年	2021 二零二一年	2020 二零二零年
Health	健康	US\$ 美元	682,006	199,902	609,419
Education	教育	US\$ 美元	33,190	104,468	23,754
Community Feeding Schemes	社區糧食供給計劃	US\$ 美元	85,602	33,502	75,821
Agriculture Projects	農業項目	US\$ 美元	347,115	469,857	223,492
Sport and Recreation	體育與休閒	US\$ 美元	2,200	8,050	10,246
Community Water, Road, Electricity Provision	社區水、道路及電力供應	US\$ 美元	875,319	1,430,549	296,184
Corporate Social Responsibility and Relations	企業社會責任及關係	US\$ 美元	146,287	67,790	127,016
Total Community Investment	社區投資總額	US\$ 美元	2,171,719	2,314,118	1,365,932

GOVERNANCE

管治

		Executive Director 執行董事	Non-executive Director 非執行董事	Independent Non-executive Director 獨立非執行董事	Total 總數
Number of Directors	董事人數	2	2	4	8
Percentage	佔比	25%	25%	50%	100%
			Male Director 男性董事	Female Director 女性董事	Total 總數
Number of Directors	董事人數		7	1	8
Percentage	佔比		87.5%	12.5%	100%






APPENDIX 2: INDEX

附錄二：索引

Reporting Framework 報告框架	HKEx ESG Indexing 聯交所ESG索引	GRI Standards GRI準則	SDGs 可持續發展目標
<b>ENVIRONMENT</b> 環境			
Environmental Management 環境管理	A1; A2; A3; A4	/	 
Tackling Climate Change 應對氣候變化	A1.1, A1.2; A2, A2.1, A2.3; A4, A4.1	302-1, 302-4, 302-5, 305-1, 305-2, 305-4	 
Water Resources Management 水資源管理	A2, A2.2, A2.4	303-2, 303-3, 303-4, 303-5	
Solid Waste and Air Emissions Management 固體廢物及氣體排放管理	A1.1, A1.3, A1.4, A1.6	305-7, 306-2	
Biodiversity and Land-Use 生物多樣性及土地利用	A3.1	304-2, 304-3	
Tailings Management 尾礦管理	A3.1	/	

Reporting Framework 報告框架	HKEx ESG Indexing 聯交所ESG索引	GRI Standards GRI準則	SDGs 可持續發展目標
<b>SOCIAL</b> 社會			
Human Rights 人權	B4, B4.1, B4.2	407-1, 408-1, 409-1	
Our People 我們的員工	B1, B1.1, B1.2; B3, B3.1, B3.2	401-1, 401-2, 403-9, 404-1, 404-2	
Health and Safety 健康與安全	B2, B2.1, B2.2, B2.3	403-1, 403-2, 403-4, 403-5, 403-6, 403-7, 403-8, 403-10	
Product Responsibility 產品責任	B6, B6.1, B6.2, B6.3, B6.4, B6.5	416-1, 416-2, 418-1	
Supply Chain Sustainability 供應鏈可持續性	B5, B5.1, B5.2, B5.3, B5.4	308-1, 414-1	
Our Community 我們的社區	B8, B8.1, B8.2	203-1, 203-2, 411-1, 413-1	



Reporting Framework 報告框架	HKEx ESG Indexing 聯交所ESG索引	GRI Standards GRI準則	SDGs 可持續發展目標
<b>GOVERNANCE</b> 管治			
Our Governance 我們的管治	/	405-1	 
Business Ethics 商業道德	B7, B7.1, B7.2, B7.3	205-1, 205-2	 
Risk Assessment and Management 風險評估及管理	/	/	

Deloitte.

德勤

TO THE SHAREHOLDERS OF JINCHUAN GROUP  
INTERNATIONAL RESOURCES CO. LTD

(incorporated in the Cayman Islands with limited liability)

OPINION

We have audited the consolidated financial statements of Jinchuan Group International Resources Co. Ltd (the "Company") and its subsidiaries (collectively referred to as the "Group") set out on pages 240 to 366, which comprise the consolidated statement of financial position as at 31 December 2022, and the consolidated statement of profit or loss and other comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements give a true and fair view of the consolidated financial position of the Group as at 31 December 2022, and of its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards ("IFRSs") issued by the International Accounting Standards Board ("IASB") and have been properly prepared in compliance with the disclosure requirements of the Hong Kong Companies Ordinance.

BASIS FOR OPINION

We conducted our audit in accordance with Hong Kong Standards on Auditing ("HKSA") issued by the Hong Kong Institute of Certified Public Accountants ("HKICPA"). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the HKICPA's Code of Ethics for Professional Accountants (the "Code"), and we have fulfilled our other ethical responsibilities in accordance with the Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

INspire HK  
躍動香港

致金川集團國際資源有限公司股東

(於開曼群島註冊成立之有限公司)

意見

本核數師(以下簡稱「本行」)已審計列載於第240至366頁的金川集團國際資源有限公司(以下簡稱「貴公司」)及其附屬公司(以下統稱「貴集團」)的綜合財務報表，此財務報表包括於二零二二年十二月三十一日的綜合財務狀況表與截至該日止年度的綜合損益及其他全面收益表、綜合權益變動表和綜合現金流量表，以及綜合財務報表附註，包括重大會計政策概要。

本行認為，該等綜合財務報表已根據國際會計準則委員會(「國際會計準則委員會」)頒佈之《國際財務報告準則》(「國際財務報告準則」)真實而中肯地反映了 貴集團於二零二二年十二月三十一日的綜合財務狀況及截至該日止年度的綜合財務表現及綜合現金流量，並已遵照《香港公司條例》的披露要求妥為擬備。

意見基礎

本行已根據香港會計師公會(「香港會計師公會」)頒佈的《香港審計準則》(「香港審計準則」)進行審計。本行在該等準則下承擔的責任已在本報告「核數師就審計綜合財務報表承擔的責任」部分中作進一步闡述。根據香港會計師公會頒佈的《專業會計師道德守則》(以下簡稱「守則」)，本行獨立於 貴集團，並已履行守則中的其他專業道德責任。本行相信，本行所獲得的審計憑證能充足及適當地為本行的審計意見提供基礎。

### KEY AUDIT MATTERS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

#### Key audit matter 關鍵審計事項

#### ***Impairment assessment of property, plant and equipment and mineral rights for mining operations ("Non-current Assets")***

**採礦業務的物業、廠房及設備以及礦產權(「非流動資產」)的減值評估**

We have identified the annual impairment assessment of Non-current Assets by management as a key audit matter due to the significance of the amounts to the consolidated financial statements as a whole, combined with the significant management judgment and estimation uncertainty associated with determining the recoverable amounts.

由於非流動資產金額為整體綜合財務報表的重大項目，加上釐定可收回金額涉及管理層的重大判斷及估計不確定因素，故本行認為管理層對非流動資產的年度減值評估為關鍵審計事項。

As disclosed in note 4 to the consolidated financial statements, the carrying amounts of property, plant and equipment and minerals rights for mining operations as at 31 December 2022 amounted to US\$807,914,000 and US\$560,703,000 respectively. 如綜合財務報表附註4所述，採礦業務的物業、廠房及設備以及礦產權於二零二二年十二月三十一日的賬面值分別為807,914,000美元及560,703,000美元。

### 關鍵審計事項

關鍵審計事項是根據本行的專業判斷，認為對本期綜合財務報表的審計最為重要的事項。這些事項是在本行審計整體綜合財務報表及出具意見時進行處理的。本行不會對這些事項提供單獨的意見。

#### How our audit addressed the key audit matter 本行如何處理關鍵審計事項

Our procedures in relation to impairment assessment of the Non-current Assets included:  
本行針對非流動資產的減值評估執行的程序包括：

- Obtaining an understanding of the process over the annual impairment assessment including the Group's assessment of impairment indicators, preparation of the cash flow forecasts, setting of reasonable and supportable assumptions and inputs to the model used to estimate the recoverable amounts over the life of the mine.  
了解進行年度減值評估的程序包括 貴集團對減值指標的評估、現金流預測的編製、合理及具支持性假設的設定及輸入模式用於在礦場使用年限期間評估可收回金額的輸入數據；
- Evaluating the qualifications and objectivity of the independent external competent persons.  
評估獨立外界合資格人士之資格客觀性；
- Working with our internal experts to carry out, among others, the following procedures:  
與本行內部的行業專家協作執行(其中包括)下列程序：
  - evaluating the appropriateness of the model used to calculate the recoverable amounts;  
對用以計算可收回金額的模型的恰當性作出評價；

KEY AUDIT MATTERS (Continued)

關鍵審計事項(續)

Key audit matter  
關鍵審計事項

How our audit addressed the key audit matter  
本行如何處理關鍵審計事項

**Impairment assessment of property, plant and equipment and mineral rights for mining operations ("Non-current Assets") (Continued)**  
採礦業務的物業、廠房及設備以及礦產權(「非流動資產」)的減值評估(續)

During the year ended 31 December 2022, there is an indicator for impairment assessment for the Non-current Assets due to the variability of the metal price, details of which are set out in note 18 to the consolidated financial statements. The recoverable amounts of the relevant cash-generating units are determined using value in use calculations based on the cash flow projection prepared from financial forecasts approved by the directors of the Company in which key assumptions on reserves, long-term copper prices and discount rates can significantly affect the discounted cash flows. The management has made use of a resource and reserve report prepared by independent external competent persons as at 31 December 2022.

截至二零二二年十二月三十一日止年度，由於金屬價格多變，非流動資產出現減值評估跡象，詳情載於綜合財務報表附註18。相關現金產生單位的可收回金額乃基於本公司董事批准之財務預測所編製的現金流量估算(當中涉及對儲量、銅的長期價格及貼現率作出關鍵假設，其可對貼現現金流量構成重大影響)按使用價值計算釐定。於二零二二年十二月三十一日，管理層已使用由獨立外界合資格人士編製之資源量及儲量報告。

Based on the impairment assessment, as described in note 18 to the consolidated financial statements, the management of the Group reversed impairment losses of US\$42,166,000 on property, plant and equipment and US\$2,834,000 on mineral rights during the year ended 31 December 2022.

根據綜合財務報表附註18所述的減值評估，於截至二零二二年十二月三十一日止年度，貴集團管理層就物業、廠房及設備的減值虧損撥回為42,166,000美元以及礦產權的減值虧損撥回為2,834,000美元。

- assessing the reasonableness of the economic and technical assumptions in the resources and reserves report prepared by the independent external competent persons;  
評估由獨立外界合資格人士所編製的資源量及儲量報告中經濟及技術假設的合理性；
  - comparing if the management's estimate of future production level is consistent with the resources and reserves report prepared by the independent external competent persons;  
對管理層就未來生產水平的估計與由獨立外界合資格人士編製的資源量及儲量報告的一致性作出比較；
  - assessing the reasonableness of the discount rates by benchmarking against independent data; and  
以獨立所得數據為基準評估貼現率的合理性；及
  - assessing the appropriateness of estimate of long-term metal prices by reference to historical information and other relevant market data.  
參考過往信息及市場數據來評估金屬價格長期走勢估計的恰當性。
- Evaluating the historical accuracy of the management's cash flow forecasts by comparing the historical cash flow forecasts with the actual performance.  
透過將歷史現金流量預測與實際表現進行比較，對管理層過往的現金流量預測準確度作出評價。

# Independent Auditor's Report

## 獨立核數師報告

### OTHER INFORMATION

The directors of the Company are responsible for the other information. The other information comprises the information included in the annual report, but does not include the consolidated financial statements and our auditor's report thereon.

Our opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

### RESPONSIBILITIES OF DIRECTORS AND THOSE CHARGED WITH GOVERNANCE FOR THE CONSOLIDATED FINANCIAL STATEMENTS

The directors of the Company are responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRSs issued by the IASB and the disclosure requirements of the Hong Kong Companies Ordinance, and for such internal control as the directors determine is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the directors are responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the directors either intend to liquidate the Group or to cease operations, or have no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Group's financial reporting process.

### 其他資訊

貴公司董事需對其他資訊負責。其他資訊包括刊載於年報內的資訊，但不包括綜合財務報表及本行的核數師報告。

本行對綜合財務報表的意見並不涵蓋其他資訊，本行亦不對該等其他資訊發表任何形式的鑒證結論。

結合本行對綜合財務報表的審計，本行的責任是閱讀其他資訊，在此過程中，考慮其他資訊是否與綜合財務報表或本行在審計過程中所瞭解的情況存在重大抵觸或者似乎存在重大錯誤陳述的情況。基於本行已執行的工作，如果本行認為其他資訊存在重大錯誤陳述，本行需要報告該事實。在這方面，本行沒有任何報告。

### 董事及治理層就綜合財務報表須承擔的責任

貴公司董事須負責根據國際會計準則委員會頒佈的國際財務報告準則及《香港公司條例》的披露要求擬備真實而中肯的綜合財務報表，並對其認為為使綜合財務報表的擬備不存在由於欺詐或錯誤而導致的重大錯誤陳述所需的內部控制負責。

在擬備綜合財務報表時，董事負責評估貴集團持續經營的能力，並在適用情況下披露與持續經營有關的事項，以及使用持續經營為會計基礎，除非董事有意將貴集團清盤或停止經營，或別無其他實際的替代方案時停止使用。

治理層須負責監督貴集團的財務報告過程。

## AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion solely to you, as a body, in accordance with our agreed terms of engagement, and for no other purpose. We do not assume responsibility towards or accept liability to any other person for the contents of this report. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with HKSA's will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with HKSA's, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the directors.

## 核數師就審計綜合財務報表承擔的責任

本行的目標，是對綜合財務報表整體是否不存在由於欺詐或錯誤而導致的重大錯誤陳述取得合理保證，並按照本行商定的業務約定條款僅向全體股東出具包括本行意見的核數師報告。除此以外，本行的報告不可用作其他用途。本行並不就本行報告之內容對任何其他人士承擔任何責任或接受任何義務。合理保證是高水準的保證，但不能保證按照香港審計準則進行的審計，在某一重大錯誤陳述存在時總能發現。錯誤陳述可以由欺詐或錯誤引起，如果合理預期它們單獨或匯總起來可能影響綜合財務報表使用者依賴財務報表所作出的經濟決定，則有關的錯誤陳述可被視作重大。

在根據香港審計準則進行審計的過程中，本行運用專業判斷及保持專業懷疑態度。本行亦：

- 識別和評估由於欺詐或錯誤而導致綜合財務報表存在重大錯誤陳述的風險，設計及執行審計程序以應對這些風險，以及獲取充足和適當的審計憑證，作為本行意見的基礎。由於欺詐可能涉及串謀、偽造、蓄意遺漏、虛假陳述，或凌駕於內部控制之上，因此未能發現因欺詐而導致的重大錯誤陳述的風險高於未能發現因錯誤而導致的重大錯誤陳述的風險。
- 瞭解與審計相關的內部控制，以設計適當的審計程序，但目的並非對貴集團內部控制的有效性發表意見。
- 評價董事所採用會計政策的恰當性及作出會計估計和相關披露的合理性。

### AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS (Continued)

- Conclude on the appropriateness of the directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

### 核數師就審計綜合財務報表承擔的責任(續)

- 對董事採用持續經營會計基礎的恰當性作出結論。根據所獲取的審計憑證，確定是否存在與事項或情況有關的重大不確定性，從而可能導致對 貴集團的持續經營能力產生重大疑慮。如果本行認為存在重大不確定性，則有必要在核數師報告中提請使用者注意綜合財務報表中的相關披露。假若有關的披露不足，則修訂本行的意見。本行的結論是基於核數師報告日止所取得的審計憑證。然而，未來事項或情況可能導致 貴集團不能持續經營。
- 評價綜合財務報表的整體列報方式、結構和內容，包括披露，以及綜合財務報表是否中肯反映相關交易和事項。
- 就 貴集團內實體或業務活動的財務資訊獲取充足、適當的審計憑證，以對綜合財務報表發表意見。本行負責集團審計的方向、監督和執行。本行為審計意見承擔全部責任。

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF  
THE CONSOLIDATED FINANCIAL STATEMENTS  
(Continued)

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, actions taken to eliminate threats or safeguards applied.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

The engagement partner on the audit resulting in the independent auditor's report is Lam Shu Lung.

**Deloitte Touche Tohmatsu**  
Certified Public Accountants  
Hong Kong  
23 March 2023

核數師就審計綜合財務報表承擔的責任(續)

除其他事項外，本行與治理層溝通了計劃的審計範圍、時間安排、重大審計發現等，包括本行在審計中識別出內部控制的任何重大缺陷。

本行還向治理層提交聲明，說明本行已符合有關獨立性的相關專業道德要求，並與他們溝通有可能合理地被認為會影響本行獨立性的所有關係和其他事項，以及在適用的情況下，採取消除威脅的行動或應用的保障措施。

從與治理層溝通的事項中，本行確定哪些事項對本期綜合財務報表的審計最為重要，因而構成關鍵審計事項。本行在核數師報告中描述這些事項，除非法律法規不允許公開披露這些事項，或在極端罕見的情況下，如果合理預期在本行報告中溝通某事項造成的負面後果超過產生的公眾利益，本行決定不應在報告中溝通該事項。

出具本獨立核數師報告的審計項目合夥人是林樹龍。

**德勤•關黃陳方會計師行**  
執業會計師  
香港  
二零二三年三月二十三日



# Consolidated Statement of Profit or Loss and Other Comprehensive Income

## 綜合損益及其他全面收益表

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

		Notes 附註	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Continuing operations</b>	<b>持續經營業務</b>			
Revenue	收益	5	881,598	831,899
Cost of sales	銷售成本		(746,219)	(531,101)
Royalty payment	礦權使用費		(66,894)	(49,133)
Gross profit	毛利		68,485	251,665
Other income, other gains and losses	其他收入、其他收益及虧損	7	46,123	63,246
Selling and distribution costs	銷售及分銷成本		(36,333)	(22,815)
Administrative expenses	行政開支		(10,434)	(4,549)
Finance income	財務收入	8	1,931	728
Finance costs	財務成本	9	(8,642)	(9,539)
Profit before tax	除稅前溢利	10	61,130	278,736
Income tax expense	所得稅開支	12	(54,266)	(116,729)
Profit for the year from continuing operations	來自持續經營業務的年內溢利		6,864	162,007
<b>Discontinued operations</b>	<b>終止經營業務</b>			
Profit for the year from discontinued operations	來自終止經營業務的年內溢利	13	-	438
Profit for the year	年內溢利		6,864	162,445
Other comprehensive income (expense)	其他全面收入(開支)			
<b>Items that may be reclassified subsequently to profit or loss:</b>	<b>其後可能重新分類至損益之項目：</b>			
Release of cumulative translation reserves upon liquidation of foreign operation	清算海外業務後釋放之累計換算儲備		-	(438)
Fair value gain on hedging instruments designated as cash flow hedges	指定為現金流量對沖的對沖工具公平值收益	29	1,089	278
Other comprehensive income (expense) for the year	本年度其他全面收入(開支)		1,089	(160)
Total comprehensive income for the year	本年度全面收入總額		7,953	162,285

# Consolidated Statement of Profit or Loss and Other Comprehensive Income

## 綜合損益及其他全面收益表

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

		Notes 附註	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Profit for the year attributable to:	下列人士應佔年內溢利：			
Owners of the Company	本公司擁有人			
– from continuing operations	– 來自持續經營業務		1,028	120,089
– from discontinued operations	– 來自終止經營業務		–	438
			<b>1,028</b>	120,527
Non-controlling interests	非控股權益			
– from continuing operations	– 來自持續經營業務		5,836	41,918
			<b>6,864</b>	162,445
Total comprehensive income attributable to:	以下人士應佔全面收入總額：			
Owners of the Company	本公司擁有人		2,117	120,367
Non-controlling interests	非控股權益		5,836	41,918
			<b>7,953</b>	162,285
Total comprehensive income attributable to:	以下人士應佔全面收入總額：			
Owners of the Company	本公司擁有人			
– from continuing operations	– 來自持續經營業務		2,117	120,367
Earnings per share	每股盈利	14		
From continuing and discontinued operations	來自持續及終止經營業務			
Basic (US cent)	基本(美分)		0.01	0.96
Diluted (US cent)	攤薄(美分)		0.01	0.91
From continuing operations	來自持續經營業務			
Basic (US cent)	基本(美分)		0.01	0.95
Diluted (US cent)	攤薄(美分)		0.01	0.90

# Consolidated Statement of Financial Position

## 綜合財務狀況表

At 31 December 2022  
於二零二二年十二月三十一日

		Notes 附註	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Non-current assets</b>	<b>非流動資產</b>			
Property, plant and equipment	物業、廠房及設備	16	807,935	730,028
Right-of-use assets	使用權資產	17	1,649	2,400
Mineral rights	礦產權	18	560,703	582,711
Exploration and evaluation assets	勘探及評估資產	19	121,580	121,320
Derivative financial instruments	衍生金融工具	29	–	258
Inventories	存貨	22	102,481	–
Other non-current assets	其他非流動資產	21	123,037	72,506
			<b>1,717,385</b>	<b>1,509,223</b>
<b>Current assets</b>	<b>流動資產</b>			
Inventories	存貨	22	120,637	233,499
Trade and other receivables	貿易及其他應收款項	23	86,665	74,346
Financial assets at fair value through profit or loss ("FVTPL")	按公平值計入損益之金融資產 (「按公平值計入損益」)	24	2,749	2,978
Derivative financial instruments	衍生金融工具	29	1,367	20
Finance lease receivables	融資租賃應收款項	20	–	2,825
Tax recoverable	可收回稅項		11,046	–
Bank deposits with original maturity over three months	原到期日超出三個月之銀行存款	25	10,000	17,000
Bank balances and cash	銀行結餘及現金	25	79,679	198,780
			<b>312,143</b>	<b>529,448</b>
<b>Current liabilities</b>	<b>流動負債</b>			
Trade and other payables	貿易及其他應付款項	26	176,947	112,159
Amount due to ultimate holding company	應付最終控股公司款項	27	56	–
Amount due to an intermediate holding company	應付中間控股公司款項	27	5,206	102,539
Amount due to a fellow subsidiary	應付同系附屬公司款項	27	5,440	5,234
Amount due to a non-controlling shareholder of a subsidiary	應付附屬公司非控股股東款項	27	491	533
Bank borrowings	銀行借款	28	67,789	115,657
Lease liabilities	租賃負債	30	720	778
Short-term provisions	短期撥備	31	6,689	6,767
Bank overdrafts	銀行透支	25	3,002	–
Tax payable	應付稅項		–	32,621
			<b>266,340</b>	<b>376,288</b>
<b>Net current assets</b>	<b>流動資產淨值</b>		<b>45,803</b>	<b>153,160</b>

# Consolidated Statement of Financial Position 綜合財務狀況表

At 31 December 2022  
於二零二二年十二月三十一日

		Notes 附註	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Total assets less current liabilities</b>	<b>總資產減流動負債</b>		<b>1,763,188</b>	1,662,383
<b>Non-current liabilities</b>	<b>非流動負債</b>			
Deferred tax liabilities	遞延稅項負債	32	<b>342,874</b>	325,698
Bank borrowings	銀行借款	28	<b>127,000</b>	134,000
Amount due to an intermediate holding company	應付中間控股公司款項	27	<b>100,941</b>	–
Lease liabilities	租賃負債	30	<b>864</b>	1,571
Long-term provisions	長期撥備	31	<b>25,419</b>	24,155
			<b>597,098</b>	485,424
<b>Net assets</b>	<b>資產淨值</b>		<b>1,166,090</b>	1,176,959
<b>Capital and reserves</b>	<b>股本及儲備</b>			
Share capital	股本	33	<b>16,027</b>	16,166
Perpetual subordinated convertible securities	永久次級可換股證券	35	<b>88,462</b>	88,462
Reserves	儲備		<b>896,914</b>	908,588
Equity attributable to owners of the Company	本公司擁有人應佔權益		<b>1,001,403</b>	1,013,216
Non-controlling interests	非控股權益		<b>164,687</b>	163,743
<b>Total equity</b>	<b>權益總額</b>		<b>1,166,090</b>	1,176,959

The consolidated financial statements on pages 240 to 366 were approved and authorised for issue by the board of directors on 23 March 2023 and are signed on its behalf by:

載於第240至366頁的綜合財務報表已經董事會於二零二三年三月二十三日批准及授權刊發，並由以下人士代為簽署：

**CHENG Yonghong**  
程永紅  
DIRECTOR  
董事

**GAO Tianpeng**  
郜天鵬  
DIRECTOR  
董事

# Consolidated Statement of Changes in Equity

## 綜合權益變動表

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

		Attributable to owners of the Company 本公司擁有人應佔									
		Share capital	Perpetual subordinated convertible securities	Share premium	Translation reserve	Hedging reserve	Other reserves	(Accumulated losses) retained profits	Total	Non-controlling interests	Total equity
		股本	永久次級可換股證券	股份溢價	換算儲備	對沖儲備	其他儲備	(累計虧損) 保留溢利	總計	非控股權益	總權益
		US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
		千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元
					(Note a) (附註a)		(Note b) (附註b)				
At 1 January 2021	於二零二一年一月一日	16,166	88,462	1,330,454	(23,406)	-	(400,721)	(116,489)	894,466	122,463	1,016,929
Profit for the year	年內溢利	-	-	-	-	-	-	120,527	120,527	41,918	162,445
Release of cumulative translation reserves upon liquidation of foreign operation	清算海外業務後釋放之累計換算儲備	-	-	-	(438)	-	-	-	(438)	-	(438)
Fair value gain on hedging instruments designated as cash flow hedges (note 29)	指定為現金流量對沖的對沖工具公平值收益 (附註29)	-	-	-	-	278	-	-	278	-	278
Other comprehensive (expense) income for the year	年內其他全面(開支)收益	-	-	-	(438)	278	-	-	(160)	-	(160)
Total comprehensive (expense) income for the year	年內全面(開支)收入總額	-	-	-	(438)	278	-	120,527	120,367	41,918	162,285
Dividends recognised as distribution (note 15)	確認為分派之股息 (附註15)	-	-	(1,617)	-	-	-	-	(1,617)	-	(1,617)
Dividends paid to non-controlling shareholder	已付非控股股東股息	-	-	-	-	-	-	-	-	(638)	(638)
At 31 December 2021	於二零二一年十二月三十一日	16,166	88,462	1,328,837	(23,844)	278	(400,721)	4,038	1,013,216	163,743	1,176,959
Profit for the year	年內溢利	-	-	-	-	-	-	1,028	1,028	5,836	6,864
Fair value gain on hedging instruments designated as cash flow hedges (note 29)	指定為現金流量對沖的對沖工具公平值收益 (附註29)	-	-	-	-	1,089	-	-	1,089	-	1,089
Total comprehensive income for the year	年內全面收入總額	-	-	-	-	1,089	-	1,028	2,117	5,836	7,953
Repurchase and cancellation of ordinary shares (note 33)	購回及註銷普通股 (附註33)	(139)	-	(10,558)	-	-	-	-	(10,697)	-	(10,697)
Dividends recognised as distribution (note 15)	確認為分派之股息 (附註15)	-	-	(3,233)	-	-	-	-	(3,233)	-	(3,233)
Dividends paid to non-controlling shareholder	已付非控股股東股息	-	-	-	-	-	-	-	-	(4,892)	(4,892)
At 31 December 2022	於二零二二年十二月三十一日	16,027	88,462	1,315,046	(23,844)	1,367	(400,721)	5,066	1,001,403	164,687	1,166,090

# Consolidated Statement of Changes in Equity 綜合權益變動表

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

Note a: Translation reserve balance represents exchange differences arising from translation of the foreign subsidiaries of which the functional currency was different from the Company in previous years.

Note b: Other reserves comprised (i) the excess of the nominal value of the shares of the subsidiaries acquired pursuant to a group reorganisation (“**Combination**”) in 2013 over the nominal value of the Company’s shares issued in exchange therefor and (ii) the issue of 1,595,880,000 shares of the Company with a fair value of US\$206,646,000 and the issue of perpetual subordinated convertible securities (“**Convertible Securities**”) of the Company with a fair value of US\$1,089,084,000 on 14 November 2013 in exchange for the entire equity interests in Jin Rui Mining Investment Limited (“**Jin Rui**”) and the settlement of all shareholder’s loans outstanding by Jin Rui to Jintai Mining Investment Limited amounting to the principal amount of South African Rand (“**ZAR**”) 9,193,369,000 (equivalent to US\$895,000,000) on 14 November 2013.

附註a：換算儲備結餘指於過往年度換算功能貨幣有別於本公司功能貨幣的海外附屬公司時產生的匯兌差額。

附註b：其他儲備包括(i)於二零一三年根據集團重組所收購附屬公司股份(「**合併事項**」)之面值，超過本公司作為收購代價所發行股份之面值的差額及(ii)於二零一三年十一月十四日發行1,595,880,000股公平值為206,646,000美元的本公司股份以及發行公平值為1,089,084,000美元的本公司永久次級可換股證券(「**可換股證券**」)，以收購Jin Rui Mining Investment Limited(「**Jin Rui**」)之全部股本權益，以及結清Jin Rui於二零一三年十一月十四日結欠金泰礦業投資有限公司的所有未償還股東貸款本金額9,193,369,000南非蘭特(「**南非蘭特**」)(相當於895,000,000美元)。

# Consolidated Statement of Cash Flows

## 綜合現金流量表

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Operating activities</b>	<b>經營活動</b>		
Profit before tax	除稅前溢利	61,130	278,736
Adjustments for:	經調整：		
Finance income	財務收入	(1,931)	(728)
Finance costs	財務成本	8,642	9,539
Provisions (reversal of) rehabilitation and environmental expenditure	復修及環保開支的撥備(撥回)	622	(6,123)
Gain on disposal of property, plant and equipment	出售物業、廠房及設備之收益	-	(1,477)
Depreciation of property, plant and equipment	物業、廠房及設備折舊	63,342	67,935
Depreciation of right-of-use assets	使用權資產折舊	751	911
Amortisation of mineral rights	礦產權攤銷	24,842	14,434
Reversal of impairment loss recognised in respect of property, plant and equipment	就物業、廠房及設備確認之減值虧損撥回	(42,166)	-
Reversal of impairment loss recognised in respect of mineral rights	就礦產權確認之減值虧損撥回	(2,834)	(96,000)
Written off of property, plant and equipment	撇銷物業、廠房及設備	-	10,369
Fair value loss on financial assets at FVTPL	透過損益按公平值計量的金融資產之公平值虧損	229	16
Impairment loss on value-added tax ("VAT") recoverable	可收回增值稅(「增值稅」)之減值虧損	-	25,900
Write-down of inventories	存貨撇減	6,675	5,695
Operating cash flows before movements in working capital	營運資金變動前之經營現金流量	119,302	309,207
Decrease (increase) in inventories	存貨減少(增加)	3,706	(47,777)
(Increase) decrease in trade and other receivables	貿易及其他應收款項(增加)減少	(12,218)	1,523
Increase in VAT recoverable	可收回增值稅增加	(34,959)	(30,022)
Increase in trade and other payables	貿易及其他應付款項增加	51,216	1,145
Increase in rehabilitation trust fund	復修信託基金增加	2	6
Increase (decrease) in provisions excluding rehabilitation and environmental provision	撥備(不包括復修及環保撥備)增加(減少)	564	(349)
Decrease in finance lease receivables	融資租賃應收款項減少	2,825	1,695
Cash generated from operations	經營業務所得現金	130,438	235,428
Income tax paid	已付所得稅	(80,757)	(29,119)
<b>Net cash from operating activities</b>	<b>經營活動所得現金淨額</b>	<b>49,681</b>	<b>206,309</b>

# Consolidated Statement of Cash Flows

## 綜合現金流量表

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Investing activities</b>	<b>投資活動</b>		
Repayment from (advance to) a Democratic Republic of Congo (“DRC”) state-owned power company	自(向)剛果民主共和國(「剛果(金)」)國有電力公司之還款(墊款)	827	(1,374)
Repayment from a related company	自關聯公司之還款	–	16
Interest received	已收利息	1,931	538
Purchase of financial assets at FVTPL	購買透過損益按公平值計量的金融資產	–	(2,994)
Placement of bank deposits with original maturity over three months	存放原到期日超出三個月之銀行存款	(10,000)	(17,000)
Withdrawal of bank deposits with original maturity over three months	提取原到期日超出三個月之銀行存款	17,000	34,476
Expenditure on exploration and evaluation assets	勘探及評估資產開支	(260)	(1,668)
Purchase of property, plant and equipment	購買物業、廠房及設備	(96,092)	(88,811)
<b>Net cash used in investing activities</b>	<b>投資活動所用現金淨額</b>	<b>(86,594)</b>	<b>(76,817)</b>
<b>Financing activities</b>	<b>融資活動</b>		
Dividends paid	已付股息	(3,233)	(1,617)
New bank borrowings raised	新增銀行借款	60,000	100,000
Repayments of bank borrowings	償還銀行借款	(114,868)	(60,079)
Advance from ultimate holding company	來自最終控股公司之墊款	56	–
Advance to an intermediate holding company	向一間中間控股公司之墊款	(688)	(28,718)
(Repayment to) advance from a non-controlling shareholder of a subsidiary	(償還)來自附屬公司非控股股東墊款	(42)	92
Dividends paid to non-controlling shareholder	已付非控股股東股息	(4,892)	(638)
Advance from a fellow subsidiary	來自同系附屬公司之墊款	–	123
Repayment of lease liabilities	償還租賃負債	(765)	(955)
Repurchase and cancellation of ordinary shares (Note 33)	購回及註銷普通股(附註33)	(10,697)	–
Net settlement of derivative financial instruments	衍生金融工具結算淨額	(888)	(111)
Interest paid	已付利息	(9,173)	(10,933)
<b>Net cash used in financing activities</b>	<b>融資活動所用現金淨額</b>	<b>(85,190)</b>	<b>(2,836)</b>



# Consolidated Statement of Cash Flows

## 綜合現金流量表

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Net (decrease) increase in cash and cash equivalents</b>	現金及現金等值項目(減少)增加淨額	(122,103)	126,656
<b>Effect of foreign exchange rate changes</b>	外匯匯率變動的影響	-	(1,715)
<b>Cash and cash equivalents at the beginning of the year</b>	年初現金及現金等值項目	198,780	73,839
<b>Cash and cash equivalents at the end of the year</b>	年終現金及現金等值項目	76,677	198,780
<b>Analysis of cash and cash equivalents, represented by</b>	現金及現金等值項目分析，代表		
Bank balances and cash	銀行結餘及現金	79,679	198,780
Bank overdrafts	銀行透支	(3,002)	-
		<b>76,677</b>	198,780

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 1. GENERAL

Jinchuan Group International Resources Co. Ltd. (the “**Company**”) is a public limited company incorporated in the Cayman Islands and its shares are listed on The Stock Exchange of Hong Kong Limited (the “**Stock Exchange**”). Its ultimate holding company is 金川集團股份有限公司 (Jinchuan Group Co., Ltd) (“**JCG**”), a state-owned enterprise established in the People’s Republic of China (the “**PRC**”). The addresses of registered office and principal place of business of Company are disclosed in the “Corporate Information” section in the annual report.

The Company is an investment holding company. The principal activities of the Company and its subsidiaries (collectively referred to as the “**Group**”) are mining operations and the trading of mineral and metal products.

The consolidated financial statements are presented in United States dollars (“**US\$**”), which is also the functional currency of the Company.

### 1. 一般資料

金川集團國際資源有限公司(「**本公司**」)於開曼群島註冊成立為公眾有限公司，其股份於香港聯合交易所有限公司(「**聯交所**」)上市。其最終控股公司為金川集團股份有限公司(「**金川**」)(於中華人民共和國(「**中國**」)成立的國有企業)。本公司的註冊辦事處及主要營業地點的地址於年報的「公司資料」一節披露。

本公司為投資控股公司。本公司及其附屬公司(統稱「**本集團**」)之主要業務為採礦業務與礦產品及金屬產品貿易。

綜合財務報表以美元(「**美元**」)呈列，美元亦為本公司功能貨幣。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 2. APPLICATION OF AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”)

#### Amendments to IFRSs that are mandatorily effective for the current year

In the current year, the Group has applied the following amendments to IFRSs issued by the International Accounting Standards Board (“IASB”) for the first time, which are mandatorily effective for the annual period beginning on 1 January 2022 for the preparation of the consolidated financial statements:

Amendments to IFRS 3	Reference to the Conceptual Framework
Amendment to IFRS 16	Covid-19-Related Rent Concessions beyond 30 June 2021
Amendments to IAS 16	Property, Plant and Equipment: Proceeds before Intended Use
Amendments to IAS 37	Onerous Contracts – Cost of Fulfilling a Contract
Amendments to IFRS Standards	Annual Improvements to IFRS Standards 2018–2020

The application of the amendments to IFRSs in the current year has had no material impact on the Group’s financial positions and performance for the current and prior years and/or on the disclosures set out in these consolidated financial statements.

### 2. 應用國際財務報告準則(「國際財務報告準則」)之修訂

#### 於本年度強制生效之國際財務報告準則之修訂

於本年度，本集團已首次應用國際會計準則委員會(「國際會計準則委員會」)頒佈的下列對國際財務報告準則的修訂(該等修訂就編製綜合財務報表而言於二零二二年一月一日開始的年度期間強制生效)：

國際財務報告準則第3號之修訂	對概念框架之提述
國際財務報告準則第16號之修訂	二零二一年六月三十日後新冠肺炎相關的租金優惠
國際會計準則第16號之修訂	物業、廠房及設備—擬定用途前之所得款項
國際會計準則第37號之修訂	虧損性合約—履行合約之成本
國際財務報告準則之修訂	二零一八年至二零二零年國際財務報告準則的年度改進

當前年度應用國際財務報告準則之修訂對本集團當前及過往年度財務狀況及業績及／或該等綜合財務報表所載披露並無重大影響。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 2. APPLICATION OF AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

#### New and amendments to IFRSs in issue but not yet effective

The Group has not early applied the following new and amendments to IFRSs that have been issued but are not yet effective:

IFRS 17 (including the June 2020 and December 2021 Amendments to IFRS 17)	Insurance Contracts <sup>1</sup>
Amendments to IFRS 10 and IAS 28	Sale or Contribution of Assets between an Investor and its Associate or Joint Venture <sup>2</sup>
Amendments to IFRS 16	Lease Liability in a Sale and Leaseback <sup>3</sup>
Amendments to IAS 1	Non-current Liabilities with Covenants <sup>3</sup>
Amendments to IAS 1	Classification of Liabilities as Current or Non-current <sup>3</sup>
Amendments to IAS 1 and IFRS Practice Statement 2	Disclosure of Accounting Policies <sup>1</sup>
Amendments to IAS 8	Definition of Accounting Estimates <sup>1</sup>
Amendments to IAS 12	Deferred Tax related to Assets and Liabilities arising from a Single Transaction <sup>1</sup>

<sup>1</sup> Effective for annual periods beginning on or after 1 January 2023

<sup>2</sup> Effective for annual periods beginning on or after a date to be determined

<sup>3</sup> Effective for annual periods beginning on or after 1 January 2024

Except for the amendments to IFRSs mentioned below, the directors of the Company anticipate that the application of the new and amendments to IFRSs will have no material impact on the consolidated financial statements in the foreseeable future.

### 2. 應用國際財務報告準則(「國際財務報告準則」)之修訂(續)

#### 已頒佈但尚未生效之新訂國際財務報告準則及其修訂

本集團並無提早應用下列已頒佈但尚未生效的新訂國際財務報告準則及其修訂：

國際財務報告準則第17號(包括二零二零年六月及二零二一年十二月的國際財務報告準則第17號之修訂)	保險合約 <sup>1</sup>
國際財務報告準則第10號及國際會計準則第28號之修訂	投資者及其聯營公司或合資企業間之資產出售或注入 <sup>2</sup>
國際財務報告準則第16號之修訂	售後租回的租賃負債 <sup>3</sup>
國際會計準則第1號之修訂	附帶契諾的非流動負債 <sup>3</sup>
國際會計準則第1號之修訂	負債分類為即期或非即期 <sup>3</sup>
國際會計準則第1號及國際財務報告準則實務報告第2號之修訂	會計政策披露 <sup>1</sup>
國際會計準則第8號之修訂	會計估計之定義 <sup>1</sup>
國際會計準則第12號之修訂	與單一交易產生之資產及負債相關之遞延稅項 <sup>1</sup>

<sup>1</sup> 於二零二三年一月一日或之後開始之年度期間生效

<sup>2</sup> 於待釐定日期或之後開始之年度期間生效

<sup>3</sup> 於二零二四年一月一日或之後開始之年度期間生效

除下文提及的國際財務報告準則之修訂外，本公司董事預期應用新訂國際財務報告準則及其修訂於可見將來將不會對綜合財務報表產生重大影響。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 2. APPLICATION OF AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

#### New and amendments to IFRSs in issue but not yet effective (Continued)

##### Amendments to IAS 1 Non-current Liabilities with Covenants (“the 2022 Amendments”)

The 2022 Amendments modify the requirements introduced by the amendments to IAS 1 issued in 2020, Classification of Liabilities as Current or Non-current (“the 2020 Amendment”) on how an entity classifies debt and other financial liabilities with covenants as current or non-current. The amendments specify that only covenants with which the entity is required to comply with on or before the end of the reporting period affect the entity’s right to defer settlement of a liability for at least twelve months after the reporting date. Covenants which are required to comply with only after the reporting period do not affect whether that right exists at the end of the reporting period.

The amendments also specify the disclosure requirements about information that enables users of financial statements to understand the risk that the liabilities could become repayable within twelve months after the reporting period, if the entity classify liabilities arising from loan arrangements as non-current when the entity’s right to defer settlement of those liabilities is subject to the entity complying with covenants within twelve months after the reporting period.

The amendments also defer the effective date of the 2020 Amendments to annual reporting periods beginning on or after 1 January 2024. The amendments, together with the 2020 Amendments, are effective for annual reporting periods beginning on or after 1 January 2024, with early application permitted. If an entity applies the 2020 amendments for an earlier period after the issue of the 2022 Amendments, the entity should also apply the 2022 Amendments for that period.

### 2. 應用國際財務報告準則(「國際財務報告準則」)之修訂(續)

#### 已頒佈但尚未生效之新訂國際財務報告準則及其修訂(續)

##### 國際會計準則第1號(修訂版)附帶契諾的非流動負債(「二零二二年修訂版」)

二零二二年修訂版修訂於二零二零年頒佈的國際會計準則第1號之修訂「將負債分類為即期或非即期」(「二零二零年修訂版」)所引入的要求，內容有關實體如何將附帶契諾的債務及其他金融負債分類為即期或非即期。該等修訂版訂明，實體須於報告期末或之前遵守的契諾方會影響實體於報告日期後最少十二個月內延遲結清負債的權利。僅須於報告期後遵守的契諾對該權利於報告期末是否存在並無影響。

該等修訂版亦訂明有關資料的披露要求，使財務報表使用者了解在該實體將貸款安排產生的負債分類為非流動負債，而實體延遲結清該等負債的權利視乎實體於報告期後十二個月內是否遵守契諾的情況下，則負債可能須於報告期後十二個月內償還的風險。

該等修訂版亦將二零二零年修訂版的生效日期推遲到二零二四年一月一日或之後開始的年度報告期間。該等修訂版與二零二零年修訂版於二零二四年一月一日或之後開始的年度報告期間生效，並允許提早應用。倘實體在頒佈二零二二年修訂版後的早期應用二零二零年修訂版，該實體亦應在該期間應用二零二二年修訂版。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 2. APPLICATION OF AMENDMENTS TO INTERNATIONAL FINANCIAL REPORTING STANDARDS (“IFRSs”) (Continued)

#### New and amendments to IFRSs in issue but not yet effective (Continued)

#### Amendments to IAS 1 Non-current Liabilities with Covenants (“the 2022 Amendments”) (Continued)

As at 31 December 2022, the Group’s right to defer settlement for borrowings of US\$127,000,000 are subject to compliance with certain financial ratios within 12 months from the reporting date and were classified as non-current as the Group. Upon the application of the amendments, covenants which the Group is required to comply with only after the reporting period do not affect whether that right exists at the end of the reporting date. Instead, the Group will disclose additional information about the covenants and facts and circumstance that indicate the Group may have difficulty complying with the covenants, if any, in the future.

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES

The consolidated financial statements have been prepared in accordance with IFRSs issued by the IASB. In addition, the consolidated financial statements include applicable disclosures required by the Rules Governing the Listing of Securities on the Stock Exchange of Hong Kong Limited (“**Listing Rules**”) and the Hong Kong Companies Ordinance.

The consolidated financial statements have been prepared on the historical cost basis except for certain financial instruments that are measured at fair value at the end of each reporting period, as explained in the accounting policies set out below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

### 2. 應用國際財務報告準則(「國際財務報告準則」)之修訂(續)

#### 已頒佈但尚未生效之新訂國際財務報告準則及其修訂(續)

#### 國際會計準則第1號(修訂版)附帶契諾的非流動負債(「二零二二年修訂版」)(續)

於二零二二年十二月三十一日，本集團延後償還127,000,000美元借款的權利須在報告日起計12個月內遵守若干財務比率並被分類為非流動。於應用修訂時，本集團須於報告後方遵守的契諾並不會影響該權利於報告日期後是否存在。相反，本集團將披露有關契諾的額外資料，以及表明本集團未來可能難以遵守契諾的事實和情況(如有)。

### 3. 綜合財務報表編製基準及重大會計政策

綜合財務報表已根據國際會計準則委員會頒佈之國際財務報告準則編製。另外，綜合財務報表包括香港聯合交易所有限公司證券上市規則(「**上市規則**」)及香港公司條例規定之適用披露。

誠如下文所載之會計政策所闡述，除於各報告期末按公平值計量的若干金融工具外，綜合財務報表乃按歷史成本基準編製。

歷史成本一般基於交換貨品及服務之代價的公平值計算。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or a liability, the Group takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these consolidated financial statements is determined on such a basis, except for leasing transactions that are accounted for in accordance with IFRS 16 "Leases", and measurements that have some similarities to fair value but are not fair value, such as net realisable value in IAS 2 "Inventories" or value in use in IAS 36 "Impairment of Assets" ("IAS 36").

In addition, for financial reporting purposes, fair value measurements are categorised into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety, which are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 inputs are unobservable inputs for the asset or liability.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

公平值乃市場參與者於計量日在有序交易中出售資產所收取或轉讓負債所付出的價格，而不論該價格為可直接觀察獲得或可使用其他估值技術估計。於估計資產或負債的公平值時，本集團會考慮該等市場參與者於計量日對資產或負債定價時所考慮的資產或負債的特徵。於該等綜合財務報表中作計量及／或披露用途的公平值乃按此基準釐定，惟根據國際財務報告準則第16號「租賃」入賬的租賃交易，以及與公平值存在若干相似之處但並非公平值（如國際會計準則第2號「存貨」的可變現淨值或國際會計準則第36號「資產減值」（「國際會計準則第36號」）的使用價值）的計量除外。

此外，就財務申報而言，公平值計量按公平值計量的輸入數據的可觀察程度及該等輸入數據對公平值計量整體的重要性劃分為第一、二或三級，詳情如下：

- 第一級輸入數據為實體於計量日可獲得的相同資產或負債於活躍市場的報價（未調整）；
- 第二級輸入數據為（不包括計入第一級的報價）資產或負債可直接或間接觀察的輸入數據；及
- 第三級輸入數據為資產或負債無法觀察的輸入數據。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

The significant accounting policies are set out below.

#### Basis of consolidation

The consolidated financial statements incorporate the financial statements of the Company and entities controlled by the Company and its subsidiaries. Control is achieved when the Company:

- has power over the investee;
- is exposed, or has rights, to variable returns from its involvement with the investee; and
- has the ability to use its power to affect its returns.

The Group reassesses whether or not it controls an investee if facts and circumstances indicate that there are changes to one or more of the three elements of control listed above.

Consolidation of a subsidiary begins when the Group obtains control over the subsidiary and ceases when the Group loses control of the subsidiary. Specifically, income and expenses of a subsidiary acquired or disposed of during the year are included in the consolidated statement of profit or loss and other comprehensive income from the date the Group gains control until the date when the Group ceases to control the subsidiary.

Profit or loss and each item of other comprehensive income are attributed to the owners of the Company and to the non-controlling interests. Total comprehensive income of subsidiaries is attributed to the owners of the Company and to the non-controlling interests even if this results in the non-controlling interests having a deficit balance.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

重大會計政策載列如下。

#### 綜合基準

綜合財務報表包括本公司以及本公司及其附屬公司所控制實體的財務報表。當本公司符合以下各項時，即取得控制權：

- 有權控制被投資方；
- 承擔或有權獲得來自參與被投資方營運之可變回報；及
- 有能力行使其權力影響其回報金額。

倘事實及情況表明上文所列三個控制權元素中的一個或多個有變，則本集團重新評估其是否對被投資方擁有控制權。

附屬公司於本集團取得其控制權時綜合入賬，並於本集團喪失對其的控制權時終止綜合入賬。具體而言，自本集團取得控制權當日起，年內所收購或出售附屬公司之收支均計入綜合損益及其他全面收益表，直至本集團不再控制該附屬公司當日止。

損益及各其他全面收入項目歸屬至本公司擁有人及非控股權益。附屬公司的全面收入總額歸屬至本公司擁有人及非控股權益，即使此舉會導致非控股權益出現虧絀結餘。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Basis of consolidation (Continued)

When necessary, adjustments are made to the financial statements of subsidiaries to bring their accounting policies in line with the Group's accounting policies.

All intragroup assets and liabilities, equity, income, expenses and cash flows relating to transactions between members of the Group are eliminated in full on consolidation.

Non-controlling interests in subsidiaries are presented separately from the Group's equity therein, which represent present ownership interests entitling their holders to a proportionate share of net assets of the relevant subsidiaries upon liquidation.

#### Revenue from contracts with customers

The Group recognises revenue when (or as) a performance obligation is satisfied, i.e. when "control" of the goods or services underlying the particular performance obligation is transferred to the customer.

A performance obligation represents a good or service (or a bundle of goods or services) that is distinct or a series of distinct goods or services that are substantially the same.

Control is transferred over time and revenue is recognised over time by reference to the progress towards complete satisfaction of the relevant performance obligation if one of the following criteria is met:

- the customer simultaneously receives and consumes the benefits provided by the Group's performance as the Group performs;
- the Group's performance creates or enhances an asset that the customer controls as the Group performs; or

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 綜合基準(續)

倘有需要，將對附屬公司的財務報表作出調整，以令其會計政策與本集團的會計政策貫徹一致。

與本集團成員公司之間的交易相關的所有集團內公司間資產與負債、股本、收入、開支及現金流量於綜合賬目時全數對銷。

於附屬公司之非控股權益與本集團之有關權益分開呈列，其相當於現時擁有權權益，賦予其持有人可按比例分佔有關附屬公司清盤時之資產淨值。

#### 客戶合約收益

本集團於完成履約責任時(即當特定之履約責任下之相關貨品或服務「控制權」轉移至客戶時)(或就此)確認收益。

履約責任指一項明確的貨品或服務(或一組貨品或服務)或一系列大致相同而屬明確的貨品或服務。

倘符合以下任何一項條件，控制權及收益將分別在一段時間內參照完成相關履約責任的進度而轉移及確認：

- 客戶隨著本集團履約同時獲得及利用自本集團履約所帶來之利益；
- 本集團之履約帶來新增資產或使資產有所升值，而客戶將隨著本集團履約獲得該資產之控制權；或

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Revenue from contracts with customers (Continued)

- the Group's performance does not create an asset with an alternative use to the Group and the Group has an enforceable right to payment for performance completed to date.

Otherwise, revenue is recognised at a point in time when the customer obtains control of the distinct good or service.

#### Variable consideration

For contracts that contain variable consideration (weight and grade of metals), the Group estimates the amount of consideration to which it will be entitled using the expected value method, which better predicts the amount of consideration to which the Group will be entitled.

The estimated amount of variable consideration is included in the transaction price only to the extent that it is highly probable that such an inclusion will not result in a significant revenue reversal in the future when the uncertainty associated with the variable consideration is subsequently resolved.

At the end of each reporting period, the Group updates the estimated transaction price (including updating its assessment of whether an estimate of variable consideration is constrained) to represent faithfully the circumstances present at the end of the reporting period and the changes in circumstances during the reporting period.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 客戶合約收益(續)

- 本集團之履約並無新增對本集團有其他用途之資產，而本集團就迄今已完成履約之部分有強制執行收款之權利。

否則，收益將於客戶獲得該明確的貨品或服務之控制權時確認。

#### 可變代價

就訂有涉及金屬重量及品位之可變代價之合約而言，本集團以預期估值方法更佳預測本集團將有權享有之代價金額估計有關代價金額。

可變代價之估計金額乃包含於交易價格內，惟僅當可變代價之相關不確定性在其後變得確定，致使有關估計金額很大可能不會導致於將來出現重大收益撥回，其方可包含於交易價格內。

於各報告期末，本集團更新其估計交易價格(包括更新其有關可變代價估計金額是否已設限之評估)，以忠實反映於報告期末之情況及於報告期內之情況變動。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Revenue from contracts with customers (Continued)

##### Variable consideration (Continued)

For some sales, revenue is recognised initially at a selling price that is determined on a provisional basis. The final selling price is subject to the confirmation of the weight and grade of minerals shipped and actual market price of the minerals on the date of final pricing, a process that could take up to 4 months after initial recognition. Adjustments between initial and final recognition is disclosed as provisional pricing adjustments. The adjustment in respect of the final weight and grades based on the third party examination is included within the “revenue” line item. The adjustment to the final mineral prices that is part of the fair value through profit or loss measurement of the trade receivables (see the accounting policy in respect of financial assets at FVTPL), is also included within the “revenue” line item.

##### Principal versus agent

When another party is involved in providing goods or services to a customer, the Group determines whether the nature of its promise is a performance obligation to provide the specified goods or services itself (i.e. the Group is a principal) or to arrange for those goods or services to be provided by the other party (i.e. the Group is an agent).

The Group is a principal if it controls the specified good or service before that good or service is transferred to a customer. The Group is an agent if its performance obligation is to arrange for the provision of the specified good or service by another party. In this case, the Group does not control the specified good or service provided by another party before that good or service is transferred to the customer.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 客戶合約收益(續)

##### 可變代價(續)

就若干銷售而言，收益初步按以臨時定價基準釐定之售價確認。最終銷售價格乃取決於付運礦物重量及品位之確認情況以及最終定價日礦物的實際市場價格而定，此過程可能於初步確認後長達4個月。初步確認與最終確認之間的調整作為臨時定價調整披露。經第三方查驗後對最終重量及品位所作出之調整計入「收益」分項內。對最終礦產價格所作出之調整屬於貿易應收款項中按公平值計入損益之一部分(見有關按公平值計入損益之金融資產之會計政策)亦計入「收益」分項內。

##### 主事與代理人

當另一方涉及向客戶提供貨品或服務時，本集團釐定其承諾性質為其自行提供指定貨品或服務(即本集團為主事)或安排由其他方提供該等貨品或服務(即本集團為代理人)之履約責任。

倘本集團於指定貨品或服務轉讓予客戶前控制該貨品或服務，則本集團為主事。倘本集團之履約責任為安排另一方提供指定貨品或服務，則本集團為代理。在此情況下，本集團於另一方所提供指定貨品或服務轉讓予客戶前並無控制該貨品或服務。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Leases

##### Definition of a lease

A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

##### The Group as a lessee

##### Allocation of consideration to components of a contract

For a contract that contains a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components. Non-lease components are separated from lease components and are accounted for by applying other applicable standards.

##### Right-of-use assets

The cost of right-of-use assets includes:

- the amount of the initial measurement of the lease liability;
- any lease payments made at or before the commencement date, less any lease incentives received; and
- any initial direct costs incurred by the Group.

Right-of-use assets are measured at cost, less any accumulated depreciation and impairment losses, and adjusted for any remeasurement of lease liabilities. Right-of-use assets are depreciated on a straight-line basis over the shorter of its estimated useful life and the lease term.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 租賃

##### 租賃的定義

倘合約為換取代價而給予在一段時間內控制可識別資產使用的權利，則該合約為租賃或包含租賃。

##### 本集團作為承租人

##### 分配代價至合約組成部分

就包含租賃組成部分及一項或多項額外租賃或非租賃組成部分之合約而言，本集團根據租賃組成部分的相對單獨價格及非租賃組成部分的總單獨價格將合約代價分配至各個租賃組成部分。非租賃組成部分與租賃組成部分分開呈列，並應用其他適用準則入賬。

##### 使用權資產

使用權資產的成本包括：

- 租賃負債的初始計量金額；
- 在開始日期或之前支付的任何租賃付款，減已獲得的任何租賃優惠；及
- 本集團產生的任何初始直接成本。

使用權資產按成本減任何累計折舊及減值虧損計量，並就任何重新計量的租賃負債作出調整。使用權資產按直線法基於其估計使用年期和租期計提折舊。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Leases (Continued)

#### The Group as a lessee (Continued)

#### Lease liabilities

At the commencement date of a lease, the Group recognises and measures the lease liability at the present value of lease payments that are unpaid at that date. In calculating the present value of lease payments, the Group uses the incremental borrowing rate at the lease commencement date if the interest rate implicit in the lease is not readily determinable.

The lease payments include:

- fixed payments (including in-substance fixed payments) less any lease incentives receivable;
- variable lease payments that depend on an index or a rate, initially measured using the index or rate as at the commencement date;
- amounts expected to be payable by the Group under residual value guarantees;
- the exercise price of a purchase option if the Group is reasonably certain to exercise the option; and
- payments of penalties for terminating a lease, if the lease term reflects the Group exercising an option to terminate the lease.

After the commencement date, lease liabilities are adjusted by interest accretion and lease payments.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 租賃(續)

#### 本集團作為承租人(續)

#### 租賃負債

於租賃開始日期，本集團按該日未支付的租賃金額現值確認及計量租賃負債。於計算租賃金額現值時，倘租賃中所隱含的利率不易釐定，則本集團使用租賃開始日期之遞增借款利率。

租賃金額包括：

- 固定金額(包括實質固定付款)減任何應收租賃優惠；
- 基於指數或利率的可變租賃金額，初步按於開始日期的指數或利率計量；
- 剩餘價值擔保下本集團的預期應付金額；
- 購買權的行使價(倘本集團合理確定行使購買權)；及
- 為終止租賃而支付的罰款(倘租賃條款反映本集團行使終止租賃的權利)。

於開始日期後，租賃負債乃透過應計利息及租賃付款予以調整。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Leases (Continued)

##### The Group as a lessee (Continued)

##### Lease liabilities (Continued)

The Group remeasures lease liabilities (and makes a corresponding adjustment to the related right-of-use assets) whenever:

- the lease term has changed or there is a change in the assessment of exercise of a purchase option, in which case the related lease liability is remeasured by discounting the revised lease payments using a revised discount rate at the date of reassessment.
- the lease payments change due to changes in market rental rates following a market rent review, in which case the related lease liability is remeasured by discounting the revised lease payments using the initial discount rate.

##### The Group as a lessor

Leases for which the Group is a lessor are classified as finance or operating leases. Whenever the terms of the lease transfer substantially all the risks and rewards incidental to ownership of an underlying asset to the lessee, the contract is classified as a finance lease. All other leases are classified as operating leases.

Amounts due from lessees under finance leases are recognised as receivables at commencement date at amounts equal to net investments in the leases, measured using the interest rate implicit in the respective leases. Initial direct costs (other than those incurred by manufacturer or dealer lessors) are included in the initial measurement of the net investments in the leases. Interest income is allocated to accounting periods so as to reflect a constant periodic rate of return on the Group's net investment outstanding in respect of the leases.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 租賃(續)

##### 本集團作為承租人(續)

##### 租賃負債(續)

出現以下情況時，本集團將重新計量租賃負債(及對相關使用權資產作出相應調整)：

- 租期已發生改變或行使購買權的評估出現變動，在這種情況下，相關租賃負債乃透過使用重新評估日期的經修訂貼現率貼現經修訂租賃金額而予以重新計量。
- 租賃金額因市場租金檢討後導致市場租金率發生變化，在這種情況下，相關租賃負債乃透過使用初始貼現率貼現經修訂租賃金額而予以重新計量。

##### 本集團作為出租人

本集團為出租人的租賃分類為融資或經營租賃。倘租賃條款將與相關資產所有權有關的絕大部分風險及回報轉移予承租人，合約則被分類為融資租賃。所有其他租賃均分類為經營租賃。

融資租賃下應收承租人的款項於開始日期確認為應收款項，其金額相等於租賃的投資淨額，並使用各租賃隱含的利率計量。初始直接成本(製造商或經銷商出租人產生的直接成本除外)計入租賃投資淨額的首次計量中。利息收入分配至會計期間，以反映本集團有關租賃的未償還投資淨額的固定定期回報率。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Foreign currencies

In preparing the financial statements of each individual group entity, transactions in currencies other than the functional currency of that entity (foreign currencies) are recognised at the rates of exchange prevailing on the dates of the transactions. At the end of the reporting period, monetary items denominated in foreign currencies are retranslated at the rates prevailing at that date. Non-monetary items that are measured in terms of historical cost in a foreign currency are not retranslated.

Exchange differences arising on the settlement of monetary items, and on the retranslation of monetary items, are recognised in profit or loss in the period in which they arise.

For the purposes of presenting the consolidated financial statements, the assets and liabilities of the Group's foreign operations are translated into the presentation currency of the Group (i.e. US\$) using exchange rate prevailing at the end of each reporting period. Income and expenses items are translated at the average exchange rates for the period, unless exchange rates fluctuate significantly during that period, in which case, the exchange rates at the dates of transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in equity under the heading of the "translation reserve" (attributed to non-controlling interests as appropriate).

On the disposal of a foreign operation (that is, a disposal of the Group's entire interest in a foreign operation, or a disposal involving loss of control over a subsidiary that includes a foreign operation), all of the exchange differences accumulated in equity in respect of that operation attributable to the owners of the Company are reclassified to profit or loss.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 外幣

於編製各個別集團實體之財務報表時，以該實體功能貨幣以外之貨幣(外幣)所進行之交易，按交易當日適用之匯率確認。於報告期末，以外幣計值之貨幣項目乃按於該日適用之匯率重新換算。按歷史成本計量以外幣計值之非貨幣項目無須重新換算。

因貨幣項目結算及因重新換算貨幣項目而產生之匯兌差額，乃於產生期間在損益內確認。

就呈列綜合財務報表而言，本集團對外業務之資產及負債按各報告期末適用之匯率換算為本集團之呈列貨幣(即美元)。收入及開支項目按期內平均匯率換算；惟倘該期間內匯率大幅波動，則採用交易當日適用之匯率換算。所產生之匯兌差額(如有)於其他全面收入確認，並於「換算儲備」項下權益中累計(非控股權益應佔(倘適用))。

出售境外業務時(即出售本集團於境外業務之全部權益，或出售涉及失去對包含境外業務的附屬公司之控制權)，於權益中累計並與該業務相關之歸屬於本公司擁有人之所有匯兌差額重新分類至損益。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Borrowing costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets until such time as the assets are substantially ready for their intended use or sale.

Any specific borrowing that remain outstanding after the related asset is ready for its intended use or sale is included in the general borrowing pool for calculation of capitalisation rate on general borrowings. Investment income earned on the temporary investment of specific borrowings pending their expenditure on qualifying assets is deducted from the borrowing costs eligible for capitalisation.

All other borrowing costs are recognised in profit or loss in the period in which they are incurred.

### Retirement benefits costs

Payments to defined contribution retirement benefit schemes are recognised as an expense when employees have rendered service entitling them to the contributions.

### Short-term employee benefits

Short-term employee benefits are recognised at the undiscounted amount of the benefits expected to be paid as and when employees rendered the services. All short-term employee benefits are recognised as an expense unless another IFRS requires or permits the inclusion of the benefit in the cost of an asset.

A liability is recognised for benefits accruing to employees (such as wages and salaries and annual leave) after deducting any amount already paid.

## 3. 綜合財務報表編製基準及重大會計政策 (續)

### 借貸成本

因收購、興建或生產需要長時間籌備方可供其擬定用途或銷售之合資格資產所直接產生之借貸成本，加至該等資產之成本，直至該等資產大致上可供其擬定用途或銷售為止。

任何於相關資產可作擬定用途或出售之後仍未償還的任何特別借款於計算一般借款的資本化率時計入一般借款組合。在特別借款撥作合資格資產開支前之暫時投資所賺取的投資收入，自合資格資本化之借貸成本扣除。

所有其他借貸成本於產生期間於損益確認。

### 退休福利成本

向界定供款退休福利計劃繳付之款項於僱員提供令其有權享有供款之服務時確認為開支。

### 短期僱員福利

短期僱員福利按僱員提供服務時預期支付的福利的未貼現金額確認。所有短期僱員福利均被確認為開支，除非另有國際財務報告準則要求或允許在資產成本中納入福利。

經扣除任何已付金額後，僱員應得的福利（例如工資及薪金及年假）確認為負債。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Taxation

Income tax expense represents the sum of the tax currently payable and deferred tax.

The tax currently payable is based on taxable profit for the year. Taxable profit differs from profit before tax because of items of income or expense that are taxable or deductible in other years and items that are never taxable or deductible. The Group's liability for current tax is calculated using the tax rates that have been enacted or substantively enacted by the end of the reporting period.

Deferred tax is recognised on temporary differences between the carrying amounts of assets and liabilities in the consolidated financial statements and the corresponding tax bases used in the computation of taxable profit. Deferred tax liabilities are generally recognised for all taxable temporary differences. Deferred tax assets are generally recognised for all deductible temporary difference to the extent that it is probable that taxable profits will be available against which those deductible temporary differences can be utilised. Such deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition (other than in a business combination) of assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences associated with investments in subsidiaries, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future. Deferred tax assets arising from deductible temporary differences associated with such investments are only recognised to the extent that it is probable that there will be sufficient taxable profits against which to utilise the benefits of the temporary differences and they are expected to reverse in the foreseeable future.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 稅項

所得稅開支指即期應繳稅項及遞延稅項之總和。

即期應繳稅項根據年內應課稅溢利計算。應課稅溢利有別於除稅前溢利，因其不包括其他年度之應課稅或可扣稅收入或開支項目，亦不包括毋須課稅或不可扣稅項目。本集團之即期稅項負債採用於報告期末已實施或大致已實施之稅率計算。

遞延稅項乃就綜合財務報表內資產及負債之賬面值與用以計算應課稅溢利之相關稅基準之暫時差額而確認。遞延稅項負債一般就所有應課稅暫時差額確認。遞延稅項資產則在有可能獲得可動用可扣減暫時差額之應課稅溢利時確認。倘暫時差額乃因初步確認一宗交易(業務合併除外)中的資產及負債產生，且不影響應課稅溢利及會計溢利，則相關遞延稅項資產及負債不予確認。

遞延稅項負債乃就於附屬公司之投資相關之應課稅暫時差額而確認，惟倘本集團能控制暫時差額之撥回及暫時差額不大可能於可見將來撥回則除外。因該等投資之可扣減暫時差額而產生之遞延稅項資產，僅於有可能獲得可供動用暫時差額之利益的足夠應課稅溢利且其預計可於可見將來撥回時確認。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Taxation (Continued)

The carrying amount of deferred tax assets is reviewed at the end of the reporting period and reduced to the extent that it is no longer probable that sufficient taxable profit will be available to allow all or part of the asset to be recovered.

Deferred tax assets and liabilities are measured at the tax rates that are expected to apply in the period in which the liability is settled or the asset is realised, based on tax rate (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

The measurement of deferred tax liabilities and assets reflects the tax consequences that would follow from the manner in which the Group expects, at the end of the reporting period, to recover or settle the carrying amount of its assets and liabilities.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to set off current tax assets against current tax liabilities and when they relate to income taxes levied to the same taxable entity by the same taxation authority.

Current and deferred tax is recognised in profit or loss.

## 3. 綜合財務報表編製基準及重大會計政策 (續)

### 稅項(續)

遞延稅項資產之賬面值於報告期末檢討，並扣減至當不再可能有足夠應課稅溢利可供收回所有或部分資產為止。

遞延稅項資產及負債按預期於清償負債或變現資產之期間適用之稅率計量，該稅率乃根據於報告期末已實施或大致已實施之稅率(及稅法)釐定。

遞延稅項負債及資產之計量反映本集團於報告期末預期收回或結清其資產及負債賬面值之方式可能會帶來之稅務後果。

遞延稅項資產及負債乃當有法定可執行權利將即期稅項資產與即期稅項負債抵銷且其與同一稅務機關向同一應課稅實體徵收之所得稅有關時予以抵銷。

即期及遞延稅項於損益確認。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Property, plant and equipment

Property, plant and equipment are tangible assets that are held for use in the production or supply of goods or services, or for administrative purposes (other than freehold land and construction in progress) are stated in the consolidated statement of financial position at cost less subsequent accumulated depreciation and subsequent accumulated impairment losses, if any.

Freehold land is stated at cost less subsequent accumulated impairment losses and is not depreciated.

Construction in progress, which represents assets under construction, is stated at cost less impairment loss, if any. When the assets are completed and ready for intended use, the carrying amount of the assets will be reclassified to the appropriate categories of property, plant and equipment. Depreciation of these assets, on the same basis as the appropriate categories of property, plant and equipment, commences when the assets are ready for their intended use.

Mining assets, including buildings and infrastructure, shafts and mine development costs, are depreciated to their residual values based on estimated proved and probable ore reserves using the unit of production ("UOP") method. The estimated mineral reserves, useful lives and residual values are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 物業、廠房及設備

物業、廠房及設備為持作用於生產或提供貨物或服務或作行政用途的有形資產(不包括永久業權土地及在建工程)按成本減其後的累計折舊及其後的累計減值虧損(如有)於綜合財務狀況表列賬。

永久業權土地按成本減其後的累計減值虧損列示，且不予折舊。

在建工程指興建中之資產，按成本減減值虧損(如有)列賬。當有關資產完成及可投入作擬定用途時，該等資產之賬面值將重新分類至適當的物業、廠房及設備類別。該等資產計提折舊的基準與適當類別之物業、廠房及設備相同，即在資產可投入作擬定用途時開始計提折舊。

採礦資產(包括樓宇及基礎設施、豎井及礦場開發成本)按估計的證實及概約礦石儲量使用產量單位("UOP")法對其剩餘價值計提折舊。估計礦產儲量、可使用年期及剩餘價值乃於各報告期末進行檢討，估計發生變動之影響則按未來適用法入帳。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Property, plant and equipment (Continued)

Depreciation for other property, plant and equipment (other than freehold land, mining assets and construction in progress) are depreciated using the straight-line method over their estimated useful lives to their residual value, which vary between 4 to 10 years.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement of an item of property, plant and equipment is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in profit or loss.

#### Stripping costs

Stripping costs incurred in the development phase of a surface mine are capitalised as mine development costs. Depreciation of the stripping costs, on the same basis as the related mines, commences when the mines commence production. To the extent that stripping costs incurred in the production phase of a surface mine provide improved access to ore, such costs are recognised as a non-current asset when the following criteria are met:

- it is probable that the future economic benefit (improved access to the ore body) associated with the stripping activity will flow to the Group;
- the Group can identify the component of the ore body for which access has been improved; and
- the costs relating to the stripping activity associated with that mine can be measured reliably.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 物業、廠房及設備(續)

其他物業、廠房及設備(不包括永久業權土地、採礦資產及在建工程)按其估計可使用年期(介乎4年至10年)以直線法計提折舊至剩餘價值。

物業、廠房及設備項目於出售時或當預期繼續使用該資產不會產生未來經濟利益時取消確認。物業、廠房及設備項目出售或報廢產生之任何損益，按出售所得款項與資產賬面值之間的差額釐定並於損益確認。

#### 剝採成本

露天礦場開發階段所產生之剝採成本乃資本化為礦場開發成本。剝採成本由礦場開始生產時開始計提折舊，基準與相關礦場相同。倘露天礦場生產階段所產生之剝採成本可改善礦石開採，則該等成本將於符合以下條件時確認為非流動資產：

- 與剝採活動有關之未來經濟利益(即經改善之礦體開採)可能會流入本集團；
- 本集團能夠識別開採經改善之礦體之成分；及
- 與該礦場有關之剝採活動相關成本能夠可靠地計量。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Stripping costs (Continued)

Stripping costs are capitalised as mine development costs and are subsequently depreciated based on estimated proved and probable ore reserves using the UOP method once the mine comes into commercial production. The costs of normal ongoing operational stripping activities are accounted for as inventories.

#### Mineral rights

Mineral rights represent the rights to conduct mining activities.

Mineral rights are stated at cost less accumulated amortisation and any impairment losses. Mineral rights include the cost of acquiring mining licences. Mineral rights are amortised based on estimated proved and probable ore reserves using the UOP method.

Mineral rights are derecognised on disposal, or when no future economic benefits are expected from use or disposal. Gains and losses arising from derecognition of mineral rights, measured as the difference between the net disposal proceeds and the carrying amount of the asset, are recognised in profit or loss when the asset is derecognised.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 剝採成本(續)

剝採成本乃資本化為礦場開發成本。一經礦場投入商業生產，該等成本其後將使用UOP法按估計的證實及概約礦石儲量計提折舊。正常持續的經營性剝採活動之成本則入賬列為存貨。

#### 礦產權

礦產權指從事採礦活動之權利。

礦產權按成本減累計攤銷及任何減值虧損列賬。礦產權包括取得採礦許可證之成本。礦產權按估計的證實及概約礦石儲量使用UOP法計提攤銷。

礦產權於出售或預期不會從其使用或出售產生未來經濟利益時取消確認。於取消確認礦產權時所產生之收益及虧損以出售所得款項淨額與該資產賬面值間之差額計算，並將於取消確認資產時於損益確認。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Impairment losses on property, plant and equipment (including stripping costs), right- of-use assets and intangible assets other than exploration and evaluation assets

At the end of the reporting period, the Group reviews the carrying amounts of its property, plant and equipment, right-of-use assets and intangible assets to determine whether there is any indication that those assets have suffered an impairment loss, or impairment loss recognised in prior periods may no longer exist or may have decreased. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss or reversal of impairment losses, if any.

The recoverable amount of property, plant and equipment, right-of-use assets, and intangible assets are estimated individually. When it is not possible to estimate the recoverable amount individually, the Group estimates the recoverable amount of the cash-generating unit to which the asset belongs.

In testing a cash-generating unit for impairment, corporate assets are allocated to the relevant cash generating units when a reasonable and consistent basis of allocation can be established, or otherwise they are allocated to the smallest group of cash-generating units for which a reasonable and consistent allocation basis can be established. The recoverable amount is determined for the cash-generating unit or group of cash-generating units to which the corporate asset belongs, and is compared with the carrying amount of the relevant cash-generating unit or group of cash-generating units.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 物業、廠房及設備(包括剝採成本)、使用 權資產及無形資產(勘探及評估資產除外) 之減值虧損

於報告期末，本集團對其物業、廠房及設備、使用權資產及無形資產之賬面值作出檢討，以釐定是否有任何跡象顯示該等資產已出現減值虧損，或於過往期間已確認的減值虧損或會不復存在或已減少。如有任何該等跡象，則會估計資產的可收回金額，以釐定減值虧損或減值虧損撥回(如有)的程度。

物業、廠房及設備、使用權資產及無形資產之可收回金額乃個別估計。當不大可能估計個別資產之可收回金額時，本集團估計相關資產所屬現金產生單位之可收回金額。

就現金產生單位進行減值測試時，當可建立分配之合理及一致基準時，公司資產分配至相關現金產生單位，或另行分配至可建立合理及一致分配基準之最小現金產生單位組合。對公司資產所屬現金產生單位或現金產生單位組合，釐定其可收回金額，並與相關現金產生單位或現金產生單位組合之賬面值進行比較。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Impairment losses on property, plant and equipment (including stripping costs), right-of-use assets and intangible assets other than exploration and evaluation assets (Continued)

Recoverable amount is the higher of fair value less costs of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset (or a cash-generating unit) for which the estimates of future cash flows have not been adjusted.

If the recoverable amount of an asset (or a cash-generating unit) is estimated to be less than its carrying amount, the carrying amount of the asset (or a cash-generating unit) is reduced to its recoverable amount. For corporate assets or portion of corporate assets which cannot be allocated on a reasonable and consistent basis to a cash-generating unit, the Group compares the carrying amount of a group of cash-generating units, including the carrying amounts of the corporate assets or portion of corporate assets allocated to that group of cash-generating units, with the recoverable amount of the group of cash-generating units. In allocating the impairment loss, the impairment loss is allocated first to reduce the carrying amount of any goodwill (if applicable) and then to the other assets on a pro-rata basis based on the carrying amount of each asset in the unit or the group of cash-generating units. The carrying amount of an asset is not reduced below the highest of its fair value less costs of disposal (if measurable), its value in use (if determinable) and zero. The amount of the impairment loss that would otherwise have been allocated to the asset is allocated pro rata to the other assets of the unit or the group of cash-generating units. An impairment loss is recognised immediately in profit or loss.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 物業、廠房及設備(包括剝採成本)、使用權資產及無形資產(勘探及評估資產除外)之減值虧損(續)

可收回金額乃公平值減出售成本與使用價值兩者中之較高者。評估使用價值時，採用稅前貼現率將估計未來現金流量貼現至其現值，該貼現率反映當前市場對貨幣時間值及資產(或現金產生單位)特定風險(未來現金流量之估計未就該等風險作出調整)之評估。

倘某項資產(或現金產生單位)之可收回金額估計將低於其賬面值，則該資產(或現金產生單位)之賬面值將調減至其可收回金額。就未能按合理一致的基準分配至現金產生單位的公司資產或部分公司資產，本集團會比較一個組別的現金產生單位賬面值(包括已分配至該組現金產生單位的公司資產或部分公司資產的賬面值)與該組現金產生單位的可收回金額。於分配減值虧損時，首先分配減值虧損以調減任何商譽的賬面值(如適用)，其後根據單位或一組現金產生單位內各資產之賬面值按比例分配至其他資產。資產之賬面值不會下調至低於其公平值減去出售成本(若可計量)、其使用價值(若可釐定)與零之間的最高者。本應分配至該資產之減值虧損金額按比例分配至該單位或一組現金產生單位之其他資產。減值虧損即時於損益確認。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Impairment losses on property, plant and equipment (including stripping costs), right-of-use assets and intangible assets other than exploration and evaluation assets (Continued)

Where an impairment loss subsequently reverses, the carrying amount of the asset (or cash-generating unit or the group of cash-generating units) is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for the asset (or a cash-generating unit or the group of cash-generating units) in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

#### Exploration and evaluation assets

Exploration and evaluation assets are recognised at cost on initial recognition. Subsequent to initial recognition, exploration and evaluation assets are stated at cost less any accumulated impairment losses. Costs of exploration are capitalised pending a determination of whether sufficient quantities of potential mineral reserves have been discovered.

Exploration and evaluation assets include the cost of exploration rights and the expenditures incurred in the search for mineral resources as well as the determination of the technical feasibility and commercial viability of extracting those resources. Once the technical feasibility and commercial viability of the extraction of mineral resources in an area of interest are demonstrated, any previously recognised exploration and evaluation assets attributable to that area of interest are first tested for impairment and then reclassified to either mineral rights or property, plant and equipment under the heading of construction in progress.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 物業、廠房及設備(包括剝採成本)、使用權資產及無形資產(勘探及評估資產除外)之減值虧損(續)

倘減值虧損其後撥回，則將該資產(或現金產生單位或一組現金產生單位)之賬面值增至其可收回金額的經修訂估計值，惟增加後的賬面值不得超過該資產(或現金產生單位或一組現金產生單位)過往年度並無確認減值虧損情況下所應釐定之賬面值。減值虧損撥回金額即時於損益確認。

#### 勘探及評估資產

勘探及評估資產於初步確認時按成本確認。初步確認後，勘探及評估資產按成本減任何累計減值虧損列賬。勘探成本是否資本化取決於是否發現足夠數量的潛在礦產儲量。

勘探及評估資產包括探礦權之成本以及於探索礦產資源及釐定開採該等資源之技術可行性及商業可行性時所產生之開支。當可證實於某個權益地區開採礦產資源之技術可行性及商業可行性時，先前確認歸屬於該權益地區的任何勘探及評估資產首先進行減值測試，之後重新分類至礦產權或在建工程下的物業、廠房及設備。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Impairment of exploration and evaluation assets

The carrying amount of exploration and evaluation assets is reviewed whenever there is an indication that they may be impaired, or impairment loss recognised in prior periods may no longer exist or may have decreased. Impairment test is performed in accordance with IAS 36 whenever one of the following events or changes in circumstances indicate that the carrying amount may not be recoverable (the list is not exhaustive):

- the period for which the Group has the right to explore in the specific area has expired during the period or will expire in the near future, and is not expected to be renewed;
- substantive expenditure on further exploration for and evaluation of mineral resources in the specific area is neither budgeted nor planned;
- exploration for and evaluation of mineral resources in the specific area have not led to the discovery of commercially viable quantities of mineral resources and the Group has decided to discontinue such activities in the specific area; or
- sufficient data exist to indicate that, although a development in the specific area is likely to proceed, the carrying amount of the exploration and evaluation asset is unlikely to be recovered in full from successful development or by sale.

An impairment loss is recognised in profit or loss whenever the carrying amount of an asset exceeds its recoverable amount. Where an impairment loss subsequently reverses, the carrying amount of exploration and evaluation assets is increased to the revised estimate of its recoverable amount, but so that the increased carrying amount does not exceed the carrying amount that would have been determined had no impairment loss been recognised for exploration and evaluation assets in prior years. A reversal of an impairment loss is recognised immediately in profit or loss.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 勘探及評估資產之減值

勘探及評估資產之賬面值於有跡象顯示其可能出現減值，或於過往期間已確認的減值虧損或會不復存在或已減少時進行檢討。倘出現下列其中一項事件或事況變化，顯示賬面值或無法收回（所列項目並非詳盡無遺），則根據國際會計準則第36號進行減值測試：

- 本集團於特定地區之勘探權年期已於期內或將於不久將來屆滿，且預期不會續期；
- 於特定地區進一步勘探及評估礦產資源所產生之大量開支並非在預算或計劃之內；
- 於特定地區勘探及評估礦產資源並無導致發現在商業上可行的礦產資源數量，而本集團已決定終止於該特定地區進行該等活動；或
- 存在充分數據顯示，儘管於特定地區之開發可能會繼續進行，但勘探及評估資產之賬面值不大可能從成功開發或銷售中全數收回。

倘一項資產之賬面值超出其可收回金額，則於損益確認減值虧損。倘減值虧損其後撥回，則勘探及評估資產之賬面值將增至其可收回金額的經修訂估計值，惟增加後的賬面值不得超過勘探及評估資產過往年度並無確認減值虧損情況下所應釐定之賬面值。減值虧損撥回金額即時於損益確認。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Inventories

Consumable stores are valued at the lower of cost, determined on a weighted average basis, and estimated net realisable value. Net realisable value represents the estimated selling price for inventories less all estimated costs of completion and costs necessary to make the sale. Costs necessary to make the sale include incremental costs directly attributable to the sale and non-incremental costs which the Group must incur to make the sale. Obsolete and slow-moving consumable stores are identified and are written down to their net realisable values. Product inventories are valued at the lower of cost, determined on a weighted average basis, and net realisable value.

#### Provisions

Provisions are recognised when the Group has a present obligation (legal or constructive) as a result of a past event, it is probable that the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

The amount recognised as a provision is the best estimate of the consideration required to settle the present obligation at the end of the reporting period, taking into account the risks and uncertainties surrounding the obligation. Where a provision is measured using cash flows estimated to settle the present obligation, its carrying amount is the present value of those cash flows (when the effect of the time value of money is material).

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 存貨

易耗品按成本(以加權平均基準釐定)與估計可變現淨值間之較低者定值。可變現淨值指存貨估計售價減完成的所有估計成本及作出銷售的必需成本。作出銷售所需的成本包括直接歸屬於銷售的增量成本及本集團為作出銷售而必需產生的非增量成本。過時及滯銷易耗品須作識別並撇減至其可變現價值。產品存貨按成本(以加權平均基準釐定)與可變現淨值間之較低者定值。

#### 撥備

倘本集團因過往事件而承擔現時之法律或推定責任，及本集團很可能須履行責任，且有關責任金額能夠可靠地估計，則確認撥備。

確認為撥備之金額為於報告期末對履行現時責任所需代價之最佳估計，並經考慮責任相關之風險及不確定性。倘撥備採用履行現時責任之估計現金流量計量，而貨幣時間值之影響重大，則其賬面值為該等現金流量之現值。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Provision for rehabilitation and environmental expenditure

Long-term environmental obligations are provided for based on the Group's environmental plans, in compliance with current environmental and regulatory requirements.

Full provision is made based on the net present value of the estimated cost of restoring the environmental disturbance that has occurred up to the end of the reporting period. The estimated cost is capitalised in property, plant and equipment as decommissioning assets and amortised based on estimated proved and probable ore reserves using the UOP method. The estimated cost of rehabilitation is reviewed annually and adjusted as appropriate for changes in legislation or technology and unwinding for the time value of money. Changes in estimated costs are added or deducted from the cost of the relevant assets in the period such changes occurred.

#### Cash and cash equivalents

Bank balances and cash presented on the consolidated statement of financial position include cash, which comprises of cash on hand and demand deposits, excluding bank balances that are subject to regulatory restrictions that result in such balances no longer meeting the definition of cash.

For the purposes of the consolidated statement of cash flows, cash and cash equivalents consist of bank balances and cash as defined above, net of outstanding bank overdrafts which are repayable on demand and form an integral part of the Group's cash management. Such overdrafts are presented as short-term borrowings in the consolidated statement of financial position.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 復修及環保開支撥備

長期環保責任乃遵照現行環保及監管規定根據本集團之環保計劃計提撥備。

截至報告期末已發生的環境干擾修復活動，乃按其估計成本淨現值作全數撥備。估計成本於物業、廠房及設備進行資本化為善後資產，並按估計的證實及概約礦石儲量使用UOP法計提攤銷。估計復修成本每年檢討，並就法例或科技之改變以及貨幣時間值之展開作適當調整。估計成本之變動乃加入或扣自出現變動期內相關資產之成本。

#### 現金及現金等價物

於綜合財務狀況表呈列的銀行結餘及現金包括現金(包括手頭現金及活期存款)，但不包括受監管限制(從而導致該等結餘不再符合現金之定義)的銀行結餘。

就綜合現金流量表而言，現金和現金等價物包括上述定義的銀行結餘和現金，扣除按需償還並構成集團的現金管理不可分割的一部分未償還的銀行透支。這種透支在綜合財務狀況表列示為短期借款。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments

Financial assets and financial liabilities are recognised when a group entity becomes a party to the contractual provisions of the instruments. All regular way purchases or sales of financial assets are recognised and derecognised on a trade date basis. Regular way purchases or sales are purchases or sales of financial assets that require delivery of assets within the time frame established by regulation or convention in the marketplace.

Financial assets and financial liabilities are initially measured at fair value except for trade receivables arising from contracts with customers which are initially measured in accordance with IFRS 15 Revenue from Contracts with Customers (“**IFRS 15**”). Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at FVTPL) are added to or deducted from the fair value of the financial assets or financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at FVTPL are recognised immediately in profit or loss.

The effective interest method is a method of calculating the amortised cost of a financial asset or financial liability and of allocating interest income and interest expense over the relevant period. The effective interest rate is the rate that exactly discounts estimated future cash receipts and payments (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) through the expected life of the financial asset or financial liability, or, where appropriate, a shorter period, to the net carrying amount on initial recognition.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具

當集團實體成為工具合約條款之訂約方時，確認金融資產及金融負債。所有日常買賣之金融資產均於交易日確認及取消確認。日常買賣指須於市場規例或慣例所規定之期間內交付資產之金融資產買賣活動。

金融資產及金融負債初步按公平值計量，惟根據國際財務報告準則第15號客戶合約收益(「**國際財務報告準則第15號**」)初步計量之客戶合約產生之貿易應收款項除外。於初步確認時，購買或發行金融資產及金融負債(不包括按公平值計入損益之金融資產及金融負債)直接應佔之交易成本適當地計入金融資產或金融負債之公平值或從中扣除。購買按公平值計入損益之金融資產或金融負債直接應佔之交易成本即時於損益確認。

實際利率法為一種計算金融資產或金融負債攤銷成本及於有關期間內分配利息收入及利息開支之方法。實際利率為一項於金融資產或金融負債之預計年期內或(如適用)較短期間內將估計未來現金收入及付款(包括構成實際利率一部分之所有已付或已收費用及點差、交易成本及其他溢價或折讓)準確貼現至初步確認時之賬面淨值之利率。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets

#### *Classification and subsequent measurement of financial assets*

Financial assets that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to collect contractual cash flows; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets that meet the following conditions are subsequently measured at fair value through other comprehensive income ("FVTOCI"):

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial asset; and
- the contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

All other financial assets are subsequently measured at FVTPL.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產

#### *金融資產之分類及其後計量*

符合下列條件之金融資產其後按攤銷成本計量：

- 金融資產以目的為收取合約現金流量之商業模式持有；及
- 合約條款導致於特定日期產生之現金流量僅為支付本金及未償還本金利息。

符合以下條件之金融資產其後按公平值計入其他全面收入(「按公平值計入其他全面收入」)計量：

- 金融資產乃按透過收取合約現金流量及銷售金融資產達致目標之業務模式持有；及
- 合約條款導致於特定日期產生之現金流量僅為支付本金及未償還本金利息。

所有其他金融資產其後按公平值計入損益計量。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets (Continued)

#### **Classification and subsequent measurement of financial assets (Continued)**

(i) *Amortised cost and interest income*

Interest income is recognised using the effective interest method for financial assets measured subsequently at amortised cost. Interest income is calculated by applying the effective interest rate to the gross carrying amount of a financial asset, except for financial assets that have subsequently become credit-impaired (see below). For financial assets that have subsequently become credit-impaired, interest income is recognised by applying the effective interest rate to the amortised cost of the financial asset from the next reporting period. If the credit risk on the credit-impaired financial asset improves so that the financial asset is no longer credit-impaired, interest income is recognised by applying the effective interest rate to the gross carrying amount of the financial asset from the beginning of each reporting period following the determination that the asset is no longer credit-impaired.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產(續)

#### **金融資產之分類及其後計量(續)**

(i) *攤銷成本及利息收入*

就其後按攤銷成本計量之金融資產而言，利息收入採用實際利率法確認。利息收入透過對金融資產之總賬面值運用實際利率計算，惟其後出現信貸減值之金融資產除外(見下文)。就其後出現信貸減值之金融資產而言，利息收入乃透過對自下個報告期間起金融資產之攤銷成本運用實際利率確認。如已信貸減值之金融資產之信貸風險改善，致令金融資產不再有信貸減值，則自於釐定資產不再信貸減值後各報告期間開始起，利息收入乃透過對金融資產之總賬面值運用實際利率法確認。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets (Continued)

#### Classification and subsequent measurement of financial assets (Continued)

##### (ii) Financial assets at FVTPL

Financial assets that do not meet the criteria for being measured at amortised cost or FVTOCI or designated as FVTOCI are measured at FVTPL.

Financial assets at FVTPL are measured at fair value at the end of each reporting period, with any fair value gains or losses recognised in profit or loss. The net gain or loss recognised in profit or loss excludes any interest earned on the financial asset and is included in the "other gains and losses" line item.

Trade receivables under provisional pricing arrangements that are exposed to future movement in London Metal Exchange ("LME") and Metal Bulletin ("MB") commodity prices have the contractual cash flow characteristics that are not solely payment of principal and interest on the principal amount outstanding and are therefore measured at FVTPL. The change in fair value is included in the "revenue" line item.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產(續)

#### 金融資產之分類及其後計量(續)

##### (ii) 按公平值計入損益之金融資產

並不符合按攤銷成本或按公平值計入其他全面收入計量之金融資產，或指定為按公平值計入其他全面收入之金融資產，均按公平值計入損益計量。

按公平值計入損益之金融資產於各報告期末按公平值計量，任何公平值收益或虧損均於損益內確認。於損益內確認之收益或虧損承額不包括於金融資產賺取之任何利息，並計入「其他收益及虧損」分項內。

臨時定價安排下承受倫敦金屬交易所(「倫金所」)及金屬導報(「金屬導報」)商品價格未來變動的貿易應收款項具有合約現金流量特徵，而不僅僅是支付本金及未償還本金利息，因此按公平值計入損益計量。公平值變動計入「收益」分項內。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets (Continued)

#### Impairment of financial assets

The Group performs impairment assessment under expected credit loss (“ECL”) model on financial assets (including other receivables, bank deposits with original maturity over three months and bank balances) which are subject to impairment assessment under IFRS 9 “Financial Instruments” (“IFRS 9”). The amount of ECL is updated at each reporting date to reflect changes in credit risk since initial recognition.

Lifetime ECL represents the ECL that will result from all possible default events over the expected life of the relevant instrument. In contrast, 12-month ECL (“12m ECL”) represents the portion of lifetime ECL that is expected to result from default events that are possible within 12 months after the reporting date. Assessment are done based on the Group’s historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current conditions at the reporting date as well as the forecast of future conditions.

The Group always recognises lifetime ECL for trade receivables at amortised cost. The ECL on these assets are assessed individually. For all other instruments, the Group measures the loss allowance equal to 12m ECL, unless there has been a significant increase in credit risk since initial recognition, in which case the Group recognises lifetime ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產(續)

#### 金融資產之減值

本集團根據預期信貸虧損(「預期信貸虧損」)模式對須根據國際財務報告準則第9號「金融工具」(「國際財務報告準則第9號」)進行減值評估之金融資產(包括其他應收款項、原到期日超出三個月之銀行存款及銀行結餘)進行減值評估。預期信貸虧損金額於各報告日期更新，以反映自初步確認以來之信貸風險變動。

存續期預期信貸虧損指於相關工具之預期存續期內所有可能發生之違約事件所導致之預期信貸虧損。相反，12個月預期信貸虧損(「12個月預期信貸虧損」)指於報告日期後12個月內可能發生之違約事件所預期導致之部分存續期預期信貸虧損。預期信貸虧損根據本集團過往信貸虧損經驗進行評估，並按債務人特有之因素、整體經濟狀況及於報告日期之當前狀況與預測未來狀況兩者之評估而作出調整。

本集團一直就按攤銷成本計量之貿易應收款項確認存續期預期信貸虧損。該等資產之預期信貸虧損會進行個別評估。就所有其他工具而言，本集團計量之虧損撥備為相等於12個月預期信貸虧損，除非信貸風險自初步確認以來經歷大幅增加，則本集團會確認存續期預期信貸虧損。評估應否確認存續期預期信貸虧損乃基於自初步確認以來發生違約之可能性或風險是否大幅增加。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets (Continued)

#### Impairment of financial assets (Continued)

##### (i) Significant increase in credit risk

In assessing whether the credit risk has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers both quantitative and qualitative information that is reasonable and supportable, including historical experience and forward-looking information that is available without undue cost or effort.

In particular, the following information is taken into account when assessing whether credit risk has increased significantly:

- an actual or expected significant deterioration in the financial instrument's external (if available) or internal credit rating;
- significant deterioration in external market indicators of credit risk, for example, a significant increase in the credit spread, the credit default swap prices for the debtor;
- existing or forecast adverse changes in business, financial or economic conditions that are expected to cause a significant decrease in the debtor's ability to meet its debt obligations;

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產(續)

#### 金融資產之減值(續)

##### (i) 信貸風險大幅增加

於評估信貸風險是否自初步確認以來大幅增加時，本集團比較金融工具於報告日期發生違約之風險與該金融工具於初步確認日期發生違約之風險。在進行有關評估時，本集團會考慮合理有據之定量及定性資料，包括在毋須付出過大成本或精力便可獲得之過往經驗及前瞻性資料。

具體而言，評估信貸風險是否大幅增加時會考慮下列資料：

- 金融工具之外部(如有)或內部信貸評級之實際或預期重大倒退；
- 信貸風險根據外界市場指標之重大惡化，例如信貸息差大幅增加、債務人之信貸違約掉期價格；
- 預期導致債務人在履行其債務責任之能力大幅下降的業務、財務或經濟狀況之現有或預測不利變動；

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets (Continued)

#### Impairment of financial assets (Continued)

##### (i) Significant increase in credit risk (Continued)

- an actual or expected significant deterioration in the operating results of the debtor;
- an actual or expected significant adverse change in the regulatory, economic, or technological environment of the debtor that results in a significant decrease in the debtor's ability to meet its debt obligations.

Irrespective of the outcome of the above assessment, the Group presumes that the credit risk has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產(續)

#### 金融資產之減值(續)

##### (i) 信貸風險大幅增加(續)

- 債務人經營業績之實際或預期重大倒退；
- 導致債務人在履行其債務責任之能力大幅下降的債務人之監管、經濟或技術環境之實際或預期重大不利變動。

不論上述評估結果如何，本集團假定當合約付款逾期超過30天，則信貸風險乃自初步確認以來大幅增加，除非本集團擁有合理有據之資料反對此一假定，則作別論。

本集團定期監察所用標準之成效以確認信貸風險是否有大幅增加並作出適當修訂以確保標準能夠在金額逾期前識別信貸風險大幅增加。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets (Continued)

#### Impairment of financial assets (Continued)

##### (ii) Definition of default

For internal credit risk management, the Group considers an event of default occurs when information developed internally or obtained from external sources indicates that the debtor is unlikely to pay its creditors, including the Group, in full (without taking into account any collaterals held by the Group).

Irrespective of the above, the Group considers that default has occurred when a financial asset is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

##### (iii) Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred. Evidence that a financial asset is credit-impaired includes observable data about the following events:

- (a) significant financial difficulty of the issuer or the borrower;
- (b) a breach of contract, such as a default or past due event;

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產(續)

#### 金融資產之減值(續)

##### (ii) 違約之定義

就內部信貸風險管理而言，當內部編製或自外部來源獲得之資料預示債務人不大可能向其債權人(包括本集團)悉數還款時(並無計及本集團持有之任何抵押品)，本集團認為發生違約事件。

不論上文所述，當金融資產逾期超過90日，本集團考慮發生違約，除非本集團擁有可證示更寬鬆的違約標準更為合適的合理可靠資料。

##### (iii) 信貸減值之金融資產

當發生對金融資產的估計未來現金流量產生不利影響的一件或多件事務之時，該金融資產即出現信貸減值。金融資產信貸減值的證據包括以下事件的可觀察數據：

- (a) 發行人或借款人陷入嚴重財困；
- (b) 違反合約，例如違約或逾期事件；

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
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## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### Financial assets (Continued)

#### Impairment of financial assets (Continued)

##### (iii) Credit-impaired financial assets (Continued)

- (c) the lender(s) of the borrower, for economic or contractual reasons relating to the borrower's financial difficulty, having granted to the borrower a concession(s) that the lender(s) would not otherwise consider;
- (d) it is becoming probable that the borrower will enter bankruptcy or other financial reorganisation; or
- (e) the disappearance of an active market for that financial asset because of financial difficulties.

##### (iv) Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, for example, when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables at amortised cost, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the Group's recovery procedures, taking into account legal advice where appropriate. A write-off constitutes a derecognition event. Any subsequent recoveries are recognised in profit or loss.

## 3. 綜合財務報表編製基準及重大會計政策 (續)

### 金融工具(續)

#### 金融資產(續)

#### 金融資產之減值(續)

##### (iii) 信貸減值之金融資產(續)

- (c) 借款人的貸款人出於與借款人財困相關的經濟或合約原因，而向借款人授予貸款人原本不會考慮的優惠；
- (d) 借款人可能破產或進行其他財務重組；或
- (e) 該項金融資產的活躍市場因財困而消失。

##### (iv) 撇銷政策

當有資料顯示交易對手陷入嚴重財困，且並無實際收回的可能之時(例如交易對手已清算或進入破產程序)或金額逾期超過兩年(就按攤銷成本計量的貿易應收款項而言)(以較早者為準)，本集團會撇銷金融資產。已撇銷的金融資產仍可根據本集團的收回程序實施強制執行，在適當情況下考慮法律意見。撇銷構成取消確認事件。任何其後收回於損益中確認。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial assets (Continued)

#### Impairment of financial assets (Continued)

##### (v) Measurement and recognition of ECL

The measurement of ECL is a function of the probability of default, loss given default (i.e. the magnitude of the loss if there is a default) and the exposure at default. The assessment of the probability of default and loss given default is based on historical data and forward-looking information. Estimation of ECL reflects an unbiased and probability-weighted amount that is determined with the respective risks of default occurring as the weights.

Generally, the ECL is the difference between all contractual cash flows that are due to the Group in accordance with the contract and the cash flows that the Group expects to receive, discounted at the effective interest rate determined at initial recognition.

Interest income is calculated based on the gross carrying amount of the financial asset unless the financial asset is credit-impaired, in which case interest income is calculated based on amortised cost of the financial asset.

The Group recognises an impairment gain or loss in profit or loss for all financial instruments by adjusting their carrying amount, with the exception of trade receivables at amortised cost where the corresponding adjustment is recognised through a loss allowance account.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融資產(續)

#### 金融資產之減值(續)

##### (v) 預期信貸虧損之計量及確認

預期信貸虧損之計量值為表達違約概率、違約所造成虧損(即倘發生違約之虧損程度)與違約所造成風險之函數。違約概率及違約所造成虧損之評估乃根據過往數據及前瞻性資料作出。預期信貸虧損的估計反映以發生相關違約風險的金額作為加權數值而確定的無偏概率加權金額。

一般而言，預期信貸虧損為根據合約應付本集團之所有合約現金流量與本集團預期收取之現金流量之間的差額，按初步確認時確定之實際利率貼現。

利息收入根據金融資產之總賬面值計算，除非金融資產出現信貸減值，於此情況下，利息收入根據金融資產之攤銷成本計量。

本集團透過調整有關金融工具之賬面值而於損益確認所有金融工具之減值收益或虧損，惟按攤銷成本計量之貿易應收款項透過虧損撥備賬確認相應調整則除外。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### Financial assets (Continued)

##### *Derecognition of financial assets*

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another entity.

On derecognition of a financial asset, the difference between the asset's carrying amount and the sum of the consideration received and receivable is recognised in profit or loss.

#### Financial liabilities and equity

##### *Classification as debt or equity*

Debt and equity instruments are classified as either financial liabilities or as equity in accordance with the substance of the contractual arrangements and the definitions of a financial liability and an equity instrument.

##### *Equity instruments*

An equity instrument is any contract that evidences a residual interest in the assets of an entity after deducting all of its liabilities. Equity instruments issued by a group entity, are recognised at the proceeds received, net of direct issue costs.

Perpetual instruments, which include no contractual obligation for the Group to deliver cash or other financial assets or the Group has the sole discretion to defer payment of distribution and redemption of principal amount indefinitely, are classified as equity instruments.

## 3. 綜合財務報表編製基準及重大會計政策 (續)

### 金融工具(續)

#### 金融資產(續)

##### *金融資產的取消確認*

僅在金融資產所產生現金流量的合約權利到期，或者將金融資產及該資產所有權上幾乎所有的風險和報酬轉讓給另一個實體的情況下，本集團才取消確認一項金融資產。

一旦取消確認的金融資產，資產的賬面值與收到及應收的代價之間的差額會在損益中確認。

#### 金融負債及股本

##### *分類為債務或股本*

債務及股本工具根據合約安排之內容以及金融負債及股本工具之定義分類為金融負債或股本。

##### *股本工具*

股本工具指證明擁有某實體資產於扣減其所有負債後之剩餘權益之任何合約。集團實體所發行之股本工具按已收所得款項扣除直接發行成本確認。

永久性工具(包括本集團無支付現金或其他金融資產的合約責任或本集團可全權酌情無限期推遲派付及贖回本金額)均為歸類為權益工具。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial liabilities and equity (Continued)

#### *Perpetual subordinated convertible securities*

Perpetual subordinated convertible securities are convertible into a fixed number of ordinary shares of the Company and include no contractual obligation for the Group to deliver cash or another financial asset to the holders or to exchange financial assets or financial liabilities with the holders under conditions that are potentially unfavourable to the Group. These securities are classified as equity instruments and are initially recognised at their fair value of issuance proceeds and are not subsequently remeasured.

#### *Financial liabilities*

All financial liabilities are subsequently measured at amortised cost using the effective interest method or at FVTPL.

#### *Financial liabilities at FVTPL*

Financial liabilities are classified as at FVTPL when the financial liability is either held for trading or it is designated as at FVTPL.

A financial liability is held for trading if:

- it has been incurred principally for the purpose of repurchasing in the near term; or
- on initial recognition it is a part of portfolio of identified financial instruments that the Group manages together and has a recent actual pattern of short-term profit-taking; or
- it is a derivative that is not designated and effective as a hedging instrument.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融負債及股本(續)

#### *永久次級可換股證券*

永久次級可換股證券可轉換為固定數目的本公司普通股，不包含若發生有可能不利於本集團之情況，則由本集團向持有人交付現金或其他金融資產，或與持有人交換金融資產或金融負債的合約責任。該等證券分類為股本工具，初步按其於發行所得款項的公平值確認，其後不予重新計量。

#### *金融負債*

所有金融負債其後均按攤銷成本使用實際利率法或按公平值計入損益計量。

#### *按公平值計入損益之金融負債*

持作買賣或指定為按公平值計入損益之金融負債分類為按公平值計入損益。

符合下列條件之金融負債為持作買賣：

- 產生之主要目的為於短期內重新購買；或
- 於初步確認時為本集團共同管理的已識別金融工具組合之一部分，且近期已形成實際的短期獲利模式；或
- 為一項未有指定及非有效對沖工具的衍生工具。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
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## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### Financial liabilities and equity (Continued)

#### Financial liabilities at FVTPL (Continued)

A financial liability other than a financial liability held for trading may be designated as at FVTPL upon initial recognition if:

- such designation eliminates or significantly reduces a measurement or recognition inconsistency that would otherwise arise; or
- the financial liability forms part of a group of financial assets or financial liabilities or both, which is managed and its performance is evaluated on a fair value basis, in accordance with the Group's documented risk management or investment strategy, and information about the grouping is provided internally on that basis; or
- it forms part of a contract containing one or more embedded derivatives, and IFRS 9 permits the entire combined contract to be designated as at FVTPL.

For financial liabilities that are designated as at FVTPL, the amount of change in the fair value of the financial liability that is attributable to changes in the credit risk of that liability is recognised in other comprehensive income, unless the recognition of the effects of changes in the liability's credit risk in other comprehensive income would create or enlarge an accounting mismatch in profit or loss.

## 3. 綜合財務報表編製基準及重大會計政策 (續)

### 金融工具(續)

#### 金融負債及股本(續)

#### 按公平值計入損益之金融負債(續)

金融負債(持有作買賣之金融負債除外)倘滿足下列條件，可於初步確認時指定為按公平值計入損益：

- 有關指定消除或大幅減少可能會出現的計量或確認方面之不一致性；或
- 根據本集團制定之風險管理或投資策略，該項金融負債構成一組金融資產組別或金融負債組別或兩者組成之組別之一部分，其按公平值基準管理且其表現以公平值為基準進行評估，而有關組別之資料亦按此基準向內部提供；或
- 其構成包含一項或多項嵌入式衍生工具之合約之一部分，且國際財務報告準則第9號允許將全部合併合約指定為按公平值計入損益。

就指定為按公平值計入損益之金融負債而言，因有關負債之信貸風險變動而造成之金融負債公平值變動乃於其他全面收入確認，除非於其他全面收入確認有關負債之信貸風險變動影響會造成或擴大於損益之會計錯配，則作別論。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Financial liabilities and equity (Continued)

#### Financial liabilities at FVTPL (Continued)

Trade payables under provisional pricing arrangements contain an embedded derivative in relation to the LME future commodity prices (see the accounting policy in respect of embedded derivatives below). The Group has designated the trade payables containing the embedded derivatives to be measured at FVTPL. The change in fair value other than the change that is attributable to changes in credit risk is included in the "cost of sales" line item.

#### Financial liabilities at amortised cost

Financial liabilities (including trade and other payables, amounts due to ultimate holding company, an intermediate holding company, a fellow subsidiary and a non-controlling shareholder of a subsidiary, bank overdrafts and bank borrowings) are subsequently measured at amortised cost using the effective interest method.

#### Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or have expired. The difference between the carrying amount of the financial liability derecognised and the consideration paid and payable is recognised in profit or loss.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 金融負債及股本(續)

#### 按公平值計入損益之金融負債(續)

有臨時定價安排之貿易應付款項包含一項針對倫敦金未來商品價格而訂立之嵌入式衍生工具(見下文有關嵌入式衍生工具之會計政策)。本集團已將包含嵌入式衍生工具之貿易應付款項指定為按公平值計入損益計量。除了源於信貸風險轉變的轉變外，公平值之變動計入「銷售成本」分項。

#### 按攤銷成本計量之金融負債

金融負債(包括貿易及其他應付款項、應付最終控股公司、一間中間控股公司、一間同系附屬公司及一間附屬公司之非控股股東款項、銀行透支及銀行借款)其後採用實際利率法按攤銷成本計量。

#### 取消確認金融負債

本集團僅於其責任已獲解除、註銷或屆滿時方會取消確認金融負債。取消確認的金融負債的賬面值與已付及應付代價的差額於損益內確認。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### Derivative financial instruments

Derivatives are initially recognised at fair value at the date when derivative contracts are entered into and are subsequently remeasured to their fair value at the end of the reporting period. The resulting gain or loss is recognised in profit or loss.

#### Embedded derivatives

Derivatives embedded in hybrid contracts that contain financial asset hosts within the scope of IFRS 9 are not separated. The entire hybrid contract is classified and subsequently measured in its entirety as either amortised cost or fair value as appropriate.

Derivatives embedded in non-derivative host contracts that are not financial assets within the scope of IFRS 9 are treated as separate derivatives when they meet the definition of a derivative, their risks and characteristics are not closely related to those of the host contracts and the host contracts are not measured at FVTPL.

#### Hedge accounting

The Group designates certain derivatives as hedging instruments for cash flow hedges.

At the inception of the hedging relationship the Group documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions. Furthermore, at the inception of the hedge and on an ongoing basis, the Group documents whether the hedging instrument is highly effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk.

## 3. 綜合財務報表編製基準及重大會計政策 (續)

### 金融工具(續)

#### 衍生金融工具

衍生工具初步於衍生合約訂立之日期按公平值計量，及其後重新計量至其於報告期末之公平值。所導致的收益或虧損於損益內確認。

#### 嵌入式衍生工具

嵌入混合合約的衍生工具(包括於國際財務報告準則第9號界定範圍內的主金融資產)，不會視為單獨的衍生工具。整個混合合約按攤銷成本或按公平值(如適用)分類再進行計量。

並不屬國際財務報告準則第9號範圍內金融資產的非衍生主體合約中內含的衍生工具於符合衍生工具定義時視作獨立的衍生工具，其風險及特徵與主體合約的風險及特徵並不密切相關，而該等主體合約並非按公平值計入損益計量。

#### 對沖會計處理

本集團指定若干衍生工具為現金流對沖的對沖工具。

在建立對沖關係時，本集團記錄對沖工具與被對沖項目之間的關係，以及其風險管理目標和進行各種對沖交易的策略。此外，本集團在對沖開始時及其後，持續記錄對沖工具在抵銷被對沖項目因被對沖風險所導致的公平值或現金流變化方面是否有高效用。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

#### Financial instruments (Continued)

#### Hedge accounting (Continued)

For the purpose of determining whether a forecast transaction (or a component thereof) is highly probable, the Group assumes that the interest rate benchmark on which the hedged cash flows (contractually or non-contractually specified) are based is not altered as a result of interest rate benchmark reform.

#### Assessment of hedging relationship and effectiveness

For hedge effectiveness assessment, the Group considers whether the hedging instrument is effective in offsetting changes in fair values or cash flows of the hedged item attributable to the hedged risk, which is when the hedging relationships meet all of the following hedge effectiveness requirements:

- there is an economic relationship between the hedged item and the hedging instrument;
- the effect of credit risk does not dominate the value changes that result from that economic relationship; and
- the hedge ratio of the hedging relationship is the same as that resulting from the quantity of the hedged item that the Group actually hedges and the quantity of the hedging instrument that the entity actually uses to hedge that quantity of hedged item.

If a hedging relationship ceases to meet the hedge effectiveness requirement relating to the hedge ratio but the risk management objective for that designated hedging relationship remains the same, the Group adjusts the hedge ratio of the hedging relationship (i.e. rebalances the hedge) so that it meets the qualifying criteria again.

### 3. 綜合財務報表編製基準及重大會計政策 (續)

#### 金融工具(續)

#### 對沖會計處理(續)

為釐定預期交易(或其一部分)是否極有可能，本集團假設對沖現金流量所依據的利率基準(合約或非合約指定)不會因利率基準改革而改變。

#### 對沖關係及有效性評估

評估對沖有效性時，本集團會考慮對沖工具是否有效地抵銷被對沖風險應佔被對沖項目之公允值或現金流變動，即當對沖關係滿足下列所有對沖有效性要求時：

- 被對沖項目與對沖工具間存在經濟關係；
- 信貸風險影響不會主導該經濟關係所產生價值變動；及
- 對沖關係的對沖比率與本集團實際對沖的被對沖項目數量及實體實際用於對沖該被對沖項目數量的對沖工具數量產生的對沖比率相同。

倘對沖關係不再符合與對沖比率相關的對沖有效性規定，惟該指定對沖關係的風險管理目標維持不變，本集團會調整對沖關係的對沖比率(即重新平衡該對沖)，以使其再次符合有關合資格標準。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 3. BASIS OF PREPARATION OF CONSOLIDATED FINANCIAL STATEMENTS AND SIGNIFICANT ACCOUNTING POLICIES (Continued)

### Financial instruments (Continued)

#### Hedge accounting (Continued)

##### Cash flow hedges

The effective portion of changes in the fair value of derivatives and other qualifying hedging instruments that are designated and qualify as cash flow hedges is recognised in other comprehensive income and accumulated under the heading of hedging reserves, limited to the cumulative change in fair value of the hedged item from inception of the hedge. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss, and is included in the "other gains and losses" line item.

When a hedged item in a cash flow hedge is amended to reflect the changes that are required by the interest rate benchmark reform, the amount accumulated in the cash flow hedge reserve is deemed to be based on the alternative benchmark rate on which the hedged future cash flows are determined.

Amounts previously recognised in other comprehensive income and accumulated in equity are reclassified to profit or loss in the periods when the hedged item affects profit or loss, in the same line as the recognised hedged item. Furthermore, if the Group expects that some or all of the loss accumulated in the cash flow hedging reserve will not be recovered in the future, that amount is immediately reclassified to profit or loss.

## 3. 綜合財務報表編製基準及重大會計政策 (續)

### 金融工具(續)

#### 對沖會計處理(續)

##### 現金流對沖

被指定為符合資格作為現金流對沖的衍生工具和其他合資格對沖工具的公平值變動的有效部分，在其他全面收益中確認，並在對沖儲備項下累積，但僅限對沖開始時被對沖項目的公平值的累計變動。而與無效部分相關的收益或虧損則會計入「其他收益及虧損」項目中即時在損益中確認。

當現金流對沖中的對沖項目被修改以反映利率基準改革要求的變化時，現金流對沖儲備中的累計金額被視為基於未來對沖現金流的替代基準利率而釐定。

較早前在其他全面收益中確認並在權益中累計的金額會於被對沖項目影響損益的期間，重新分類至與確認的被對沖項目相同損益項目。此外，倘本集團預期現金流對沖儲備中累計的部分或全部虧損日後將無法收回，則該金額會即時重新分類至損益。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

#### 4. KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application the Group's accounting policies, which are described in note 3, the directors of the Company are required to make judgments, estimates and assumptions about the carrying amounts of assets and liabilities that are not readily apparent from other sources. The estimates and underlying assumptions are based on historical experience and other factors that are considered to be relevant. Actual results may differ from these estimates.

The estimates and underlying assumptions are reviewed on an on-going basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period, or in the period of the revision and future periods if the revision affects both current and future periods.

The following are the key assumptions concerning the future, and other key sources of estimation uncertainty at the end of the reporting period that may have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year.

##### Mineral reserves

Technical measurements of the Group's available mineral reserves are inherently imprecise and represent an estimate because of the subjectivity and judgments involved in developing such information. There are authoritative guidelines regarding the engineering criteria that have to be met before estimated mineral reserves can be designated as "proved" and "probable". Proved and probable mineral reserves estimates are updated on a regular basis taking into account recent mineral prices, production costs and technical information about each mine. In addition, as production levels and technical standards change from year to year, the estimate of proved and probable mineral reserves also changes. Despite the inherent imprecision in these technical estimates, these estimates are used to determine the expected life of each mine forming the basis for calculating depreciation of property, plant and equipment, amortisation of mineral rights and the assessment of impairment losses. The management has engaged independent external competent persons to prepare resources and reserves reports.

#### 4. 估計不確定因素之主要來源

於本集團之會計政策(詳見附註3)應用時,本公司董事須對未能透過其他來源確定之資產及負債賬面值作出判斷、估計及假設。該等估計及相關假設乃基於過往經驗及其他被視為相關之因素。實際結果可能有別於該等估計。

有關估計及相關假設將持續進行審閱。倘修訂僅影響修訂估計的期間,則於該期間確認會計估計的修訂,或倘修訂同時影響現時及未來期間,則於修訂期間及未來期間確認會計估計的修訂。

涉及未來之主要假設以及於報告期末作出估計而存在不明朗因素之其他主要來源,(均可能導致下個財政年度資產及負債之賬面值須作出大幅調整之重大風險)載列如下。

##### 礦產儲量

鑒於編製礦產儲量資料涉及主觀判斷,本集團可利用礦產儲量之技術測量本身並不精確,為估計數額。在估計礦產儲量可指定為「證實」及「概略」儲量前,須達致有關工程標準之權威性指引。證實及概略礦產儲量估計乃定期更新,並計入各個礦場最近之礦產價格,生產成本及技術資料。此外,由於生產水平及技術標準逐年變更,故證實及概略礦產儲量之估計亦會出現變動。此等技術估計雖然本身並不精確,但估計可用作釐定各礦產之預期年限,形成計算物業、廠房及設備之折舊、礦產權之攤銷,以及評估減值虧損之基準。管理層已委聘獨立外界合資格人士編製資源量及儲量報告。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 4. KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

### Impairment assessment of property, plant and equipment and mineral rights for mining operations

Determining whether property, plant and equipment and mineral rights for mining operations are impaired or reversed for impairment losses requires an estimation of the value in use of the cash-generating units to which these assets have been allocated. The value in use calculation requires the Group to estimate the future cash flows expected to arise from the cash-generating units over the life of the mines that are highly dependent on the estimation of the remaining estimated mineral resources available to the mines, future metal prices, costs of production discounted at a suitable discount rate in order to calculate the present value. The management has engaged independent external competent persons to prepare resources and reserves reports. Where the actual future cash flows are different from expected, an additional impairment loss or reversal of impairment loss may arise. As at 31 December 2022, the carrying amounts of property, plant and equipment and mineral rights for mining operations are US\$807,914,000 (2021: US\$729,970,000) and US\$560,703,000 (2021: US\$582,711,000) respectively. Reversal of impairment of property, plant and equipment amounting to US\$42,166,000 (2021: nil) and mineral rights amounting to US\$2,834,000 (2021: US\$96,000,000) are recognised in profit or loss for the year ended 31 December 2022.

## 4. 估計不確定因素之主要來源(續)

### 採礦業務的物業、廠房及設備以及礦產權之減值評估

釐定採礦業務的物業、廠房及設備以及礦產權是否減值或減值虧損是否撥回需要估計該等資產所獲分配現金產生單位的使用價值。計算使用價值須要求本集團估計現金產生單位在礦場使用年限期間預期產生的未來現金流量，而這些現金流量高度依賴於對礦場可用的剩餘估計礦產資源、未來金屬價格、以及按適當折現率折現之生產成本的估計，以計算現值。管理層聘請獨立外部合資格人士編製資源量及儲量報告。倘實際未來現金流量有別於預期，則可能產生額外減值虧損或減值虧損撥回。於二零二二年十二月三十一日，採礦業務的物業、廠房及設備以及礦產權的賬面值分別為807,914,000美元(二零二一年：729,970,000美元)及560,703,000美元(二零二一年：582,711,000美元)。於截至二零二二年十二月三十一日止年度的損益中確認物業、廠房及設備的減值撥回42,166,000美元(二零二一年：零)以及礦產權的減值撥回2,834,000美元(二零二一年：96,000,000美元)。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

#### 4. KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

##### Depreciation of property, plant and equipment and amortisation of mineral rights for mining operations

Mining assets included within property, plant and equipment and mineral rights are depreciated and amortised respectively using the UOP method. The calculation of the UOP rates of depreciation and amortisation, and therefore the annual depreciation and amortisation charge to operations, can fluctuate from initial estimates. This could generally result when there are significant changes in any of the factors or assumptions used in estimating mineral reserves, notably changes in the assumptions relating to geology of the reserves and assumptions used in determining the economic feasibility of the reserves. Assessments of the UOP rates against the estimated reserve base and operating and development plan are performed regularly taking into account the recent economic production and technical information about each mine. Any changes in estimates will increase or decrease the depreciation in the period in which the changes occur. The depreciation and amortisation of the mining assets are US\$63,294,000 (2021: US\$67,831,000) and US\$24,842,000 (2021: US\$14,434,000), respectively for the year ended 31 December 2022. The carrying amounts of property, plant and equipment and mineral rights are set out in notes 16 and 18, respectively.

#### 4. 估計不確定因素之主要來源(續)

##### 採礦業務的物業、廠房及設備之折舊以及 礦產權之攤銷

分別計入物業、廠房及設備以及礦產權之採礦資產乃分別採用UOP法計提折舊及攤銷。折舊及攤銷的UOP比率乃至經營所產生的年度折舊及攤銷支出之計算結果可能較初步估計有所變動。變動一般源自用以估計礦產儲量之任何因素或假設出現重大變動，尤其是與儲量之地質狀況有關之假設及用以釐定儲量經濟可行性時所用的假設出現變動。經計及有關各礦場最近經濟生產及技術資料後，UOP比率須按估計儲量基礎及經營開發計劃定期作出評估。任何估計之變動將會增加或減少變動發生期間之折舊。截至二零二二年十二月三十一日止年度，採礦資產之折舊及攤銷金額分別為63,294,000美元(二零二一年：67,831,000美元)及24,842,000美元(二零二一年：14,434,000美元)。物業、廠房及設備以及礦產權之賬面值分別載於附註16及18。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 4. KEY SOURCES OF ESTIMATION UNCERTAINTY (Continued)

### Recognition of revenue and inventories

Mineral and metal products are purchased and sold under provisional pricing arrangements which means that the final recorded amount could be different to the initially recognised amount. The final recorded amount is dependent on the final weight, grade and price of copper and cobalt which are agreed at a later date on customer acceptance and final prices are set on that date. Revenue and inventories are recognised when control of the mineral and metal products are transferred to customers by the Group and from suppliers to the Group, respectively. Initial recognition of the amounts is based on the history of grades of copper and cobalt in copper and cobalt products based on internal examination statistics, estimated weights, grades and prices at date of delivery. The amount of revenue for the year ended 31 December 2022 is US\$881,598,000 (2021: US\$831,899,000). The carrying amount of inventories as at 31 December 2022 is US\$223,118,000 (2021: US\$233,499,000).

### Income taxes and VAT recoverable

The DRC parliament adopted a new mining code which introduced wide-ranging reforms including the introduction of a new Super Profits Tax regime. The uncertainties of the application and interpretation of the Super Profits Tax (see note 12) remain, and significant judgment is required in determining the tax position and the estimates and assumptions in relation to the provision for taxes and the recovery of tax assets, which could have a significant impact on the Group. Where the final outcome of pending tax matters is different from the amounts that were initially recognised, such differences will impact the balances in the accounting period in which such determination is made. In addition, as a result of continued challenge by relevant tax authorities in settling long outstanding VAT claims, impairment loss of US\$25,900,000 was recognised on VAT receivable balance for the years ended 31 December 2021 and 2022. The management has been working closely to negotiate with these tax authorities. The carrying amount of VAT receivables as at 31 December 2022 is US\$95,778,000 (2021: US\$60,819,000).

## 4. 估計不確定因素之主要來源(續)

### 收益及存貨之確認

礦產及金屬產品根據臨時定價安排買賣，其表示最終錄得金額可能於初始確認金額不一致。最終錄得金額取決於客戶驗收之較後日期達成一致之銅鈷產品最終重量、品位及價格，且最終價格於該日釐定。收益及存貨分別於礦產及金屬產品之控制權由本集團轉移至客戶及由供應商轉出予本集團時確認。初始確認金額乃基於銅及鈷產品之銅及鈷品位的過往記錄(基於內部檢驗結果的統計數據釐定)，估計重量、品味及於交貨日之價格確認。截至二零二二年十二月三十一日止年度，收益為881,598,000美元(二零二一年：831,899,000美元)。於二零二二年十二月三十一日，存貨之賬面值為223,118,000美元(二零二一年：233,499,000美元)。

### 所得稅及可收回增值稅

剛果(金)議會已採納一項引入廣泛改革的新採礦法規，包括引入新的超額利潤稅制度。超額利潤稅(見附註12)的應用和詮釋仍然存在不確定性，在釐定稅收狀況以及與稅項撥備和稅收資產回收有關的估計和假設時需要做出重大判斷，這可能對本集團造成重大影響。如果未決稅務事項的最終結果與最初確認的金額有所出入，該等差異將影響作出該釐定的會計期間的結餘。此外，由於相關稅務機關對解決長期未決增值稅申索不斷提出質疑，因此於截至二零二一年及二零二二年十二月三十一日止年度確認應收增值稅餘額減值虧損25,900,000美元。管理層一直密切合作，以與該等稅務機關進行磋商。於二零二二年十二月三十一日，應收增值稅賬面值為95,778,000美元(二零二一年：60,819,000美元)。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 5. REVENUE

Revenue represents revenue arising from sales of mineral and metal products. An analysis of the Group's revenue from continuing operations for the year is as follows:

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Sales of copper	銷售銅	696,224	637,288
Sales of cobalt	銷售鈷	296,485	159,790
Revenue from contracts with customers from sales of mineral and metal products	向合約客戶銷售礦產品及金屬產品之收益	992,709	797,078
Provisional pricing adjustments, net	臨時定價調整，淨額	(111,111)	34,821
		<b>881,598</b>	<b>831,899</b>

Revenue from the sale of mineral and metal products is recognised at the point in time when control of the products has been transferred to the customer, generally on delivery of the goods.

For some sales, revenue is recognised initially at a selling price that is determined on a provisional basis. The final selling price is subject to the confirmation of the weight and grade of minerals shipped and actual market price of the minerals on the date of final pricing, a process that could take up to 4 months after initial recognition. Adjustments between initial and final recognition is disclosed as provisional pricing adjustments.

### 5. 收益

收益指銷售礦產品及金屬產品所產生之收益。本集團年內來自持續經營業務之收益分析如下：

礦產品及金屬產品銷售的收益乃當產品的控制權轉移至客戶時（一般為商品交付時）確認。

就若干銷售而言，收益初步按以臨時定價基準釐定之售價確認。最終銷售價格乃取決於付運礦物重量及品位之確認情況以及最終定價日礦物的實際市場價格而定，此過程可能於初步確認後長達4個月。初步確認與最終確認之間的調整作為臨時定價調整披露。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 6. SEGMENT INFORMATION

IFRS 8 “Operating Segments” requires operating segments to be identified on the basis of internal reporting on the components of the Group that are regularly reviewed by the chief operating decision maker (“CODM”) in order to allocate resources to the segments and assess their performance.

The CODM has been identified as the executive directors of the Company. They review the Group’s internal reporting for the purpose of resource allocation and assessment of segment performance. No operating segments have been aggregated in arriving at the reportable segments of the Group.

The Group’s operating and reportable segments are as follows:

- Mining operations
- Trading of mineral and metal products

During the year ended 31 December 2021, the Group discontinued the trading of mineral and metal products operations in the PRC and those results have been presented as discontinued operations. The segment information below does not include any amounts pertaining to the discontinued operations, which are described in more detail in note 13.

## 6. 分部資料

國際財務報告準則第8號「經營分部」規定，經營分部須按本集團組成部分之內部報告確定，有關內部報告經由主要營運決策者（「主要營運決策者」）定期審閱，以分配分部資源及評估分部表現。

主要營運決策者經確定為本公司執行董事。彼等審閱本集團之內部報告以進行資源分配及評估分部表現。於確定本集團的可報告分部時並無合併經營分部。

本集團之經營及可報告分部如下：

- 採礦業務
- 礦產品及金屬產品貿易

於截至二零二一年十二月三十一日止年度，本集團終止於中國的礦產品及金屬產品貿易業務，而該等經營業績已呈列為終止經營業務。以下分部資料不包括任何有關終止經營業務的金額，有關更多詳情載於附註13。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 6. SEGMENT INFORMATION (Continued)

#### Segment revenue and results

The following is an analysis of the Group's revenue and results by operating and reportable segments.

#### Continuing operations

For the year ended 31 December 2022

### 6. 分部資料(續)

#### 分部收益及業績

以下為本集團按經營及可報告分部劃分之收益及業績分析。

#### 持續經營業務

截至二零二二年十二月三十一日止年度

		Mining operations 採礦業務 US\$'000 千美元	Trading of mineral and metal products 礦產品及金屬產品貿易 US\$'000 千美元	Total 總計 US\$'000 千美元
<b>Segment revenue</b>	<b>分部收益</b>			
Revenue	收益	724,980	267,729	992,709
Provisional pricing adjustment	臨時定價調整	(76,163)	(34,948)	(111,111)
		<b>648,817</b>	<b>232,781</b>	<b>881,598</b>
<b>Segment results</b>	<b>分部業績</b>			
		<b>63,613</b>	<b>771</b>	<b>64,384</b>
Unallocated corporate income	未分配公司收入			887
Unallocated corporate expenses	未分配公司開支			(4,141)
Profit before tax from continuing operations	來自持續經營業務的除稅前溢利			<b>61,130</b>

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 6. SEGMENT INFORMATION (Continued)

#### Segment revenue and results (Continued)

#### Continuing operations (Continued)

For the year ended 31 December 2021

### 6. 分部資料(續)

#### 分部收益及業績(續)

#### 持續經營業務(續)

截至二零二一年十二月三十一日止年度

		Mining operations 採礦業務 US\$'000 千美元	Trading of mineral and metal products 礦產品及金屬產品貿易 US\$'000 千美元	Total 總計 US\$'000 千美元
<b>Segment revenue</b>	<b>分部收益</b>			
Revenue	收益	593,932	198,085	792,017
Inter-segment sales	分部間銷售	5,061	–	5,061
Provisional pricing adjustment	臨時定價調整	21,645	13,176	34,821
		620,638	211,261	831,899
<b>Segment results</b>	<b>分部收益</b>	<b>281,612</b>	<b>359</b>	<b>281,971</b>
Unallocated corporate income	未分配公司收入			537
Unallocated corporate expenses	未分配公司開支			(3,772)
Profit before tax from continuing operations	來自持續經營業務的除稅前溢利			278,736

Inter-segment sales are charged at prevailing market prices.

分部間銷售按交易時市價記賬。

Note: The accounting policies of operating segments are the same as the Group's accounting policies described in note 3. Segment revenues and segment results comprise revenue from external customers and profit before tax of each segment (excluding non-operating related finance income, other income, other gains and losses at corporate level and other central administration costs and finance costs), respectively.

附註：經營分部之會計政策與本集團附註3所載之會計政策相同。分部收益及分部業績分別包括來自外界客戶之收益及各分部之除稅前溢利(不包括公司層面的非經營相關之財務收入、公司層面的其他收入、其他收益及虧損及其他中央行政成本及財務成本)。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 6. SEGMENT INFORMATION (Continued)

#### Segment assets and liabilities

The following is an analysis of the Group's assets and liabilities by operating and reportable segments:

### 6. 分部資料(續)

#### 分部資產及負債

以下為本集團按經營及可報告分部劃分之資產及負債分析：

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Segment assets</b>	<b>分部資產</b>		
Mining operations	採礦業務	1,948,786	1,949,046
Trading of mineral and metal products	礦產品及金屬產品貿易	27,672	32,810
Total segment assets	分部資產總值	1,976,458	1,981,856
Unallocated corporate assets	未分配公司資產	53,070	56,815
Consolidated assets	綜合資產	2,029,528	2,038,671
<b>Segment liabilities</b>	<b>分部負債</b>		
Mining operations	採礦業務	422,670	491,472
Trading of mineral and metal products	礦產品及金屬產品貿易	14,490	7,993
Total segment liabilities	分部負債總值	437,160	499,465
Unallocated corporate liabilities	未分配公司負債	426,278	362,247
Consolidated liabilities	綜合負債	863,438	861,712

Note: Segment assets and segment liabilities comprise total assets (excluding unallocated corporate assets that include tax recoverable, right-of-use assets, prepayments, other receivables, property, plant and equipment and bank balances and cash at corporate level) and total liabilities (excluding tax payable, deferred tax liabilities and other unallocated corporate liabilities that include other payables, amount due to an intermediate holding company and lease liabilities at corporate level) of each segment, respectively.

附註：分部資產及分部負債分別包括各分部之資產總值（不包括未分配公司資產（包括公司層面的可回收稅項、使用權資產、預付款項、其他應收款項、物業、廠房及設備以及銀行結餘及現金））及負債總額（不包括應繳稅項、遞延稅項負債及其他未分配公司負債（包括公司層面的其他應付款項、應付中間控股公司款項及租賃負債））。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 6. SEGMENT INFORMATION (Continued)

#### Other segment information

#### Continuing operations

For the year ended 31 December 2022

### 6. 分部資料(續)

#### 其他分部資料

#### 持續經營業務

截至二零二二年十二月三十一日止年度

		Mining operations	Trading of mineral and metal products	Unallocated	Total
		採礦業務 US\$'000 千美元	礦產品及 金屬產品貿易 US\$'000 千美元	未分配 US\$'000 千美元	總計 US\$'000 千美元
Amounts included in the measure of segment results and segment assets:	計量分部業績及分部資產時計入的金額：				
Additions to non-current assets (Note)	非流動資產添置(附註)	115,833	–	12	115,845
Finance income	財務收入	(484)	(954)	(493)	(1,931)
Finance costs	財務成本	8,505	–	137	8,642
Reversal of impairment loss recognised in respect of mineral rights and property, plant and equipment	就礦產權及物業、廠房及設備確認之減值虧損撥回	(45,000)	–	–	(45,000)
Depreciation of property, plant and equipment	物業、廠房及設備之折舊	63,294	–	48	63,342
Depreciation of right-of-use assets	使用權資產之折舊	68	–	683	751
Amortisation of mineral rights	礦產權攤銷	24,842	–	–	24,842
Write-down of inventories	存貨撇減	6,675	–	–	6,675

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 6. SEGMENT INFORMATION (Continued)

#### Other segment information (Continued)

#### Continuing operations (Continued)

For the year ended 31 December 2021

### 6. 分部資料(續)

#### 其他分部資料(續)

#### 持續經營業務(續)

截至二零二一年十二月三十一日止年度

		Mining operations	Trading of mineral and metal products	Unallocated	Total
		採礦業務	金屬產品貿易	未分配	總計
		US\$'000	US\$'000	US\$'000	US\$'000
		千美元	千美元	千美元	千美元
Amounts included in the measure of segment results and segment assets:	計量分部業績及分部資產時計入的金額				
Addition to non-current assets (Note)	非流動資產添置(附註)	111,682	-	3	111,685
Finance income	財務收入	(313)	(272)	(143)	(728)
Finance costs	財務成本	9,425	-	114	9,539
Reversal of impairment loss recognised in respect of mineral rights	就礦產權確認之減值虧損撥回	(96,000)	-	-	(96,000)
Depreciation of property, plant and equipment	物業、廠房及設備折舊	67,831	-	104	67,935
Depreciation of right-of-use assets	使用權資產折舊	107	-	804	911
Amortisation of mineral rights	礦產權攤銷	14,434	-	-	14,434
Write-down of inventories	存貨撇減	5,695	-	-	5,695

Note: Non-current assets excluded royalty prepayment to non-controlling shareholders of subsidiaries, VAT recoverable, derivative financial instruments and rehabilitation trust fund.

附註：非流動資產不包括向附屬公司非控股股東預付的礦權使用費、可收回增值稅、衍生金融工具及復修信託基金。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 6. SEGMENT INFORMATION (Continued)

#### Geographical information

Information about the Group's revenue from external customers (excluding provisional pricing adjustment) for continuing operations is presented based on geographical location of the customers. Information about the Group's non-current assets (excluding derivative financial instruments) are based on geographical location of the assets.

### 6. 分部資料(續)

#### 地區資料

有關本集團持續經營業務外界客戶收益(不包括臨時定價調整)之資料乃基於客戶所在地區呈列。有關本集團非流動資產(不包括衍生金融工具)之資料乃基於資產所在地區呈列。

		Revenue from external customers 外界客戶之收益		Non-current assets 非流動資產	
		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Hong Kong	香港	374,251	430,498	1,556	2,275
South Africa	南非	-	-	583	753
The DRC	剛果(金)	-	-	1,715,138	1,505,430
Zambia	贊比亞	-	-	108	507
The PRC	中國	38,562	136,093	-	-
Switzerland	瑞士	362,578	136,013	-	-
South Korea	南韓	-	11,867	-	-
Singapore	新加坡	217,318	82,607	-	-
		<b>992,709</b>	797,078	<b>1,717,385</b>	1,508,965



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 6. SEGMENT INFORMATION (Continued)

#### Information about major customers

The following is an analysis of revenue from customers of the corresponding year contributing over 10% of the revenue (excluding provisional pricing adjustment) from continuing operations of the Group:

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Customer A (Note a)	客戶A(附註a)	345,829	136,013
Customer B (Note a)	客戶B(附註a)	217,318	82,607
Customer C (Note b)	客戶C(附註b)	170,258	132,861
Customer D (Note a)	客戶D(附註a)	109,159	219,483
Customer E (Note a and c)	客戶E(附註a及c)	N/A不適用	114,054

Notes:

- (a) Revenue from above customers is arising from mining operations.
- (b) Revenue from above customer is arising from trading of mineral and metal products.
- (c) The revenue in 2022 did not contribute over 10% of the revenue from continuing operations of the Group.

### 6. 分部資料(續)

#### 有關主要客戶之資料

以下為於有關年度向本集團貢獻10%以上來自持續經營業務之收益(不包括臨時定價調整)之客戶之收益分析：

附註：

- (a) 以上客戶之收益乃源自採礦業務。
- (b) 以上客戶之收益乃源自礦產品及金屬產品貿易。
- (c) 該收益於二零二二年為本集團源自持續經營業務的收益貢獻並無超過10%以上。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 7. OTHER INCOME, OTHER GAINS AND LOSSES      7. 其他收入、其他收益及虧損

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Continuing operations</b>	<b>持續經營業務</b>		
Reversal of impairment loss recognised in respect of property, plant and equipment (note 16)	就物業、廠房及設備確認之減值虧損撥回(附註16)	<b>42,166</b>	–
Reversal of impairment loss recognised in respect of mineral rights (note 18)	就礦產權確認之減值虧損撥回(附註18)	<b>2,834</b>	96,000
Write off of property, plant and equipment	撇銷物業、廠房及設備	–	(10,369)
Impairment loss on VAT recoverable	可收回增值稅之減值虧損	–	(25,900)
Exchange losses, net	匯兌虧損，淨額	<b>(2,034)</b>	(1,075)
Royalty income (note 20)	礦權使用費收入(附註20)	<b>2,713</b>	2,442
Gain on disposal of property, plant and equipment	出售物業、廠房及設備之收益	–	1,477
Fair value loss on financial assets at FVTPL	透過損益按公平值計量的金融資產之公平值	<b>(229)</b>	(16)
Others	其他	<b>673</b>	687
		<b>46,123</b>	63,246

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 8. FINANCE INCOME

### 8. 財務收入

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Continuing operations</b>	<b>持續經營業務</b>		
Interest income	利息收入	1,931	728

### 9. FINANCE COSTS

### 9. 財務成本

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Continuing operations</b>	<b>持續經營業務</b>		
Interest on	以下各項之利息		
Convertible Securities	可換股證券	88	88
Bank borrowings	銀行借款	9,980	8,030
Loan from an intermediate holding company	來自中間控股公司之貸款	4,208	2,748
Loan from a fellow subsidiary	來自同系附屬公司之貸款	206	123
Lease liabilities	租賃負債	81	55
		<b>14,563</b>	11,044
Less: Amount capitalised in cost of qualifying assets	減：已於合資格資產成本中資本化之金額	<b>(5,921)</b>	(1,505)
		<b>8,642</b>	9,539

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 10. PROFIT BEFORE TAX

### 10. 除稅前溢利

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Profit before tax from continuing operations has been arrived at after charging:	來自持續經營業務的除稅前溢利已扣除下列項目：		
Staff costs	員工成本		
Directors' emoluments (note 11)	董事酬金(附註11)	642	559
Other staff costs	其他員工成本		
– Salaries and other benefits	– 薪金及其他福利	49,533	47,858
– Retirement benefits schemes contributions	– 退休福利計劃供款	3,910	3,902
		<b>54,085</b>	52,319
Auditors' remuneration	核數師酬金	466	490
Depreciation of property, plant and equipment	物業、廠房及設備折舊	63,342	67,935
Depreciation of right-of-use assets	使用權資產之折舊	751	911
Amortisation of mineral rights	礦產權攤銷	24,842	14,434
Write-down of inventories (included in cost of sales)	存貨撇減(計入銷售成本)	6,675	5,695

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 11. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS

#### (a) Directors' and chief executive's emoluments

For the year ended 31 December 2022

### 11. 董事、最高行政人員及僱員酬金

#### (a) 董事及最高行政人員酬金

截至二零二二年十二月三十一日止年度

		Fees	Salaries and allowances	Retirement benefits schemes contributions	Total
		袍金 US\$'000 千美元	薪金及津貼 US\$'000 千美元	退休福利計劃供款 US\$'000 千美元	總計 US\$'000 千美元
<b>Executive directors</b>	<b>執行董事</b>				
Gao Tianpeng (Note a)	郜天鵬(附註a)	-	194	2	196
Cheng Yonghong (Note i)	程永紅(附註i)	-	284	-	284
<b>Non-executive directors</b>	<b>非執行董事</b>				
Wang Qiangzhong (Note b)	王橋忠(附註b)	-	-	-	-
Liu Jian (Note c)	劉建(附註c)	-	-	-	-
Zhang Youda (Note d)	張有達(附註d)	-	-	-	-
Cai Juan (Note e)	蔡娟(附註e)	-	-	-	-
<b>Independent non-executive directors</b>	<b>獨立非執行董事</b>				
Yen Yuen Ho, Tony	嚴元浩	34	14	-	48
Poon Chiu Kwok	潘昭國	34	14	-	48
Yu Chi Kit (Note g)	余志傑(附註g)	34	13	-	47
Han Ruixia (Note h)	韓瑞霞(附註h)	15	4	-	19
		117	523	2	642

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 11. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (Continued)

#### (a) Directors' and chief executive's emoluments (Continued)

For the year ended 31 December 2021

		Fees	Salaries and allowances	Retirement benefits schemes contributions	Total
		袍金 US\$'000 千美元	薪金及津貼 US\$'000 千美元	退休福利計劃供款 US\$'000 千美元	總計 US\$'000 千美元
<b>Executive directors</b>	<b>執行董事</b>				
Gao Tianpeng (Note a)	鄒天鵬(附註a)	-	149	2	151
Cheng Yonghong	程永紅	-	269	-	269
<b>Non-executive directors</b>	<b>非執行董事</b>				
Wang Qiangzhong (Note b)	王樺忠(附註b)	-	-	-	-
Liu Jian (Note c)	劉建(附註c)	-	-	-	-
Zhang Youda (Note d)	張有達(附註d)	-	-	-	-
<b>Independent non-executive directors</b>	<b>獨立非執行董事</b>				
Wu Chi Keung (Note f)	胡志強(附註f)	28	12	-	40
Yen Yuen Ho, Tony	嚴元浩	34	12	-	46
Poon Chiu Kwok	潘昭國	34	13	-	47
Yu Chi Kit (Note g)	余志傑(附註g)	5	1	-	6
		101	456	2	559

The executive directors' and chief executive's emoluments shown above were for their services in connection with the management of the affairs of the Company and the Group. The non-executive directors' and independent non-executive directors' emoluments shown above were for their services as directors of the Company.

上述執行董事及最高行政人員的酬金與彼等就本公司及本集團管理事務提供服務有關。上述非執行董事及獨立非執行董事的酬金為彼等擔任本公司董事之酬金。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 11. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (Continued)

#### (a) Directors' and chief executive's emoluments (Continued)

Notes:

- (a) This director also acts as the Chief Executive Officer of the Company.
- (b) This director was not entitled to any director emoluments for the years ended 31 December 2022 and 2021.
- (c) This director's emoluments were borne by the ultimate holding company.
- (d) This director's emoluments were borne by the ultimate holding company. The director has resigned with effective on 19 February 2022.
- (e) This director was appointed as a Non-Executive Director on 19 February 2022 and resigned with effective on 21 April 2022.
- (f) This director deceased on 12 October 2021.
- (g) This director was appointed as an Independent Non-Executive Director on 6 November 2021.
- (h) This director was appointed as an Independent Non-Executive Director on 20 July 2022.
- (i) This director was redesignated from member of the Board to Chairman of the Board with effect on 21 April 2022.

There was no arrangement under which a director or the chief executive waived or agreed to waive any remuneration which accrued during the past financial year.

### 11. 董事、最高行政人員及僱員酬金(續)

#### (a) 董事及最高行政人員酬金(續)

附註：

- (a) 該董事亦擔任本公司之行政總裁。
- (b) 該董事於截至二零二二年及二零二一年十二月三十一日止年度並無任何董事酬金。
- (c) 董事酬金由最終控股公司承擔。
- (d) 董事酬金由最終控股公司承擔。該董事於二零二二年二月十九日辭任。
- (e) 該董事於二零二二年二月十九日獲委任為非執行董事，並於二零二二年四月二十一日辭任。
- (f) 該董事於二零二一年十月十二日身故。
- (g) 該董事於二零二一年十一月六日獲委任為獨立非執行董事。
- (h) 該董事於二零二二年七月二十日獲委任為獨立非執行董事。
- (i) 該董事於二零二二年四月二十一日由董事會成員調任為董事會主席。

並無訂立可讓董事或最高行政人員放棄或同意放棄其於上一財政年度應計之任何酬金之安排。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 11. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (Continued)

#### (b) Employees' emoluments

##### Continuing and discontinued operations

The five highest paid employees in the Group during the year included none of the directors (2021: none of the directors), details of whose emoluments are set out in (a) above. Details of the remuneration for the year of the remaining five (2021: five) highest paid employees who are neither a director nor chief executive of the Company are as follows:

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Salaries and allowances	薪金及津貼	1,499	1,289
Retirement benefits schemes contributions	退休福利計劃供款	2	580
Performance related incentive payments	與績效掛鈎之獎金	497	406
		<b>1,998</b>	<b>2,275</b>

The performance related incentive payments are determined with reference to the performance of the Group and the individuals.

### 11. 董事、最高行政人員及僱員酬金(續)

#### (b) 僱員酬金

##### 持續及終止經營業務

本年度本集團五名最高薪僱員不包括董事(二零二一年:概無董事),其酬金詳情載於上文(a)段。並非本公司董事或最高行政人員的餘下五名(二零二一年:五名)最高薪僱員之本年度薪酬詳情如下:

與績效掛鈎之獎金乃參照本集團及個人績效釐定。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 11. DIRECTORS', CHIEF EXECUTIVE'S AND EMPLOYEES' EMOLUMENTS (Continued)

#### (b) Employees' emoluments (Continued)

#### Continuing and discontinued operations (Continued)

The number of the highest paid employees who are not the directors of the Company whose remuneration fell within the following bands is as follows:

		2022 二零二二年 No. of employees 僱員人數	2021 二零二一年 No. of employees 僱員人數
Hong Kong dollars ("HK\$") 2,500,001 to HK\$3,000,000 (equivalent to US\$320,514 to US\$384,615)	2,500,001港元(「港元」)至 3,000,000港元(相當於 320,514美元至 384,615美元)	2	-
HK\$3,000,001 to HK\$3,500,000 (equivalent to US\$384,616 to US\$448,718)	3,000,001港元至 3,500,000港元(相當於 384,616美元至 448,718美元)	2	2
HK\$3,500,001 to HK\$4,000,000 (equivalent to US\$448,719 to US\$512,821)	3,500,001港元至 4,000,000港元(相當於 448,719美元至 512,821美元)	1	3
		<b>5</b>	<b>5</b>

No emoluments were paid by the Group to the directors of the Company or the five highest paid individuals as an inducement to join or upon joining the Group.

### 11. 董事、最高行政人員及僱員酬金(續)

#### (b) 僱員酬金(續)

#### 持續及終止經營業務(續)

並非為本公司董事且其酬金介乎以下範圍的最高薪僱員人數如下：

本集團概無向本公司董事或五名最高薪人士支付任何酬金，作為加入本集團或加入本集團後之獎勵。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 12. INCOME TAX EXPENSE

### 12. 所得稅開支

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Continuing operations</b>	<b>持續經營業務</b>		
Current taxation	即期稅項		
Hong Kong Profits Tax	香港利得稅	–	–
Corporate income tax in the DRC	剛果(金)企業所得稅	<b>36,547</b>	53,781
Corporate income tax in Zambia	贊比亞企業所得稅	<b>543</b>	326
		<b>37,090</b>	54,107
Deferred taxation (note 32)	遞延稅項(附註32)	<b>17,176</b>	62,622
		<b>54,266</b>	116,729

No provision for Hong Kong Profits Tax has been made as the Group does not have assessable profits arising in Hong Kong for both years.

Corporate income tax in Mauritius, South Africa, Zambia and the DRC are calculated at 15%, 28%, 35% and 30% (2021: 15%, 28%, 35% and 30%) on the estimated assessable profits for the year, respectively. Assessable profits in the DRC may also be subject to Super Profits Tax, when and if applicable.

由於該兩個年度本集團並無於香港產生應課稅溢利，故未計提香港利得稅撥備。

毛里求斯、南非、贊比亞及剛果(金)之企業所得稅分別根據年內估計應課稅溢利按15%、28%、35%及30%(二零二一年：15%、28%、35%及30%)之稅率計算。剛果(金)的應課稅溢利亦可能需繳納超額利潤稅(如當適用時)。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 12. INCOME TAX EXPENSE (Continued)

Income tax expense for the year is reconciled to profit before tax from continuing operations per the consolidated statement of profit or loss and other comprehensive income as follows:

### 12. 所得稅開支(續)

本年度的所得稅開支可與綜合損益及其他全面收益表項下的來自持續經營業務的除稅前溢利對賬如下：

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Profit before tax	除稅前溢利	61,130	278,736
Tax at Hong Kong Profits Tax at 16.5% (2021: 16.5%)	按16.5%(二零二一年: 16.5%) 計算香港利得稅稅項	(29)	294
Tax at income tax rate in the DRC for operation at 30% (2021: 30%)	按剛果(金)所得稅率30% (二零二一年: 30%) 計算營運稅項	37,159	98,478
Tax at income tax rate in Mauritius for operation at 15% (2021: 15%)	按毛里求斯所得稅率15% (二零二一年: 15%) 計算營運稅項	(4)	(3)
Tax at income tax rate in South Africa for operation at 28% (2021: 28%)	按南非所得稅率28% (二零二一年: 28%) 計算營運稅項	(4,996)	(15,202)
Tax at income tax rate in Zambia for operation at 35% (2021: 35%)	按贊比亞所得稅率35% (二零二一年: 35%) 計算營運稅項	90	110
		32,220	83,677
Tax effect of expenses not deductible for tax purposes	不可扣稅開支之稅務影響	6,904	254
Tax effect of income not taxable for tax purposes	毋須課稅收入之稅務影響	(239)	(228)
Tax effect of utilisation of tax losses previously not recognised	動用過往未確認稅項虧損之稅務影響	-	(24)
Tax effect of tax losses not recognised	未確認稅項虧損之稅務影響	64	309
Taxable temporary difference on net investment loans (Note i)	淨投資貸款之應課稅暫時差額 (附註i)	-	29,114
Permanent differences in respect of revenue recognition (Note ii)	就收益確認之永久差額 (附註ii)	15,317	-
Super Profits Tax in the DRC	剛果(金)超額利潤稅	-	3,627
Income tax expense for the year	年內所得稅開支	54,266	116,729

Note i: During the prior year, the management expected that certain net investment loan would be repaid in the foreseeable future and therefore the related exchange differences from these net investment loan, which is taxable when realised, are recognised as a deferred tax expense during the prior year.

附註i: 於上一年度, 管理層預計若干淨投資貸款將於可見未來償還, 因此來自該等淨投資貸款的相關當變現時為應課稅之匯兌虧損已確認為上一年度遞延稅項開支。

Note ii: Provisional pricing adjustment made to certain revenue transactions are not tax adjusting items in the DRC.

附註ii: 對若干收益交易進行臨時定價調整於剛果(金)並非稅項調整項目。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 13. DISCONTINUED OPERATIONS

On 24 March 2020, the Group passed a written resolution to voluntarily liquidate a subsidiary, Shanghai Jinchuan Junhe Economic Development Co., Ltd. (“**Shanghai Jinchuan Junhe**”), which carried out all of the Group’s trading of mineral and metal products in the PRC. The liquidation of Shanghai Jinchuan Junhe was completed in June 2021 and gain on liquidation (from release of cumulative translation reserve) of US\$438,000 was recognised during the year ended 31 December 2021, which is the profit the year ended 31 December 2021 from discontinued operations.

### 14. EARNINGS PER SHARE

#### From continuing operations

The calculation of the basic and diluted earnings per share for continuing operations attributable to owners of the Company is based on the following data:

### 13. 終止經營業務

於二零二零年三月二十四日，本集團通過一項有關自願清算一家附屬公司上海金川均和經濟發展有限公司（「**上海金川均和**」）的書面決議案，本集團於中國所有的礦產品及金屬產品貿易由金川均和進行。上海金川均和之清算已於二零二一年六月完成，而清算之收益（來自釋放累計換算儲備）438,000美元已於截至二零二一年十二月三十一日止年度獲確認，其為截至二零二一年十二月三十一日止年度終止經營業務產生的溢利。

### 14. 每股盈利

#### 來自持續經營業務

本公司擁有人應佔持續經營業務每股基本及攤薄盈利乃根據下列數據計算：

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Earnings</b>	<b>盈利</b>		
Earnings for the purpose of basic earnings per share	用作計算每股基本盈利之盈利	<b>1,028</b>	120,089
Add: Interest expense on Convertible Securities	加：可換股證券之利息開支	<b>88</b>	88
Earnings for the purpose of diluted earnings per share	用作計算每股攤薄盈利之盈利	<b>1,116</b>	120,177

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 14. EARNINGS PER SHARE (Continued)

### 14. 每股盈利(續)

#### From continuing operations (Continued)

#### 來自持續經營業務(續)

		2022 二零二二年	2021 二零二一年
<b>Number of shares</b>	<b>股份數目</b>		
Weighted average number of ordinary shares for the purpose of basic earnings per share	用作計算每股基本盈利之普通股加權平均數	12,573,187,065	12,609,873,051
Effect of dilutive potential ordinary shares: Convertible Securities	攤薄性潛在普通股之影響： 可換股證券	690,000,000	690,000,000
Weighted average number of ordinary shares for the purpose of diluted earnings per share	用作計算每股攤薄盈利之普通股加權平均數	13,263,187,065	13,299,873,051

#### From continuing and discontinued operations

#### 來自持續及終止經營業務

The calculation of the basic and diluted earnings per share attributable to the owners of the Company is based on the following data:

本公司擁有人應佔每股基本及攤薄盈利乃根據下列數據計算：

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Earnings</b>	<b>盈利</b>		
Earnings for the purpose of basic earnings per share	用作計算每股基本盈利之盈利	1,028	120,527
Add: Interest expense on Convertible Securities	加：可換股證券之利息開支	88	88
Earnings for the purpose of diluted earnings per share	用作計算每股攤薄盈利之盈利	1,116	120,615

The denominators used are the same as those set out above for continuing operations.

所用基數與上文持續經營業務所載者相同。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 14. EARNINGS PER SHARE (Continued)

#### From discontinued operations

The earnings per share for discontinued operations is as follows:

		2022 二零二二年 US cent 美分	2021 二零二一年 US cent 美分
Basic	基本	N/A不適用	0.01
Diluted	攤薄	N/A不適用	0.01

The calculation of the earnings per share for discontinued operations is based on:

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Earnings</b>	<b>盈利</b>		
Earnings for the purpose of basic and diluted earnings per share	用作計算每股基本及攤薄盈利之盈利	N/A不適用	438

The denominators used are the same as those set out above for continuing operations.

### 14. 每股盈利(續)

#### 來自終止經營業務

終止經營業務每股盈利如下：

		2022 二零二二年 US cent 美分	2021 二零二一年 US cent 美分
Basic	基本	N/A不適用	0.01
Diluted	攤薄	N/A不適用	0.01

終止經營業務每股盈利乃根據下列數據計算：

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Earnings</b>	<b>盈利</b>		
Earnings for the purpose of basic and diluted earnings per share	用作計算每股基本及攤薄盈利之盈利	N/A不適用	438

所用基數與上文持續經營業務所載者相同。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 15. DIVIDENDS

### 15. 股息

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Dividends for ordinary shareholders of the Company recognised as distributions during the year 2021 Final – HK0.2 cent per share (2021: 2020 Final – HK0.1 cent per share)	年內確認為分派之本公司普通股股東的股息二零二一年末期股息－每股股份0.2港仙 (二零二一年：二零二零年末期股息－每股股份0.1港仙)	<b>3,233</b>	1,617

Subsequent to the end of the reporting period, a final dividend in respect of the year ended 31 December 2022 of HK0.2 cent (2021: HK0.2 cent) per ordinary share, in an aggregate amount of approximately HK\$25,004,000 (2021: HK\$25,220,000), equivalent to approximately US\$3,206,000 (2021: US\$3,233,000), has been proposed by the directors of the Company and is subject to approval by the shareholders in the forthcoming annual general meeting.

於報告期末後，本公司董事建議派付截至二零二二年十二月三十一日止年度的末期股息每股普通股0.2港仙(二零二一年：0.2港仙)，總額約25,004,000港元(二零二一年：25,220,000港元)，相當於約3,206,000美元(二零二一年：3,233,000美元)，惟須待股東於應屆股東週年大會上批准。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 16. PROPERTY, PLANT AND EQUIPMENT

### 16. 物業、廠房及設備

		Freehold land 永久業權土地 US\$'000 千美元	Buildings and infrastructure 樓宇及基建 US\$'000 千美元	Plant, machinery and shafts 廠房、機器及豎井 US\$'000 千美元	Mine development costs 礦場開發成本 US\$'000 千美元	Construction in progress 在建工程 US\$'000 千美元	Others 其他 US\$'000 千美元 (Note a) (附註a)	Total 總計 US\$'000 千美元
At 1 January 2021, net of accumulated depreciation and impairment	於二零二一年一月一日，扣除累計折舊及減值	6,711	50,550	290,823	171,421	73,537	112,262	705,304
Depreciation	折舊	-	(5,641)	(34,845)	(12,387)	-	(15,062)	(67,935)
Additions	添置	-	1,832	2,811	-	98,021	5,367	108,031
Written off (Note b)	撇銷(附註b)	-	-	(10,369)	-	-	-	(10,369)
Disposals	出售	-	-	(4,883)	-	-	(120)	(5,003)
Transfers	轉撥	-	236	48,161	-	(48,766)	369	-
At 31 December 2021, net of accumulated depreciation and impairment	於二零二一年十二月三十一日，扣除累計折舊及減值	6,711	46,977	291,698	159,034	122,792	102,816	730,028
At 31 December 2021	於二零二一年十二月三十一日							
Cost	成本	6,711	84,974	653,321	399,317	122,792	221,781	1,488,896
Accumulated depreciation and impairment	累計折舊及減值	-	(37,997)	(361,623)	(240,283)	-	(118,965)	(758,868)
Carrying amount	賬面值	6,711	46,977	291,698	159,034	122,792	102,816	730,028
At 1 January 2022, net of accumulated depreciation and impairment	於二零二二年一月一日，扣除累計折舊及減值	6,711	46,977	291,698	159,034	122,792	102,816	730,028
Depreciation	折舊	-	(5,740)	(35,194)	(9,851)	-	(12,557)	(63,342)
Additions	添置	-	239	7,743	1,320	89,261	520	99,083
Reversal of impairment loss in profit or loss (note 7)	於損益內減值虧損撥回(附註7)	-	-	-	42,166	-	-	42,166
Transfers	轉撥	-	9,525	5,557	-	(27,718)	12,636	-
At 31 December 2022, net of accumulated depreciation and impairment	於二零二二年十二月三十一日，扣除累計折舊及減值	6,711	51,001	269,804	192,669	184,335	103,415	807,935
At 31 December 2022	於二零二二年十二月三十一日							
Cost	成本	6,711	94,738	666,621	400,637	184,335	234,937	1,587,979
Accumulated depreciation and impairment	累計折舊及減值	-	(43,737)	(396,817)	(207,968)	-	(131,522)	(780,044)
Carrying amount	賬面值	6,711	51,001	269,804	192,669	184,335	103,415	807,935

Notes:

- (a) Included in others are pollutant treatment plant and related equipment and facilities and decommissioning assets, motor vehicles, furniture and fixtures, office equipment and other equipment.
- (b) Part of the Group's property, plant and equipment, were replaced by new facilities and therefore the Group wrote off the remaining obsolete assets amounted to US\$10,369,000 during the year ended 31 December 2021.

附註：

- (a) 其他包括污染物處理廠及相關設備及設施及善後資產、汽車、傢俬及裝置、辦公室設備及其他設備。
- (b) 本集團部分物業、廠房及設備已被新設施取代，因此本集團已於截至二零二一年十二月三十一日止年度內撇銷餘下廢舊資產為10,369,000美元。

The Group's freehold land is situated in the DRC and Zambia.

本集團的永久業權土地位於剛果(金)及贊比亞。

For the details of the impairment testing, please refer to note 18.

有關減值測試的詳情，請參閱附註18。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 17. RIGHT-OF-USE ASSETS

#### Leased properties

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
As at 31 December	於十二月三十一日		
Carrying amount	賬面值	1,649	2,400
For the year ended 31 December	截至十二月三十一日止年度		
Depreciation	折舊	751	911
Total cash outflow for leases	租賃現金流出總額	846	1,010
Additions to right-of-use assets	添置至使用權資產	-	1,986

For the year ended 31 December 2022, the Group leases various offices for its operations. Lease contracts are entered into for fixed terms of 3 to 5 years (2021: 3 to 5 years). Lease terms are negotiated on an individual basis and contain a wide range of different terms and conditions. In determining the lease term and assessing the length of the non-cancellable period, the Group applies the definition of a contract and determines the period for which the contract is enforceable.

### 17. 使用權資產

#### 租賃物業

截至二零二二年十二月三十一日止年度，本集團為其營運租賃各類辦公室。租約按3年至5年(二零二一年：3年至5年)的固定租期訂立。租賃條款按個別基準協商且包含多種不同條款及條件。於釐定租期及評估不可撤銷期限的時長時，本集團應用合約的定義並釐定合約可強制執行的期限。

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## 綜合財務報表附註

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### 18. MINERAL RIGHTS

### 18. 礦產權

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
At 1 January, net of accumulated amortisation and impairment	於一月一日，扣除累計攤銷及減值	582,711	501,145
Amortisation provided during the year	年內計提攤銷	(24,842)	(14,434)
Reversal of impairment loss recognised in profit or loss (note 7)	於損益內確認減值虧損撥回(附註7)	2,834	96,000
At 31 December, net of accumulated amortisation and impairment	於十二月三十一日，扣除累計攤銷及減值	560,703	582,711
At 31 December Cost	於十二月三十一日成本	1,007,643	1,007,643
Accumulated amortisation and impairment	累計攤銷及減值	(446,940)	(424,932)
Carrying amount	賬面值	560,703	582,711

Mineral rights represent the rights to conduct mining activities in the Group's two operating mines, one developing project and one exploration project located in the DRC. The mineral rights for the two operating mines were granted until 2036.

For the purposes of impairment assessment, the Group's property, plant and equipment, mineral rights and exploration and evaluation assets are grouped at the lowest level for which cash inflows generated are largely independent cash inflows from other assets or groups of assets.

礦產權指本集團位於剛果(金)的兩個營運礦場、一個開發中項目及一個探礦項目從事採礦活動之權利。該兩個營運礦場獲授礦產權至二零三六年。

就減值評估而言，本集團的物業、廠房及設備、礦產權以及勘探及評估資產按其大部分為獨立現金流入，而其現金流入獨立於其他資產或資產組合則歸類為最小單位。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 18. MINERAL RIGHTS (Continued)

Given the variability in the market price of copper, the Group performed an impairment assessment of the non-current assets including mineral rights and property, plant and equipment based on a value in use calculation. The discounted cash flow method was calculated based on cash flow projection prepared from financial forecasts approved by the directors of the Company which incorporate the management's mining plan with reference to the most recent resources and reserves report prepared by independent external competent persons, best estimate of production cost and long-term copper price forecast of approximately US\$8,300 per tonne (2021: US\$7,100 per tonne). The pre-tax discount rate used for Kinsenda CGU of 23.7% (2021: Ruashi CGU of 27.3%) reflects current market assessments of the time value of money and the risks specific to the CGU for which the estimates of future cash flows have not been adjusted.

At 31 December 2022, the Group recognised a reversal of impairment of property, plant and equipment of US\$42,166,000 and mineral rights of US\$2,834,000, respectively, for Kinsenda CGU (2021: reversal of impairment of mineral rights of US\$96,000,000 for Ruashi CGU) as its estimated recoverable amount was higher than the carrying amount. The recoverable amount of the Kinsenda CGU amounted to approximately US\$402,164,000 as at 31 December 2022 (2021: US\$545,678,000 for Ruashi CGU). There are no impairment or reversal of impairment recognised for other CGUs for the year ended 31 December 2022.

### 18. 礦產權(續)

鑒於銅的市場價格多變，本集團根據計算所得的使用價值，對包括礦產權以及物業、廠房及設備在內的非流動資產進行減值評估。貼現現金流量法乃根據經本公司董事批准的財務預測編製的現金流量估算計算，其中包括管理層根據由獨立外界合資格人士編製的最新資源量及儲量報告來編製之開採計劃、生產成本及長期預測銅價約每噸8,300美元(二零二一年：每噸7,100美元)的最佳估算。Kinsenda現金產生單位所使用的稅前貼現率23.7%(二零二一年：Ruashi現金產生單位27.3%)反映了當前市場對貨幣時間價值及現金產生單位的特定風險的評估，乃由於尚未對未來現金流量的估計進行調整。

於二零二二年十二月三十一日，本集團就Kinsenda現金產生單位確認物業、廠房及設備減值撥回42,166,000美元及礦產權減值撥回2,834,000美元(二零二一年：Ruashi現金產生單位的礦產權減值撥回為96,000,000美元)，乃由於其估計可收回金額高於賬面值。於二零二二年十二月三十一日，Kinsenda現金產生單位的可回收金額約為402,164,000美元(二零二一年：Ruashi現金產生單位可回收金額為545,678,000美元)。截至二零二二年十二月三十一日止年度，概無就其他現金產生單位確認減值或減值撥回。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

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## 19. EXPLORATION AND EVALUATION ASSETS

## 19. 勘探及評估資產

		US\$'000 千美元
At 1 January 2021	於二零二一年一月一日	119,652
Additions	添置	1,668
At 31 December 2021	於二零二一年十二月三十一日	121,320
Additions	添置	260
At 31 December 2022	於二零二二年十二月三十一日	121,580

Exploration and evaluation assets represent the cost incurred for evaluating the technical feasibility and commercial viability of extracting mineral resources in the Group's exploration mines. The management considers that the determination of commercial viability is still in progress at the end of the reporting period.

勘探及評估資產指為評估在本集團勘探礦場內開採礦產資源之技術及商業可行性而產生之成本。管理層認為，於報告期末，仍在釐定其商業可行性。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 20. FINANCE LEASE RECEIVABLES

The Group has entered into a lease agreement with an independent third party (as lessee) for a term lease in respect of certain mining assets. The management considers it is a finance lease arrangement considering the lease term forms a major part of the economic life of the related mine. The total lease payment payable under the lease agreement is US\$6,200,000, payable in instalments over a two year period starting from the date of signing of the lease agreement. Interest rates implicit in the finance lease had been determined to be 7.9%. In addition, the Group is entitled to a monthly royalty payment calculated based on the volume of copper ore extracted and sold from the mine which is not included in the measurement of the net investment in the lease. During the year ended 31 December 2022, the Group has recognised royalty income of US\$2,713,000 (2021: US\$2,442,000) as other income (note 7).

### 20. 融資租賃應收款項

本集團已與一名獨立第三方(作為承租人)就若干採礦資產訂立一份定期租賃協議。考慮到租賃期構成相關礦場經濟壽命的主要部分，管理層認為其屬融資租賃安排。租賃協議項下應付的租賃付款總額為6,200,000美元，應於簽署租賃協議之日起計兩年內分期支付。融資租賃的隱含利率已被釐定訂為7.9%。此外，本集團亦將有權每月收取礦權使用費付款，有關費用乃根據自礦場開採及出售的銅礦量計算得出，不納入租賃投資淨額的計量。截至二零二二年十二月三十一日止年度，本集團已將2,713,000美元(二零二一年：2,442,000美元)的礦權使用費收入確認為其他收入(附註7)。

		2021 二零二一年	
		Minimum lease payments 最低 租賃款項 US\$'000 千美元	Present value of minimum lease payments 最低租賃 款項現值 US\$'000 千美元
Finance lease receivables comprise:	融資租賃應收款項包括：		
Within one year	一年內	2,911	2,825
Less: unearned finance income	減：未賺取融資收入	(86)	N/A 不適用
Present value of minimum lease payment receivables – current	應收最低租賃款項－流動	2,825	2,825

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 21. OTHER NON-CURRENT ASSETS

### 21. 其他非流動資產

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Deposit for acquisition of property, plant and equipment	購買物業、廠房及設備之訂金	16,502	–
Royalty prepayment to non-controlling shareholders of subsidiaries (Note a)	向附屬公司非控股股東預付礦權使用費(附註a)	10,674	11,602
Rehabilitation trust fund (Note b)	復修信託基金(附註b)	83	85
VAT recoverable, net of impairment	可收回增值稅，扣除減值	95,778	60,819
		<b>123,037</b>	72,506

Notes:

- (a) It represents an advance to the non-controlling shareholders of subsidiaries operating in the DRC. The directors anticipate that it could be recovered through royalties to be charged in the future.
- (b) Payments are made to rehabilitation trusts or investment accounts held by banking institutions with the intention of fully funding those liabilities as required by the governments for the mines that have been closed.

附註：

- (a) 指墊付予在剛果(金)開展業務之附屬公司的非控股股東之款項，董事預計日後會以收取礦權使用費之形式收回。
- (b) 向銀行機構持有之復修信託或投資賬戶支付款項，旨在按政府之規定全數撥付已關閉礦場之負債。

### 22. INVENTORIES

### 22. 存貨

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Consumable stores	易耗品	40,505	33,140
Work in progress	在製品	166,914	136,866
Final products	製成品	15,699	63,493
		<b>223,118</b>	233,499

Work in progress include low-grade stock piles amounting to US\$102,481,000 which are not expected to be realised within twelve months after the reporting period and are classified as non-current assets.

在製品包括低品位礦石堆102,481,000美元，其於報告期後十二個月內預計不會變現，並分類為非流動資產。

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## 綜合財務報表附註

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### 23. TRADE AND OTHER RECEIVABLES

### 23. 貿易及其他應收款項

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Financial assets at FVTPL</b>	<b>按公平值計入損益之金融資產</b>		
Trade receivables under provisional pricing arrangements	臨時定價安排下之貿易應收款項	65,829	49,268
<b>Financial assets at amortised cost</b>	<b>按攤銷成本計量之金融資產</b>		
Other receivables	其他應收款項	8,648	7,962
Loan to a DRC state-owned power company	向剛果(金)國有電力公司提供貸款	547	1,374
		<b>9,195</b>	9,336
<b>Non-financial assets</b>	<b>非金融資產</b>		
Other receivables	其他應收款項	2,063	2,524
Prepayments	預付款項	9,578	13,218
		<b>11,641</b>	15,742
		<b>86,665</b>	74,346

The Group provides customers with a credit period ranging from 5 days to 30 days (2021: 5 days to 30 days). Before accepting new customers, the Group performs a credit assessment to assess the potential customers' credit limit and credit quality.

本集團向客戶提供介乎5日至30日(二零二一年：5日至30日)之信貸期。接納新客戶前，本集團開展信貸評估，以評估潛在客戶之信貸限額及信貸質素。

As at 1 January 2021, the trade receivables under provisional pricing adjustments amounted to US\$55,245,000.

於二零二一年一月一日，臨時定價調整下之貿易應收款項為55,245,000美元。

The Group seeks to maintain strict control over its outstanding receivables to minimise credit risk. Overdue balances are reviewed regularly by senior management.

本集團力求對未結清應收款項維持嚴密監控，以將信貸風險降至最低。逾期結餘由高級管理層定期檢討。

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## 綜合財務報表附註

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### 23. TRADE AND OTHER RECEIVABLES (Continued)

The following is an ageing analysis of trade receivables presented based on invoice date at the end of the reporting period.

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Within 3 months	三個月內	65,766	47,655
Over 1 year	一年以上	63	1,613
		<b>65,829</b>	49,268

As at 31 December 2022, trade receivables under provisional pricing arrangement amounting to US\$6,548,000 (2021: nil) which was past due and was included in financial assets at FVTPL.

Details of impairment assessment on other receivables are set out in note 36.

### 24. FINANCIAL ASSETS AT FVTPL

Financial assets at FVTPL represents listed bonds which carry coupon rates ranging from 3.10% to 3.15% per annum. Details of fair value measurements are set out in note 36.

### 25. BANK BALANCES AND CASH/BANK DEPOSITS WITH ORIGINAL MATURITY OVER THREE MONTHS/BANK OVERDRAFTS

Bank balances comprising cash and short-term deposits with an original maturity of three months or less, being carried interest at rates ranging from 0.001% to 6.45% (2021: 0.001% to 3.00%) per annum.

Bank deposits with original maturity over three months bear interest at market rate of 4.58% (2021: 0.55%) per annum.

Bank overdrafts carry interest at market rate of 8.50% per annum.

### 23. 貿易及其他應收款項(續)

以下為於報告期末根據發票日期呈列之貿易應收款項之賬齡分析。

於二零二二年十二月三十一日，臨時定價安排下之貿易應收款項6,548,000美元已逾期並已計入按公平值計入損益之金融資產內(二零二一年：無)。

其他應收款項之減值評估詳情載於附註36。

### 24. 按公平值計入損益之金融資產

按公平值計入損益之金融資產指年化票面利率介乎3.10厘至3.15厘之上市債券。公平值計量之詳情載於附註36。

### 25. 銀行結餘及現金／原到期日超出三個月之銀行存款／銀行透支

銀行結餘包括現金及原到期日為三個月或以內並按年利率介乎0.001厘至6.45厘(二零二一年：0.001厘至3.00厘)計息之短期存款。

原到期日超出三個月之銀行存款按4.58厘(二零二一年：0.55厘)的年市場利率計息。

銀行透支按8.50厘的年市場利率計息。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 26. TRADE AND OTHER PAYABLES

### 26. 貿易及其他應付款項

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Financial liabilities at FVTPL</b>	<b>按公平值計入損益之金融負債</b>		
Trade payables under provisional pricing arrangements	臨時定價安排下之貿易應付款項	102,810	39,577
<b>Financial liabilities at amortised cost</b>	<b>按攤銷成本計量之金融負債</b>		
Mining expenses payables	應付採礦支出	17,111	9,580
Construction cost payables	應付建造成本	13,572	17,715
Other payables	其他應付款項	1,637	3,108
		<b>32,320</b>	30,403
<b>Non-financial liabilities</b>	<b>非金融負債</b>		
Accrued royalty payment and other tax payable	應計礦權使用費及其他應付稅項	15,846	16,732
Provision for import duties and export clearing charges	進口稅及出口清關費之撥備	7,867	10,091
Others (Note)	其他(附註)	18,104	15,356
		<b>41,817</b>	42,179
		<b>176,947</b>	112,159

Note: Included accrual for freight charges, provision for unpaid related surcharge in the DRC and other general operation related payables.

附註：包括應計運費、未付剛果(金)相關附加費之撥備及其他一般營運相關應付款項。

The credit period on purchases of goods ranges from 0 to 90 days.

購買貨品之信貸期介乎0至90日不等。

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## 綜合財務報表附註

For the year ended 31 December 2022  
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### 26. TRADE AND OTHER PAYABLES (Continued)

The following is an ageing analysis of trade payables based on the invoice date at the end of the reporting period.

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Within 3 months	三個月內	102,478	38,127
4 to 6 months	四至六個月	332	340
7 to 12 months	七至十二個月	-	4
Over 1 year	一年以上	-	1,106
		<b>102,810</b>	<b>39,577</b>

### 26. 貿易及其他應付款項(續)

以下為於報告期末根據發票日期呈列之貿易應付款項賬齡分析。

### 27. AMOUNTS DUE TO ULTIMATE HOLDING COMPANY, AN INTERMEDIATE HOLDING COMPANY, A FELLOW SUBSIDIARY AND A NON-CONTROLLING SHAREHOLDER OF A SUBSIDIARY

As at 31 December 2022, included in the amount due to an intermediate holding company is a loan amounting to US\$105,000,000 (2021: US\$85,000,000). The loan carries interest at floating interest rate of London Interbank Offered Rate ("LIBOR") plus 2.25% to 3.50% (2021: LIBOR plus 2.25%) per annum. The amount is unsecured and among which US\$5,000,000 is repayable on demand, US\$80,000,000 is repayable in 2024 and US\$20,000,000 is repayable in 2027.

As at 31 December 2022, included in the amount due to a fellow subsidiary is a loan amounting to US\$5,000,000 (2021: US\$5,000,000). The loan carries interest at floating interest rate of LIBOR plus 2.25% (2021: LIBOR plus 2.25%) per annum. The amount is unsecured and repayable on demand.

The remaining amounts are unsecured, interest free and repayable on demand.

All the balances are non-trade in nature.

### 27. 應付最終控股公司、中間控股公司、同系附屬公司及附屬公司非控股股東之款項

於二零二二年十二月三十一日，應付中間控股公司之款項中有一筆貸款105,000,000美元(二零二一年：85,000,000美元)。該貸款按倫敦銀行同業拆息加2.25厘至3.50厘(二零二一年：倫敦銀行同業拆息加2.25厘)之浮動年利率計息。該款項屬無抵押，當中5,000,000美元須按要求償還，80,000,000美元須於二零二四年償還，20,000,000美元須於二零二七年償還。

於二零二二年十二月三十一日，應付同系附屬公司之款項中有一筆貸款5,000,000美元(二零二一年：5,000,000美元)。該貸款按倫敦銀行同業拆息加2.25厘(二零二一年：倫敦銀行同業拆息加2.25厘)之浮動年利率計息。該款項屬無抵押及須按要求償還。

剩餘款項為無抵押、免息並須按要求償還。

所有結餘均屬非貿易性質。

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## 綜合財務報表附註

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### 28. BANK BORROWINGS

### 28. 銀行借款

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Unsecured term loans	無抵押定期貸款	<b>194,789</b>	249,657

The Group's bank borrowings are repayable as follows:

本集團銀行借款之還款期如下：

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Within a period not exceeding one year	不超過一年	<b>67,789</b>	115,657
Within a period of more than one year but not exceeding two years	一年以上但不超過兩年	<b>7,000</b>	27,000
Within a period of more than two years but not exceeding five years	兩年以上但不超過五年	<b>120,000</b>	77,000
Within a period of more than five years	超過五年	-	30,000
		<b>194,789</b>	249,657
Less: Amount due within one year shown under current liabilities	減：列為流動負債之一年內到期款項	<b>(67,789)</b>	(115,657)
Amount due after one year shown as non-current liabilities	列為非流動負債之一年後到期款項	<b>127,000</b>	134,000

As at 31 December 2022, the Group's bank borrowings of US\$154,326,000 (2021: US\$166,363,000) are guaranteed by the ultimate holding company. As at 31 December 2022, the bank borrowings carried floating interest rates based on ranging from 3-month LIBOR plus 1.5% to 6-month LIBOR plus 3.5% (2021: 6-month LIBOR plus 2.1% to 3.5%) per annum.

於二零二二年十二月三十一日，本集團154,326,000美元(二零二一年：166,363,000美元)之銀行借款乃由最終控股公司提供擔保。於二零二二年十二月三十一日，銀行借款均為浮息利率，按介乎三個月倫敦銀行同業拆息加1.5厘至六個月倫敦銀行同業拆息加3.5厘(二零二一年：六個月倫敦銀行同業拆息加2.1厘至3.5厘)之年利率計息。

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## 綜合財務報表附註

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### 29. DERIVATIVE FINANCIAL INSTRUMENTS

### 29. 衍生金融工具

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Interest rate swap contracts under cash flow hedges	以現金流量對沖之利率掉期合約		
Current	流動	1,367	20
Non-current	非流動	-	258
		<b>1,367</b>	<b>278</b>

As at 31 December 2022, the Group had a number of interest rate swap contracts with the commercial banks to minimise its exposure to cash flow changes of its floating-rate United States dollars bank borrowings with principal amount of US\$34,000,000 (2021: US\$149,000,000) from banks by swapping floating interest rates of 6-month LIBOR to fixed interest rates of 0.425% (2021: 0.415% to 0.425%) per annum. The terms of these contracts were negotiated to match with those of the hedged bank borrowings with the same notional amounts to principal amounts of bank borrowings, currency and interest rate index. The directors of the Company consider that the interest rate swap contracts are highly effective hedging instruments and have designated them as cash flow hedging instruments for hedge accounting purpose.

The hedges were highly effective in hedging cash flow exposure to interest rate movements. Fair value change on hedging instruments in cash flow hedge of gain of US\$1,089,000 (2021: US\$278,000) for the year ended 31 December 2022 have been recognised in other comprehensive income and accumulated in hedging reserve. The directors of the Company expect the accumulated sum is to be released to profit or loss at various dates in the coming maturity periods after the reporting period.

於二零二二年十二月三十一日，本集團與多間商業銀行訂立多項利率掉期合約，通過將六個月倫敦銀行同業拆息之浮動利率轉換為0.425厘（二零二一年：0.415厘至0.425厘）的固定年利率，將銀行之本金額為34,000,000美元（二零二一年：149,000,000美元）之美元浮息銀行借款之現金流量變動風險降至最低。該等合約之條款經磋商後與對沖銀行借款之條款一致（即名義金額與銀行借款之本金額、幣別及利率指標均相同）。本公司董事認為利率掉期合約屬高效對沖工具，並根據對沖會計法指定該等工具為現金流量對沖工具。

就對沖利率波動之現金流量風險而言，對沖為高度有效。截至二零二二年十二月三十一日止年度，以現金流量對沖之對沖工具之公平值變動收益1,089,000美元（二零二一年：278,000美元）已於其他全面收入內確認並累積於對沖儲備內。本公司董事預期累計總和將於報告期後未來到期期間之不同日期於損益內入賬。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 30. LEASE LIABILITIES

### 30. 租賃負債

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Lease liabilities are payable:	應付租賃負債：		
Within a period not exceeding one year	不超過一年	720	778
Within a period of more than one year but not exceeding two years	一年以上但不超過兩年	633	716
Within a period of more than two years but not exceeding five years	兩年以上但不超過五年	231	855
		<b>1,584</b>	2,349
Less: Amount due for settlement within 12 months shown under current liabilities	減：列為流動負債之12個月內到期結算款項	<b>(720)</b>	(778)
Amount due for settlement after 12 months shown under non-current liabilities	列為非流動負債之12個月後到期結算款項	<b>864</b>	1,571

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## 綜合財務報表附註

For the year ended 31 December 2022  
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### 31. PROVISIONS

### 31. 撥備

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Long-term provisions	長期撥備		
Leave pay and bonuses	休假薪酬及花紅	642	–
Rehabilitation and environmental provision (Note a)	復修及環保撥備(附註a)	24,777	24,155
		<b>25,419</b>	24,155
Short-term provisions	短期撥備		
Termination benefits	離職福利	3,314	3,543
Rehabilitation and environmental provision (Note a)	復修及環保撥備(附註a)	417	417
Leave pay and bonuses	休假薪酬及花紅	1,863	1,712
Provision for legal claim (Note b)	法律索償撥備(附註b)	1,095	1,095
		<b>6,689</b>	6,767
Total provisions	撥備總額	<b>32,108</b>	30,922
At 1 January	於一月一日	30,922	37,394
Utilised during the year	年內動用	(702)	(9,644)
Provided during the year	年內撥備	1,888	3,172
At 31 December	於十二月三十一日	<b>32,108</b>	30,922

Notes:

(a) The Group is exposed to environmental liabilities relating to its mining operations. Estimates of the cost of environmental and other remedial work such as reclamation costs, close-down and restoration and pollution control are made on an annual basis, based on the estimated lives of the mines.

Rehabilitation and environmental provision classified as short-term represents the amount estimated to be settled within one year from the reporting period.

(b) The Group has dealt with lawsuits and arbitrations that arise in the ordinary course of business.

The legal cases are reviewed on a regular basis and as at 31 December 2022 and 2021, provisions for legal cases were provided where a reasonable estimate can be made of the potential financial impact on the Group.

附註：

(a) 本集團承擔與其採礦業務有關之環保負債。環保及其他補救工程(如復墾、閉井及復修以及污染防治)之成本乃根據礦場之估計開採期每年作出估計。

分類為短期之復修及環保撥備指自報告期起估計將於一年內結清之款項。

(b) 本集團已處理餘下的於日常業務過程中發生的現有訴訟及仲裁。

該等法律案件乃定期審議，並於二零二二年及二零二一年十二月三十一日在合理情況下估計其對本集團之潛在財務影響而作出法律案件撥備。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 32. DEFERRED TAXATION

For the purpose of presentation in the consolidated statement of financial position, deferred tax liabilities and assets have been offset. The following is the major deferred taxation recognised and movements thereon during the current and prior years:

### 32. 遞延稅項

就呈列綜合財務狀況表而言，遞延稅項負債及資產已作對銷。以下為於本年度及過往年度內確認之主要遞延稅項及其變動：

		Property, plant and equipment, mineral rights and exploration and evaluation assets 物業、廠房 及設備、 礦產權 以及勘探及 評估資產 US\$'000 千美元	Other provisions 其他撥備 US\$'000 千美元	Foreign exchange difference arising from intra-group activities 集團內公司 間活動之 匯兌差額 US\$'000 千美元	Tax losses 稅項虧損 US\$'000 千美元 (Note) (附註)	Others 其他 US\$'000 千美元	Total 總計 US\$'000 千美元
At 1 January 2021	於二零二一年 一月一日	274,615	(5,159)	10,455	(15,213)	(1,622)	263,076
Charge (credit) to profit or loss (note 12)	於損益扣除(計入損益) (附註12)	32,710	(2,636)	29,118	3,430	-	62,622
At 31 December 2022	於二零二二年 十二月三十一日	307,325	(7,795)	39,573	(11,783)	(1,622)	325,698
Charge (credit) to profit or loss (note 12)	於損益扣除(計入損益) (附註12)	16,622	(2,912)	-	3,466	-	17,176
At 31 December 2022	於二零二二年 十二月三十一日	323,947	(10,707)	39,573	(8,317)	(1,622)	342,874

Note: As at 31 December 2022, the Group has unused tax losses of US\$31,464,000 (2021: US\$42,602,000). No deferred tax asset has been recognised in respect of the remaining US\$3,508,000 (2021: US\$3,120,000) due to the unpredictability of future taxable profit streams. The tax losses may be carried forward indefinitely, except for the tax losses of subsidiaries in Zambia are available to be carried forward up to a maximum of ten years from the year in which they are incurred subject to regulations in Zambia.

附註：於二零二二年十二月三十一日，本集團有未動用稅項虧損31,464,000美元(二零二一年：42,602,000美元)。因未來應課稅溢利流不可預測，並無就餘下3,508,000美元(二零二一年：3,120,000美元)確認遞延稅項資產。除位於贊比亞的附屬公司在贊比亞有關規定的規限下，稅項虧損自其產生年度起可結轉最多十年外，稅項虧損可無限期結轉。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

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## 33. SHARE CAPITAL

## 33. 股本

		Number of shares 股份數目	Amount 金額 HK\$'000 千港元
Ordinary shares of HK\$0.01 each	每股面值0.01港元之普通股		
Authorised:	法定：		
At 1 January 2021, 31 December 2021 and 31 December 2022	於二零二一年一月一日、 二零二一年十二月三十一日及 二零二二年十二月三十一日	20,000,000,000	200,000
Issued and fully paid:	已發行及繳足：		
At 1 January 2021 and 31 December 2021	於二零二一年一月一日及 二零二一年十二月三十一日	12,609,873,051	126,099
Repurchase and cancellation of shares	購回及註銷股份	(107,791,000)	(1,078)
At 31 December 2022	於二零二二年十二月三十一日	12,502,082,051	125,021
		<b>2022 二零二二年 US\$'000 千美元</b>	2021 二零二一年 US\$'000 千美元
Shown in the consolidated financial statements as	於綜合財務報表中列為	<b>16,027</b>	16,166



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## 綜合財務報表附註

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### 33. SHARE CAPITAL (Continued)

During the year, a subsidiary of the Company repurchased the ordinary shares of the Company through the Stock Exchange as follows:

Month of repurchase	Number of ordinary shares	Price per share 每股價格		Aggregate consideration paid (include transaction cost) 已付總代價 (包括交易成本) US\$ 美元
		Highest	Lowest	
購回月份	普通股數目	最高 HK\$ 港元	最低 HK\$ 港元	
June 2022	二零二二年六月 11,320,000	0.94	0.86	1,323,000
July 2022	二零二二年七月 21,271,000	0.91	0.81	2,315,000
August 2022	二零二二年八月 19,000,000	0.86	0.80	2,044,000
September 2022	二零二二年九月 28,200,000	0.85	0.75	2,914,000
October 2022	二零二二年十月 28,000,000	0.70	0.53	2,101,000
	107,791,000			10,697,000

The above ordinary shares were cancelled during the year ended 31 December 2022.

### 33. 股本(續)

年內，本公司一間附屬公司透過聯交所購回的本公司普通股如下：

Month of repurchase	Number of ordinary shares	Price per share 每股價格		Aggregate consideration paid (include transaction cost) 已付總代價 (包括交易成本) US\$ 美元
		Highest	Lowest	
購回月份	普通股數目	最高 HK\$ 港元	最低 HK\$ 港元	
June 2022	二零二二年六月 11,320,000	0.94	0.86	1,323,000
July 2022	二零二二年七月 21,271,000	0.91	0.81	2,315,000
August 2022	二零二二年八月 19,000,000	0.86	0.80	2,044,000
September 2022	二零二二年九月 28,200,000	0.85	0.75	2,914,000
October 2022	二零二二年十月 28,000,000	0.70	0.53	2,101,000
	107,791,000			10,697,000

上述普通股已於二零二二年十二月三十一日止年度予以註銷。

#### 34. SHARE OPTION SCHEME

A share option scheme of the Company (the “**Share Option Scheme**”) was approved and adopted by the shareholders of the Company at the extraordinary general meeting held on 19 June 2019. The purpose of the Share Option Scheme is to provide incentives and reward to eligible participants for their contribution to, and continuing efforts to promote the interests of, the Group and for such other purposes as the board of directors may approve from time to time. Eligible participants of the Share Option Scheme include any director (whether executive or non-executive, including any independent non-executive director) or employee (whether full time or part time) of the Group. The Share Option Scheme, unless otherwise terminated or amended, will remain in force for a period of 10 years from 19 June 2019. Further details of the Share Option Scheme are set out in the Company’s circular dated 30 May 2019.

The maximum number of shares which may be issued upon exercise of all options to be granted under the Share Option Scheme, any other new share option scheme and existing scheme of the Company shall not, in aggregate, exceed 10% of the ordinary shares in issue as at the adoption of the Share Option Scheme or any other new share option scheme of the Company. The Company may seek approval of its shareholders in a general meeting to refresh the 10% limit under the Share Option Scheme. The total number of shares issued and to be issued upon exercise of the share options granted under the Share Option Scheme and any other share option scheme of the Group (including both exercised and outstanding options) to each participant in any 12-month period up to the date of grant shall not exceed 1% of the ordinary shares in issue at the date of grant. Any further grant of share options in excess of this limit is subject to shareholders’ approval in a general meeting of the Company.

#### 34. 購股權計劃

本公司股東在二零一九年六月十九日舉行之股東特別大會上已批准及採納本公司購股權計劃(「**購股權計劃**」)。購股權計劃旨在就合資格參與者對提升本集團利益所作之貢獻及持續努力以及對董事會不時批准之其他目的向合資格參與者提供激勵及獎勵。購股權計劃之合資格參與者包括本集團之任何董事(不論是執行董事或非執行董事, 包括任何獨立非執行董事)或僱員(不論全職或兼職)。除非以其他方式予以終止或修訂, 否則購股權計劃將由二零一九年六月十九日起計十年內維持生效。購股權計劃之進一步詳情載於本公司日期為二零一九年五月三十日之通函。

根據購股權計劃、本公司任何其他新購股權計劃及現有計劃將予授出之所有購股權獲行使時可予發行之最高股份數目, 合共不得超過採納購股權計劃或本公司任何其他新購股權計劃時已發行普通股之10%。本公司可於股東大會上尋求其股東批准更新購股權計劃之10%上限。於截至授出日期止任何十二個月期間, 根據購股權計劃及本集團任何其他購股權計劃向各參與者授出之購股權(包括已行使及尚未行使之購股權)獲行使而已發行及將予發行之股份總數, 不得超過本公司於授出日期已發行普通股之1%。進一步授出任何超出此上限之購股權均須由股東在本公司股東大會上批准, 方為有效。

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## 綜合財務報表附註

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### 34. SHARE OPTION SCHEME (Continued)

Any share option granted under the Share Option Scheme to a substantial shareholder (as defined in the Listing Rules) or an independent non-executive director (or any of their respective associates) of the Company, in excess of 0.1% of the ordinary shares of the Company in issue at the date of grant and with an aggregate value (based on the closing price of the Company's shares as quoted on the Stock Exchange at the date of each grant) in excess of HK\$5 million, within any 12-month period up to and including the date of such grant, are subject to recommendation from the independent non-executive directors of the Company (excluding any independent non-executive director who is also the grantee of the options) and shareholders' approval in a general meeting of the Company.

A share option may be accepted by a participant within 14 days from the date of the offer for grant of the option. The exercise period of the share options granted is determinable by the directors in accordance with the terms of the Share Option Scheme, and commences from the date of acceptance of the offer of grant of the share options and ends on a date which is not later than 10 years from the date of grant of the share options. At the date of offer of the option, the directors of the Company may specify any conditions which must be satisfied before any option may be exercised.

The exercise price of the share options is determinable by the directors of the Company, but must not be less than the highest of (i) the closing price of the Company's shares as stated in the Stock Exchange's daily quotation sheet on the date of the offer for grant, which must be a business day; (ii) the average closing price of the Company's shares as stated in the Stock Exchange's daily quotation sheets for the five business days immediately preceding the date of the offer of the grant; and (iii) the nominal value of the ordinary share.

### 34. 購股權計劃(續)

倘於截至授出日期(包括該日)止任何十二個月期間，根據購股權計劃向本公司主要股東(定義見上市規則)或獨立非執行董事(或彼等各自的任何聯繫人)授出之購股權超出本公司於授出日期已發行普通股之0.1%，及其總值(按各授出日期聯交所所報本公司股份之收市價計算)超出5百萬港元，則須獲本公司獨立非執行董事(同時身為購股權承授人之任何獨立非執行董事除外)之推薦建議及股東於本公司股東大會上批准，方可作實。

參與者可於提呈授出購股權要約日期起計十四日內接納購股權。所授出購股權之行使期由董事根據購股權計劃之條款釐定，及由接納授出購股權要約日期起至授出購股權日期起計不超過十年之日止。於授出購股權要約當日，本公司董事可能指定於行使任何購股權前必須達成的任何條件。

購股權行使價由本公司董事釐定，但不得低於下列三者之最高者：(i)本公司股份於提呈授出日期(須為營業日)在聯交所每日報價表內所示之收市價；(ii)本公司股份於緊接提呈授出日期前五個營業日在聯交所每日報價表內所示之平均收市價；及(iii)普通股面值。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 34. SHARE OPTION SCHEME (Continued)

Share options do not confer rights on the holders to dividends or to vote at shareholders' meetings.

No options were granted or exercised under the Share Option Scheme during the years ended 31 December 2022 and 2021. The Company had no share options outstanding as at 31 December 2022 and 31 December 2021.

### 35. PERPETUAL SUBORDINATED CONVERTIBLE SECURITIES

On 14 November 2013, the Company issued the Convertible Securities with an aggregate principal amount of US\$1,085,400,000, being part of consideration for the Combination. The fair value of the Convertible Securities, which was determined based on a valuation carried out by Asset Appraisal Limited, an independent valuer not connected with the Group, on the date of completion of the Combination amounted to US\$1,089,084,000.

The Convertible Securities are convertible into a maximum of 8,466,120,000 ordinary shares of the Company at an initial conversion price of HK\$1 per share, subject to anti-dilutive adjustments. On or at any time after three years after the date of issue of the Convertible Securities, the Company may, at its sole discretion, elect to convert the Convertible Securities in whole or in part into ordinary shares of the Company. At any time when a holder of the Convertible Securities is not a connected person of the Company, a principal amount of the Convertible Securities which upon conversion will result in the holder holding in aggregate under 10% of the issued share capital of the Company shall be automatically converted into ordinary shares of the Company upon the exercise of the conversion option.

### 34. 購股權計劃(續)

購股權並無賦予持有人收取股息或在股東大會上投票之權利。

於截至二零二二年及二零二一年十二月三十一日止年度，概無購股權根據購股權計劃獲授出或行使。於二零二二年十二月三十一日及二零二一年十二月三十一日，本公司亦無購股權尚未獲行使。

### 35. 永久次級可換股證券

於二零一三年十一月十四日，本公司發行本金總額為1,085,400,000美元之可換股證券，作為合併之部分代價。可換股證券之公平值(按完成合併當日與本集團並無關連之獨立估值師中誠達資產評估顧問有限公司進行之估值釐定)為1,089,084,000美元。

可換股證券可按初始轉換價每股1港元轉換為最多8,466,120,000股本公司普通股(須作出反攤薄調整)。於可換股證券之發行日期後三年屆滿或其後任何時間，本公司可全權酌情選擇將可換股證券全部或部分轉換為本公司普通股。於任何時間，行使換股權後，倘可換股證券持有人並非本公司關連人士，而轉換後可換股證券之本金額將導致該持有人合共持有本公司已發行股本10%以下，則該本金額將自動轉換為本公司普通股。

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## 綜合財務報表附註

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### 35. PERPETUAL SUBORDINATED CONVERTIBLE SECURITIES (Continued)

The Convertible Securities shall not bear any distribution for the first three years from the issue date but shall bear distribution at 0.1% of the principal amount per annum thereafter payable annually in arrears on 31 December each year and can be deferred indefinitely at the discretion of the Company. The Convertible Securities have no fixed maturity and are redeemable at the Company's option at their principal amounts together with any accrued, unpaid or deferred distributions. While any distributions are unpaid or deferred, the Company may not, inter alia, declare or pay any dividends or distribution on any ordinary shares of the Company or redeem or buy-back any ordinary shares of the Company, for so long as any distributions which are due and payable have not yet been paid in full.

During 2018, various investors including Jinchuan (BVI) Limited ("**Jinchuan BVI**"), an indirect wholly-owned subsidiary of JCG, which in turn is the controlling shareholder of the Company, exercised the conversion of the Convertible Securities in an aggregate principal amount of US\$996,938,000 into ordinary shares at the conversion price of HK\$1 per share ("**Conversion**").

### 35. 永久次級可換股證券(續)

可換股證券自發行日期起首三年內不附帶任何分派，惟其後每年按本金額之0.1%計算分派，並於每年十二月三十一日按年累計支付，而本公司可酌情選擇延期分派。可換股證券並無固定期限，本公司可選擇按其本金額另加應計、未付或延遲之分派贖回可換股證券。倘任何分派尚未或延期支付，則只要任何到期應付之分派尚未獲全數支付，本公司將不可(其中包括)就本公司之任何普通股宣派或派付任何股息或分派，亦不可贖回或購回本公司任何普通股。

於二零一八年，多名投資者(包括本公司之控股股東金川之間接全資附屬公司金川(BVI)有限公司(「**金川BVI**」))按換股價每股股份1港元將本金總額為996,938,000美元之可換股證券轉換為普通股(「**該轉換**」)。

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## 綜合財務報表附註

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### 35. PERPETUAL SUBORDINATED CONVERTIBLE SECURITIES (Continued)

As a result of the Conversion and pursuant to the terms of the Convertible Securities, on 6 June 2018, the Company allotted and issued a total of 7,776,120,000 ordinary shares to the investors including Jinchuan BVI, representing approximately 61.66% of the number of issued shares as enlarged by the aforesaid allotment and issue of ordinary shares. These ordinary shares ranked *pari passu* with all the existing shares at the date of allotment and among themselves in all respects. The aggregate outstanding principal amount of the Convertible Securities has been reduced to US\$88,462,000 immediately after the Conversion. The issued share capital of the Company has been increased to 12,609,873,051 shares upon abovementioned allotment and issue of the ordinary shares.

Movement of Convertible Securities:

### 35. 永久次級可換股證券(續)

由於進行該轉換，根據可換股證券之條款，本公司於二零一八年六月六日向包括金川BVI在內之投資者配發及發行合共7,776,120,000股普通股，佔經配發及發行上述普通股所擴大之已發行股份數目約61.66%。該等普通股在所有方面與於配發日期之所有現有股份及彼此之間享有同等地位。緊隨該轉換後，可換股證券之尚未償還本金總額已減少至88,462,000美元。經配發及發行上述普通股後，本公司之已發行股本已增加至12,609,873,051股股份。

可換股證券之變動：

	Number of Convertible Securities 可換股證券 數目	Convertible Securities 可換股證券 US\$'000 千美元
As at 1 January 2021, 31 December 2021 and 31 December 2022	於二零二一年一月一日、 二零二一年十二月三十一日 及二零二二年十二月三十一日	690,000,000 88,462

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## 綜合財務報表附註

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### 36. FINANCIAL INSTRUMENTS

#### Capital risk management

The Group manages its capital to maintain a balance between continuity of cash flows from operating activities and the flexibility through the use of borrowings. The Group also monitors the current and expected liquidity requirements and its compliance with lending covenants regularly to ensure that sufficient working capital and adequate committed lines of funding are maintained to meet its liquidity requirements. The Group's overall strategy remains unchanged from prior years.

The capital structure of the Group consists of net debts, which includes the borrowings disclosed in note 28, bank overdrafts and amounts due to ultimate holding company, an intermediate holding company, a fellow subsidiary and a non-controlling shareholder of a subsidiary disclosed in note 27, net of bank balances and cash; and equity attributable to owners of the Company and non-controlling interests, comprising issued share capital and reserves.

The management reviews the capital structure on a regular basis. As part of this review, the management considers the costs of capital and the risks associated with each class of capital, and will balance its overall capital structure through issue of new shares or share buy-backs, and the issue of new debt or the redemption of existing debt.

### 36. 金融工具

#### 資本風險管理

本集團的資本管理目標乃透過使用借款在經營業務所得現金流量之持續性與靈活性之間保持平衡。本集團亦定期監察目前及預期之流動資金需要及其遵守借貸契諾的情況，確保維持充裕的營運資金及足夠的承諾信貸額度，以應付其流動資金所需。本集團之整體策略與過往年度維持不變。

本集團資本結構包括債務淨額(包括附註28披露之借款、銀行透支及附註27披露應付最終控股公司、中間控股公司、同系附屬公司及附屬公司非控股股東款項，扣除銀行結餘及現金)；及本公司擁有人應佔權益及非控股權益(包括已發行股本及儲備)。

管理層定期檢討資本結構。作為此項檢討之一環，管理層考慮資本成本及各類資本的相關風險，並透過發行新股或股份購回及發行新債或贖回現有債務調整本集團之整體資本結構。

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## 綜合財務報表附註

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### 36. FINANCIAL INSTRUMENTS (Continued)

### 36. 金融工具(續)

#### Categories of financial instruments

#### 金融工具類別

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Financial assets</b>	<b>金融資產</b>		
At amortised cost	按攤銷成本	<b>98,874</b>	225,116
Financial assets at FVTPL	按公平值計入損益之金融資產	<b>68,578</b>	52,246
Derivative financial instruments	衍生金融工具	<b>1,367</b>	278
<b>Financial liabilities</b>	<b>金融負債</b>		
At amortised cost	按攤銷成本	<b>342,245</b>	388,366
Financial liabilities at FVTPL	按公平值計入損益之金融負債	<b>102,810</b>	39,577

#### Financial risk management objectives and policies

#### 財務風險管理目標及政策

The Group's major financial instruments include derivative financial instruments, trade and other receivables, financial assets at FVTPL, bank deposits with original maturity over three months, bank balances and cash, trade and other payables, amounts due to an intermediate holding company/a fellow subsidiary/a non-controlling shareholder of a subsidiary/ultimate holding company, bank borrowings and bank overdrafts. Details of the financial instruments are disclosed in respective notes. The risks associated with these financial instruments include market risk (currency risk, interest rate risk and commodity price risk), credit risk and liquidity risk. The policies on how to mitigate these risks are set out below. The management manages and monitors these exposures to ensure appropriate measures are implemented on a timely and effective manner.

本集團之主要金融工具包括衍生金融工具、貿易及其他應收款項、按公平值計入損益之金融資產、原到期日超出三個月之銀行存款、銀行結餘及現金、貿易及其他應付款項、應付中間控股公司／同系附屬公司／附屬公司非控股股東／最終控股公司款項、銀行借款及銀行透支。金融工具之詳情於相關附註披露。此等金融工具之相關風險包括市場風險(貨幣風險、利率風險及商品價格風險)、信貸風險及流動資金風險。降低此等風險之政策載於下文。管理層負責管理及監察此等風險，以確保及時有效地執行適當的措施。



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### 36. FINANCIAL INSTRUMENTS (Continued)

#### Financial risk management objectives and policies (Continued)

##### Market risk

##### Currency risk

The carrying amounts of the Group's monetary assets denominated in foreign currencies, i.e. currencies other than the functional currency of the respective group entities, which mainly represent trade and other receivables and bank balances and cash at the end of the reporting period are as follows:

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
ZAR	南非蘭特	1,708	2,201
HK\$	港元	3,867	528
Zambian Kwacha ("ZMW")	贊比亞克瓦查	41	18
Congo Franc ("CDF")	剛果法郎	106	99

The Group manages its foreign currency risk by closely monitoring the movements of foreign currency exchange rates. The Group currently has not entered into any foreign currency forward contracts to hedge against foreign currency risk.

### 36. 金融工具(續)

#### 財務風險管理目標及政策(續)

##### 市場風險

##### 貨幣風險

於報告期末，本集團以外幣(即各集團實體功能貨幣以外之貨幣)計值之貨幣資產(主要為貿易及其他應收款項以及銀行結餘及現金)之賬面值如下：

本集團透過密切監察外幣匯率變動情況管理其外幣風險。本集團現時並無訂立任何遠期外匯合約以對沖外幣風險。

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## 綜合財務報表附註

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### 36. FINANCIAL INSTRUMENTS (Continued)

#### Financial risk management objectives and policies (Continued)

#### Market risk (Continued)

#### Currency risk (Continued)

#### Sensitivity analysis

The Group is mainly exposed to fluctuation against foreign currency of ZAR, ZMW and CDF relative to US\$. Under the linked exchange rate system, the financial impact on foreign exchange difference between HK\$ and US\$ is expected to be immaterial and therefore no sensitivity analysis has been prepared. The following table details the Group's sensitivity to a 5% increase in functional currency against the relevant foreign currencies. 5% represents management's assessment of the reasonably possible change in foreign exchange rates. The sensitivity analysis includes only outstanding foreign currency denominated monetary items and adjusts their translation at the end of the reporting period for a 5% change in foreign currency rates. A positive number below indicates an increase in profit for the year where foreign currency of each group entity strengthens 5% against the relevant functional currency.

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
ZAR	南非蘭特	61	79
ZMW	贊比亞克瓦查	1	1
CDF	剛果法郎	4	3

For a 5% weakening of foreign currency of each group entity against the relevant functional currency, there would be an equal and opposite impact on the profit.

In the opinion of directors of the Company, the sensitivity analysis is unrepresentative of inherent foreign exchange risk as the year end exposure does not reflect the exposure during the year.

### 36. 金融工具(續)

#### 財務風險管理目標及政策(續)

#### 市場風險(續)

#### 貨幣風險(續)

#### 敏感度分析

本集團主要承受南非蘭特、贊比亞克瓦查及剛果法郎兌美元之匯率波動風險。基於聯匯制度，港元與美元匯差之財務影響預期並不重大，故並無編製敏感度分析。下表詳述本集團對於功能貨幣兌有關外幣升值5%之敏感度。5%為管理層對匯率合理可能變動所作之評估。敏感度分析僅包括以外幣計值之未兌換貨幣項目，並於報告期末就5%之匯率變動作出換算調整。以下之正數說明倘各集團實體之外幣貨幣兌有關功能貨幣升值5%，年內溢利將增加。

倘各集團實體之外幣兌有關功能貨幣貶值5%，則會對年內溢利帶來等額但相反之影響。

本公司董事認為，敏感度分析不足以代表固有之外匯風險，原因是年末之風險敞口並不反映年內所承擔之風險敞口。

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## 綜合財務報表附註

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### 36. FINANCIAL INSTRUMENTS (Continued)

#### Financial risk management objectives and policies (Continued)

#### Market risk (Continued)

#### Interest rate risk

The Group is exposed to cash flow interest rate risk in relation to borrowings and amounts due to an intermediate holding company and a fellow subsidiary with reference to LIBOR.

The Group's cash flow interest rate risk relates primarily to variable rate borrowings and amounts due to an intermediate holding company and a fellow subsidiary. The use of financial derivatives is governed by the Group's policies approved by the board of directors, which provide written principles on interest rate risk and the use of financial derivatives. The Group uses interest rate swap contracts to hedge interest rate risk for certain bank borrowings carrying interest rate at floating rate in order to achieve the appropriate mix in accordance with the Group's risk management policy. Hedging activities are evaluated regularly to align with interest rate views and defined risk appetite; ensuring the most cost-effective hedging strategies are applied.

### 36. 金融工具(續)

#### 財務風險管理目標及政策(續)

#### 市場風險(續)

#### 利率風險

本集團承受借款及應付一間中間控股公司及一間同系附屬公司之款項(參照倫敦銀行同業拆息計息)之現金流量利率風險。

本集團的現金流利率風險主要有關浮動利率的借款和應付一間中間控股公司及一間同系附屬公司之款項。衍生金融工具的使用受本集團董事會所批准之政策所規管，該等政策提供有關利率風險及衍生金融工具之使用之書面準則。為了按照本集團的風險管理政策達致適當風險組合，本集團就浮動利率計息的若干銀行借款運用利率掉期合約以對沖利率風險。本集團定期評估對沖活動以符合利率的展望及既定風險偏好，確保採用最為成本有效的對沖策略。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 36. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Market risk (Continued)

#### Interest rate risk (Continued)

The Group's cash flow interest rate risk is mainly concentrated on the fluctuation of LIBOR arising from the Group's US\$ denominated borrowings. Interest rate swap contracts are designated as effective hedging instruments and hedge accounting is used (see note 29 for details). Under interest rate swap contracts, the Group agrees to exchange the difference between fixed and floating rate interest amounts calculated on agreed notional principal amounts. Such contracts enable the Group to mitigate the risk of changing interest rates and the cash flows exposures. As the critical terms of the interest rate swap contracts and their corresponding hedged items are the same, the Group performs a qualitative assessment of effectiveness and it is expected that the value of the interest rate swap contracts and the value of the corresponding hedged items will systematically change in opposite direction in response to movements in the underlying interest rates. The main source of hedge ineffectiveness in these hedge relationships is the effect of the counterparty and the Group's own credit risk on the fair value of the interest rate swap contracts, which is not reflected in the fair value of the hedged item attributable to the change in interest rates. No other sources of ineffectiveness emerged from these hedging relationships.

All interest rate swap contracts exchanging floating rate interest amounts for fixed rate interest amounts are designated as cash flow hedges to reduce the Group's cash flow exposure resulting from variable interest rates on bank borrowings. The interest rate swap and the interest payments on the loan occur simultaneously and the amount accumulated in equity is reclassified to profit or loss over the period that the floating rate interest payments on debt affect profit or loss.

## 36. 金融工具(續)

### 財務風險管理目標及政策(續)

#### 市場風險(續)

#### 利率風險(續)

本集團的現金流利率風險主要集中於本集團以美元計價之借款產生之有關倫敦銀行同業拆息之波動。利率掉期合約乃指定為有效之對沖工具，並已使用對沖會計法(詳情見附註29)。根據利率掉期合約，本集團同意交換固定與浮動利率(按協定名義本金額計算)的差額。該等合約可令本公司減少利率變動風險及現金流量風險。由於利率掉期合約的主要條款與其相應的對沖項目相同，因此本集團對有效性進行定性評估，並預期利率掉期合約價值及相應對沖項目的價值將因相關利率變動而系統性地反向變動。該等對沖關係中對沖無效的主要來源為交易對方及本集團自身之信貸風險對利率掉期合約公平值之影響，而該影響並未反映於受利率變動影響之對沖項目公平值。該等對沖關係概無浮現其他無效對沖來源。

以浮息款項交換定息款項的利率掉期合約，一律列為現金流對沖，以減少本集團因銀行借款的可變利率而面臨的現金流量風險。利率掉期及貸款的利息付款同時發生，權益內所累計的金額，在債務浮息付款影響損益的期間重新分類至損益。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 36. FINANCIAL INSTRUMENTS (Continued)

#### Financial risk management objectives and policies (Continued)

##### Market risk (Continued)

##### Interest rate risk (Continued)

The Group's bank balances have exposure to cash flow interest rate risk due to the fluctuation of the prevailing market interest rate on bank balances. The directors of the Company consider that the Group's exposure of the short-term bank deposits to interest rate risk is not significant as interest bearing bank balances are with short maturity period.

##### Sensitivity analysis

The sensitivity analysis has been determined based on the exposure to interest rates for floating-rate interest bearing borrowings. The analysis is prepared assuming those balances outstanding at the end of the reporting period were outstanding for the whole year. A 50 basis point increase or decrease which represents the management's assessment of the reasonably possible change in interest rates is used.

If the interest rate on bank borrowings (excluding bank borrowings under cash flow hedges) and amount due to an intermediate holding company and a fellow subsidiary carried at floating rate had been 50 basis points higher/lower and all other variables were held constant, the profit for the year ended 31 December 2022 would have decreased/increased by US\$953,000 (2021: US\$727,000).

In the opinion of directors of the Company, the sensitivity analysis is unrepresentative of inherent interest rate risk as the year end exposure does not reflect the exposure during the year.

### 36. 金融工具(續)

#### 財務風險管理目標及政策(續)

##### 市場風險(續)

##### 利率風險(續)

本集團之銀行結餘承受因銀行結餘之現行市場利率波動而產生的現金流量利率風險。本公司董事認為，本集團短期銀行存款之利率風險敞口並不重大，原因是計息銀行結餘之到期時間較短。

##### 敏感度分析

敏感度分析乃基於浮息借款的利率風險敞口釐定。編製該項分析時，假設於報告期末之未償還結餘於整個年度概未償還。分析採用50個基點之增減，代表管理層對利率合理可能變動所作出之評估。

倘按浮息計算之銀行借款(不包括於現金流對沖項下之銀行借款)以及應付中間控股公司及同系附屬公司款項之利率增加/減少50個基點，而所有其他變量保持不變，則截至二零二二年十二月三十一日止年度之溢利應減少/增加953,000美元(二零二一年：727,000美元)。

本公司董事認為，敏感度分析不足以代表固有之利率風險，原因是年末之風險敞口並不反映年內所承擔之風險敞口。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 36. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Market risk (Continued)

#### Interest rate risk (Continued)

##### Interest rate benchmark reform

The Group is planning to transition the LIBOR-linked bank loan contracts and the related interest rate swap contracts, amount due to an intermediate holding company and amount due to a fellow subsidiary with carrying amount of US\$194,789,000 and US\$1,367,000, US\$106,147,000 and US\$5,440,000 (2021: US\$249,657,000 and US\$278,000, US\$102,539,000 and US\$5,234,000) respectively, as at 31 December 2022 through introduction of, or amendments to, fallback clauses into the contracts which will change the basis for determining the interest cash flows from LIBOR to an alternative reference rate at an agreed point in time. The Group will negotiate with the respective parties for the new interest rate in due course.

#### Commodity price risk

The Group is also exposed to commodity price risk as the Group's sales and purchases are subject to provisional pricing arrangements, predominantly copper and cobalt prices. The Group has appointed a special team to monitor the price risk and will consider hedging the risk exposure should the need arise.

## 36. 金融工具(續)

### 財務風險管理目標及政策(續)

#### 市場風險(續)

#### 利率風險(續)

##### 利率基準改革

本集團計劃將於二零二二年十二月三十一日將賬面金額分別為194,789,000美元及1,367,000美元、106,147,000美元及5,440,000美元(二零二一年：249,657,000美元及278,000美元、102,539,000美元及5,234,000美元)的倫敦銀行同業拆息掛鈎銀行貸款合約及相關利率掉期合約、應付中間控股公司款項及應付同系附屬公司款項過渡，方法為在合約中引入或修訂後備方案條款，將於協定的時間點將釐定利息現金流的基準從銀行同業拆息更改為替代參考利率。本集團將適時與相關方磋商新利率。

#### 商品價格風險

本集團亦承受商品價格風險，因為本集團須按臨時定價安排作出買賣(主要為銅價及鈷價)。本集團已委任特別團隊以監控價格風險，並將於必要時考慮對沖風險。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 36. FINANCIAL INSTRUMENTS (Continued)

#### Financial risk management objectives and policies (Continued)

##### Credit risk and impairment assessment

The Group's maximum exposure to credit risk in the event of the counterparties' failure to perform their obligations at the end of the reporting period in relation to each class of recognised financial assets is the carrying amount of those assets as stated in the consolidated statement of financial position. In order to minimise the credit risk, the directors of the Company has delegated the management to be responsible for determination of credit limits, credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. In this regard, the directors of the Company consider that the Group's credit risk is significantly reduced.

The credit risk for bank deposits and bank balances exposed is considered minimal as such amounts are placed with various banks with good credit ratings and there is no significant concentration of credit risk for bank deposits and bank balances.

The Group's mineral and metal products are allocated between nine (2021: nine) customers all of whom have a good track record with respect to settling receivables within the agreed credit period. As part of the Group's credit risk management, the Group applied internal credit rating for its customers.

For other receivables, in order to minimise the credit risk, directors continuously monitor the settlement status and the level of exposure to ensure that follow-up action is taken to recover overdue debts. In determining the 12m ECL for other receivables, the management of the Group has taken into account the historical default experience and forward-looking information, available without undue cost or effort as appropriate. The Group assessed that the 12m ECL by applying ECL rate of 0.1% after considering forward-looking adjustment, on these balances are not material and thus no loss allowance was recognised.

### 36. 金融工具(續)

#### 財務風險管理目標及政策(續)

##### 信貸風險及減值評估

於報告期末，本集團於交易對手未履行其責任之情況下，就各類已確認金融資產承擔之最大信貸風險敞口，為綜合財務狀況表所列之該等資產賬面值。為將信貸風險降至最低，本公司董事已授權管理層負責釐定信貸限額、信貸批准及其他監察程序，以確保採取跟進行動收回逾期債務。就此而言，本公司董事認為本集團之信貸風險已大幅降低。

銀行存款及銀行結餘面臨之信貸風險被視為極低，原因是該等金額乃存放於多間具有良好信貸評級之銀行，且銀行存款及銀行結餘並無重大集中信貸風險。

本集團向九名(二零二一年：九名)客戶配給礦產品及金屬產品，該等客戶在於協定信貸期內結清應收款項方面均擁有良好往績記錄。作為本集團信貸風險管理的一部分，本集團對其客戶應用內部信貸評級。

就其他應收款項而言，為盡量降低信貸風險，董事會持續監察結算狀況及風險水平，以確保採取跟進行動來收回逾期債務。在決定其他應收款項的12個月預期信貸虧損時，本集團的管理層已考慮到過往違約經驗及毋須花費不必要成本或努力即可獲得的前瞻性資料(如適用)。本集團考慮前瞻性調整後，按所應用之預期信貸虧損率0.1%評估該等結餘的12個月預期信貸虧損並不重大，因此並無確認虧損撥備。

# Notes to the Consolidated Financial Statements 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

## 36. FINANCIAL INSTRUMENTS (Continued)

### Financial risk management objectives and policies (Continued)

#### Credit risk and impairment assessment (Continued)

There has been no changes in the estimation techniques or significant assumptions made during the years ended 31 December 2022 and 2021.

The Group only invests in debt securities with high credit ratings or issued by reputable companies. The board of directors regularly reviews and monitors the portfolio of debt securities. The debt securities with principal amount of US\$3,000,000 (2021: US\$3,000,000) are carried at fair value of US\$2,749,000 (2021: US\$2,978,000) at 31 December 2022 are rated at investment grade based on the external credit rating agencies.

#### Liquidity risk

In management of the liquidity risk, the Group monitors and maintains a level of cash and cash equivalents deemed adequate by the management to finance the Group's operations and mitigate the effects of fluctuations in cash flows. The management monitors the utilisation of borrowings and ensures compliance with loan covenants.

The following table details the Group's remaining contractual maturity for its non-derivative financial liabilities. The table has been drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group can be required to pay. The maturity dates for other non-derivative financial liabilities are based on the agreed repayment dates.

The table includes both interest and principal cash flows, except for trade payables under provisional pricing arrangements. To the extent that interest flows are floating rate, the undiscounted amount is derived from interest rate curve at the end of the reporting period.

## 36. 金融工具(續)

### 財務風險管理目標及政策(續)

#### 信貸風險及減值評估(續)

截至二零二二年及二零二一年十二月三十一日止年度，所作出的估計技術或重大假設均無變動。

本集團僅投資信貸評級較高或由知名公司發行的債務證券。董事會定期檢討及監察債務證券組合。於二零二二年十二月三十一日，本金額為3,000,000美元(二零二一年：3,000,000美元)的債務證券以2,749,000美元(二零二一年：2,978,000美元)的公平值列賬，並被外部信貸評級機構評級為投資級別。

#### 流動資金風險

就流動資金風險管理而言，本集團監察現金及現金等值項目及將之保持於管理層認為足夠之水平，以撥付本集團經營業務之資金及減低現金流量變動之影響。管理層監察借款使用情況，並確保符合貸款契諾。

下表詳列本集團之非衍生金融負債之餘下合約到期情況。列表乃根據金融負債之未貼現現金流量按本集團可能須支付款項之最早日期編製。其他非衍生金融負債之到期日乃按協定之還款日期釐定。

下表包括利息及本金現金流量，惟臨時定價安排下之貿易應付款項除外。倘利息流量為浮息，有關未貼現金額乃自於報告期末之利率曲線計算得出。



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 36. FINANCIAL INSTRUMENTS (Continued)

#### Financial risk management objectives and policies (Continued)

#### Liquidity risk (Continued)

For trade payables under provisional pricing arrangements, the amount is derived from the estimated future cash payments with reference to the LME future commodity prices at the end of the reporting periods.

As at 31 December 2022

### 36. 金融工具(續)

#### 財務風險管理目標及政策(續)

#### 流動資金風險(續)

就臨時定價安排下之貿易應付款項而言，有關金額乃經參考於報告期末之倫金所期貨商品價格所估計之未來現金付款計算得出。

於二零二二年十二月三十一日

	Weighted average interest rate 加權平均利率 %	On demand and within one year 按要求及一年內 US\$'000 千美元	Over one year but not more than five years 一年後但五年內 US\$'000 千美元	More than five years 超過五年 US\$'000 千美元	Total undiscounted cash flows 未貼現現金流量總額 US\$'000 千美元	Carrying amount 賬面值 US\$'000 千美元
<b>Non-derivative financial liabilities</b> 非衍生金融負債						
Trade and other payables (excluding trade payables under provisional pricing arrangements) 貿易及其他應付款項 (不包括臨時定價安排下之貿易應付款項)	-	32,320	-	-	32,320	32,320
Amount due to ultimate holding company 應付最終控股公司款項	-	56	-	-	56	56
Amount due to an intermediate holding company 應付同系附屬公司款項	7.91	93,839	26,070	-	119,909	106,147
Amount due to a fellow subsidiary 應付同系附屬公司款項	7.02	5,822	-	-	5,822	5,440
Amount due to a non-controlling shareholder of a subsidiary 應付附屬公司非控股股東款項	-	491	-	-	491	491
Bank overdraft 銀行透支	8.50	3,002	-	-	3,002	3,002
Bank borrowings – floating rate 銀行借款 – 浮息	7.89	73,138	167,796	-	240,934	194,789
Lease liabilities 租賃負債	5.53	769	866	-	1,635	1,584
		209,437	194,732	-	404,169	343,829
Trade payables under provisional pricing arrangements 臨時定價安排下之貿易應付款項	-	102,810	-	-	102,810	102,810
		312,247	194,732	-	506,979	446,639

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 36. FINANCIAL INSTRUMENTS (Continued)

#### Financial risk management objectives and policies (Continued)

#### Liquidity risk (Continued)

As at 31 December 2021

### 36. 金融工具(續)

#### 財務風險管理目標及政策(續)

#### 流動資金風險(續)

於二零二一年十二月三十一日

		Weighted average interest rate	On demand and within one year	Over one year but not more than five years	More than five years	Total undiscounted cash flows	Carrying amount
		加權平均利率	按要求及一年內	一年後但五年內	超過五年	未貼現現金流量總額	賬面值
		%	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
		%	千美元	千美元	千美元	千美元	千美元
<b>Non-derivative financial liabilities</b>	<b>非衍生金融負債</b>						
Trade and other payables (excluding trade payables under provisional pricing arrangements)	貿易及其他應付款項 (不包括臨時定價安排下之貿易應付款項)	-	30,403	-	-	30,403	30,403
Amount due to an intermediate holding company	應付中間控股公司款項	2.46	105,043	-	-	105,043	102,539
Amount due to a fellow subsidiary	應付同系附屬公司款項	2.46	5,363	-	-	5,363	5,234
Amount due to a non-controlling shareholder of a subsidiary	應付附屬公司非控股股東款項	-	533	-	-	533	533
Bank borrowings – floating rate	銀行借款 – 浮息	2.93	115,657	107,043	34,654	257,354	249,657
Lease liabilities	租賃負債	5.53	816	1,814	-	2,630	2,349
			257,815	108,857	34,654	401,326	390,715
Trade payables under provisional pricing arrangements	臨時定價安排下之貿易應付款項	-	39,577	-	-	39,577	39,577
			297,392	108,857	34,654	440,903	430,292

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 36. FINANCIAL INSTRUMENTS (Continued)

#### Fair value measurements of financial instruments

#### Fair value of the Group's financial assets and financial liabilities that are measured at fair value on a recurring basis

Some of the Group's financial assets and financial liabilities are measured at fair value at the end of the reporting period. The following table gives information about how the fair values of these financial assets and financial liabilities are determined (in particular, the valuation technique(s) and inputs used).

	Fair value as at 31 December 於十二月三十一日之公平值		Fair value hierarchy 公平值級別	Valuation technique(s) and key input(s) 估值技術及主要輸入數據
	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元		
<b>Financial assets</b> <b>金融資產</b>				
Financial assets at FVTPL 按公平值計入損益之金融資產	2,749	2,978	Level 2 第二級	Quoted prices in the over-the-counter market. 場外市場報價
Trade receivables under provisional pricing arrangements 臨時定價安排下之貿易應收款項	65,829	49,268	Level 2 第二級	The fair value of the trade receivables under provisional pricing arrangements is based on the average LME future commodity prices for the duration up to the date of final pricing. 臨時定價安排下之貿易應收款項之公平值根據截至最終定價日為止期限之倫金所期貨商品平均價格釐定。
Interest rate swap contracts 利率掉期合約	1,367	278	Level 2 第二級	Discounted cash flow. Future cash flows are estimated based on forward interest rates (from observable yield curves at the end of the reporting period) and contracted interest rates, discounted at an applicable discount rate taking into account the credit risk of the counterparty. 已折讓現金流量。未來現金流量乃基於遠期利率(來自報告期末的可觀察收益曲線)及合約訂立利率作出估計，經計及對手方信貸風險後按適用折讓率折現。
<b>Financial liabilities</b> <b>金融負債</b>				
Trade payables under provisional pricing arrangements 臨時定價安排下之貿易應付款項	102,810	39,577	Level 2 第二級	The fair value of the trade payables under provisional pricing arrangements is based on the average LME future commodity prices for the duration up to the date of final pricing. 臨時定價安排下之貿易應付款項之公平值根據截至最終定價日為止期限之倫金所期貨商品平均價格釐定。

There were no transfer between Level 1 or 2 during the year.

### 36. 金融工具(續)

#### 金融工具之公平值計量

#### 本集團按經常性基準以公平值計量之金融資產及金融負債之公平值

本集團若干金融資產及金融負債於報告期末按公平值計量。下表載列有關如何釐定該等金融資產及金融負債之公平值之資料(尤其是估值技術及所使用的輸入數據)。

年內，第一級或第二級之間並無轉撥。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 36. FINANCIAL INSTRUMENTS (Continued)

#### Fair value measurements of financial instruments (Continued)

#### Fair value of the Group's financial assets and financial liabilities that are not measured at fair value on a recurring basis

The directors of the Company consider that the carrying amounts of financial assets and financial liabilities recorded at amortised cost approximate their fair values.

The fair values of financial assets and financial liabilities are determined in accordance with generally accepted pricing models based on discounted cash flow analysis.

### 36. 金融工具(續)

#### 金融工具之公平值計量(續)

#### 並非按經常性基準以公平值計量之本集團金融資產及金融負債之公平值

本公司董事認為，按攤銷成本記賬之金融資產及金融負債之賬面值與其公平值相若。

金融資產及金融負債之公平值乃按照普遍接納之定價模式根據貼現現金流量分析而釐定。

### 37. CAPITAL COMMITMENTS

### 37. 資本承擔

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Capital expenditure in respect of construction of property, plant and equipment, mineral rights and exploration and evaluation assets contracted for but not provided in the consolidated financial statements	已訂約但未於綜合財務報表撥備之物業、廠房及設備工程、礦產權以及勘探及評估資產之資本開支	<b>77,955</b>	140,333

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 38. RETIREMENT BENEFIT SCHEMES

The Group participates in the Mandatory Provident Fund Scheme registered with the Mandatory Provident Fund Schemes Authority under the Mandatory Provident Fund Schemes Ordinance for all qualifying employees in Hong Kong. The assets of the scheme are held separately from those of the Group in funds under the control of trustee. The Group contributes 5% of relevant payroll costs with a cap of monthly contributions of HK\$1,500 (equivalent to US\$160) (effective from 1 June 2014) to the scheme, which contribution is matched by employee.

Contributions are made by the South African companies to independent pension and provident funds which are defined contribution retirement benefits plans governed by the Pension Funds Act, 1956. All eligible employees are required to become members of these schemes.

DRC employees contribute to the DRC National Social Security Fund in accordance with applicable labour laws. All eligible Zambian employees are required to join and contribute to an external pension fund, Africa Life. Both funds are defined contribution retirement benefits plans.

The assets of each of the retirement benefits schemes are held separately from those of the Group in funds under the control of the trustees. The amounts incurred for retirement benefits schemes contributions are disclosed in notes 10 and 11. According to the respective schemes, those contributions are not refundable nor forfeitable. As at 31 December 2022, there were no forfeited contributions (by employers on behalf of employees who leave these retirement benefit schemes prior to vesting fully in such contributions) in the Group under these retirement benefit schemes. Hence, there is no forfeited contribution available for the Group to reduce its existing level of contributions to these retirement benefit schemes in future years.

### 38. 退休福利計劃

本集團為香港所有合資格僱員參與一項已根據強制性公積金計劃條例在強制性公積金計劃管理局登記之強積金計劃。該計劃之資產與存置於受託人所控制基金之本集團資產分開持有。本集團按有關薪金成本的5%向該計劃供款，每月供款上限為1,500港元(相當於160美元)(自二零一四年六月一日起生效)，而僱員亦按相同金額作出供款。

南非公司對獨立退休金及公積金(為受一九五六年退休金法案(Pension Funds Act, 1956)管轄之界定供款退休福利計劃)作出供款。所有合資格僱員均須參加此等計劃。

剛果(金)僱員根據適用之勞動法對剛果(金)全國社會保障基金供款。所有合資格之贊比亞僱員均須加入外部退休基金Africa Life並作出供款。兩隻基金均為界定供款退休福利計劃。

各退休福利計劃之資產與存置於受託人所控制基金之本集團資產分開持有。退休福利計劃供款所產生之款項於附註10及11披露。根據各項計劃，該等供款為不可退還亦不可沒收。於二零二二年十二月三十一日，根據該等退休福利計劃，本集團並無已被沒收的供款(即僱員在有關供款全數歸屬前退出退休福利計劃，由僱主代僱員處理的供款)。因此，並無被沒收供款可供本集團於未來年度減低現有退休福利計劃供款水平。

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## 綜合財務報表附註

For the year ended 31 December 2022  
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### 39. RELATED PARTY TRANSACTIONS

The Group itself is part of a larger group of companies under JCG, a state-owned enterprise with its majority equity interest held by the People's Government of Gansu Province, which is controlled by the government of the PRC and the Group operates in an economic environment currently predominated by entities controlled, jointly controlled or significantly influenced by the PRC government.

#### (a) Transactions with JCG and its subsidiaries

Apart from details of the balances with related parties disclosed in respective notes, the Group entered into the following transactions with JCG and its subsidiaries (excluding the Group) during the year:

### 39. 關聯人士交易

本集團為金川(一家主要股權由甘肅省人民政府持有的國有企業，而甘肅省人民政府受中國政府控制)旗下的大型集團公司之一，亦於目前主要由中國政府所控制、共同控制或發揮重大影響力之實體主導的經濟環境中經營業務。

#### (a) 與金川及其附屬公司之交易

除於相關附註所披露之關聯人士結餘詳情外，本集團於年內與金川及其附屬公司(不包括本集團)訂立以下交易：

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Interest expenses on loan due to an intermediate holding company	應付中間控股公司貸款之利息開支	4,208	2,748
Interest expenses on loan due to a fellow subsidiary	應付同系附屬公司貸款之利息開支	206	123
Interest expenses payable to an intermediate holding company on the perpetual subordinated convertible securities	應付中間控股公司永久次級可換股證券之利息開支	88	88
License fee income received from a fellow subsidiary	自同系附屬公司收取許可費收入	250	285
Mining expenses paid to a fellow subsidiary (Note)	向同系附屬公司支付採礦開支(附註)	15,660	13,199
Maintenance expenses paid to fellow subsidiary (Note)	向同系附屬公司支付維護開支(附註)	1,899	900
Rental income of equipment received from a fellow subsidiary (Note)	自同系附屬公司收取設備租金收入(附註)	-	580
Rental income received from a related party	自關聯公司收取租金收入	144	183
Guarantee fee paid to ultimate holding company	向最終控股公司支付擔保費	776	707
Sale of goods to ultimate holding company (Note)	向最終控股公司銷售貨品(附註)	34,883	22,118

Note: These transactions are regarded as discloseable continuing connected transactions, pursuant to Chapter 14A of the Listing Rules. The disclosures required by Chapter 14A of the Listing Rules are disclosed in the "Continuing Connected Transactions" section in the annual report.

附註：根據上市規則第14A章，該等交易被視為需披露持續關連交易。上市規則第14A章規定披露的內容已於年報「持續關連交易」一節披露。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 39. RELATED PARTY TRANSACTIONS (Continued)

#### (a) Transactions with JCG and its subsidiaries (Continued)

As at 31 December 2022, corporate guarantee facilities in aggregate amounting to US\$384,000,000 (2021: US\$416,000,000) was provided by JCG for banking facilities obtained by the Group, of which US\$154,326,000 (2021: US\$166,363,000) was utilised.

#### (b) Transactions/balances with other PRC government controlled entities

The Group has entered into various transactions, including deposits placements, borrowings and other general banking facilities, with certain banks and financial institutions which are government-related entities in its ordinary course of business. In view of the nature of those banking transactions, the directors of the Company are of the opinion that separate disclosure is not meaningful.

#### (c) Transaction with non-PRC government – related parties

During the year ended 31 December 2022, the Group has royalty paid to non-controlling shareholders of subsidiaries amounting to US\$13,532,000 (2021: US\$12,265,000).

#### (d) Compensation of key management personnel

The key management personnel of the Company are its directors. Further details of their emoluments are disclosed in note 11(a). The emoluments of Mr. Liu Jian, Ms. Cai Juan and Mr. Zhang Youda are borne by the ultimate holding company.

### 39. 關聯人士交易(續)

#### (a) 與金川及其附屬公司之交易(續)

於二零二二年十二月三十一日，金川已就本集團獲授之銀行信貸額度提供合共384,000,000美元(二零二一年：416,000,000美元)公司擔保信貸，其中已動用154,326,000美元(二零二一年：166,363,000美元)。

#### (b) 與其他中國政府所控制實體之交易／結餘

此外，本集團已於其日常業務過程中與屬政府相關實體之若干銀行及金融機構訂立多項交易，包括存款、借款及其他一般銀行融資。鑒於該等銀行交易的性質，本公司董事認為分開披露意義不大。

#### (c) 與非中國政府關聯人士之交易

截至二零二二年十二月三十一日止年度，本集團已支付予附屬公司非控股股東礦權使用費13,532,000美元(二零二一年：12,265,000美元)。

#### (d) 主要管理人員報酬

本公司之主要管理人員為董事。有關彼等酬金之進一步詳情披露於附註11(a)。劉建先生、蔡娟女士及張有達先生之酬金由最終控股公司承擔。

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## 綜合財務報表附註

For the year ended 31 December 2022  
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### 40. RECONCILIATION OF LIABILITIES ARISING FROM FINANCING ACTIVITIES

### 40. 自融資活動產生之負債之對賬

		Dividends payable	Interest payable	Lease liabilities	Bank borrowings	Amount due to ultimate holding company	Amount due to an intermediate holding company	Amount due to a fellow subsidiary	Amount due to a non-controlling shareholder of a subsidiary
		應付股息	應付利息	租賃負債	銀行借款	應付最終控股公司款項	應付中間控股公司款項	應付同系附屬公司款項	應付附屬公司非控股股東款項
		US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000	US\$'000
		千美元	千美元	千美元	千美元	千美元	千美元	千美元	千美元
At 1 January 2021	於二零二一年一月一日	-	-	1,318	209,736	-	131,257	5,111	441
Interest expenses	利息開支	-	10,989	55	-	-	-	-	-
Dividend distribution	股息分派	2,255	-	-	-	-	-	-	-
New leases entered	新訂租賃	-	-	1,986	-	-	-	-	-
Financing cash flows	融資現金流量	(2,255)	(10,989)	(1,010)	39,921	-	(28,718)	123	92
At 31 December 2021	於二零二一年十二月三十一日	-	-	2,349	249,657	-	102,539	5,234	533
Interest expenses	利息開支	-	9,980	81	-	-	4,296	206	-
Dividend distribution	股息分派	8,125	-	-	-	-	-	-	-
Financing cash flows	融資現金流量	(8,125)	(9,980)	(846)	(54,868)	56	(688)	-	(42)
At 31 December 2022	於二零二二年十二月三十一日	-	-	1,584	194,789	56	106,147	5,440	491



# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
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### 41. PARTICULARS OF SUBSIDIARIES

### 41. 附屬公司詳情

#### 41.1 General information of subsidiaries

#### 41.1 附屬公司的一般資料

Details of the Group's subsidiaries at the end of the reporting period are set out below.

本集團於報告期末之附屬公司詳情載列於下文。

Name of subsidiary 附屬公司名稱	Place of incorporation 註冊成立	Place of operation 運營地點	Issued and fully paid capital 已發行及繳足資本	Attributable equity interest of the Group 本集團應佔股權		Principal activities 主要業務
				2022 二零二二年	2021 二零二一年	
Chibuluma Mines plc	Zambia 贊比亞	Zambia 贊比亞	US\$50,000 50,000美元	85%	85%	Copper mining 銅礦開採
Copper Resources Corporation	British Virgin Islands ("BVI") 英屬處女群島 (「英屬處女群島」)	South Africa 南非	US\$104,924,166 104,924,166美元	100%	100%	Investment holding 投資控股
Golden Grand Investment Limited <sup>#</sup>	BVI 英屬處女群島	Hong Kong 香港	US\$1 1美元	100%	100%	Investment holding 投資控股
Golden Harbour International Trading Limited	Hong Kong	Hong Kong	HK\$1	100%	100%	Trading of mineral and metal products 礦產品及金屬產品貿易
金港源國際貿易有限公司	香港	香港	1港元			
Golden River Mining Investment Limited <sup>#</sup>	BVI 英屬處女群島	Hong Kong 香港	US\$1 1美元	100%	100%	Investment holding 投資控股
Golden River Management SASU	The DRC 剛果(金)	The DRC 剛果(金)	US\$10,000 10,000美元	100%	100%	Investment holding 投資控股
Jin Rui <sup>#</sup>	Mauritius 毛里求斯	Hong Kong 香港	US\$1 1美元	100%	100%	Investment holding 投資控股
Jinhe Mining Company SASU	The DRC 剛果(金)	The DRC 剛果(金)	US\$10,000 10,000美元	100%	100%	Investment holding 投資控股
Kinsenda Copper Company SA ("Kinsenda")	The DRC 剛果(金)	The DRC 剛果(金)	US\$1,250,000 1,250,000美元	77%	77%	Copper mining 銅礦開採
Metorex Copper Corporation (DRC) (Proprietary) Limited	South Africa 南非	South Africa 南非	ZAR100 100南非蘭特	100%	100%	Investment holding 投資控股

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 41. PARTICULARS OF SUBSIDIARIES (Continued)

### 41. 附屬公司詳情(續)

#### 41.1 General information of subsidiaries (Continued)

#### 41.1 附屬公司的一般資料(續)

Name of subsidiary 附屬公司名稱	Place of incorporation 註冊成立	Place of operation 運營地點	Issued and fully paid capital 已發行及繳足資本	Attributable equity interest of the Group 本集團應佔股權		Principal activities 主要業務
				2022 二零二二年	2021 二零二一年	
Metorex Holdings (Proprietary) Limited	South Africa 南非	South Africa 南非	ZAR101 101南非蘭特	100%	100%	Investment holding 投資控股
Metorex (Proprietary) Limited	South Africa 南非	South Africa 南非	US\$597,766,000 597,766,000美元	100%	100%	Investment holding 投資控股
Ruashi Holdings (Proprietary) Limited	South Africa 南非	South Africa 南非	ZAR1,000 1,000南非蘭特	100%	100%	Investment holding 投資控股
Ruashi Mining SAS ("Ruashi")	The DRC 剛果(金)	The DRC 剛果(金)	US\$12,000,000 12,000,000美元	75%	75%	Copper and cobalt mining 銅鈷礦開採

# These subsidiaries are directly held by the Company.

# 該等附屬公司由本公司直接持有。

None of the subsidiaries had issued any debt securities at the end of the year.

概無附屬公司於年結日發行任何債務證券。

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 41. PARTICULARS OF SUBSIDIARIES (Continued)

### 41. 附屬公司詳情(續)

#### 41.2 Details of non wholly-owned subsidiaries that have material non-controlling interests

#### 41.2 擁有重大非控股權益的非全資附屬公司之詳情

The table below shows details of non wholly-owned subsidiaries of the Group that have material non-controlling interests:

下表顯示本集團擁有重大非控股權益的非全資附屬公司之詳情：

Name of subsidiary 附屬公司名稱	Place of incorporation and principal place of business 註冊成立地點及主要營業地點	Proportion of ownership interests and voting rights held by non-controlling interests 非控股權益持有的擁有權權益及投票權比例		Profit (loss) allocated to non-controlling interests 劃撥予非控股權益的溢利(虧損)		Accumulated non-controlling interests 累計非控股權益	
		2022 二零二二年	2021 二零二一年	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Kinsenda	Kinsenda The DRC 剛果(金)	23%	23%	14,469	14,297	62,421	47,952
Ruashi	Ruashi The DRC 剛果(金)	25%	25%	(8,455)	27,646	95,087	108,435
Individually immaterial subsidiary with non-controlling interests	具有非控股權益的個別不重大附屬公司			(178)	(25)	7,179	7,356
				5,836	41,918	164,687	163,743

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

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### 41. PARTICULARS OF SUBSIDIARIES (Continued)

### 41. 附屬公司詳情(續)

#### 41.2 Details of non wholly-owned subsidiaries that have material non-controlling interests (Continued)

#### 41.2 擁有重大非控股權益的非全資附屬公司之詳情(續)

Summarised financial information in respect of each of the Group's subsidiaries that has material non-controlling interests is set out below. The summarised financial information below represents amounts before intragroup eliminations.

擁有重大非控股權益之本集團各附屬公司的財務資料概要載列如下。以下財務資料概要指集團內對銷前之金額。

		Kinsenda Kinsenda		Ruashi Ruashi	
		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Current assets	流動資產	107,871	121,850	367,018	396,536
Non-current assets	非流動資產	612,720	581,404	787,879	739,236
Current liabilities	流動負債	(98,384)	(74,516)	(134,867)	(108,469)
Non-current liabilities	非流動負債	(350,813)	(420,249)	(639,680)	(593,563)
Equity attributable to owners of the Company	本公司擁有人應佔權益	208,973	160,537	285,263	325,305
Non-controlling interests	非控股權益	62,421	47,952	95,087	108,435

		Kinsenda Kinsenda		Ruashi Ruashi	
		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Revenue	收益	199,383	253,836	449,434	361,741
Profit (loss) for the year	年內溢利(虧損)	62,905	62,163	(33,822)	110,584
Profit (loss) attributable to owners of the Company	本公司擁有人應佔溢利(虧損)	48,436	47,866	(25,367)	82,938
Profit (loss) attributable to the non-controlling interests	非控股權益應佔溢利(虧損)	14,469	14,297	(8,455)	27,646
Profit (loss) for the year	年內溢利(虧損)	62,905	62,163	(33,822)	110,584

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 41. PARTICULARS OF SUBSIDIARIES (Continued)

### 41. 附屬公司詳情(續)

#### 41.2 Details of non wholly-owned subsidiaries that have material non-controlling interests (Continued)

#### 41.2 擁有重大非控股權益的非全資附屬公 司之詳情(續)

		Kinsenda Kinsenda		Ruashi Ruashi	
		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
Net cash inflow from operating activities	來自經營活動的現金流入淨額	42,823	128,438	2,201	83,225
Net cash outflow from investing activities	來自投資活動的現金流出淨額	(15,712)	(9,946)	(84,307)	(99,723)
Net cash (outflow) inflow from financing activities	來自融資活動的現金(流出)流入淨額	(63,498)	(80,182)	15,969	91,946
Net cash (outflow) inflow	現金(流出)流入淨額	(36,387)	38,310	(66,137)	75,448

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 42. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY

### 42. 本公司的財務狀況表及儲備

		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元
<b>Non-current assets</b>	<b>非流動資產</b>		
Property, plant and equipment	物業、廠房及設備	21	19
Interests in subsidiaries	附屬公司權益	–	–
Amount due from subsidiaries	應收附屬公司款項	782,375	667,069
		<b>782,396</b>	667,088
<b>Current assets</b>	<b>流動資產</b>		
Other receivables	其他應收款項	382	253
Amounts due from subsidiaries	應收附屬公司款項	40,526	76,879
Bank deposits with original maturity over three months	原到期日超出三個月之銀行存款	10,000	17,000
Bank balances and cash	銀行結餘及現金	28,692	35,684
		<b>79,600</b>	129,816
<b>Current liabilities</b>	<b>流動負債</b>		
Other payables	其他應付款項	995	1,004
Short-term provision	短期撥備	1,095	1,095
Amount due to an intermediate holding company	應付中間控股公司款項	–	739
		<b>2,090</b>	2,838
<b>Net current assets</b>	<b>流動資產淨值</b>	<b>77,510</b>	126,978
<b>Total assets less current liabilities</b>	<b>資產總額減流動負債</b>	<b>859,906</b>	794,066
<b>Non-current liability</b>	<b>非流動負債</b>		
Amount due to an intermediate holding company	應付中間控股公司款項	80,237	–
<b>Net assets</b>	<b>資產淨值</b>	<b>779,669</b>	794,066
<b>Capital and reserves</b>	<b>股本及儲備</b>		
Share capital	股本	16,027	16,166
Perpetual subordinated convertible securities	永久次級可換股證券	88,462	88,462
Reserves (Note)	儲備(附註)	675,180	689,438
<b>Total equity</b>	<b>權益總額</b>	<b>779,669</b>	794,066

# Notes to the Consolidated Financial Statements

## 綜合財務報表附註

For the year ended 31 December 2022  
截至二零二二年十二月三十一日止年度

### 42. STATEMENT OF FINANCIAL POSITION AND RESERVES OF THE COMPANY (Continued)

### 42. 本公司的財務狀況表及儲備(續)

Note: Movement of the Company's reserves are as follows:

附註：本公司儲備變動如下：

		Share premium 股份溢價 US\$'000 千美元	Contributed surplus 實繳盈餘 US\$'000 千美元	Accumulated losses 累計虧損 US\$'000 千美元	Total reserves 儲備總額 US\$'000 千美元
At 1 January 2021	於二零二一年一月一日	1,330,454	9	(638,187)	692,276
Loss and total comprehensive expenses for the year	年內虧損及全面開支總額	-	-	(1,221)	(1,221)
Dividends recognised as distribution	確認為分派之股息	(1,617)	-	-	(1,617)
At 31 December 2021	於二零二一年十二月三十一日	1,328,837	9	(639,408)	689,438
Loss and total comprehensive expenses for the year	年內虧損及全面開支總額	-	-	(467)	(467)
Dividends recognised as distribution	確認為分派之股息	(3,233)	-	-	(3,233)
Repurchase and cancellation of ordinary shares	購回及註銷普通股	(10,558)	-	-	(10,558)
At 31 December 2022	於二零二二年十二月三十一日	1,315,046	9	(639,875)	675,180

The Company's reserves available for distribution to shareholders as at 31 December 2022 represent the aggregate of share premium account, contributed surplus and accumulated losses, which amounted to US\$675,180,000 (2021: US\$689,438,000).

於二零二二年十二月三十一日，本公司可供分派予股東之儲備乃指股份溢價賬、實繳盈餘及累計虧損之總和，金額為675,180,000美元(二零二一年：689,438,000美元)。

# Five-Year Financial Summary 五年財務概要

The consolidated results and assets and liabilities of the Group for the last five financial years, as extracted from the audited consolidated financial statements are as follows:

摘錄自本集團過去五個財政年度經審核綜合財務報表之綜合業績、資產及負債報表如下：

		Year ended 31 December 截至十二月三十一日止年度				
		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2020 二零二零年 US\$'000 千美元	2019 二零一九年 US\$'000 千美元	2018 二零一八年 US\$'000 千美元
<b>RESULTS</b>	<b>業績</b>					
Revenue	收益	<b>881,598</b>	831,899	531,502	465,408	1,399,970
Profit attributable to owners of the Company	本公司擁有人應佔溢利	<b>1,028</b>	120,527	29,943	8,745	66,931
		At 31 December 於十二月三十一日				
		2022 二零二二年 US\$'000 千美元	2021 二零二一年 US\$'000 千美元	2020 二零二零年 US\$'000 千美元	2019 二零一九年 US\$'000 千美元	2018 二零一八年 US\$'000 千美元
<b>ASSETS AND LIABILITIES</b>	<b>資產及負債</b>					
Total assets	資產總額	<b>2,029,528</b>	2,038,671	1,768,344	1,744,623	1,853,198
Total liabilities	負債總額	<b>(863,438)</b>	(861,712)	(751,415)	(754,434)	(874,403)
Total net assets	總資產淨額	<b>1,166,090</b>	1,176,959	1,016,929	990,189	978,795
Equity attributable to owners of the Company	本公司擁有人應佔權益	<b>1,001,403</b>	1,013,216	894,466	864,613	857,822
Non-controlling interests	非控股權益	<b>164,687</b>	163,743	122,463	125,576	120,973
Total equity	權益總額	<b>1,166,090</b>	1,176,959	1,016,929	990,189	978,795

Note: In 2019, the Group has applied IFRS 16 and other amendments to IFRSs. The comparative information for the year ended 31 December 2018 have not been restated on initial application of IFRS 16. In 2020, certain comparative figures have been restated to re-present the results of the discontinued operations of trading of mineral and metal products in the PRC. The comparative information for the year ended 31 December 2018 have not been restated.

附註：於二零一九年，本集團已應用國際財務報告準則第16號及國際財務報告準則的其他修訂。於二零一八年十二月三十一日止年度的比較資料並未於首次應用國際財務報告準則第16號時重列。於二零二零年，若干比較數字已經重列，以重新呈列於中國已終止經營之礦產品及金屬產品貿易業務之業績，於二零一八年十二月三十一日止年度的比較資料並未重列。



%

percentage

**Acquisition or Combination**

the acquisition by the Company of the entire equity interest in Jin Rui (along with the Metorex Group) in November 2013 pursuant to the sale and purchase agreement dated 27 August 2013, the details of which are set out in the circular of the Company dated 30 August 2013; with a total consideration of US\$1,290,000,000 which was satisfied by the allotment and issue of 1,595,880,000 new ordinary shares of the Company at an issue price of HK\$1 per share and the issue of PSCS of the Company in the aggregate amount of US\$1,085,400,000

**Articles of Association**

the articles of association of the Company

**ASCuEq**

acid soluble copper equivalent

**associate**

has the meaning ascribed to it under the Listing Rules

**Board**

the board of Directors

**BOMZ**

Black Ore Mineral Zone

**BVI**

the British Virgin Islands

**CDBC**

China Development Bank Corporation

**CDF**

Congolese Franc, the lawful currency of the DRC

**CG Code**

Corporate Governance Code as set out in Appendix 14 to the Listing Rules

%

百分比

**收購事項 或 合併事項**

本公司於二零一三年十一月根據日期為二零一三年八月二十七日之買賣協議收購Jin Rui (連同Metorex集團)全部股本權益，總代價為1,290,000,000美元，以按發行價每股1港元配售及發行1,595,880,000股本公司新普通股，以及發行本公司總值1,085,400,000美元之永久次級可換股證券之方式支付，有關詳情載於本公司日期為二零一三年八月三十日之通函

**組織章程細則**

本公司之組織章程細則

**酸溶銅當量**

酸溶銅當量

**聯繫人**

具有上市規則所賦予之涵義

**董事會**

董事會

**BOMZ**

黑色礦石礦區

**BVI**

英屬處女群島

**國開行**

國家開發銀行股份有限公司

**剛果法郎**

剛果法郎，剛果(金)法定貨幣

**企管守則**

上市規則附錄14所載的企業管治守則

### Chibuluma

Chibuluma Mines plc, a company incorporated in Zambia and an indirect non wholly-owned subsidiary of the Company

### Chibuluma South Mine

an underground copper mine owned by Chibuluma situated in Zambia near the town of Kalulushi

### Chifupu Deposit

an underground copper mine owned by Chibuluma which is located approximately 1.7 km southwest of Chibuluma South Mine

### Co

cobalt

### CO<sub>2</sub>-e

carbon dioxide equivalent

### Competent Person

has the meaning ascribed to it under Chapter 18 of the Listing Rules

### Concrease

Concrease DRC SA, a company incorporated in the DRC with limited liability and 49% owned indirectly by JCG

### connected person

has the meaning ascribed to it under the Listing Rules

### controlling shareholder

has the meaning ascribed to it under the Listing Rules

### Conversion

The conversion exercised by various investors including Jinchuan (BVI) Limited, an indirect wholly-owned subsidiary of JCG, which in turn is the controlling shareholder of the Company, in respect of the conversion of the PSCS in an aggregate principal amount of US\$996,938,461 into conversion shares at the conversion price of HK\$1.00 per Share

### Chibuluma

Chibuluma Mines plc，於贊比亞註冊成立之公司，為本公司之間接非全資附屬公司

### Chibuluma南礦場

由Chibuluma擁有之地下銅礦場，位於贊比亞，鄰近Kalulushi鎮區

### Chifupu礦床

由Chibuluma擁有，位於Chibuluma南礦場西南約1.7公里之地下銅礦場

### 鈷

鈷

### 二氧化碳當量

二氧化碳當量

### 合資格人士

具有上市規則第18章所賦予之涵義

### Concrease

Concrease DRC SA，一間於剛果(金)註冊成立之有限公司，金川間接持有其49%股份

### 關連人士

具有上市規則所賦予之涵義

### 控股股東

具有上市規則所賦予之涵義

### 該轉換

多名投資者(包括本公司之控股股東金川之間接全資附屬公司金川(BVI)有限公司)按換股價每股股份1.00港元將本金總額為996,938,461美元之永久次級可換股證券轉換為換股股份

**Corporate offices**

Corporate offices at Hong Kong and Johannesburg, South Africa

**公司辦事處**

於香港及南非約翰內斯堡之公司辦事處

**Cu**

copper

**銅**

銅

**CuEq**

copper equivalent

**銅當量**

銅當量

**COVID-19**

Novel coronavirus pneumonia epidemic

**新冠肺炎**

新型冠狀病毒肺炎

**Development Project**

Musonoi Project, a constructing copper-cobalt project owned by the Group located in the DRC

**開發項目**

即Musonoi項目，由本集團所擁有位於剛果(金)之建設中銅鈷項目

**Director(s)**

the director(s) of the Company

**董事**

本公司之董事

**DRC**

the Democratic Republic of Congo

**剛果(金)**

剛果民主共和國

**EBITDA**

Earning before interest (net finance cost), income tax, depreciation and amortisation and impairment loss

**EBITDA**

未計利息(淨財務成本)、所得稅、折舊及攤銷以及減值虧損前盈利

**ENFI**

China ENFI Engineering Corporation

**恩菲**

中國恩菲工程技術有限公司

**ESG**

Environmental, Social and Governance

**環境、社會及管治**

環境、社會及管治

**EV(s)**

electric vehicle(s)

**電動汽車**

電動汽車

**Exploration Project**

Lubembe Project, an advanced stage exploration project located in the DRC

**勘探項目**

即Lubembe項目，一項位於剛果(金)之後期階段勘探項目

**Gécamines SA**

La Générale des Carrières et des Mines, a state-owned mining company in the DRC

**GHL**

Golden Harbour International Trading Limited, a company incorporated in Hong Kong and an indirectly wholly-owned subsidiary of the Company

**Group**

the Company and its subsidiaries and associates controlled by the Company from time to time

**HG**

high grade

**HK\$**

Hong Kong dollars, the lawful currency of Hong Kong

**Hong Kong**

the Hong Kong Special Administrative Region of the PRC

**IFRS**

International Financial Reporting Standards issued by the International Accounting Standards Board

**Independent Shareholders**

Shareholders other than JCG Group and its associates

**Indicated Mineral Resource(s)**

that part of Mineral Resources for which tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a reasonable level of confidence. It is based on information from exploration, sampling and testing of material gathered from locations such as outcrops, trenches, pits, workings and drill holes. The locations are too widely or inappropriately spaced to confirm geological or grade continuity but are spaced closely enough for continuity to be assumed

**Gécamines SA**

La Générale des Carrières et des Mines，一間剛果(金)國有礦業公司

**金港源**

金港源國際貿易有限公司，一間於香港註冊成立公司且為本公司的間接全資附屬公司

**本集團**

本公司及其附屬公司及由本公司不時控制之聯營公司

**高品位**

高品位

**港元**

港元，香港法定貨幣

**香港**

中國香港特別行政區

**國際財務報告準則**

國際會計準則委員會頒佈之《國際財務報告準則》

**獨立股東**

金川集團及其聯繫人以外之股東

**控制礦產資源量**

礦產資源量中在噸位、體重、形狀、物理特徵、品位及礦物含量方面估算具有合理可信度水平之部分。此乃以從勘探、採樣及測量礦脈露頭、礦槽、礦坑、開採區及鑽孔等地點之物質所收集得來之資料為基準。測量地點過於廣闊或間距不適當，無法確定地域或品位連續性，但其間距緊密而足以假定其連續性

### **Inferred Mineral Resource(s)**

that part of Mineral Resources for which volume or tonnage, grade and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geologically or through grade continuity. It is based on information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that may be limited, or of uncertain quality and reliability

### **JCG**

金川集團股份有限公司 (Jinchuan Group Co., Ltd.\*), a stateowned enterprise established in the PRC and the ultimate controlling shareholder of the Company

### **JCG Group**

collectively, JCG and its subsidiaries and associates controlled by it from time to time, and for the purpose of this Annual Report, excluding the Group

### **JCHK**

Jinchuan Group (Hongkong) Resources Holdings Limited, an investment holding company incorporated in Hong Kong and a wholly-owned subsidiary of JCG. It directly and indirectly owns 7,593,009,857 Shares, representing approximately 60.73% of the issued share capital of the Company as at the date of this report

### **JCI or Company**

Jinchuan Group International Resources Co. Ltd, a company incorporated in the Cayman Islands with limited liability and the shares of which are listed on the Main Board of the Stock Exchange (Stock Code: 2362)

### **Jin Gang**

Jin Gang (D.R Congo) SA, an indirect non wholly-owned subsidiary of JCG

### **Jin Gang Framework Agreement**

the contract entered into between the Company and Jin Gang on 30 December 2021 in relation to the provision of mining work, maintenance work, bagging and loading work and various mining related services, provided or to be provided by Jin Gang to the Group from time to time

### **推斷礦產資源量**

礦產資源量中在數量或噸位、品位及礦物含量方面之估算屬於低可信度水平之部分。此乃根據地質學考證及假設(但未經核實)地質或品位連續性而推斷所得。此乃以藉適當技術從礦脈露頭、礦槽、礦坑、開採區及鑽孔等地點收集得來之資料為基準，惟有關資料可能有限或未能確定其質素及可靠性

### **金川**

金川集團股份有限公司，於中國成立之國有企業，乃本公司之最終控股股東

### **金川集團**

金川及由其不時控制之附屬公司及其聯營公司之統稱，就本年報而言，不包括本集團

### **金川香港**

金川集團(香港)資源控股有限公司，一間於香港註冊成立之投資控股公司，為金川之全資附屬公司。於本報告日期其直接及間接擁有7,593,009,857股股份，佔本公司已發行股本約60.73%

### **金川國際 或 本公司**

金川集團國際資源有限公司，於開曼群島註冊成立之有限公司，其股份於聯交所主板上市(股票代號：2362)

### **Jin Gang**

Jin Gang (D.R Congo) SA，為金川之間接非全資附屬公司

### **Jin Gang 框架協議**

本公司與Jin Gang於二零二一年十二月三十日訂立之合同，內容有關Jin Gang不時向或將向本集團提供採礦工作、維護工作、裝袋及貨物裝載工作以及多項採礦有關服務

**Jin Rui**

Jin Rui Mining Investment Limited, a company incorporated in the Republic of Mauritius and a direct wholly-owned subsidiary of the Company

**Jinchuan BVI**

Jinchuan (BVI) Limited, an indirect wholly-owned subsidiary of JCG

**Jinchuan Cooperation Company**

甘肅金川國際經濟技術合作有限責任公司 (Gansu Jinchuan International Cooperation Co., Ltd.\*), a direct wholly-owned subsidiary of Jinchuan E&C

**Jinchuan E&C**

金川集團工程建設有限公司 (Jinchuan Group Engineering and Construction Co., Ltd.\*), a wholly-owned subsidiary of JCG

**Jinchuan R&E**

金川鎳鈷研究設計院有限責任公司 (Jinchuan Nickel & Cobalt Research and Engineering Institute Co., Ltd.\*), a direct wholly-owned subsidiary of JCG

**Kinsenda**

Kinsenda Copper Company SA, a company incorporated in the DRC and an indirect non wholly-owned subsidiary of the Company

**Kinsenda Mine**

an underground copper mine owned by Kinsenda and situated in Haut Katanga Province in the DRC

**km**

kilometer(s)

**kt**

thousand tonnes

**kWh**

Kilowatt hours

**Jin Rui**

Jin Rui Mining Investment Limited，於毛里求斯共和國註冊成立之公司，為本公司之直接全資附屬公司

**金川BVI**

金川(BVI)有限公司，金川之間接全資附屬公司

**金川合作公司**

甘肅金川國際經濟技術合作有限責任公司，為金川工程建設之直接全資附屬公司

**金川工程建設**

金川集團工程建設有限公司，為金川之全資附屬公司

**鎳鈷設計院**

金川鎳鈷研究設計院有限責任公司，為金川之直接全資附屬公司

**Kinsenda**

Kinsenda Copper Company SA，於剛果(金)註冊成立之公司，為本公司之間接非全資附屬公司

**Kinsenda礦場**

由Kinsenda擁有之地下銅礦場，位於剛果(金)上加丹加省

**公里**

公里

**千噸**

千噸

**千瓦時**

千瓦時

<b>lb</b>	<b>磅</b>
pound(s) (2.204 pounds=1 kilogram)	磅(2.204磅=1千克)
<b>LG</b>	<b>低品位</b>
low grade	低品位
<b>LIBOR</b>	<b>倫敦銀行同業拆息</b>
the London Interbank Offered Rate	倫敦銀行同業拆借利率
<b>Listing Rules</b>	<b>上市規則</b>
the Rules Governing the Listing of Securities on the Stock Exchange	聯交所證券上市規則
<b>LME</b>	<b>倫敦金所</b>
London Metal Exchange, a recognized investment exchange regulated by the Financial Conduct Authority of the United Kingdom and a recognised publisher of reference prices for various metals which are timely published on its designated website (www.lme.com) on a daily basis for metal and investment communities	倫敦金屬交易所(London Metal Exchange) · 一間受英國金融行為監管局(Financial Conduct Authority)規管的獲認可投資交易所，並為一間獲認可出版商，其每日於其所設網站(www.lme.com)向金屬及投資社群適時發佈多種金屬之參考價格
<b>LoM</b>	<b>礦場開採期</b>
Life of mine	礦場開採期
<b>Lubembe Project</b>	<b>Lubembe項目</b>
a greenfield copper project owned by Kinsenda and situated in the Haut Katanga Province in the DRC	由Kinsenda擁有之未開發銅礦項目，位於剛果(金)上加丹加省
<b>m</b>	<b>米</b>
metre(s)	米
<b>m<sup>3</sup></b>	<b>立方米</b>
cubic metre(s)	立方米
<b>MB</b>	<b>金屬導報</b>
Metal Bulletin, a premium intelligence service for metal and steel professionals, being part of group of companies of the Euromoney Institutional Investor Plc and a recognised publisher of reference prices for long-term cobalt trading contracts which are timely published on its designated website (www.metalbulletin.com) on a daily basis for subscribed members and publications	金屬導報，一項為金屬及鋼鐵專業人士提供的優質情報服務，其屬《歐洲貨幣機構投資人雜誌》(Euromoney Institutional Investor Plc)集團公司的一部分並為一間獲認可出版商，其每日於其所設網站(www.metalbulletin.com)向其訂閱者及期刊適時發佈長期鈷貿易合約之參考價格

### Measured Mineral Resource(s)

that part of Mineral Resources for which the tonnage, densities, shape, physical characteristics, grade and mineral content can be estimated with a high level of confidence. It is based on detailed and reliable information from exploration, sampling and testing of material from locations such as outcrops, trenches, pits, workings and drill holes. The locations are spaced closely enough to confirm geological and grade continuity

### Metorex

Metorex (Proprietary) Limited, a company incorporated in South Africa and an indirect wholly-owned subsidiary of the Company

### Metorex Group

Metorex and its subsidiaries (including Chibuluma, Kinsenda and Ruashi), the mining operation arm of the Group

### Metorex Holdings

Metorex Holdings (Proprietary) Limited, a company incorporated in South Africa and an indirect wholly-owned subsidiary of the Company

### Mine Leased Out Under Finance Lease Agreement

Chibuluma South Mine (including Chifupu Deposit)

### Mineral and Metal Products

mineral products, metal products and other raw materials, including but not limited to copper or nickel ores and concentrates, copper or nickel cathodes and other forms of copper, nickel or other metals bearing raw materials, cobalt and its related products

### 探明礦產資源量

礦產資源量中在噸位、體重、形狀、物理特徵、品位及礦物含量方面之估算屬於高可信度水平之部分。此乃以勘探、採樣及測量來自礦脈露頭、礦槽、礦坑、開採區及鑽孔等地點之物質之詳細及可靠資料為基準。測量地點間距緊密而足以確定地質及品位連續性

### Metorex

Metorex (Proprietary) Limited，於南非註冊成立之公司，為本公司之間接全資附屬公司

### Metorex集團

Metorex 及其附屬公司（包括 Chibuluma、Kinsenda 及 Ruashi），為本集團之礦山營運支部

### Metorex Holdings

Metorex Holdings (Proprietary) Limited，於南非註冊成立之公司，為本公司之間接全資附屬公司

### 融資租賃協議下出租之礦場

Chibuluma南礦場（包括Chifupu礦床）

### 礦產品及金屬產品

礦產品、金屬產品及其他原材料，包括（但不限於）銅或鎳礦石及精礦、電解銅或電解鎳及其他形式含銅、鎳或其他金屬之原材料、鈷及其相關產品



**Mineral Reserve(s)**

the economically mineable material derived from a Measured Mineral Resource or Indicated Mineral Resource or both. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a pre-feasibility study for a project and a LoM plan for an operation must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed

**Mineral Resource(s)**

a concentration or occurrence of material of economic interest in or on the earth's crust in such a form, quality, and quantity that there are reasonable and realistic prospects for eventual economic extraction. The location, quantity, grade, continuity and other geological characteristics of a mineral resource are known, or estimated from specific geological evidence, sampling and knowledge interpreted from an appropriately constrained and portrayed geological model

**mL**

metre(s) level, i.e. metre below surface

**Model Code**

Model Code for Securities Transactions by Directors of Listed Issuers set out in Appendix 10 to the Listing Rules

**Mt**

million tonnes

**Musonoi Project**

a brownfield copper and cobalt project owned by Ruashi and situated in Lualaba Province in the DRC

**MVA**

million volt-amperes

**MW**

megawatt

**礦產儲量**

來自探明礦產資源量或控制礦產資源量可作經濟開採之物質，當中包括貧化及摻雜物質以在開採物質過程中預期會出現之損失。必須完成適當評估(至少為就該項目進行預可研報告及就營運進行礦場開採期計劃)，包括對實際假設之採礦、冶金、經濟、營銷、法律、環境、社會及政府因素(可變因素)作出考慮及修正。該等可變因素須予披露

**礦產資源量**

積聚或存在於地殼內或地表，具內在經濟利益之物質，其形態、質量及數量存在最終可實現經濟開採之合理及實際前景。礦產資源量之位置、數量、品位、連續性及其他地質特性可根據具體地質學考證、採樣及認識得知或估算，並以具有適當約束條件及模擬細緻之地質模型進行詮釋

**米水平**

米水平，即離地面距離

**標準守則**

上市規則附錄10所載有關上市發行人董事進行證券交易的標準守則

**百萬噸**

百萬噸

**Musonoi項目**

由Ruashi擁有之開發中銅鈷礦項目，位於剛果(金)盧阿拉巴省

**百萬伏安**

百萬伏安

**兆瓦**

兆瓦

<b>N/A</b>	不適用
not applicable	不適用
<b>Northwestern Province Exploration Projects</b>	西北省勘探項目
greenfield projects owned by Chibuluma and situated in the Northwestern Province in Zambia	由Chibuluma擁有之未開發項目，位於贊比亞西北省
<b>Operating Mines</b>	營運礦場
Ruashi Mine and Kinsenda Mine	Ruashi礦場及Kinsenda礦場
<b>PRC</b>	中國
the People's Republic of China	中華人民共和國
<b>Probable Mineral Reserve(s)</b>	概略礦產儲量
the economically mineable material derived from a Measured Mineral Resource or Indicated Mineral Resource or both. It is estimated with a lower level of confidence than a Proved Mineral Reserve. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a pre-feasibility study for a project or a LoM plan for an operation must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed	來自探明礦產資源量或控制礦產資源量中可作經濟開採之物質，其估計之可信度較證實礦產儲量低，當中包括貧化及摻雜物質以及在開採物質過程中預期會出現之損失。必須完成適當評估(至少為就該項目進行預可研報告及就營運進行礦場開採期計劃)，包括對實際假設之採礦、冶金、經濟、營銷、法律、環境、社會及政府因素(可變因素)作出考慮及修正。該等可變因素須予披露
<b>Proved Mineral Reserve(s)</b>	證實礦產儲量
the economically mineable material derived from a Measured Mineral Resource. It is estimated with a high level of confidence. It includes diluting and contaminating materials and allows for losses that are expected to occur when the material is mined. Appropriate assessments to a minimum of a pre-feasibility study for a project or a LoM plan for an operation must have been completed, including consideration of, and modification by, realistically assumed mining, metallurgical, economic, marketing, legal, environmental, social and governmental factors (the modifying factors). Such modifying factors must be disclosed	來自探明礦產資源量中可作經濟開採之物質，其估計之可信程度高，當中包括貧化及摻雜物質以及在開採物質過程中預期會出現之損失。必須完成適當評估(至少為就該項目進行預可研報告及就營運進行礦場開採期計劃)，包括對實際假設之採礦、冶金、經濟、營銷、法律、環境、社會及政府因素(可變因素)作出考慮及修正。該等可變因素須予披露

### **PSCS or Convertible Securities**

the perpetual subordinated convertible securities issued by the Company to satisfy part of the purchase price for the Acquisition

### **Ruashi**

Ruashi Mining SAS, a company incorporated in the DRC and an indirect non wholly-owned subsidiary of the Company

### **Ruashi Holdings**

Ruashi Holdings (Proprietary) Limited, a company incorporated in South Africa and a wholly-owned subsidiary of the Company

### **Ruashi Mine**

an open-cast oxide copper and cobalt mine owned by Ruashi and situated in the DRC on the outskirts of Lubumbashi, the capital of Haut Katanga Province

### **SAMREC Code**

South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves (2016 edition)

### **SFO**

the Securities and Futures Ordinance, Chapter 571 of the Laws of Hong Kong

### **Share(s)**

ordinary share(s) with nominal value of HK\$0.01 each in the share capital of the Company and listed on the Stock Exchange

### **Shareholder(s)**

the holder(s) of the Share(s)

### **SHEC**

Safety, Health, Environment and Communities

### **永久次級可換股證券 或 可換股證券**

由本公司發行之永久次級可換股證券，用以支付收購事項部分收購價

### **Ruashi**

Ruashi Mining SAS，於剛果(金)註冊成立的公司，為本公司之間接非全資附屬公司

### **Ruashi Holdings**

Ruashi Holdings (Proprietary) Limited，於南非註冊成立的公司，為本公司之全資附屬公司

### **Ruashi礦場**

由Ruashi擁有之露天氧化銅鈷礦，位於剛果(金)上加丹加省省會盧本巴希之郊區

### **SAMREC規則**

南非礦產勘探結果、礦產資源量及礦產儲量報告規則(二零一六年版)

### **證券及期貨條例**

香港法例第571章證券及期貨條例

### **股份**

本公司於聯交所上市之股本中每股面值0.01港元之普通股

### **股東**

股份之持有人

### **SHEC**

安全、健康、環境及社區

**SNEL**

Société Nationale d'Électricité, being the national electricity Company in the DRC

**SO<sub>2</sub>**

sulphur dioxide

**Sodimico**

Société de Développement Industriel et Minere du Congo, a state-owned enterprise in the DRC

**South Africa**

the Republic of South Africa

**Stock Exchange or HKEx**

The Stock Exchange of Hong Kong Limited

**subsidiary(ies)**

has the meaning ascribed to it under the Companies Ordinance (Chapter 622 of the Laws of Hong Kong)

**SX-EW**

solvent extraction – electrowinning

**t**

tonne(s)

**TCo**

total cobalt

**TCu**

total copper

**TCuEq**

total copper equivalent

**US\$**

United States dollars, the lawful currency of the United States of America

**SNEL**

Société Nationale d'Électricité，為剛果(金)國家電力公司

**二氧化硫**

二氧化硫

**Sodimico**

Société de Développement Industriel et Minere du Congo，為剛果(金)國有企業

**南非**

南非共和國

**聯交所 或 香港聯交所**

香港聯合交易所有限公司

**附屬公司**

具有香港法例第622章公司條例賦予之涵義

**SX-EW**

溶劑萃取－電解冶鍊法

**噸**

噸

**總鈷**

總鈷

**總銅**

總銅

**總銅當量**

總銅當量

**美元**

美元，美利堅合眾國法定貨幣

**Zambia**

the Republic of Zambia

**ZAR**

South African Rand, the lawful currency of South Africa

**ZCCM**

ZCCM Investment Holdings plc, a Zambian state-owned mining company

**ZMW**

Zambian Kwacha, the lawful currency of Zambia

**贊比亞**

贊比亞共和國

**南非蘭特**

南非蘭特，南非法定貨幣

**ZCCM**

ZCCM Investment Holdings plc，一間贊比亞國有礦業公司

**贊比亞克瓦查**

贊比亞克瓦查，贊比亞法定貨幣

\* for identification purposes only

\* 僅供識別



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