

29

Metals

Prospectus

Initial Public Offering of Ordinary Shares

29Metals Limited
ACN 650 096 094

Sole Global Coordinator and Joint Lead Manager



Joint Lead Managers



Institutional Co-Lead Manager



A handwritten signature in black ink that reads "Owen Hegarty".

Owen Hegarty OAM
Non-executive Chair

Important Information

Offer

This Prospectus is issued by 29Metals Limited (ACN 650 096 094) ('**29Metals**' or the '**Company**') and 29Metals SaleCo Limited (ACN 649 782 150) ('**SaleCo**') for the purpose of Chapter 6D of the *Corporations Act 2001* (Cth) ('**Corporations Act**'). The Offer contained in this Prospectus is an initial public offering to acquire fully paid ordinary shares in 29Metals ('**Shares**'). See section 8 (Details of the Offer) for further information on the Offer, including details of the securities that will be issued under this Prospectus.

References to 29Metals and the Restructure

The Company was incorporated on 27 May 2021 in Victoria, Australia.

The business known as '29Metals' is currently owned by EMR Capital Investors. In connection with the Offer, the 29Metals Group will undertake the Restructure under which the Company (the current and ultimate holding company of Capricorn Copper) will also become the ultimate holding company of the Golden Grove Group and the Redhill Group. Completion of the Restructure is subject to Listing. The final steps of the Restructure will take effect on the date the Shares are issued and transferred pursuant to the Offer.

EMR Capital Investors will receive Shares as consideration for the Golden Grove Group and the Redhill Group, which will be issued under this Prospectus at the Offer Price. As such, these Shares have not been issued as at the Prospectus Date and will only be issued in connection with the final steps of the Restructure.

Unless otherwise specified, this Prospectus is prepared as if the Restructure has occurred. For example, the Investment Overview in section 1, the Industry Overview in section 2, the Company Overview in section 3 and the Pro Forma Historical Financial Information and Pro Forma Forecast Financial Information in section 5 and the Risks in section 6 represent the business operations of 29Metals after completion of the Restructure.

Refer to section 10.3.1 for a description of the Restructure.

Lodgement and Listing

This Prospectus is dated 21 June 2021 and was lodged with ASIC on that date. This is a replacement prospectus which replaces the prospectus dated 7 June 2021 ('**Prospectus Date**') and lodged with ASIC on that date ('**Original Prospectus**').

A summary of the key differences between the Original Prospectus and this replacement Prospectus is as follows:

- changes to Section 3.4 to clarify EMR Capital's investment into the 29Metal portfolio;
- the inclusion of a footnote under the Commodity Prices table in Section 5.9.2.1 that describes how forward prices for copper and the other commodities were calculated;
- the inclusion of additional commentary in Sections 1.6, 6.2.24 and 10.6.12.3 regarding developments in the dispute with the vendors of Lighthouse Minerals since the date of the Original Prospectus; and

- the replacement of the Technical Reports with reports that include additional cautionary language, in the case of Redhill retract specific details of the conceptual mine study, in the case of Golden Grove retract the long-term estimates for the period 2031 – 2035 and replace them with a qualitative description, and in the case of Golden Grove and Capricorn Copper clarify that references to unclassified material in the mine plan could be considered an Exploration Target for the purposes of the JORC Code.

29Metals has applied to ASX for its admission to the Official List and quotation of Shares on ASX. None of ASIC, ASX or any of their respective officers takes any responsibility for the contents of this Prospectus or the merits of the investment to which this Prospectus relates.

Expiry Date

This Prospectus expires on the date which is 13 months after the Prospectus Date ('**Expiry Date**'). No Shares will be issued or sold on the basis of this Prospectus after the Expiry Date.

No Investment Advice

The information contained in this Prospectus is not financial product advice and does not take into account the investment objectives, financial situation or particular needs of any prospective investor.

It is important that you read this Prospectus carefully and in full before deciding whether to invest in 29Metals. If you have any questions, you should consult your accountant, financial adviser, stockbroker, lawyer or other professional adviser before deciding whether to invest in Shares.

In particular, you should consider the basis of preparation and best estimate assumptions underlying the Statutory Historical Financial Information, Pro Forma Historical Financial Information and Pro Forma Forecast Financial Information (see section 5).

You should also consider the key risks (see section 6) that could affect the business, financial condition and financial performance of 29Metals. You should carefully consider these risk factors in light of your investment objectives, financial situation and particular needs (including financial and taxation issues) and seek professional advice from your accountant, financial adviser, stockbroker, lawyer or other independent professional adviser before deciding whether to invest in the Shares. There may be risks in addition to these that should be considered in light of your personal circumstances.

No person named in this Prospectus, nor any other person, guarantees the performance of 29Metals, including any repayment of capital by 29Metals or payment of a return on the Shares.

No person is authorised to give any information or make any representation in connection with the Offer which is not contained in this Prospectus. Any information or representation not so contained may not be relied on as having been authorised by 29Metals or SaleCo or their directors. You should rely only on information in this Prospectus when determining whether to invest in the Shares.

Important Information for New Zealand investors

This Offer to New Zealand investors is a regulated offer made under Australian and New Zealand law. In Australia, this is Chapter 8 of the *Corporations Act 2001* (Cth) and regulations made under that Act. In New Zealand, this is subpart 6 of Part 9 of the *Financial Markets Conduct Act 2013* and Part 9 of the *Financial Markets Conduct Regulations 2014*.

This Offer and the content of the Prospectus are principally governed by Australian rather than New Zealand law. In the main, the *Corporations Act 2001* (Cth) and the regulations made under that Act set out how the Offer must be made.

There are differences in how financial products are regulated under Australian law. For example, the disclosure of fees for managed investment schemes is different under the Australian regime.

The rights, remedies, and compensation arrangements available to New Zealand investors in Australian financial products may differ from the rights, remedies, and compensation arrangements for New Zealand financial products.

Both the Australian and New Zealand financial markets regulators have enforcement responsibilities in relation to this Offer. If you need to make a complaint about this Offer, please contact the Financial Markets Authority, New Zealand (<http://www.fma.govt.nz>). The Australian and New Zealand regulators will work together to settle your complaint.

The taxation treatment of Australian financial products is not the same as for New Zealand financial products.

If you are uncertain about whether this investment is appropriate for you, you should seek the advice of a financial advice provider.

The Offer may involve a currency exchange risk. The currency for the financial products is not New Zealand dollars. The value of the financial products will go up or down according to changes in the exchange rate between that currency and New Zealand dollars. These changes may be significant.

If you expect the financial products to pay any amounts in a currency that is not New Zealand dollars, you may incur significant fees in having the funds credited to a bank account in New Zealand in New Zealand dollars.

If the financial products are able to be traded on a financial product market and you wish to trade the financial products through that market, you will have to make arrangements for a participant in that market to sell the financial products on your behalf. If the financial product market does not operate in New Zealand, the way in which the market operates, the regulation of participants in that market, and the information available to you about the financial products and trading may differ from financial product markets that operate in New Zealand.

Past Performance Information

This Prospectus includes information regarding the past performance of 29Metals. Investors should be aware that past performance should not be relied upon as being indicative of future performance.

Forward-looking Statements and Forecasts

This Prospectus contains certain forward-looking statements and comments about future events, including in relation to 29Metals' businesses, plans and strategies, and expected trends in the industry in which 29Metals currently operates. Forward-looking statements also include prospective financial information for 29Metals including the Pro Forma Forecast Financial Information in section 5. Forward-looking statements can generally be identified by the use of words such as, "expect", "anticipate", "likely", "intend", "should", "could", "may", "predict", "plan", "propose", "will", "believe", "forecast", "estimate", "target" and other similar words that involve risks and uncertainties. Indications of, and guidance or outlook on, future earnings or financial position or performance are also forward-looking statements.

Forward-looking statements involve inherent risks, assumptions and uncertainties, both general and specific, and there is a risk that such predictions, forecasts, projections and other forward-looking statements will not be achieved. A number of important factors could cause 29Metals' actual results to differ materially from the plans, objectives, expectations, estimates, targets and intentions expressed in such forward-looking statements, and many of these factors are beyond 29Metals' control. Statements or assumptions in this Prospectus as to future matters may prove to be incorrect, and circumstances may change and the contents of this Prospectus may become outdated as a result. Further, forward-looking statements speak only as of the Prospectus Date, and except where required by law, none of 29Metals, or SaleCo intend to update or revise any forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this Prospectus.

Nothing in this Prospectus is a promise or representation as to the future, and past performance is not a guarantee of future performance. None of 29Metals, SaleCo or the Directors makes any representation or warranty as to the accuracy of such statements or assumptions.

Market and Industry Data

This Prospectus (and in particular sections 2 (Industry Overview) and 3 (Company Overview)) contains data relating to the industries, sectors and end-markets in which 29Metals operates ('**Industry Data**'). 29Metals has obtained significant portions of the Industry Data from databases and research prepared by third parties, including industry and market studies that 29Metals commissioned from AME Mineral Economics Pty Ltd.

In addition, this Prospectus includes technical reports prepared by Behre Dolbear Australia ('**BDA**') and AMC Consultants Pty Ltd ('**AMC**') (together, the '**Technical Experts**'), which include certain Industry Data.

To the extent that relevant Industry Data relates to future events, it is subject to risks and uncertainties and may change as a result of various factors, including those described in the key risks in section 6 (Risks).

Important Information

The Industry Data has not been independently prepared or verified by 29Metals, SaleCo or the Joint Lead Managers, and none of 29Metals, SaleCo or the Joint Lead Managers can assure you as to its accuracy or the accuracy of the underlying assumptions used to estimate such Industry Data.

In addition to the Industry Data, this Prospectus uses third party market data, estimates and projections that are inherently predictive and subject to uncertainty and not necessarily reflective of actual market conditions. None of 29Metals, SaleCo or the Joint Lead Managers have independently verified this information. There is no assurance that any of the third party projections contained in this information will be achieved. Estimates involve risks and uncertainties and are subject to change based on various factors, including those described in the key risks in section 6 (Risks).

Information Relating to Ore Reserves and Mineral Resources

The information in this Prospectus that relates to Mineral Resources, exploration activities and results, and Ore Reserves is based on information compiled by Competent Persons in accordance with the JORC Code. Information regarding the Competent Persons for 29Metals' Ore Reserves and Mineral Resources estimates, and the Competent Persons statements, are set out in section 4 (Ore Reserves and Mineral Resources). Each Competent Person has consented to the information regarding Ore Reserves and Mineral Resources included in this Prospectus in the form in which it appears (as applicable to the Ore Reserves and Mineral Resources estimates prepared by them, respectively, as shown in section 4.1.3).¹

The reporting of Mineral Resources and Ore Reserves under the JORC Code and in the United States under the requirements adopted by the Securities and Exchange Commission ('SEC') in its Industry Guide 7 differ in certain material respects. While the SEC recently adopted amendments to modernise the property disclosure requirements for SEC-registered mining companies ('New SEC Mining Disclosure Rules'), which replaces the historical property disclosure requirements under the SEC Industry Guide 7 for fiscal years beginning on or after 1 January 2021, there are differences between the definitions and standards under the New SEC Mining Disclosure Rules and those included in the JORC Code and, therefore, there is no assurance that 29Metals' Mineral Resources and Ore Reserves estimates included in this Prospectus would be the same as those estimated under the New SEC Mining Disclosure Rules. You should not assume that resources estimates are capable of being reclassified as reserves under the JORC Code (or under SEC Industry Guide 7 or the New SEC Mining Disclosure Rules). The inclusion of resources estimates should not be regarded as a representation that these amounts can be economically exploited, particularly *Inferred Resources*, and you are cautioned not to place undue reliance on those estimates.

Copper Equivalent (Cu-eq) Metrics

Cu-eq is a measure of contained metals, where the total value of all metals within mineralised materials is calculated on the basis of assumed prices for such metals, and then converted to a 'copper equivalent' by dividing this total value by the assumed copper price.

Cu-eq figures for Ore Reserves and Mineral Resources, grade and production presented throughout this prospectus have been calculated by 29Metals.

Section 4.3 outlines the methodology applied by 29Metals to calculate Ore Reserves and Mineral Resources in contained metal copper equivalent (Cu-eq) terms, with key inputs being:

- contained metals within the corresponding Ore Reserves and Mineral Resources estimates (as applicable);
- metallurgical recovery rates; and
- commodity price assumptions for all contained metals, including copper, gold, zinc, silver, lead and cobalt as shown.

With respect to Ore Reserves and Mineral Resources grade, Cu-eq grade has been calculated by dividing Ore Reserves and Mineral Resources on a Cu-eq basis, in tonnes, by the total Ore Reserves and Mineral Resources, in tonnes.

With respect to production, Cu-eq has been calculated using the average realised price or forecast price for contained metals over the cited period (except as otherwise stated).

Metal prices applied for the purposes of historical Cu-eq production metrics represent the annual average of daily benchmark metal prices published by FactSet and are as follows (unless otherwise stated):

Cu-eq metal prices (historical)

Metal	Unit	2018	2019	2020
Copper	US\$/t	6,520	6,003	6,175
Gold	US\$/oz	1,268	1,393	1,773
Zinc	US\$/t	2,920	2,549	2,266
Silver	US\$/oz	16	16	21
Lead	US\$/t	2,241	1,999	1,823

Metal prices applied for the purposes of forecast Cu-eq production metrics are as follows (unless otherwise stated):

Cu-eq metal prices (forecast)

Metal	Unit	2021	2022	2023	2024	2025+
Copper	US\$/t	9,442	7,900	7,800	7,750	7,700
Gold	US\$/oz	1,776	1,885	1,875	1,850	1,850
Zinc	US\$/t	2,878	2,475	2,625	2,638	2,650
Silver	US\$/oz	26	22	22	22	23
Lead	US\$/t	2,063	2,140	2,260	2,270	2,280

¹ Copper equivalent Ore Reserves and Mineral Resources metrics included in this Prospectus have been prepared by 29Metals. Refer to section 4.3 for a description of the methodology applied by 29Metals to calculate Cu-eq Ore Reserves and Minerals Resources metrics.

Non-IFRS Financial Information

This Prospectus includes certain financial data and metrics, such as “EBITDA”, “AISC”, “Cu-*eq*” and “C1 Costs” that are not recognised under the Australian Accounting Standards and are classified as ‘non-IFRS Financial Information’ under ASIC Regulatory Guide 230 ‘Disclosing non-IFRS Financial Information’ (‘RG 230’). 29Metals uses this non-IFRS information to assess the performance of the business and to provide additional insights into the underlying performance of its assets. The non-IFRS Financial Information metrics do not have standardised meanings under the Australian Accounting Standards and, therefore, may not be comparable to similarly titled measures presented by other entities. Non-IFRS financial information should be considered in addition to, and not as a replacement for, financial measures determined in accordance with the Australian Accounting Standards. Investors are cautioned therefore not to place undue reliance on any non-IFRS Financial Information included in this Prospectus.

Refer to section 5 (Financial Information) for further details regarding non-IFRS Financial Information in the Financial Information, including a reconciliation of certain non-IFRS Financial Information to financial measures determined in accordance with the Australian Accounting Standards.

Selling Restrictions

This Prospectus does not constitute an offer or invitation in any place in which, or to any person to whom, it would not be lawful to make such an offer or invitation. No action has been taken to register or qualify the Prospectus, the Shares or the Offer, or to otherwise permit a public offering of Shares, in any jurisdiction outside Australia or New Zealand. The distribution of this Prospectus outside Australia and New Zealand (including electronically) may be restricted by law, and persons who come into possession of this Prospectus outside Australia or New Zealand should seek advice on and observe any such restrictions. Any failure to comply with such restrictions may constitute a violation of applicable securities laws.

In particular, this Prospectus may not be distributed to, or relied upon by, any person in the United States, unless accompanied by the U.S. Institutional Offering Memorandum as part of the Institutional Offer.

The Shares have not been, and will not be, registered under the U.S. Securities Act of 1933, as amended (‘U.S. Securities Act’) or the securities laws of any state of the United States, and may not be offered or sold, directly or indirectly, in the United States except in transactions exempt from, or not subject to, the registration requirements of the U.S. Securities Act and any other applicable U.S. securities laws. Offers to any persons in the United States are only being made pursuant to, and in accordance with the terms described in, the U.S. Institutional Offering Memorandum.

See section 10 (Additional Information) for more detail on selling restrictions that apply to the Offer in jurisdictions outside Australia.

Exposure Period

The Corporations Act prohibits 29Metals and SaleCo from processing Applications in the seven-day period after the Prospectus Date (‘Exposure Period’). The Exposure Period may be extended by ASIC by up to a further seven days. The purpose of the Exposure Period is to enable this Prospectus to be examined by market participants prior to the raising of funds. The examination may result in the identification of deficiencies in this Prospectus, in which case any Application may need to be dealt with in accordance with section 724 of the Corporations Act. Applications received during the Exposure Period will not be processed until after the end of that period. No preference will be conferred on Applications received during the Exposure Period.

Obtaining a Prospectus and Application Form

During the Exposure Period, an electronic version of this Prospectus without an Application Form will be available at <https://events.miraqle.com/29metals-ipo/> for Australian and New Zealand investors only. Application Forms will not be made available until after the Exposure Period ends.

During the Offer Period this Prospectus is available to Australian and New Zealand resident investors in electronic form at <https://events.miraqle.com/29metals-ipo/>. The Offer constituted by this Prospectus in electronic form at <https://events.miraqle.com/29metals-ipo/> is available only to persons within Australia and New Zealand. The Prospectus is not available to persons in other jurisdictions (including the United States). If you access the electronic version of this Prospectus, you should ensure that you download and read the Prospectus in its entirety.

You may, before the Closing Date, obtain a paper copy of this Prospectus (free of charge) by telephoning the 29Metals IPO Offer Information Line on 1800 500 095 (within Australia) from 8:30am to 5:30pm (Melbourne time) Monday to Friday. If you are eligible to participate in the Offer and are calling from outside Australia, you should call +61 1800 500 095 from 8:30am to 5:30pm (Melbourne time), Monday to Friday.

Applications

Applications for Shares may only be made during the Offer Period by completing an Application Form in respect of the Broker Firm Offer or Priority Offer (whichever is relevant to you and which is generally referred to as an Application Form), attached to or accompanying this Prospectus, in its paper form, or in its electronic form, which must be downloaded in its entirety from the Offer website (<https://events.miraqle.com/29metals-ipo/>).

The Corporations Act prohibits any person from passing the Application Form on to another person unless it is attached to a paper copy of the Prospectus or the complete and unaltered electronic version of this Prospectus.

Refer to section 8 (Details of the Offer) for further information.

Important Information

No Cooling-off Rights

Cooling-off rights do not apply to an investment in Shares issued or sold under this Prospectus. This means that, in most circumstances, you cannot withdraw your Application once it has been accepted.

Defined Terms and Abbreviations

Defined terms and abbreviations used in this Prospectus have the meanings defined in the Glossary in section 12 (Glossary) or are defined in the context in which they appear.

Unless otherwise stated or implied, references to times in this Prospectus are to Melbourne, Australia, time.

Privacy

By filling out an Application Form, you are providing personal information to 29Metals and SaleCo through the Share Registry, which is contracted by 29Metals to manage Applications. 29Metals, SaleCo and the Share Registry (on behalf of 29Metals and SaleCo), may collect, hold and use that personal information in order to process your Application, service your needs as a Shareholder, provide facilities and services that you request and carry out appropriate administration.

If you do not provide the information requested in the Application Form, 29Metals and the Share Registry may not be able to process or accept your Application.

Your personal information may also be provided to 29Metals' members, agents and service providers on the basis that they deal with such information in accordance with 29Metals' Privacy Policy and applicable laws. The members, agents and service providers of 29Metals may be located outside Australia, where your personal information may not receive the same level of protection as that afforded under Australian law. The types of agents and service providers that may be provided with your personal information and the circumstances in which your personal information may be shared are:

- the Share Registry for ongoing administration of the Shareholder register;
- printers and other companies for the purpose of preparation and distribution of statements and for handling mail;
- market research companies for the purpose of analysing Shareholder base and for product development and planning; and
- legal and accounting firms, auditors, contractors, consultants and other advisers for the purpose of administering, and advising on, the Shares and for associated actions.

If an Applicant becomes a Shareholder, the Corporations Act requires 29Metals to include information about the Shareholder (including name, address and details of the Shares held) in its public Shareholder register.

The information contained in the Shareholder register must remain there even if that person ceases to be a Shareholder.

Information contained in the Shareholder register is also used to facilitate dividend payments and corporate communications (including 29Metals' financial results and annual reports and other information that 29Metals may wish to communicate to its Shareholders) and compliance by 29Metals with legal and regulatory requirements.

An Applicant has a right to gain access to the information that 29Metals and the Share Registry hold about that person, subject to certain exemptions under law. A fee may be charged for access. Access requests must be made in writing or by telephone call to 29Metals' registered office or the Share Registry's office, details of which are disclosed in the Corporate Directory on the inside back cover of this Prospectus. Applicants can obtain a copy of 29Metals' Privacy Policy by visiting 29Metals' website (<https://events.miraql.com/29metals-ipo/>).

You may request access to your personal information held by or on behalf of 29Metals and you may correct the personal information held by or on behalf of 29Metals about you. You may be required to pay a reasonable charge to the Share Registry in order to access your personal information. You can request access to your personal information by writing to or telephoning the Share Registry as follows:

Email: registrars@linkmarketservices.com.au

Address: Link Market Services
Locked Bag A14
Sydney South, NSW, 1235
Australia

Telephone: 1300 554 474
(free call within Australia),
8.30am to 5.30pm
(Melbourne time),
Monday to Friday

29Metals' Privacy Policy also sets out how you can contact us if you wish to make a complaint about privacy breaches and how 29Metals will deal with your complaint.

Photographs and Diagrams

Photographs and diagrams used in this Prospectus that do not have descriptions are for illustration only and should not be interpreted to mean that any person shown in them endorses this Prospectus or its contents or that the assets shown in them are owned by 29Metals. Diagrams and maps used in this Prospectus are illustrative only and may not be drawn to scale. Unless otherwise stated, all data contained in charts, graphs and tables is based on information available at the Prospectus Date.

Company Website

Any references to documents included on 29Metals' website at <https://events.miraqle.com/29metals-ipo/> are for convenience only, and none of the documents or other information available on 29Metals' website is incorporated into this Prospectus by reference.

Offer Management

The Offer is managed by Macquarie Capital (Australia) Limited, Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited.

Macquarie Capital (Australia) Limited, Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited have not authorised, permitted or caused the issue or lodgement, submission, dispatch or provision of this Prospectus and there is no statement in this Prospectus which is based on any statement made by any of them or by any of their respective affiliates, directors, officers, employees, agents or advisers. To the maximum extent permitted by law, each of the Joint Lead Managers and its respective affiliates, directors, officers, employees, agents and advisers expressly disclaims all liabilities in respect of, make no representations regarding, and take no responsibility for, any part of this Prospectus other than references to the relevant Joint Lead Manager's name and address and makes no representation or warranty as to the currency, accuracy, reliability or completeness of this Prospectus.

Regulation of 29Metals

29Metals was incorporated in Victoria, Australia, and is governed by the laws in force in Australia.

Questions

If you have any questions about how to apply for Shares, call your Broker. Instructions on how to apply for Shares are set out in section 8 (Details of the Offer) of this Prospectus and on the back of the Application Form.

If you have any questions about whether to invest in 29Metals, you should seek professional advice from your accountant, financial adviser, stockbroker, lawyer or other professional adviser before deciding whether to invest in 29Metals.

THIS PROSPECTUS IS IMPORTANT AND SHOULD BE READ IN ITS ENTIRETY.

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Key Offer Information

Important Dates

Original Prospectus lodgement date	Monday, 7 June 2021
Prospectus lodgement date	Monday, 21 June 2021
Retail Offer opening date	Tuesday, 22 June 2021
Retail Offer closing date	Wednesday, 30 June 2021
Commencement of ASX trading on a conditional and deferred settlement basis	Friday, 2 July 2021
Settlement	Monday, 5 July 2021
Expected last day of trading on a conditional and deferred settlement basis	Monday, 5 July 2021
Issue and transfer of Shares	Tuesday, 6 July 2021
Expected commencement of trading of Shares on ASX on a normal settlement basis	Wednesday, 7 July 2021
Expected dispatch of holding statements	Thursday, 8 July 2021

Key Offer Statistics¹

Offer Price	\$2.00 per Share
Total proceeds under the Offer	\$527.8 million
Total number of Shares available under the Offer (including the transfer of Shares by SaleCo and the issue of New Shares by 29Metals)	263.9 million
Shares held by Escrowed Shareholders at Completion of the Offer	216.2 million
Market capitalisation at the Offer Price	\$960.9 million
Pro Forma Net Drawn Debt ¹ at Completion of the Offer	\$89.1 million
Enterprise value ² at the Offer Price	\$1,050 million
Enterprise value/Pro Forma FY2021 forecast EBITDA ³	4.8x

Notes

- 1 Net Drawn Debt is defined as total borrowings (excluding lease liabilities, financial liabilities and derivative financial assets and liabilities), less cash and cash equivalents. Refer to section 5.7.2 for further detail on 29Metals' indebtedness.
- 2 Enterprise value calculated as sum of market capitalisation at the Offer Price plus Pro Forma Net Drawn Debt (as at 31 December 2020).
- 3 Enterprise value/Pro Forma FY2021 forecast EBITDA calculated as Enterprise value at the Offer Price divided by Pro Forma FY2021 forecast EBITDA of \$221 million.

Dates may Change

The dates above are indicative only and may change without notice. 29Metals, SaleCo and the Joint Lead Managers reserve the right to vary the times and dates of the Offer including (subject to the ASX Listing Rules and the Corporations Act) to close the Offer early, extend the Offer Period relating to any component of the Offer or to accept late Applications, either generally or in particular cases, or to cancel or withdraw the Offer before Settlement, in each case without notifying any recipient of this Prospectus or Applicants. If the Offer is cancelled or withdrawn before the allocation of Shares, then all Application Monies will be refunded in full (without interest) as soon as possible in accordance with the requirements of the Corporations Act. Investors are encouraged to submit their Applications as soon as possible after the Offer opens. Applications received under the Offer are irrevocable and may not be varied or withdrawn except as required by law.

How to Invest

Applications for Shares can only be made by completing and lodging the Application Form attached to or accompanying this Prospectus. Instructions on how to apply for Shares are set out in section 8 (Details of the Offer) and on the back of the Application Form.

Questions

Call the 29Metals IPO Offer Information Line on 1800 500 095 (within Australia) and +61 1800 500 095 (outside Australia) from 8:30am to 5:30pm, Monday to Friday (excluding public holidays). If you are unclear in relation to any matter or are uncertain as to whether Shares are a suitable investment for you, you should consult your accountant, financial adviser, stockbroker, lawyer or other independent professional adviser before deciding whether to invest.

¹ Key Offer Statistics contain Forecast Financial Information. The Forecast Financial Information is based on assumptions and accounting policies set out in section 5 (Financial Information) and Annexure B and is subject to the specific and general assumptions set out in section 5 (Financial Information) and risks in section 6 (Risks). There is no guarantee that the forecasts will be achieved.

Chair's Letter



Dear Investor,

On behalf of the Board, I am pleased to offer you the opportunity to become a shareholder in 29Metals. The Board believes that the Offer represents an attractive opportunity to gain meaningful exposure to strong copper market fundamentals through a portfolio of long-life producing assets in Australia complemented by a well-defined pipeline of organic growth opportunities.

Copper-focused Australian mining company

29Metals' portfolio consists of copper-focused mining assets, including:

- the producing Golden Grove mine in Western Australia, a high-grade copper, zinc and precious metals mining operation which is positioned on the first quartile of the global copper cost curve;
- the producing Capricorn Copper mine in Queensland, a high-grade copper and silver mine with multiple ore sources, which has benefited from substantial investment to position it for stable and consistent future production; and
- a substantial exploration portfolio, including regional tenement packages at Capricorn Copper and Redhill in Chile (the largest copper producing nation globally).

Excellent copper market fundamentals

Our vision is to be a leading ASX-listed copper producer, developer and explorer offering investors exposure to attractive copper market dynamics.² We are at the dawn of a new era for copper demand and, through its use in a wide range of applications, we believe copper is well-placed to capitalise on global growth, urbanisation and continued expansion in consumer demand. Copper will also play a pivotal role in electrification and decarbonisation, and the global shift to a greener economy.

Our objective is to increase production (in copper equivalent terms) by more than 50% over five years through our pipeline of organic growth opportunities³ which should also drive down our unit operating costs.

Long mine life and organic growth opportunities

29Metals has an extensive Ore Reserves and Mineral Resources inventory, supporting a mine life in excess of ten years at each of our operating assets.

We also have a substantial pipeline of organic growth opportunities, combining:

- identified productivity and operational improvements;
- *in-mine* and *near-mine* growth; and
- continued exploration to expand mineral inventory and identify new ore sources and mines.

Through this pipeline of organic growth opportunities, the 29Metals management team and Board have set an objective to increase production by more than 50% over five years (in Cu-eq terms).⁴

² Refer to section 2.4 for further details on the copper market.

³ This represents the current expectation of potential growth and is not a production target.

⁴ Cu-eq is *copper equivalent contained metal*. Refer to important information at the beginning of this prospectus regarding the use of copper equivalent (Cu-eq) metrics in this Prospectus.

Significant capital investment has underpinned meaningful and sustainable asset improvement

29Metals is the product of EMR Capital's strategic focus on copper recognising the relatively limited options available to investors seeking exposure to copper-focused mining companies listed on the ASX. Since acquisition, EMR Capital has overseen the investment of over \$400 million into the 29Metals portfolio which has resulted in meaningful and sustainable operational improvements.

The EMR Capital Investors will be a major shareholder upon completion of the Offer and support the strategic direction of 29Metals.

Highly experienced Board and management team

We have an outstanding team who are tasked with delivering our operating plans and converting our pipeline of organic growth opportunities. The senior team is supported by a majority-independent Board focused on sustainable and profitable growth in shareholder value.

Commitment to sustainability

29Metals is committed to sustainability and maintaining its social licence to operate. Ensuring the health, safety and wellbeing of our workforce and the communities in and near which we conduct our business is front of mind in everything that we do. We are focused on the responsible and sustainable discovery, development, extraction and use of mineral resources.

Our vision is to be a leading ASX-listed copper producer, developer and explorer offering investors exposure to attractive copper market dynamics⁵

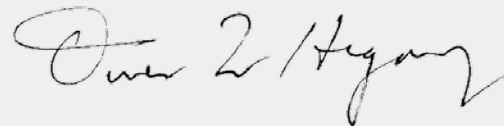
The Offer

The purpose of the Offer is to broaden 29Metals' shareholder base to allow the EMR Capital Investors to realise part of their investment, provide 29Metals with funds to repay part of the 29Metals Group's existing debt and, finally, provide 29Metals with access to capital markets to enhance its ability to fund future growth opportunities.

This Prospectus contains detailed information about 29Metals and its business, the Offer, the historical and forecast financial performance of 29Metals, and the key risks associated with an investment in 29Metals. It is important that you read this Prospectus in its entirety before deciding whether to invest in 29Metals and to consult with, and seek professional guidance from, your stockbroker, accountant, lawyer, financial adviser or other independent professional adviser in connection with the Offer.

On behalf of the Board, I look forward to welcoming you as a shareholder of 29Metals.

Yours sincerely,



Owen L Hegarty OAM

Chair of 29Metals

⁵ Refer to section 2.4 for further details on the copper market.

⁶ Cu-eq is *copper equivalent contained metal*. Refer to important information at the beginning of this prospectus regarding the use of copper equivalent (Cu-eq) metrics in this Prospectus.

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Metals

1.0

Investment
Overview

1.1 Introduction

The information contained in this section is a summary only. You should read this section in conjunction with the information set out in the remainder of this Prospectus.

Question	Summary	Further Information
Who is 29Metals?	<p>29Metals is a new copper-focused mining company with a portfolio of long-life producing assets and a pipeline of organic growth opportunities, comprising:</p> <ul style="list-style-type: none"> the producing long-life Golden Grove mine in Western Australia (copper, zinc, gold and silver); the producing long-life Capricorn Copper mine in Queensland (copper and silver); and a portfolio of exploration interests, including regional tenement interests surrounding Capricorn Copper and Golden Grove and a strategic tenement package and project in Redhill located in Chile, the world's largest copper producing country. 	sections 3.1, 3.10, 3.11 and 3.12
What is 29Metals' history?	<p>29Metals is a new copper-focused base and precious metals company.</p> <p>Prior to completion of the Offer, 29Metals' assets were owned by the EMR Capital Investors. 29Metals' portfolio is a product of EMR Capital's strategic focus on copper (one of EMR Capital's four core commodities) recognising the relatively limited options available to investors seeking exposure to copper-focused mining companies listed on the ASX.</p> <p>More than \$400 million has been invested in the 29Metals assets since acquisition by the EMR Capital Investors.</p> <p>EMR Capital also identified and progressively recruited critical roles, including the Managing Director & Chief Executive Officer, to shape 29Metals for the Offer and prepare 29Metals to transition to operate as a standalone company. The 29Metals Executive Leadership Team, along with the Board, have formulated the vision, strategy and values of 29Metals, and established the governance framework.</p>	sections 3.3, 3.10.3, 3.11.3 and 3.12.4

1.2 Industry Overview

Question	Summary	Further Information
What industry does 29Metals participate in?	29Metals explores for, develops and produces metals in the form of mineral concentrates which are sold to commodity trading firms or smelters for refining and on-sale as a refined metal product for end use.	sections 2.1, 3.1, 3.10, 3.11 and 3.12
How is the price for copper and 29Metals' key metal by-products determined?	<p>The metals that 29Metals produces in the form of mineral concentrates, including copper and key metal by-products, are sold under mineral concentrate offtake contracts. The metals in 29Metals' mineral concentrates are internationally traded commodities with their prices typically determined by reference to major commodity exchanges which include the London Metal Exchange ('LME'), Commodity Exchange Inc. ('COMEX') and Shanghai Futures Exchange ('SHFE').</p> <p>Commodity prices typically reflect the current and expected future balance of global supply and demand.</p>	sections 2.4, 2.5, 2.6 and 2.7
Who are 29Metals' competitors?	<p>29Metals competes with a range of global mining firms in the marketing and sale of its mineral concentrate products (including copper, zinc and high precious metals ('HPM') concentrates).</p> <p>Key miners who produce these types of mineral concentrates include, but are not limited to, BHP, Rio Tinto, Glencore, Newmont, Newcrest, OZ Minerals, China Moly, MMG and Sandfire Resources.</p>	section 2.4.2
What are the key properties and end uses of copper?	Copper is a soft, malleable, and ductile metal, with very high thermal and electrical conductivity and good corrosion resistance. These physical properties make copper a highly versatile material with applications across a wide range of industries including construction, power industries, consumer electronics, industrial equipment and automotive.	section 2.1.2.9

Question	Summary	Further Information
What is the worldwide supply and demand outlook for copper?	<p>Global demand growth for copper is expected to remain strong, underpinned by increasing urbanisation, investment in transportation and power networks and strong manufacturing in China coupled with a supportive public policy backdrop and government stimulus in Europe and the US. Over the medium-to-long term, decarbonisation, electrification and the global transition to a greener economy are expected to drive incremental copper demand.</p> <p>The supply outlook for copper is subject to a range of factors, including challenges to the development of new copper mines including declining head grades, increased capital intensity, a lack of new discoveries, water scarcity, increasing technological, metallurgical and permitting approval challenges and increased risk of resource nationalisation in a number of key copper producing nations.</p>	section 2.4
What are the key properties and end uses of 29Metals' key metal by-products?	<p>Zinc</p> <p>Zinc's ductility, stability and anti-corrosion properties support its use to produce galvanised steel, die casting and alloys such as brass and bronze. This results in a wide range of end-uses including construction materials, vehicles, manufacturing and general consumables.</p> <p>Gold and Silver</p> <p>Gold and silver are differentiated from other commodities in that they are a store of value, are generally regarded as a hedge against rising inflation and can act as a safe haven when geopolitical risks and economic uncertainty increases. The main end-uses for gold are jewellery and investment purposes whilst traditional uses of silver have been industrial applications, jewellery, photography and silverware.</p>	section 2.1.2.9
What is the worldwide supply and demand outlook for 29Metals' key metal by-products?	<p>Zinc</p> <p>29Metals expects there to be a positive impact on refined zinc demand over the short to medium term driven by:</p> <ul style="list-style-type: none"> ▪ the announcement of new galvanising lines by galvanised steel producers who are the largest users of refined zinc; and ▪ international fiscal stimulus, given refined zinc's end use in construction, transportation and infrastructure. <p>Growth in mined zinc supply is expected to occur from new projects which are expected in the near and medium term.</p> <p>Gold and Silver</p> <p>Continued market volatility, recovering physical demand and low interest rates are expected to support a positive outlook for both gold and silver. Industrial demand for silver is also expected to benefit from its use in electromagnetic shielding associated with 5G developments and solar installations.</p>	sections 2.5, 2.6 and 2.7

1.3 Key Features of 29Metals

Question	Summary	Further Information
How does 29Metals generate revenue and what is its business model?	<p>29Metals explores for and develops copper and other base and precious metals resources, and operates mines that produce copper, zinc, gold and silver in the form of mineral concentrates.</p> <p>29Metals' mineral concentrate products are sold to international commodity traders or direct to smelters, principally in Asia and Australia, for refining and on-sale as a refined metal product for end use.</p> <p>29Metals' business model depends on being able to continue to produce its mineral concentrate products and transport them efficiently to market for a viable sales price. In order to achieve this, 29Metals has:</p> <ul style="list-style-type: none"> ▪ a pipeline of organic growth opportunities expected to enable 29Metals to continue producing mineral concentrate products, including exploration interests; ▪ established processing infrastructure at its operating assets (Golden Grove and Capricorn Copper) to produce mineral concentrates; ▪ mineral concentrate offtake contracts in place with international commodity trading customers and smelters; and ▪ established logistics arrangements for the transportation of its mineral concentrate products to customers under mineral concentrate offtake contracts. 	sections 2.2, 3.10, 3.11 and 3.12
What are 29Metals' key assets?	<p>29Metals' two operating assets are Golden Grove and Capricorn Copper.</p> <p>Golden Grove is located in the mid-west region of Western Australia, approximately 450 km north-east of Perth:</p> <ul style="list-style-type: none"> ▪ Golden Grove comprises a series of Volcanic Hosted Massive Sulfide ('VHMS') deposits and mining currently occurs at two mines (Gossan Hill and Scuddles); and ▪ the mine utilises a conventional base metals processing flow sheet to produce three types of mineral concentrates. <p>Capricorn Copper is located approximately 120 km north of Mount Isa in north-western Queensland:</p> <ul style="list-style-type: none"> ▪ there are five deposits at Capricorn Copper of which three are currently in production (Esperanza South, Mammoth and Greenstone); and ▪ similar to Golden Grove, the mine also utilises a conventional processing flow sheet to produce a copper concentrate with silver by-product. <p>In addition, 29Metals holds a portfolio of exploration interests, including regional tenement interests surrounding Capricorn Copper and Golden Grove, and a strategic tenement package and project in Redhill located in Chile, the world's largest copper producing country.</p>	sections 3.10, 3.11 and 3.12
What is 29Metals' vision and strategy?	<p>29Metals' vision is to be a leading ASX-listed copper producer offering investors an opportunity to invest in:</p> <ul style="list-style-type: none"> ▪ copper, capitalising on the important role that copper will play in decarbonisation, electrification and the global transition to a greener economy; ▪ diversified production, with significant metal by-product credits from zinc, gold and silver; and ▪ profitable and sustainable growth. <p>29Metals' strategy over the near-to-medium term is focused on delivering against its operating plan and converting its pipeline of organic growth opportunities.</p> <p>29Metals' objective is to increase its production by more than 50% over five years (in Cu-eq¹ terms).²</p>	section 3.6.1

¹ Cu-eq is *copper equivalent contained metal terms*. Refer to the beginning of this Prospectus for important information regarding the use of Cu-eq metrics in this Prospectus.

² This represents the current expectation of potential growth and is not a production target.

Question	Summary	Further Information
What are the organic growth opportunities that 29Metals is targeting?	<p>29Metals has a pipeline of organic growth opportunities, comprising:</p> <ul style="list-style-type: none"> ▪ identified further productivity and operational improvements at each of its producing assets; ▪ <i>in-mine</i> and <i>near-mine</i> growth opportunities at each of its producing assets; and ▪ continued exploration to expand the mineral inventory at the Company's producing assets and identify new ore sources and mines. 	sections 3.7, 3.10.10, 3.11.10 and 3.12
What is 29Metals' approach to hedging?	<p>29Metals' strategy is to be unhedged in relation to copper as it seeks to provide investors with exposure to the attractive demand-supply outlook for copper.</p> <p>29Metals intends to cash settle the 2021 CC Hedges from Offer proceeds, up to an aggregate of \$40 million, and 29Metals will seek to opportunistically cash settle the 2022 CC Hedges from operating free cash flows (subject to market conditions and future capital requirements).</p>	section 3.6.2.2
How extensive are 29Metals' current Ore Reserves and Mineral Resources estimates?	<p>29Metals has a substantial mineral inventory across its two producing assets, Golden Grove and Capricorn Copper, and its exploration interests (including Redhill in Chile), with Group Ore Reserves estimates of 901kt Cu-eq and Mineral Resources estimates of 3,455kt Cu-eq.^{3,4}</p>	section 4
What is 29Metals' approach towards environment, social and governance matters?	<p>29Metals is committed to:</p> <ul style="list-style-type: none"> ▪ robust governance and ethical business practices, including transparency and public reporting; ▪ the priority of the health and safety of its workforce and the communities in or near which 29Metals conducts its business; and ▪ sustainability and 29Metals' 'social licence to operate', including the responsible use of natural resources, effective and responsible management of mining waste (including tailings storage) and contributing to the global effort to respond to the risks of climate change. <p>29Metals is also committed to identifying and implementing strategies to reduce its energy usage and associated carbon emissions.</p> <p>29Metals is committed to making meaningful contributions to the local, regional and broader community in or near which the Company conducts its business, including direct and indirect economic contributions, employment, local business opportunities, community programs and donations.</p>	section 3.9
What is 29Metals' health and safety track record?	<p>29Metals implements and adheres to comprehensive health and safety policies, standards and procedures. Through improved management systems and processes, and the commitment of the workforce, there has been significant improvement in health and safety performance at the 29Metals assets over the past three years.</p>	section 3.9.3
Who are 29Metals' key customers and suppliers?	<p>29Metals key customers are:</p> <ul style="list-style-type: none"> ▪ Trafigura Pte Ltd, a global commodities trading firm; and ▪ Korea Zinc Company Limited, a general non-ferrous metal smelting company. <p>29Metals' key suppliers are:</p> <ul style="list-style-type: none"> ▪ Byrnegut Australia Pty Ltd, an underground mining services contractor; ▪ Ausenco Operations Pty Ltd, an operations and maintenance services contractor; and ▪ Mid West Ports Authority, a provider of port handling and loading facilities at the Port of Geraldton WA. 	sections 3.10.9, 3.10.14, 3.11.9, 3.11.14, 10.6.3, 10.6.4, 10.6.5, 10.6.6 and 10.6.8

3 Cu-eq is *copper equivalent contained metal*. Refer to important information at the beginning of this Prospectus for information regarding the use of Cu-eq metrics in this Prospectus.

4 Refer to important information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources estimates. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Persons statements, and section 6 (Risks) for information regarding the risks associated with Ore Reserves and Mineral Resources estimates.

1.4 Investment Highlights

Highlight	Summary	Further Information
Highly experienced Board and management team with a track record of safe, efficient and successful operations	<p>29Metals is led by a highly experienced, majority-independent Board and an Executive Leadership Team which has significant direct experience with the 29Metals assets.</p> <p>The Executive Leadership Team is supported by highly experienced functional and senior operational leaders and an established workforce at each of our assets.</p>	sections 3.8, 7.1 and 7.2
Substantial copper producer, with all assets in Tier 1 jurisdictions	<p>29Metals produced 87 kt Cu-eq⁵ in 2020 which would make it the second-largest copper-focused producer listed on the ASX.</p> <p>29Metals' assets are all located in Tier 1 mining jurisdictions and comprise:</p> <ul style="list-style-type: none"> ▪ the producing long-life Golden Grove mine in Western Australia (copper, zinc, gold and silver); ▪ the producing long-life Capricorn Copper mine in Queensland (copper and silver); and ▪ a portfolio of exploration interests, including regional tenement interests surrounding Capricorn Copper and Golden Grove and a strategic tenement package and project in Redhill located in Chile, the world's largest copper producing country. 	sections 3.2, 3.10, 3.11 and 3.12.4
High-grade, long mine life copper portfolio, complemented by diversified by-product revenue	<p>29Metals is positively differentiated to its ASX listed copper focused peers by its high Ore Reserves and Mineral Resources Cu-eq⁶ grade of 3.2% and 2.8%, respectively, and long mine life in excess of ten years at both its producing assets.</p> <p>29Metals' copper production is complemented by a diversified set of zinc, gold and silver by-product revenues, which contributed 20%, 22% and 7%, respectively, of 29Metals' total revenue in 2020.</p>	sections 3.7, 4.1.1, 4.1.2, 4.3, 5 and 11
Attractive demand-supply outlook for copper, underpinned by decarbonisation, electrification and the global transition to a greener economy	<p>Copper is expected to play a leading role in the global trend towards new technologies required for electrification and decarbonisation. In particular, electric vehicles and renewable energy have relatively high copper intensities compared to the technologies being displaced.</p> <p>This strong demand growth outlook, coupled with supply challenges such as declining head grades, lack of new discoveries and increased capital intensity, is expected to create a structural demand-supply deficit for copper over the medium-to-long term.</p> <p>29Metals' strategy is not to hedge its exposure to copper.</p>	sections 2.4 and 3.6.2.2
Recent significant investment delivering meaningful operational improvements	<p>More than \$400 million has been invested in the 29Metals assets since acquisition by EMR Capital, including:</p> <ul style="list-style-type: none"> ▪ process plant expansions and optimisations at Golden Grove and refurbishment of the Capricorn Copper plant; ▪ enhancing environmental and safety processes as well as material investment in local communities and suppliers at both producing operations; and ▪ regional exploration campaigns at Redhill. <p>These investments have resulted in meaningful operational improvements including:</p> <ul style="list-style-type: none"> ▪ increased throughput at Golden Grove and Capricorn Copper of 44% and 36% since 2017 and 2018 respectively; ▪ improved ESG performance across the portfolio including a reduction in the total recordable injury frequency rate ('TRIFR') of both mines since 2018; and ▪ a maiden Mineral Resources estimate at the Cutters project at Redhill. 	sections 3.4, 3.10.3.2, 3.11.3.2 and 3.12.4

⁵ Cu-eq is *copper equivalent contained metal*. Refer to Important Information at the beginning of this Prospectus regarding the use of Cu-eq in this Prospectus.

⁶ Cu-eq is *copper equivalent contained metal*. Refer to Important Information at the beginning of this Prospectus regarding the use of Cu-eq in this Prospectus. Refer also to section 4.3 for information regarding the calculation of Cu-eq for the purposes of Cu-eq Ore Reserves and Mineral Resources.

Highlight	Summary	Further Information
Substantial pipeline of organic growth opportunities across the portfolio	<p>In addition to growth included in its current mine plans, 29Metals has a substantial pipeline of organic growth opportunities to support production growth, extend mine life, enhance operational flexibility and improve unit operating costs, including:</p> <p>Identified productivity and operational improvement opportunities</p> <ul style="list-style-type: none"> at Golden Grove, milling capacity optimisations and opportunities to utilise new ore sources to support increased mining rates; and at Capricorn Copper, achieving a consistent 2 Mtpa mining and milling rate and accelerated technical work to potentially bring forward access to higher-grade ore sources. <p>In-mine and near-mine growth opportunities</p> <ul style="list-style-type: none"> 29Metals holds a portfolio of priority targets relating to identified mineralisation and proximate to current mining areas; and these targets are considered by 29Metals to be highly prospective and open for Mineral Resources expansion. <p>Exploration upside</p> <ul style="list-style-type: none"> 29Metals holds a large exploration portfolio underpinned by significant regional tenement packages, various exploration leases and several highly prospective exploration targets. 	sections 3.7, 3.10.10, 3.11.10 and 3.12
History of mine life extensions with further <i>in-mine</i> , <i>near-mine</i> and regional upside	<p>Both Golden Grove and Capricorn Copper possess multiple orebodies that are open at depth which presents material resource extension and mine life potential.</p> <p>Significant investment in Golden Grove has enabled the mine to deliver consistent Ore Reserves and Mineral Resources estimates growth of 246% and 224%, respectively.⁷</p> <p>Since recommencement of mining operations in 2017, Capricorn Copper has established three mining fronts. Capricorn Copper is located within a significant regional tenement package spanning 1,858 km² in the highly prospective Western Fold Belt in the Mt Isa Inlier.</p> <p>29Metals' strategy at Redhill is to continue to test regional prospectivity of Redhill's tenement landholding to further de-risk the Cutters project and identify additional economic mineralisation.</p>	sections 3.7.2, 3.10.3.2, 3.10.10, 3.11.3.2, 3.11.10, 3.12.2, 3.12.3 and 3.12.4

⁷ Ore Reserves and Mineral Resources growth (in tonnes) at Golden Grove shown after depletion by production. Percentage growth applies most recent Ore Reserves and Mineral Resources estimates as against the 2016 corresponding estimates derived from public disclosures by MMG Limited. Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding Ore Reserves and Mineral Resources, including Competent Persons' statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

1.5 Key Financial Metrics

Question	Summary	Further Information																													
What is 29Metals' pro forma and statutory historical and forecast financial performance?	A summary of 29Metals' pro forma historical and pro forma forecast financial information and statutory historical and statutory forecast financial information is set out below.	section 5																													
	<table border="1"> <thead> <tr> <th rowspan="2">\$ million</th> <th colspan="3">Pro Forma Historical</th> <th>Pro Forma Forecast</th> </tr> <tr> <th>FY2018</th> <th>FY2019</th> <th>FY2020</th> <th>FY2021</th> </tr> </thead> <tbody> <tr> <td>Revenue</td> <td>525</td> <td>657</td> <td>625</td> <td>665</td> </tr> <tr> <td>EBITDA</td> <td>181</td> <td>255</td> <td>176</td> <td>221</td> </tr> <tr> <td>Net profit after tax</td> <td>18</td> <td>82</td> <td>33</td> <td>37</td> </tr> <tr> <td>Operating Free Cash Flow</td> <td>123</td> <td>103</td> <td>53</td> <td>61</td> </tr> </tbody> </table>	\$ million	Pro Forma Historical			Pro Forma Forecast	FY2018	FY2019	FY2020	FY2021	Revenue	525	657	625	665	EBITDA	181	255	176	221	Net profit after tax	18	82	33	37	Operating Free Cash Flow	123	103	53	61	
\$ million	Pro Forma Historical			Pro Forma Forecast																											
	FY2018	FY2019	FY2020	FY2021																											
Revenue	525	657	625	665																											
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	<table border="1"> <thead> <tr> <th rowspan="2">\$ million</th> <th colspan="3">Statutory Historical</th> <th>Statutory Forecast</th> </tr> <tr> <th>FY2018</th> <th>FY2019</th> <th>FY2020</th> <th>FY2021</th> </tr> </thead> <tbody> <tr> <td>Revenue</td> <td>402</td> <td>473</td> <td>434</td> <td>557</td> </tr> <tr> <td>EBITDA</td> <td>187</td> <td>242</td> <td>157</td> <td>147</td> </tr> <tr> <td>Net profit after tax</td> <td>88</td> <td>126</td> <td>84</td> <td>174</td> </tr> <tr> <td>Operating Free Cash Flow</td> <td>128</td> <td>119</td> <td>52</td> <td>(28)</td> </tr> </tbody> </table>	\$ million	Statutory Historical			Statutory Forecast	FY2018	FY2019	FY2020	FY2021	Revenue	402	473	434	557	EBITDA	187	242	157	147	Net profit after tax	88	126	84	174	Operating Free Cash Flow	128	119	52	(28)	
\$ million	Statutory Historical			Statutory Forecast																											
	FY2018	FY2019	FY2020	FY2021																											
Revenue	402	473	434	557																											
EBITDA	187	242	157	147																											
Net profit after tax	88	126	84	174																											
Operating Free Cash Flow	128	119	52	(28)																											
	The information presented above contains non-IFRS measures, is intended as a summary only and should be read in conjunction with the more detailed discussion on the Financial Information disclosed in section 5 (Financial Information) as well as the key risks set out in section 6 (Risks).																														

1.6 Key Risks

Question	Summary	Further Information
Operational Risks		
General	29Metals' mining operations may be impacted by operational difficulties which could, in turn, affect 29Metals' production levels at its mines, create unforeseen delays, increase its operating costs in the short or long-term, or otherwise adversely affect 29Metals' operating and financial performance.	section 6.2.1
Increase in production and capital costs	Fluctuations in the cost of key production inputs and consumables and capital costs, which may occur as a result of broader changes in international markets. It is possible that 29Metals could face higher operating and capital costs in the future, which could impact its profitability.	section 6.2.1.1
Approvals, permits and licences	<p>29Metals' business depends on its ability to obtain, on a timely basis, and maintain all required regulatory approvals for its existing operations and its expansion plans.</p> <p>A number of 29Metals' approvals, permits and licences will need to be renewed in the future. Failure to maintain existing licences, renew licences or delays in renewal may adversely affect 29Metals.</p> <p>In addition, 29Metals' continuing operations also rely on amendments to existing approvals being provided on a timely basis. Failure to obtain such amendments, or to obtain such approvals on a timely basis, may adversely affect 29Metals.</p>	section 6.2.1.2
Capricorn Copper tailings regulatory approvals	The updated tailings management strategy at Capricorn Copper requires certain regulatory approvals for each stage of the updated tailings management strategy. Regulatory approvals for stage 1 of the updated tailings management strategy at Capricorn Copper are underway. If the required approvals for each stage are not obtained in a timely manner 29Metals will be required to adjust its operating plans at Capricorn Copper which may have an adverse impact on 29Metals' operating and financial performance. In an extreme case, it may be necessary for 29Metals to develop an alternative tailings management strategy which may require 29Metals to curtail operations at Capricorn Copper.	sections 3.11.7.2 and 6.2.1.2
Geotechnical events	Underground mining at 29Metals' producing assets is subject to geotechnical risks that arise from changes in the stresses, seismicity and/or stability of the rock formations that surround ore and waste material once that material has been extracted by mining.	section 6.2.1.3
Extreme weather conditions	29Metals' operations may be impacted by extreme weather conditions or natural environmental disasters, such as heavy rainfall, flooding, tropical cyclones and earthquakes. Such conditions or events could impact on access to and from 29Metals' operating sites, damage its mining and production facilities, and otherwise have a material impact on mining operations.	section 6.2.1.4
Equipment failure	29Metals' mines, as well as their associated processing plant and equipment, are at risk of incidents such as critical mechanical failures, fire, damage via corrosion of aged infrastructure, and loss of power supply. The occurrence of any such incidents could interrupt 29Metals' operations or impact 29Metals' ability to continue operating and cause harm to its assets or equipment.	section 6.2.1.5
Access to transport and infrastructure	29Metals' mining, processing and development activities depend heavily on adequate infrastructure and a number of factors could disrupt the availability and reliability of essential infrastructure and transport services. The occurrence of any such disruptions could limit 29Metals' ability to deliver its product to customers, which could in turn impact on 29Metals' revenue, productivity and reputation.	section 6.2.1.6
Reliance on key third party contractors	29Metals uses third party contractors and suppliers for labour hire, the provision of specialist services and the leasing of certain equipment and is reliant on a number of third parties for the success of its operations.	section 6.2.1.7
Ore Reserves estimates may differ from mineral quantities and grades actually realised	There is considerable uncertainty involved in the process of estimating Ore Reserves. Material inaccuracies in, or changes to, Ore Reserves estimates may impact on 29Metals' life-of-mine plans and other projections as to the future economic viability of 29Metals' business operations.	section 6.2.1.8
Access to economic supplies	29Metals' uses a significant quantity of power and water for mining and extraction activities, processing, and related support facilities. Factors such as climate (including drought), increased global demand for energy, limited growth in new energy sources, changes in allocations, or changes in government policy may all impact on 29Metals' ability to meet its power and water supply needs (including meeting those needs on commercially acceptable terms).	section 6.2.1.9

Question	Summary	Further Information
Commodity Price Fluctuations		
Commodity price fluctuations	<p>29Metals' business and financial performance is significantly affected by the market prices, treatment charges and refining charges of copper and zinc, which can be subject to dramatic fluctuations due to factors outside 29Metals' control.</p> <p>29Metals intends to cash settle the 2021 CC Hedges and will seek to opportunistically cash settle the 2022 CC Hedges from operating free cash flows (subject to market conditions and future capital requirements).⁸ While 29Metals may implement hedging on an opportunistic basis, or if required to hedge pursuant to debt financing arrangements, 29Metals' strategy is to provide exposure to the attractive demand-supply outlook for copper. Accordingly, 29Metals does not intend to hedge its exposure to the copper price.</p>	sections 3.6.2.2, 6.2.2 and 10.6.10
Development Risks		
Mineral exploration activities are highly speculative	Mineral exploration is highly speculative in nature, involves many uncertainties and risks and is frequently unsuccessful. Even where valuable mineral deposits are discovered, there is no certainty that the discovery will result in actual production or profit.	section 6.2.3.1
Reliance on exploration	29Metals' existing Ore Reserves will be depleted over time by production from its operations. Because 29Metals' profits are derived from its mining operations, its ability to replenish Ore Reserves is essential to its long-term success, and its growth objectives require continued exploration success.	section 6.2.3.2
Other Key Risks		
Environmental risks	<p>While 29Metals seeks to ensure its operations conform to the requirements of the relevant regulatory frameworks, there remains a risk that past, present or future operations have not met or will not meet environmental or related regulatory requirements and could expose 29Metals to significant penalties or impact 29Metals' ability to operate.</p> <p>In September 2020 the Queensland Department of Environment and Science issued an Environmental Protection Order to Capricorn Copper requiring it to undertake a range of targeted steps to manage the risk of uncontrolled release of untreated mine wastewater from Capricorn Copper water storage facilities.</p>	section 6.2.4
Ore Reserves and Mineral Resources estimates and depletion	<p>The volume and grade of Ore Reserves and Mineral Resources estimates are based on a number of material assumptions that may prove to be incorrect.</p> <p>Inability to replace or increase Ore Reserves to maintain or grow 29Metals' current level of Ore Reserves could impact the long-term economic viability of 29Metals' business.</p>	section 6.2.5
Government policies and regulations	There may be unforeseen changes in government policy agenda, including additional compliance requirements, the introduction of new controls on imports, exports and/or prices and the introduction of additional requirements relating to regulatory and environmental approvals which could impact 29Metals' ability to operate.	section 6.2.6
Further key risks	<p>A number of other key risks including in relation to workplace health and safety, changes in demand for mineral products, financial indebtedness and access to capital, competitive pressures, exchange rate fluctuations, hedging, tenements, cultural heritage, reliance on key customers and access to export markets, ESG-driven investment policies, "social licence to operate", reliance on key personnel, premature mine closure, impairment, changes in accounting standards, insurance policy coverage, increase in tariffs, royalties or taxes, exposure to litigation (including the dispute with the former owners of Lighthouse Minerals described in Section 10.6.12.3, which has been referred by EMR Capital Investment (No.6B) Pte Ltd and 29Metals to the Court for determination), legal compliance, information technology breaches, reputational harm and COVID-19 risks are included in section 6.2.</p> <p>Section 6.3 also sets out the general investment risks associated with investing in Shares and relating to general economic and financial market conditions.</p>	sections 6.2 and 6.3

⁸ Refer to section 5 (Financial Information) for information regarding 29Metals' intention to apply up to \$40 million to cash settle the 2021 CC Hedges. Refer also to section 10.6.10 for further information regarding the CC Hedges.

1.7 Directors and Senior Management

Question	Summary	Further Information
Who are the Directors and members of 29Metals' Executive Leadership team?	<p>29Metals' Board of Directors comprises:</p> <ul style="list-style-type: none"> • Owen Hegarty OAM, (Chair, Non-executive Director), an EMR Nominee • Peter Albert (Managing Director & Chief Executive Officer) • Fiona Robertson (Independent Non-executive Director, Chair of Audit, Governance & Risk Committee) • Jacqueline 'Jacqui' McGill AO (Independent Non-executive Director, Chair of the Health, Safety, Environment and Community Committee) • Martin Alciaturi (Independent Non-executive Director, Chair of the Remuneration & Nominations Committee) <p>29Metals' Executive Leadership team comprises:</p> <ul style="list-style-type: none"> • Peter Albert (Managing Director & Chief Executive Officer) • Peter Herbert (Chief Financial Officer) • Ed Cooney (Chief Operating Officer) • Clifford Tuck (General Counsel & Company Secretary) 	sections 3.8, 7.1 and 7.2

1.8 Significant Interests of Key People and Related Party Transactions

Question	Summary	Further Information																													
Who are the Existing Owners and what will be their interest in the Company at Completion of the Offer?	<p>Shareholdings of Existing Owners on the Prospectus Date and immediately following Completion of the Offer are set out in the table below:</p> <table border="1"> <thead> <tr> <th rowspan="2"></th> <th colspan="2">Shares held pre-Completion</th> <th colspan="2">Shares held on Completion</th> </tr> <tr> <th>Number of Shares</th> <th>%</th> <th>Number of Shares</th> <th>%</th> </tr> </thead> <tbody> <tr> <td>EMR Capital Investors</td> <td>357,600,000</td> <td>100.0</td> <td>216,204,750</td> <td>45.0</td> </tr> <tr> <td>Management and Directors</td> <td>-</td> <td>-</td> <td>355,000</td> <td><0.1</td> </tr> <tr> <td>New Shareholders</td> <td>-</td> <td>-</td> <td>263,895,250</td> <td>54.9</td> </tr> <tr> <td>Total</td> <td>357,600,000</td> <td>100.0</td> <td>480,455,000</td> <td>100.0</td> </tr> </tbody> </table> <p>Please refer to section 8.2 for notes regarding the table above.</p> <p>Following completion of the Offer, the EMR Capital Investors are expected to hold an approximate 45.0% in the Company and New Shareholders will hold 54.9%. 29Metals' free float at the time of listing will not be less than 20%.</p> <p>The Independent Non-executive Directors have approved the Company entering into a Relationship Deed with EMR Capital that regulates aspects of their relationship while the EMR Capital Investors retain an interest in the Group.</p>		Shares held pre-Completion		Shares held on Completion		Number of Shares	%	Number of Shares	%	EMR Capital Investors	357,600,000	100.0	216,204,750	45.0	Management and Directors	-	-	355,000	<0.1	New Shareholders	-	-	263,895,250	54.9	Total	357,600,000	100.0	480,455,000	100.0	sections 7.4 and 8.2
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Total	357,600,000	100.0	480,455,000	100.0																											
Are there any related party arrangements?	As described in section 10.6.9 and 10.6.11, the Company has entered into the Relationship Deed and Sub-Lease with EMR Capital.	sections 7.5, 10.6.9 and 10.6.11																													
What significant benefits and interests are payable to Directors and other persons connected with the Company or the Offer?	<p>Directors and senior management are entitled to remuneration and fees. Senior management is also eligible to participate in certain incentives or <i>at-risk</i> remuneration arrangements, including incentive arrangements in connection with the Offer. Information regarding these fees, remuneration and incentive arrangements is set out in sections 7.3.2 and 7.3.3.</p> <p>Advisers and other service providers are entitled to fees for services and have other interests as disclosed in section 7.3.1.</p>	sections 7.3.1, 7.3.2, 7.3.3 and 7.3.5																													

Question	Summary	Further Information
Will any Shares be subject to restrictions on disposal following Completion?	<p>At Completion, 45.0% of the Shares will be subject to voluntary escrow arrangements.</p> <p>The Escrowed Shareholders have entered into voluntary escrow arrangements with 29Metals under which they will be restricted from dealing with Shares they hold on Completion (being the Escrowed Shares).</p> <p>Under the terms of the voluntary escrow arrangements, subject to certain customary exceptions, Shares held by the Escrowed Shareholders on Completion will be subject to escrow restrictions for the period from the date of Completion and ending at 4.15pm on the second Trading Day (as defined in the Listing Rules) following the day on which the Company's full year results for the financial year ending 31 December 2021 are released to ASX.</p> <p>In addition, certain executives (including the Managing Director & Chief Executive Officer) will receive Restricted Shares in connection with the Offer. Restricted Shares issued to relevant executives (including the Managing Director & Chief Executive Officer) are subject to a holding lock of two years commencing on the completion of the Offer.</p>	sections 7.3.5 and 8.11

1.9 Overview of the Offer

Question	Summary	Further Information
Who is the issuer of this Prospectus?	29Metals, a public company incorporated in Victoria, Australia, and SaleCo, a public company incorporated in Victoria, Australia.	Important Information
What is SaleCo?	SaleCo is a special purpose vehicle, established to enable the EMR Capital Investors to sell part of their investment in 29Metals via the Offer.	section 10.5
What is the Offer?	<p>This Prospectus relates to an initial public offering of Shares at the Offer Price of \$2.00 per Share. A total of 263.9 million Shares will be available under the Offer, of which 122.5 million New Shares will be offered by 29Metals and 141.4 million Shares will be offered by SaleCo.</p> <p>The Offer is expected to raise approximately \$527.8 million.</p> <p>The Shares to be issued and transferred under the Offer will represent 55% of the Shares on issue at Completion of the Offer.</p>	section 8.1
How is the Offer being structured?	<p>The Offer comprises a Retail Offer and Institutional Offer.</p> <p>The Retail Offer consists of the:</p> <ul style="list-style-type: none"> ▪ Broker Firm Offer – which is open to Australian and New Zealand resident retail clients of participating Brokers, who receive an invitation from a Broker to acquire Shares under this Prospectus; and ▪ Priority Offer – which is open to selected persons nominated by 29Metals in eligible jurisdictions, who have received a Priority Offer invitation to acquire Shares under this Prospectus; and ▪ Employee Offer – which is open to Eligible Employees, who have received an Employee Offer invitation to acquire Shares under this Prospectus. <p>The Institutional Offer consists of an offer to Institutional Investors in Australia and certain other jurisdictions, made under this Prospectus.</p>	section 8.1.1

Question	Summary	Further Information																										
What is the proposed use of funds raised under the Offer?	<p>The Offer is expected to raise \$527.8 million.</p> <p>The Offer, and resulting admission to the Official List, is being conducted to:</p> <ul style="list-style-type: none"> provide 29Metals with access to capital markets to give added financial flexibility to pursue further growth opportunities; provide 29Metals with funds to repay part of the Group's existing debt; provide a liquid market for Shares; and allow the EMR Capital Investors to realise part of their investment in 29Metals. <p>A table summarising the proposed sources and uses of funds raised under the Offer is contained below:</p>	section 8.1.2																										
	<table border="1"> <thead> <tr> <th></th> <th style="text-align: right;">\$ million</th> </tr> </thead> <tbody> <tr> <td colspan="2">Sources of funds</td> </tr> <tr> <td>Cash proceeds from New Shares issued under the Offer</td> <td style="text-align: right;">245.0</td> </tr> <tr> <td>Cash proceeds received from sale of Shares</td> <td style="text-align: right;">282.8</td> </tr> <tr> <td>Total sources</td> <td style="text-align: right;">527.8</td> </tr> <tr> <td colspan="2">Uses of funds</td> </tr> <tr> <td>Derivative Payout, Debt and Working Capital Reduction⁹</td> <td style="text-align: right;">135.5</td> </tr> <tr> <td>Payment to SaleCo of proceeds of sale of Shares</td> <td style="text-align: right;">269.8</td> </tr> <tr> <td>Working capital</td> <td style="text-align: right;">28.0</td> </tr> <tr> <td>Payment of Offer costs¹⁰</td> <td style="text-align: right;">72.8</td> </tr> <tr> <td>Payments to employees and consultants triggered by the Offer</td> <td style="text-align: right;">8.7</td> </tr> <tr> <td>Cash held by 29Metals from EMR Capital Investment (No.6B) Pte. Ltd¹¹</td> <td style="text-align: right;">13.0</td> </tr> <tr> <td>Total uses</td> <td style="text-align: right;">527.8</td> </tr> </tbody> </table>		\$ million	Sources of funds		Cash proceeds from New Shares issued under the Offer	245.0	Cash proceeds received from sale of Shares	282.8	Total sources	527.8	Uses of funds		Derivative Payout, Debt and Working Capital Reduction ⁹	135.5	Payment to SaleCo of proceeds of sale of Shares	269.8	Working capital	28.0	Payment of Offer costs ¹⁰	72.8	Payments to employees and consultants triggered by the Offer	8.7	Cash held by 29Metals from EMR Capital Investment (No.6B) Pte. Ltd ¹¹	13.0	Total uses	527.8	
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Total uses	527.8																											
What is the consideration payable for the Shares?	The price payable under the Offer is \$2.00 per Share.	section 8.1																										
What is the allocation policy?	The allocation of Shares between the Institutional Offer, Broker Firm Offer, Priority Offer and Employee Offer was determined by 29Metals and the Joint Lead Managers having regard to the policies outlined in sections 8.5.4, 8.6.4, 8.7.4 and 8.9.2.	sections 8.5.4, 8.6.4, 8.7.4 and 8.9.2																										
Is there any brokerage, commission or stamp duty payable by Applicants?	No brokerage, commission or stamp duty is payable by Applicants on acquisition of Shares under the Offer.	section 8.4																										
Are there any tax considerations for Australian investors?	Yes. Refer to section 10.13 and note that it is recommended that all Shareholders consult their own independent tax advisers regarding the income tax (including capital gains tax), stamp duty and GST consequences of acquiring, owning and disposing of Shares, having regard to their specific circumstances.	section 10.13																										
How can I apply?	<p>If you have received an allocation of Shares from your Broker and wish to apply for those Shares under the Broker Firm Offer, you should contact your Broker for information about how to submit your Broker Firm Offer Application Form and for payment instructions.</p> <p>Applicants under the Priority Offer may apply for Shares by following the instructions in their personalised invitation to participate in the Priority Offer.</p>	section 8.4																										
When will I receive confirmation that my Application has been successful?	<p>It is expected that initial holding statements will be dispatched to successful Applicants by standard post on or about Thursday, 8 July 2021.</p> <p>Refunds (without interest) to Applicants who make an Application and receive an allocation of Shares, the value of which is smaller than the amount of the Application Monies, will be made as soon as practicable after Completion of the Offer.</p>	section 8.4																										

⁹ See section 5.2.5.1 for further details.

¹⁰ Including adviser fees described in section 7.3.1, stamp duty, public offering of securities insurance ('POSI') and other costs, such as registry fees and ASX listing fees.

¹¹ Cash Backed Indemnity Amount held by 29Metals, as summarised in section 10.6.12.3.

Question	Summary	Further Information
Will the Shares be quoted on ASX?	<p>29Metals will apply to ASX within seven days of the Prospectus Date for its admission to the Official List and quotation of Shares (under the code "29M"). It is anticipated that quotation will initially be on a conditional and deferred settlement basis.</p> <p>Following completion of the Restructure and the issue and transfer of Shares under the Offer, trading on ASX will be on an unconditional but deferred settlement basis until 29Metals has advised ASX that initial holding statements have been dispatched to Shareholders. Trading on ASX is expected to commence on a normal settlement basis (that is on a T+2 basis) on or about Wednesday, 7 July 2021.</p> <p>The issue and allotment of Shares is conditional on ASX approving 29Metals' application for admission. If approval is not given within three months after such application is made (or any longer period permitted by law), the Offer will be withdrawn and all Application Monies received will be refunded (without interest), as soon as practicable in accordance with the requirements of the Corporations Act.</p>	section 8.14.1
What is the minimum and maximum Application size under the Offer?	<p>The minimum Application under the Broker Firm Offer is \$2,000 of Shares in aggregate. There is no maximum Application under the Broker Firm Offer.</p> <p>The minimum Application under the Priority Offer is \$2,000 of Shares in aggregate. There is no maximum Application under the Priority Offer.</p> <p>The minimum Application under the Employee Offer is \$2,000 of Shares in aggregate. There is no maximum Application under the Employee Offer and Eligible Employees will receive a guaranteed minimum allocation of \$15,000 of Shares in aggregate.</p> <p>29Metals and the Joint Lead Managers reserve the right to reject any Application or to allocate a lesser number of Shares than applied for, in their absolute discretion provided each Employee Offer Applicant will be guaranteed a minimum allocation of \$15,000 worth of Shares. In addition, 29Metals and the Joint Lead Managers reserve the right to aggregate any Applications that they believe may be multiple Applications from the same person or reject or scale back any Applications (or aggregation of Applications) in the Broker Firm Offer which are for more than \$250,000 of Shares.</p>	section 8.4
Is the Offer underwritten?	Yes. The Offer, including the Priority Offer and the Employee Offer, will be fully underwritten by the Joint Lead Managers.	sections 8.4 and 10.6.1
Who is the Sole Global Co-ordinator on the Offer?	The Sole Global Co-ordinator is Macquarie Capital (Australia) Limited.	section 7.3.1
Who are the Joint Lead Managers on the Offer?	The Joint Lead Managers are Macquarie Capital (Australia) Limited, Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited.	section 7.3.1
Who is the Institutional Co-Lead Manager on the Offer?	The Institutional Co-Lead Manager is Canaccord Genuity (Australia) Limited.	section 7.3.1
Can the Offer be withdrawn?	<p>29Metals and SaleCo reserve the right not to proceed with the Offer at any time before the issue of Shares to successful Applicants.</p> <p>If the Offer, or any part of it, does not proceed, Application Monies will be refunded.</p> <p>No interest will be paid on any Application Monies refunded as a result of the withdrawal of the Offer.</p>	section 8.14
Where can I find more information about this Prospectus or the Offer?	<p>All enquiries in relation to this Prospectus should be directed to the 29Metals IPO Offer Information Line on 1800 500 095 (within Australia) from 8:30am to 5:30pm (Melbourne time) Monday to Friday.</p> <p>If you are eligible to participate in the Offer and are calling from outside Australia, you should call +61 1800 500 095 from 8:30am to 5:30pm (Melbourne time), Monday to Friday.</p> <p>All enquiries in relation to the Broker Firm Offer should be directed to your Broker.</p> <p>If you are unclear in relation to any matter or are uncertain as to whether Shares are a suitable investment for you, you should seek professional guidance from your stockbroker, solicitor, accountant, financial adviser or other independent professional adviser before deciding whether to invest.</p>	Important Information

29

Metals

2.0

Industry Overview^{1,2}



Port of Geraldton

- ¹ 29Metals commissioned a report dated 19 March 2021 ('AME') published by AME Mineral Economics Pty Ltd in relation to the commodities outlook for copper and by-products produced by 29Metals. Information in this section that is referenced to AME is sourced from this report.
- ² For the purposes of the Forecast Financial Information, 29Metals has adopted average spot prices for the period 1 January to 31 March 2021 (inclusive) and Forward Prices for the balance of the forecast period (FY2021). Refer to section 5.9.2 for information regarding the commodity price and foreign exchange assumptions applied by 29Metals for the purposes of the Forecast Financial Information.

29Metals is a copper-focused base and precious metals mining company with producing and exploration assets in Australia and Chile.

The Company produces mineral concentrates which are sold to commodity trading firms or smelters for refining and on-sale as a refined metal product for end use.

This section 2 (Industry Overview) provides an overview of the industry in which 29Metals operates, including:

- the mining and metals lifecycle, including an overview of the classification of Mineral Resources and Ore Reserves under the JORC Code;
- the way in which mineral concentrates are marketed and sold; and
- the markets for the minerals produced by 29Metals, being (predominantly) copper, gold, zinc and silver, as mineral concentrates, including current supply and demand factors and the outlook for those mineral products.

2.1 Overview of Mining and Metals

2.1.1 What are base and precious metals?

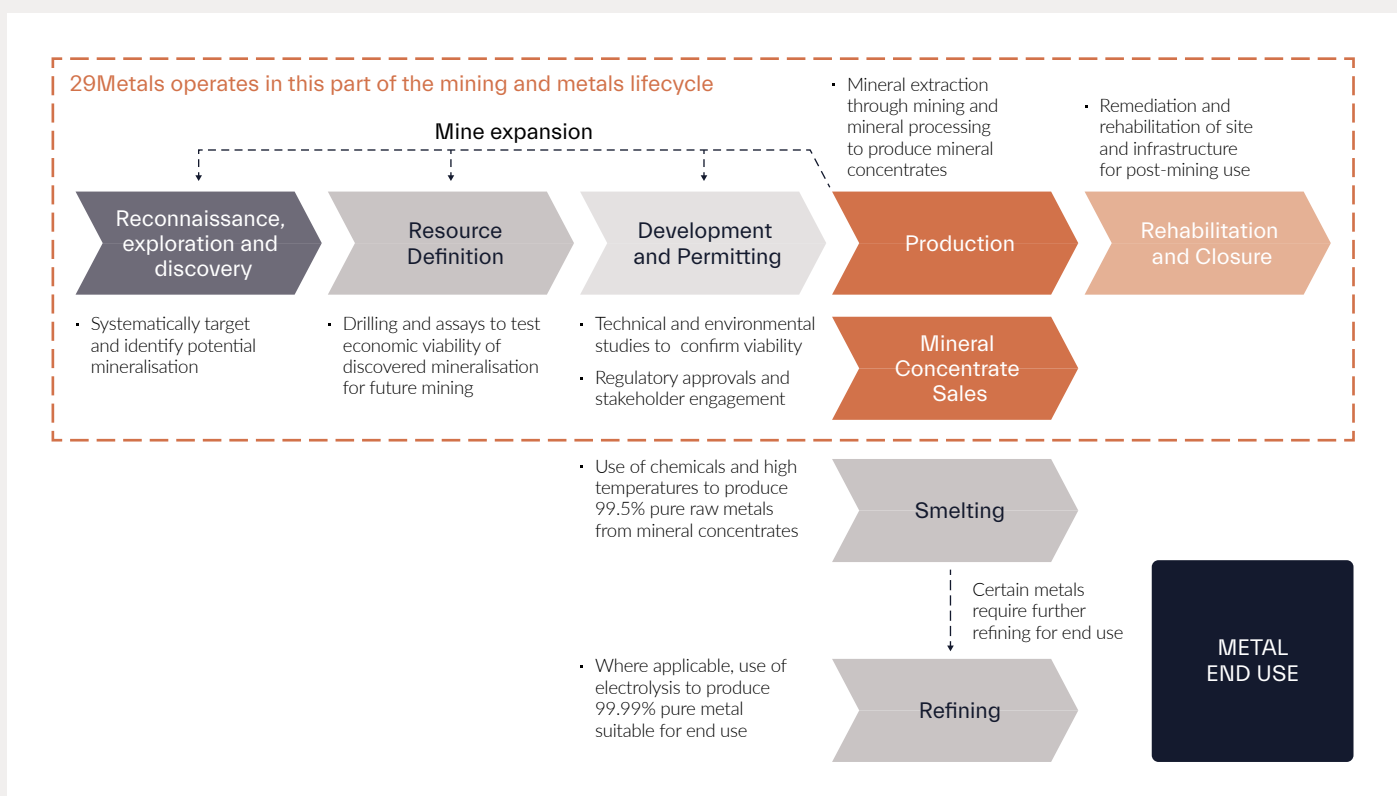
The term 'precious metals' refers to naturally occurring metals such as gold, silver and platinum which typically attract a higher value than other metals. Gold is a store of value and historically has been used for currency and as a store of value. Today the main uses of gold and silver are in jewellery and for investment purposes.

Base metals is a term used to distinguish certain naturally occurring metals from precious metals. Common base metals include copper, zinc, lead, and nickel. Base metals are generally more abundant in nature and produced in greater quantities, making base metals less expensive materials than precious metals. Base metals are commonly used in a range of industrial and domestic applications.

2.1.2 Overview of the mining and metals lifecycle

The mining and metals lifecycle is a complex process that can evolve over an extended period, often decades. The average time between discovery and development is 15–20 years.³ Set out below is an overview of the mining and metals lifecycle and the part of that lifecycle in which 29Metals operates.

Figure 2.1 – Mining and metals lifecycle



³ Schodde, R. Minex Consulting, 2017. "Time delay between discovery and development – is it getting more difficult?" Presentation at China Mining Conference, September 2017 conference, Tianjin, China.

2.1.2.1 Reconnaissance, exploration and discovery

Reconnaissance is grassroots exploration for identifying the existence of mineral potential or initial targets on a regional scale. Remote sensing by satellite or aircraft can be useful for identifying large-scale geological structures like faults or contacts where mineralisation may occur. Geological surface mapping and sampling is performed, taking geophysical measurements and undertaking geochemical analysis. Where coincident anomalies are identified, ground-based activities such as sampling, trenching and drilling is undertaken. Broad-spaced drilling is generally performed with the aim of intersecting an economic scale deposit, and, if successful results are returned, a discovery is made.

2.1.2.2 Resource definition

Following a discovery, further drilling and sampling work is undertaken. This work seeks to identify the potential ore types (sulphide or oxide material in the case of base metals), mineralogy, grade (i.e., metal content) and scale, with sufficient detail to develop three-dimensional models to delineate the resource opportunity and determine whether it may be suitable for mining.

2.1.2.3 Permitting and development

Following resource definition, design and technical studies are used to evaluate options for the potential development of the resource. The aim is to create a conceptual project around a preliminary resource for an optimal economic outcome, including identification of key development risks. Studies undertaken will typically include environmental studies, including base line flora and fauna studies, to assess the potential environmental impact of the project and strategies to mitigate that impact.

The grade of ore that is economic to mine depends on a number of factors, including (but not limited to) the recoverable contained metal value per tonne of ore, mining and extraction costs and proximity to market.

Social, environmental, technical and regulatory aspects of a project are completed ahead of a development decision. Permitting is not assured and can take longer than the exploration and design stages to ensure that key environmental risks and community concerns are identified and addressed appropriately.

Once a decision to proceed with the development of the proposed mine is taken, the construction process can commence, which may include:

- access roads;
- mineral processing facilities;
- maintenance facilities;
- mining waste disposal and storage facilities, including waste rock dumps and tailings storage facilities;
- workforce accommodation facilities and associated amenities;
- other site infrastructure, including facilities for power (either onsite generation and transmission facilities, or connection to an established power supply such as a local grid) and water; and
- orebody access development in readiness for commencement of mining.

Open pit mine development timeframes are dependent on the orebody's position relative to the ground surface and local topography. The amount of overburden (barren rock) that must first be removed to provide access to the orebody for mining extraction is referred to as "pre-strip". This may vary from a few metres to several hundred metres.

Underground mines require access to develop the area of the planned orebody, either by shafts, in the case of very deep orebodies, but more commonly via a decline. A decline (or ramp) is typically a spiral tunnel commenced on the surface, generally located on the flank of the orebody away from the area of planned extraction. A decline can be used for all access into and out of the mining operation for labour, equipment and materials, and ore haulage trucks. Before underground ore mining can commence, power and water reticulation, pumping and ventilation must also be established.

2.1.2.4 Production

The production stage comprises:

- mining – the process for extraction of mineral-bearing material known as 'ore'; and
- ore comminution (crushing and grinding) and processing.

The two most common methods of mining are surface (or open pit) and underground mining. The initial mining method is determined mainly by geological factors such as the shape, size, distribution and orientation of the target orebody, the spatial variation in metal grades through the target orebody, the depth of the target orebody and surface contours. Limits imposed by safety, technology, environmental and economic concerns are also considered.

Oxide ore material is generally a weathered, near-surface deposit and mined by open pit mining methods. Deeper unweathered sulphide ore material is generally mined using underground mining methods.

Mining commenced as open pit may also progress to underground mining in the future as further exploration identifies extended or new zones of mineralisation at lower depths.

A wide range of underground mining techniques are used depending on the depth, geometry, geology and strength of the deposit. Mined ore is either trucked or hoisted to the surface and delivered to an ore stockpile in preparation for the comminution and processing stage.

The mining process removes the ore via the chosen mining method(s), generally involving drilling and blasting to break the ore and waste rock to fragments that can be excavated and loaded into trucks to be transported to either waste rock locations, stockpiles or direct to the mineral processing plant.

During the comminution and processing stage, the mineral-bearing ore is crushed and ground down to a size where mineral particles can be sorted from surrounding waste material. Mechanical milling is undertaken, which may involve the addition of media, to grind the ore to a 100 microns or finer slurry which then passes through several stages of flotation to separate the contained metal into different concentrate streams. These concentrates are thickened and filtered to reduce the moisture content to typically 10% or less. The product of this process is a mineral concentrate ready for sale.

2.1.2.5 Closure and rehabilitation

The final stage in mining operations is closure and rehabilitation. Much of the planning work is undertaken during the permitting and development stage (see above) – whilst final mine closure plans are often required in initial environmental permitting submissions, mine closure and rehabilitation plans are typically progressively updated and implemented during a mine's operating life.

Following the permanent cessation of production activity, the site is put on care and maintenance and the workforce wound back. Decommissioning then takes place where the operation and equipment is taken apart, waste is disposed of, buildings are demolished or repurposed, and the site is remediated. Post-closure, monitoring programmes are undertaken to ensure that rehabilitation outcomes are achieved.

2.1.2.6 Mineral concentrates sales

For non-smelter-integrated miners such as 29Metals that produce concentrate, there is a well-established supply chain to sell the material under offtake agreements ('**Offtake Contracts**'), typically with commodity trading firms or with smelters. Commodity trading firms aggregate, blend and distribute mineral concentrates through large warehouses and blending operations, as well as provide marketing and logistics services.

2.1.2.7 Smelting

Smelting uses chemicals and high temperatures to remove impurities and convert mineral concentrates into raw 99.5% purity metal. In the smelting process, the dry mineral concentrate is heated in a furnace with oxygen-enriched air to produce sufficient heat to smelt waste material in the mineral concentrate to slag thus separating it from the contained metal. The contained metal is then poured into moulds to produce refinery-ready anodes.

During the smelting process iron and sulphur impurities are oxidised forming sulphur dioxide which can be used in the production of sulphuric acid.

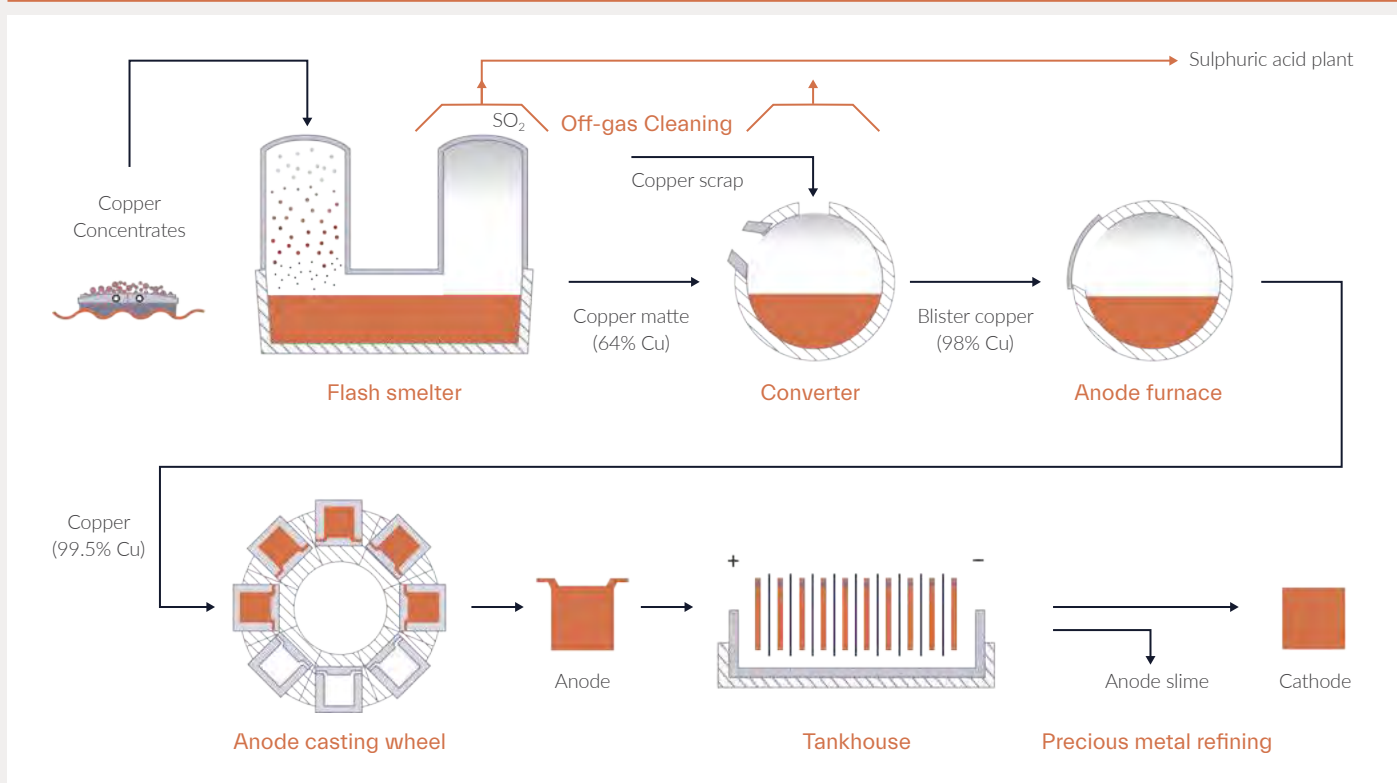
Smelting is the most efficient process for extracting metals from mineral concentrates containing sulphide materials. For oxide materials, smelting is less effective. An alternative extraction process for oxide mineral concentrate material is a process called 'Leaching'. Leaching utilises an acid solution which is brought into contact with the mineral concentrate. The target metal (e.g., copper) is dissolved and after several process steps (Solvent Extraction and Electrowinning ('**SXEW**')) recovered from the "electrolyte solution" as 99.99% pure cathode copper by electrolysis.

2.1.2.8 Refining

In preparation for end use, metals such as copper require further refining to take the smelted product (~99.5% pure metal) to the final refined metal (99.99% pure metal). The refining process uses electrolysis whereby an electric current is passed through an electrolytic cell, and metal, such as copper, from the anode is deposited onto the cathode.

Mineral concentrate treatment and refining is a critical driver in the economics of a producing mine. Smelting and refining have finite capacity and are energy intensive. This translates into mineral concentrate treatment and refining charges that are applied to the sale of mineral concentrates (as described further in section 2.2).

Figure 2.2 – Process flow for smelting and refining



2.1.2.9 End Use

Copper

Copper has a 10,000-year history of continuous use, the longest of all base metals, reflecting that copper is one of the few metals that can occur in nature in a directly usable metallic form.

In addition, refined copper is a soft, malleable and ductile metal, with very high thermal and electrical conductivity and good corrosion resistance. These physical properties make copper a highly versatile material, useful as a conductor of heat and electricity, and as a construction material.

Copper is also used as a critical metal for commonly used alloys, such as brass (copper and zinc), bronze (copper and tin) and cupronickel⁴ (copper and nickel).

Copper and its alloys also possess unique antimicrobial properties that are generally not present in other metals. The United States Environmental Protection Agency has approved that products sold with at least 95.6% copper can claim that they kill viruses, including SARS-CoV-2, the virus that causes COVID-19.⁵

Zinc

Zinc's ductility, stability and anti-corrosion properties support its use to produce galvanised steel, die casting and alloys such as brass and bronze. This results in a wide range of end-uses in construction materials and vehicles, manufacturing and general consumables across a range of industries. In addition, zinc has domestic and pharmaceutical applications.

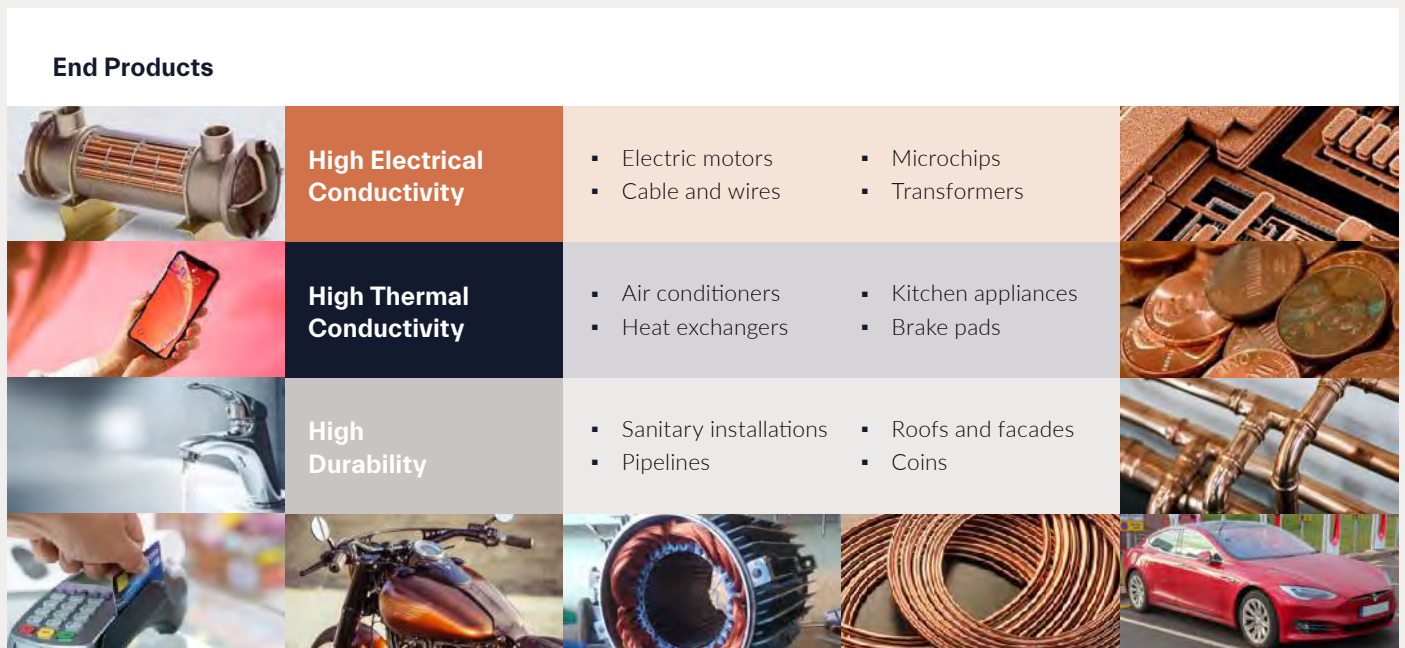
Gold

Gold is unlike any other commodity in that it is also a store of value and an alternative currency. It acts as a popular inflation hedge as it holds its value over time, and as a safe haven when geopolitical risks and economic uncertainty increase. The main uses for gold are jewellery and for investment purposes.

Silver

The traditional uses of silver have been industrial applications, jewellery, photography and silverware. Over recent years, use for investment purposes has increased and emerging uses include electromagnetic shielding associated with 5G developments and in solar installations.

Figure 2.3 – Key uses and properties of copper



2.1.3 Mining regulatory framework

Exploration and mining activities are subject to a specific regulatory framework that covers, among other things, the right to explore for minerals, the right to extract minerals, the right to operate minerals process facilities (including the use of chemical reagents), and health, safety and environmental laws.

Information regarding the regulatory frameworks for 29Metals' assets is set out in section 10 (Additional Information).

⁴ Cupronickel is a corrosion resistant metal (silver in appearance) used to make marine hardware and coins.

⁵ "EPA Registers Copper Surfaces for Residual Use Against Coronavirus". United States Environmental Protection Agency News Releases from Headquarters, Chemical Safety and Pollution Prevention: February 10, 2021.

2.2 Overview of Concentrate Offtake Agreements

As noted earlier, mineral concentrates are typically sold under contract with commodity trading firms or the owners of smelters, who (in turn) on-sell the refined metal product for end use applications.

Offtake Contracts may be for a defined term and/or a defined volume of mineral concentrates or may be specific to a particular shipment of mineral concentrates (i.e., a 'spot' offtake contract).

Title and risk to shipment of mineral concentrates typically passes to the 'buyer' at loading of the mineral concentrate cargo on the performing vessel. The seller and buyer may agree to a prepayment arrangement or an 'in-store sale' for one or more shipments and in these circumstances, the passage of title and risk occurs before the shipment of mineral concentrates has been loaded onto the performing vessel. This may occur on a shipment-by-shipment basis or over a number of shipments by agreement between the buyer and seller.

The payments for shipments of mineral concentrates are typically determined by reference to an agreed payable metals percentage or formula and applicable commodity price (by reference to an agreed commodity price exchange or reference price) over a defined period often referred to as a 'quotation period' or 'QP'. The payable metal content and applicable metal price(s) are then applied to the metal content of the mineral concentrate determined by assays. Offtake Contracts may exclude payment for specified minerals or apply a discount for specified minerals. For example, a copper concentrate Offtake Contract may apply a discounted payment for metals other than copper in the mineral concentrate.

The contractual pricing mechanism for Offtake Contracts also includes:

- adjustments (often referred to as penalties) for elements that are deleterious to the smelting process, which may include moisture level and specified minerals (such as arsenic or silica); and
- treatment and refining charges, applied as reduction in the shipment price.

The treatment charge ('**TC**') is quoted in US\$/dmt (dry metric tonnes) of concentrate and the refining charge ('**RC**') is quoted in US\$/lb of payable metal. Copper contracts include both charges which are often referred to as TC/RCs and zinc contracts include only a TC. TC/RCs are market driven prices and are influenced by the availability of mineral concentrates relative to smelting and refining capacity globally. If the availability of concentrate is higher, the charges are higher and vice versa. In term offtake contracts, TC/RCs (as applicable) are typically subject to periodic review or benchmarking to ensure that the charges applied are in step with market conditions for smelting.

Under Offtake Contracts the seller is responsible for the transportation of the shipment to the destination nominated by the buyer (whether by land or sea). The Offtake Contracts include mechanisms for compensating the seller where the shipping costs increase as a result of delays at the shipment destination.

Offtake Contracts generally provide for part of the shipment price to be paid in advance of final delivery (at loading for example) based on the 'seller's' assays of the shipment and the contractual pricing formula. What percentage of the estimated shipment price is payable in the pre-delivery or 'provisional invoice' may vary depending on the terms of the Offtake Contract. Subsequently, a final invoice process settles the shipment based on final assays. Depending on the quotation period that applies to a particular shipment, and resolving any differences between the seller's assay and the final assays, the final invoice may result in a payment by the seller to the buyer (i.e., a reduction in the pre-delivery payment amount) or an additional payment by the buyer.

2.3 Reporting Ore Reserves and Mineral Resources and Exploration Results

2.3.1 Overview

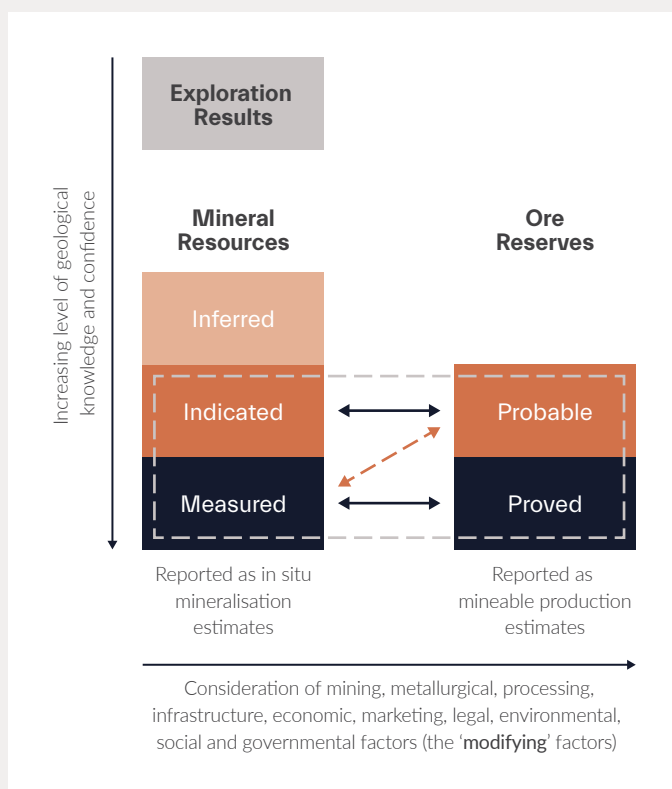
Mineral explorers, developers and producers report an estimate of the *in-situ* metals or metals contained in already mined stockpiles. There are several resource classification systems, including:

- CRIRSCO – Committee for Mineral Reserves International Reporting Standards;
- The SEC's New Mining Disclosure Rules under Regulation S-K (subpart 1300)⁶;
- CIM – the Canadian Institute of Mining, Metallurgy and Petroleum classification;
- SAMREC – the South African Code for the Reporting of Exploration Results, Mineral Resources and Mineral Reserves; and
- JORC – the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (the 'JORC Code').

With limited exceptions, mining companies listed on the ASX are required to report in accordance with the JORC Code.

The JORC Code classifies mineral orebodies into two main categories⁷, Mineral Resources and Ore Reserves, which have defined sub-categories reflecting different levels of confidence in estimates as shown below.

Figure 2.4 – JORC code exploration results, Mineral Resources and Ore Reserves categories



2.3.2 Mineral Resources

Mineral Resources are a concentration of solid material in or on the Earth's crust in such a form, grade and quantity that there are reasonable prospects for eventual economic extraction. To be classified as Mineral Resources under the JORC Code, the location, quantity, grade and continuity of the mineralisation must be known, estimated or interpreted from specific geological evidence and knowledge.

Under the JORC Code, Mineral Resources are sub-divided into three categories of decreasing geological confidence as follows:

Measured

Mineral Resources are classified as a *Measured Resource* when the nature, quality, amount and distribution of data are such as to leave no reasonable doubt, in the opinion of a Competent Person⁸ determining the Mineral Resources, that the tonnage and grade of the mineralisation can be estimated to within close limits, and that any variation from the estimate would be unlikely to significantly affect potential economic viability. The quantity, grade (or quality), densities, shape and physical characteristics of Mineral Resources are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Indicated

Mineral Resources are classified as an *Indicated Resource* when the nature, quality, amount and distribution of data are such as to allow confident interpretation of the geological framework and to assume continuity of mineralisation. Confidence in the estimate is sufficient to allow application of Modifying Factors within a technical and economic study.

Inferred

Mineral Resources are classified as an *Inferred Resource* when the quantity and grade (or quality) are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade (or quality) continuity. Mineralisation that is classified as an *Inferred Resource* has a lower level of confidence than that applying to *Indicated Resources*.

⁶ This applies to, and will replace SEC Industry Guide 7 in respect of, fiscal years beginning on or after 1 January 2021.

⁷ The JORC Code also includes reporting requirements in relation to other exploration and mining related matters, including reporting of exploration results and production targets.

⁸ A minerals industry professional who is a member or fellow of the AusIMM or AIG, or of a "Recognised Professional Organisation" with a minimum of five years' relevant experience to that mineralisation style or deposit type and the activity they are undertaking.

2.3.3 Ore Reserves

Ore Reserves are the economically mineable part of Mineral Resources in the *Measured* or *Indicated* category. Ore Reserves estimates include diluting allowances for losses which may occur when a material is mined or extracted. Ore Reserves are determined by studies at the pre-feasibility or feasibility level and the key underlying assumptions and outcomes of those studies at the pre-feasibility or feasibility level must be disclosed publicly at the time of reporting of a new or materially changed Ore Reserves.

The JORC Code does not require that a full feasibility study⁹ has been undertaken to convert *Measured Resources* and/or *Indicated Resources* to Ore Reserves. However, the JORC Code does require that at least a pre-feasibility study has been carried out that confirms a mine plan and production schedule that are technically achievable and economically viable, and that material *Modifying Factors* have been considered.

Ore Reserves are sub-divided in order of decreasing confidence as follows:

Proved

Proved Reserves are the economically mineable part of a *Measured Resource* and this is the highest confidence category of an Ore Reserves estimate, implying a high degree of confidence in the geological and grade continuity after consideration of the Modifying Factors.

Probable

Probable Reserves are the economically mineable part of an *Indicated Resource* which is of a lower confidence category than *Proved Reserves* but is of sufficient confidence to serve as the basis for a decision on the development of a deposit.

2.4 Copper Market

2.4.1 Copper demand

Copper is a critical metal to the global economy given its wide range of end-uses. Current key end markets for copper include¹⁰:

- construction (28%);
- power industries (16%);
- industrial equipment (12%), including transformers, motors, valves and fittings;
- automotive (8%); and
- consumer goods and electronics (14%).

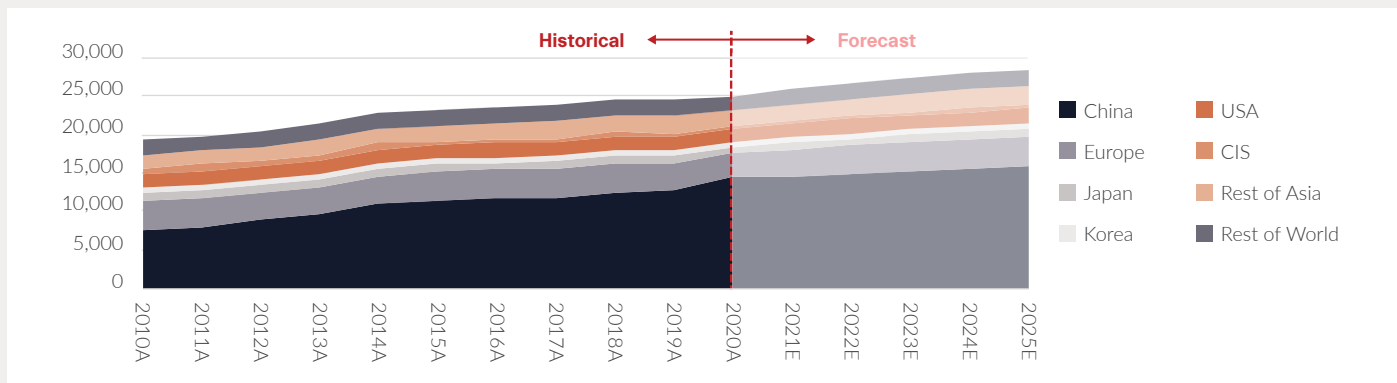
In 2020, copper was the world's second largest traded metal market with a total size of US\$153 billion¹⁰. Refined copper demand has grown from approximately <0.5 Mt in 1900¹¹ to 24.9 Mt in 2020¹⁰. This long-term growth trajectory has been driven by global population and economic growth, urbanisation, and rises in consumption associated with rising wealth.

This is best demonstrated in China where rapid economic growth was matched with a significant rise in copper consumption.

The transition to a greener economy is contributing to incremental demand for copper. New technologies required for electrification and decarbonisation, including electric vehicles and wind power, require motors, transformers and cabling, and have higher copper intensities than the technologies being displaced.

Plug-in Hybrid Electric Vehicles and Battery Electric Vehicles are estimated to require 2.6 times and 3.6 times (respectively) the copper used in internal combustion engine cars due to additional copper required in the battery pack and additional wiring throughout the vehicle.¹⁰ The combination of increasing EV sales and their higher copper intensity of use is already increasing the demand for copper and this thematic is expected to accelerate over the second half of the 2020s.

Figure 2.5 – Refined copper demand by country 2010–2025, kt



Source: AME. See footnote 1 of this section 2 (Industry Overview).

⁹ A full feasibility study is at a higher level of confidence than a pre-feasibility study and would normally contain mining, infrastructure and process designs completed with sufficient rigor to serve as the basis for an investment decision or to support project financing.

¹⁰ AME. See footnote 1 of this section 2 (Industry Overview).

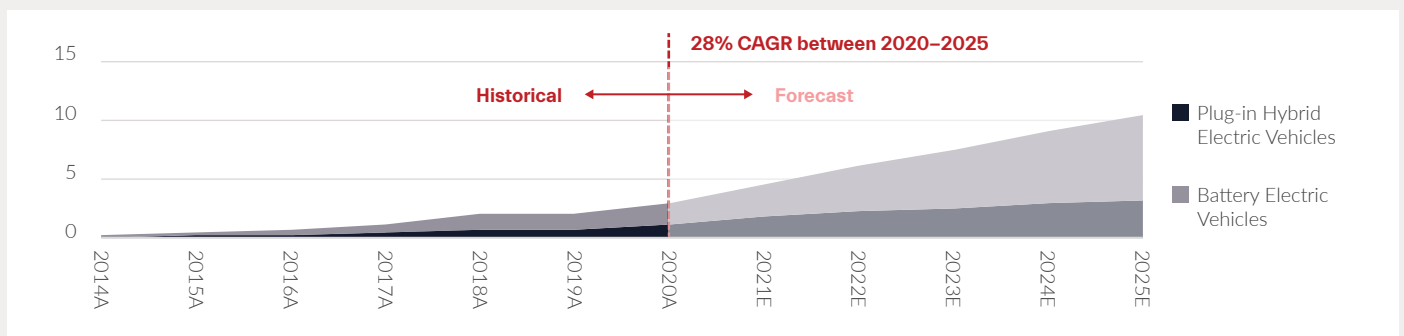
¹¹ International Copper Study Group (ICSG), The World Copper Factbook 2020, at <https://www.icsg.org/index.php/component/jdownloads/finish/170/3046>

In power generation, both wind and solar power have a significantly higher copper intensity per megawatt of new installed power compared to conventional power generation. In wind power, the power cable accounts for over 50% of the total copper requirement, other key areas include the transformers and the generator.¹² Offshore wind is even more copper intensive due to the length of cabling needed to return power to the grid onshore.

In combination, all uses of copper across all regions are expected to support global demand growth of 2.8% (CAGR) from 2020 to 2025.^{12,13} Demand from China is expected to remain robust due to expected increasing urbanisation, investments in transportation and power networks, and strong manufacturing. Outside of China, public policy and stimulus in Europe and the United States is also expected to contribute significant demand for copper.

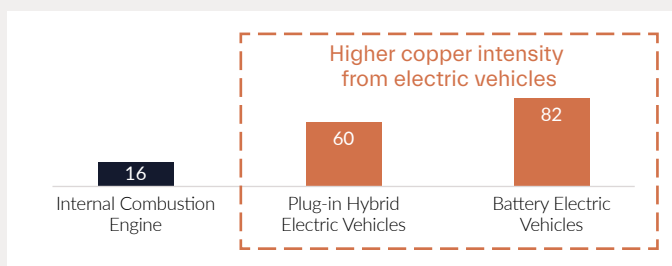
Copper is difficult to substitute due to its versatility, relative low cost and conductivity properties only surpassed by the more expensive precious metals. Historically some substitution has occurred in periods of high copper prices, such as in plumbing applications with the adoption of composite plastic materials and in power distribution with the adoption of aluminium. However, the majority of easy substitution has already occurred. Copper has the benefit of being at least 60% more effective in use across key properties than aluminium which in turn has a significantly higher carbon impact making further market share erosion unlikely.

Figure 2.6 – Electric Vehicle sales 2010–2025 (millions)



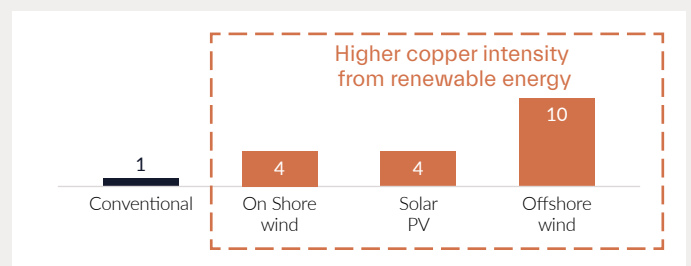
Source: AME. See footnote 1 of this section 2 (Industry Overview).

Figure 2.7 – Copper intensity (estimated kg of copper by vehicle type)



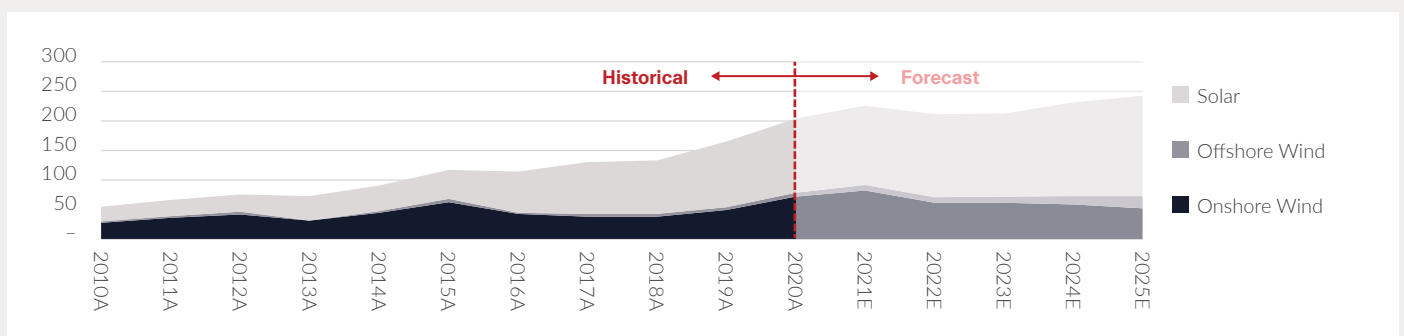
Source: AME. See footnote 1 of this section 2 (Industry Overview).

Figure 2.8 – Copper intensity in energy production (estimated kg of copper per MW in energy production)



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Figure 2.9 – Solar and wind generation (net additions of installed MW capacity)



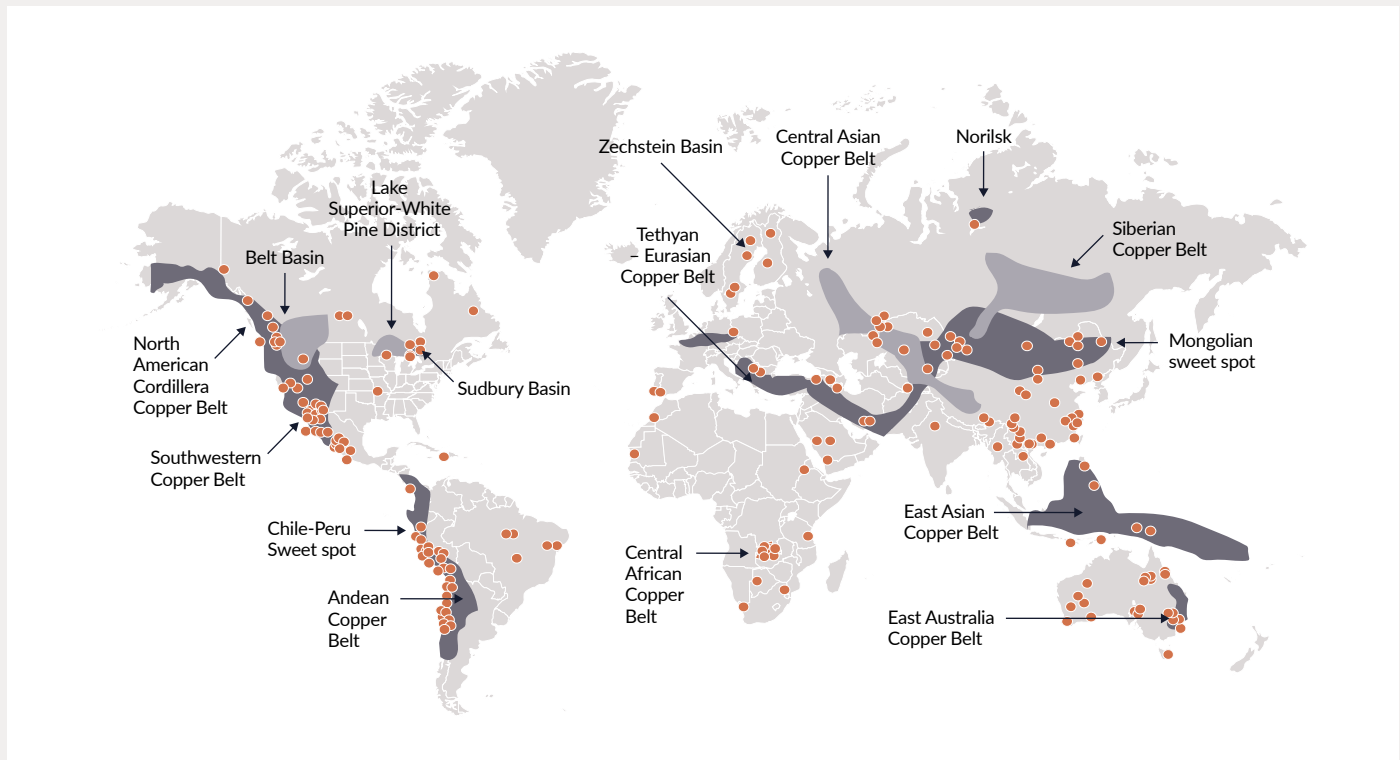
Source: AME. See footnote 1 of this section 2 (Industry Overview).

12 AME. See footnote 1 of this section 2 (Industry Overview).

13 Compounded annual growth rate. 2020 is the base year for purposes of calculating the CAGR. For subsequent calculations of CAGR or annual growth rates the base year is the first year stated.

2.4.2 Copper supply

Figure 2.10 – Global copper producing regions



Source: AME. See footnote 1 of this section 2 (Industry Overview).

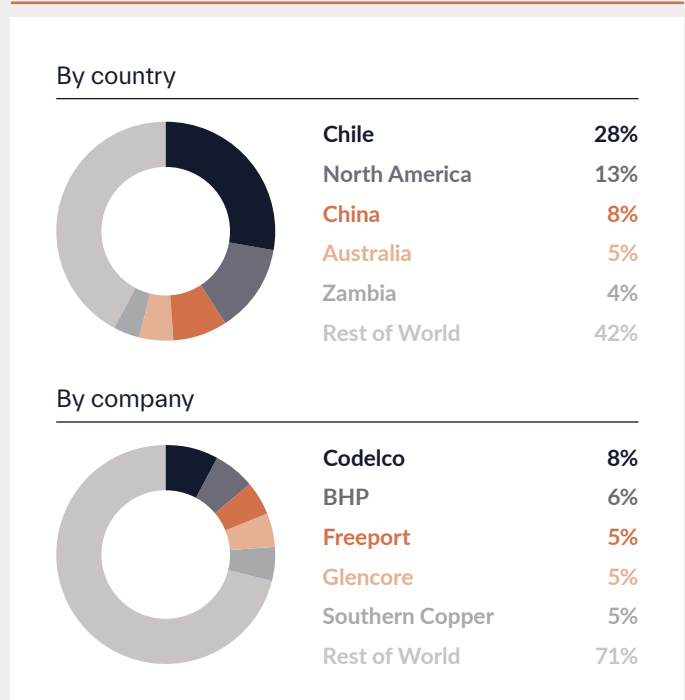
Copper is typically found in regions where there is a history of significant volcanic or seismic activity. The most productive copper belts are the Andean, Central African, East Australian and Southwestern (North American) copperbelts.

The majority of large-scale copper operations are concentrated in these copper-belt regions, many of which are developing countries which can provide enhanced challenges for mining and the stability of copper supply. The world's top-ten copper-in-concentrate producing countries contributed 79%¹⁴ of the world's supply in dmt terms in 2020, however, production is diversified across a large number of mines with:

- the top five producing mines accounting for ~14%¹⁴ of global mined supply; and
- the top five global producing companies accounting for ~29%¹⁴ of supply.

Key global producers of mined copper include Codelco, BHP, Glencore, Freeport and Southern Copper.

Figure 2.11 – Mined copper production by country and company 2020



Source: AME. See footnote 1 of this section 2 (Industry Overview).

14 AME. See footnote 1 of this section 2 (Industry Overview).

Chile is the largest producer of mined copper, producing 5.6 Mt in 2020, equating to 28% of the global mined copper supply, from 31 active mining operations.¹⁴ Copper mines in Chile are primarily concentrated along the Andean Copper Belt. The largest copper mine in the world, Escondida, is located in Chile, one of sixteen copper mines located in Chile that produce 100 ktpa or more of copper annually.¹⁵

In addition to the large state-owned Codelco, a wide range of large multi-national mining companies are active in Chile, including global mining houses BHP, Rio Tinto, Glencore, Antofagasta and Anglo American, as well as major Japanese trading houses Mitsubishi, Mitsui, Sumitomo and Marubeni.

Chile is regarded as a relatively stable jurisdiction for mining investment ranking #30 out of 77 regions based on investment attractiveness in the 2020 Fraser Mining Survey.¹⁶

As shown in figure 2.11, in 2020 Australia was the world's 4th largest producer of mined copper, producing 0.9 Mt (in contained copper metal terms) from 27 active copper operations.¹⁵ Copper accounted for 2.9% of Australia's export revenue in 2020.¹⁷

Australia is a well-regarded jurisdiction for copper mining due to its stable political regime, access to high-quality infrastructure and experienced mining workforce. Western Australia and Queensland ranked #4 and #16, respectively, out of 77 regions based on investment attractiveness in the 2020 Fraser Mining Survey.¹⁶

Figure 2.12 – Map of operating copper mines in Australia 2020



Source: AME. See footnote 1 of this section 2 (Industry Overview).

15 AME. See footnote 1 of this section 2 (Industry Overview).

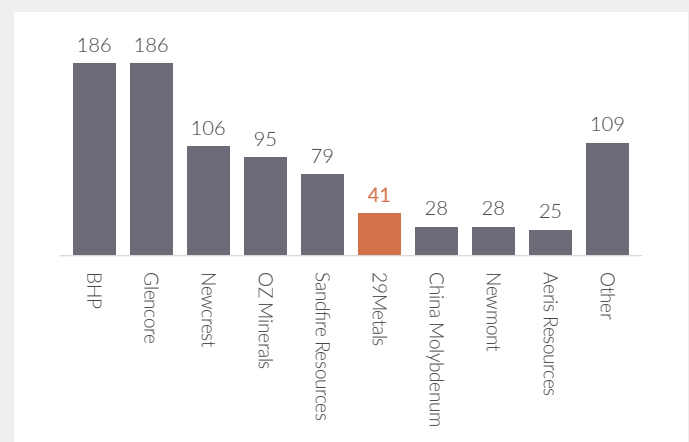
16 Annual survey of mining and exploration company executives completed on 6 November 2020 based on responses from 277 participants conducted by the Fraser Institute.

17 Australian Bureau of Statistics Merchandise Import and Export Data.

18 Olympic Dam and Mount Isa operate integrated copper operations with on-site smelting facilities.

In Australia, copper production is predominantly located in three regions – South Australia, central-western New South Wales and northwest Queensland. Australia's four largest copper producing mines – Olympic Dam (BHP) and Prominent Hill (OZ Minerals) in South Australia, Cadia Valley (Newcrest) in central western New South Wales and Mount Isa in northwest Queensland – produced 51% of the total copper mined in Australia in 2020.¹⁵ Other than Olympic Dam and Mount Isa¹⁸, Australian copper mines produced copper concentrate mostly exported for smelting in China, Japan and India.

Figure 2.13 – Australian mined copper production by company in 2020, kt¹



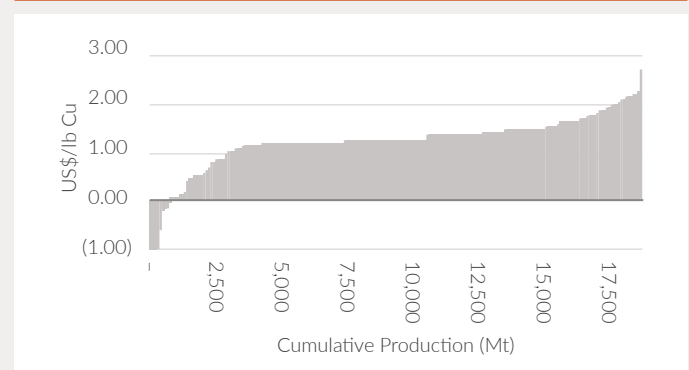
Source: AME. See footnote 1 of this section 2 (Industry Overview).

Notes

1 At completion of the Offer.

The largest producers of mined copper generally have relatively higher operating costs. This is due to the large scale, low grade nature of the production sources of the major producers, which are dominated by large scale porphyry deposits in the Andean copper belt which do not benefit from significant other metal revenue. Producers with relatively lower operating unit costs generally operate higher grade copper-gold or poly-metallic operations, which are located in mining regions outside of the Andean copper belt, such as Africa, Asia and Australia.

Figure 2.14 – Copper cost curve 2020



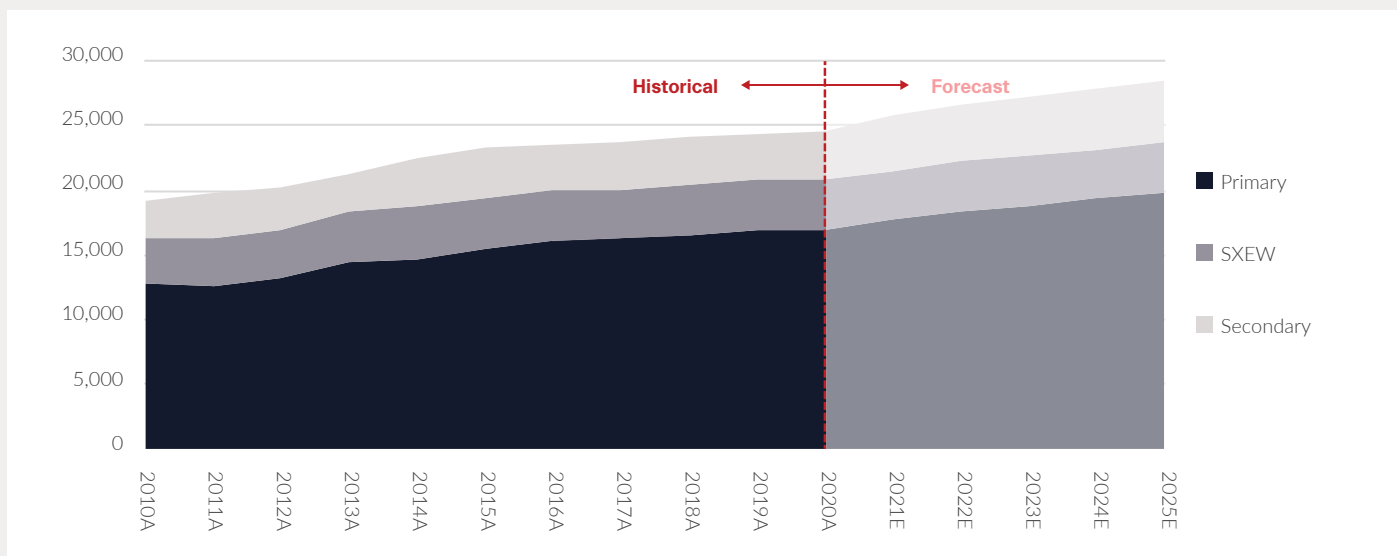
Source: AME. See footnote 1 of this section 2 (Industry Overview).

2.4.3 Supply outlook

2.4.3.1 Overview

Global refined copper is sourced mainly from mined copper. Copper sourced from sulphide concentrates contributed 69% in 2020 and copper sourced from SXEW contributed 16% in 2020, with the balance supplied from secondary material.¹⁹ Growth in SXEW supply is minimal and its contribution to supply is forecast to fall to 14% in 2025, and secondary use is increasing and its contribution is forecast to increase to 17% in 2025.¹⁹

Figure 2.15 – Refined copper supply by source 2010–2025, kt



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Mined copper supply gradually increased between 2010 and 2020 driven primarily by new mines such as Las Bambas in Peru and Caserones in Chile, as well as brownfield expansion of existing mines. The copper concentrate market entered a deficit in 2020 with a supply shortfall of around 300 kt as China's recovery-induced demand coincided with supply disruptions driven by the impacts of COVID-19 on mining operations (particularly in developing countries).¹⁹

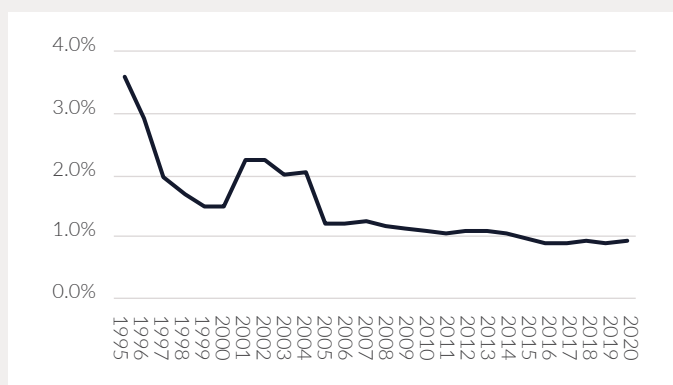
The supply of copper concentrate is expected to rebound with a lower level of disruption in 2021. Over the short-to-medium term supply is expected to grow and keep the market in balance due to the addition of new mine developments which have been in the pipeline for several years, such as Kamo-a-Kakula in Democratic Republic of Congo (~360 kt Cu), Quellaveco in Peru (~335 kt Cu) and Quebrada Blanca in Chile (~275 kt Cu).¹⁹

¹⁹ AME. See footnote 1 of this section 2 (Industry Overview).

2.4.3.2 Supply challenges and outlook

A range of factors make the development of new copper mines increasingly challenging, including: declining head grades, increased capital intensity, a lack of new discoveries, water scarcity, increasing metallurgical complexity, permitting approval challenges, and a number of key copper producing regions presenting enhanced resource nationalisation risk.

Figure 2.16 – Average global copper mill grade, % contained Cu

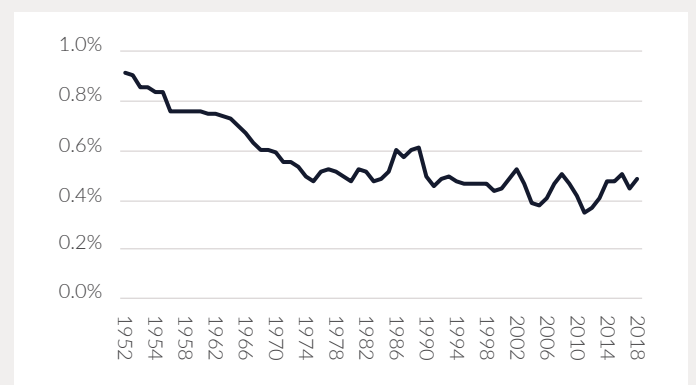


Source: AME. See footnote 1 of this section 2 (Industry Overview).

Grade decline

Since the mid-1990's global copper grades have been consistently declining as the most attractive ore sources are prioritised and extracted globally. Where longer-dated data exists this trend can be seen from the early-1950's in the United States. This trend is expected to continue as the majority of modern copper operations are optimised to extract the high-grade ore first.

Figure 2.17 – Average US copper mill grade, % contained Cu

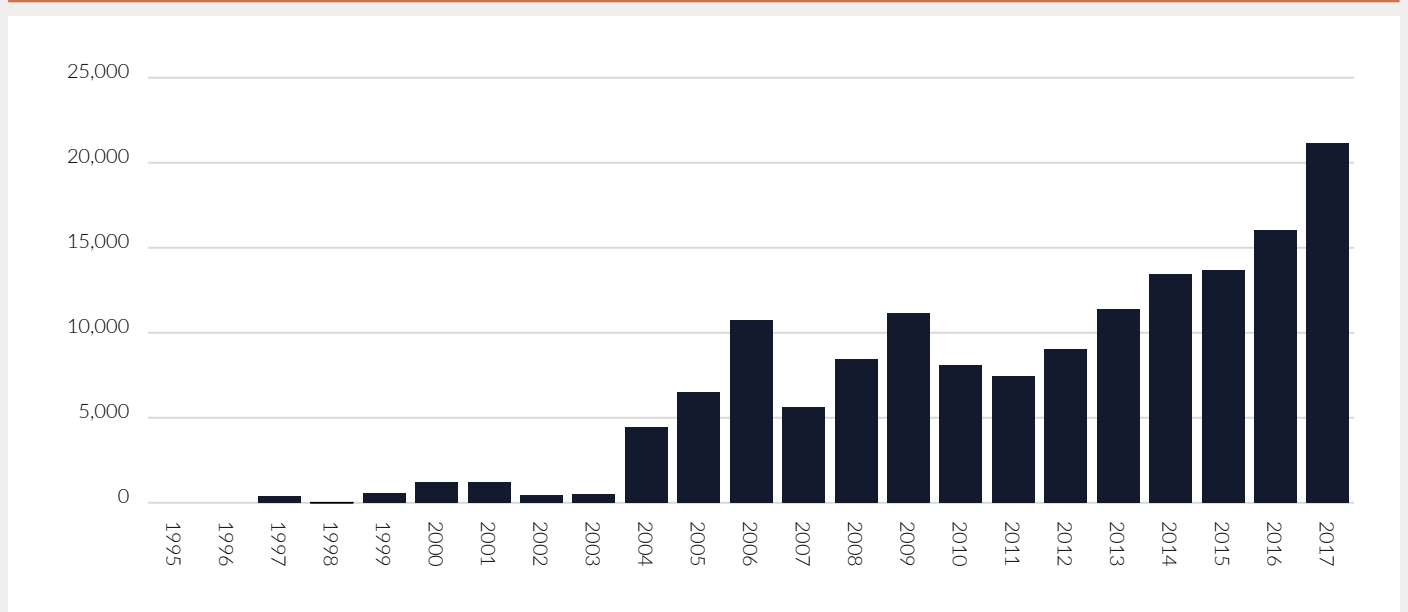


Source: AME. See footnote 1 of this section 2 (Industry Overview).

Increased capital intensity

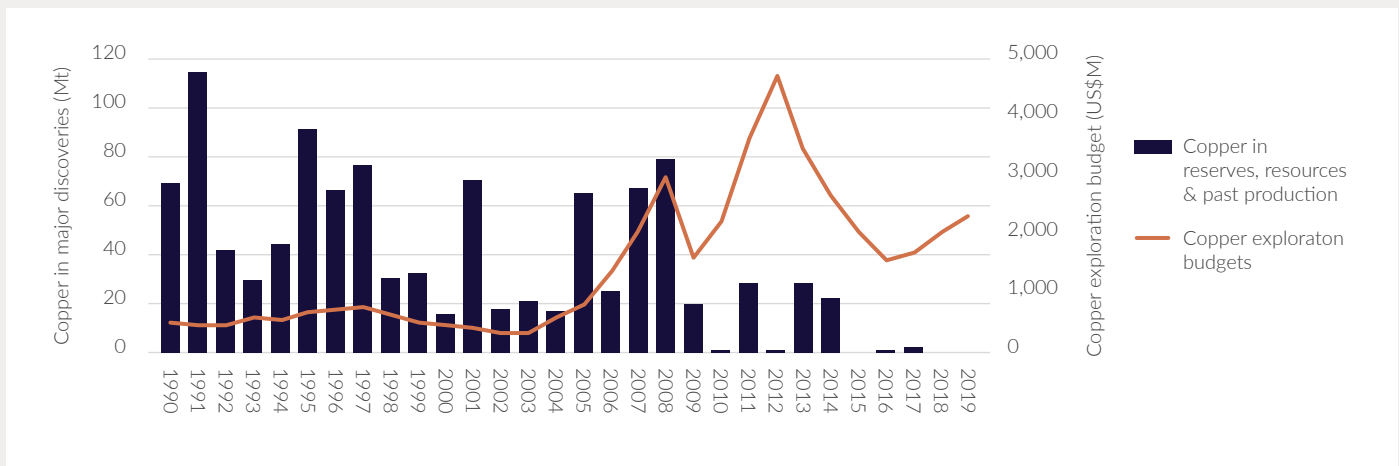
Capital intensity, as estimated by required expansionary capital compared to mine production growth over the next three years, continues to increase. This reflects the higher capital required to bring new operations into production driven by increased depth of orebodies, technical and metallurgical complexity, lower grade of orebodies and water scarcity. For example, lack of clean water in Chile has required the installation of desalination solutions at several Chilean mine sites.

Figure 2.18 – Capital intensity, US\$/t (average three-year global expansionary capital expenditures/average change in three-year change in global copper production)



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Figure 2.19 – Major discoveries vs exploration



Source: S&P Global Market Intelligence

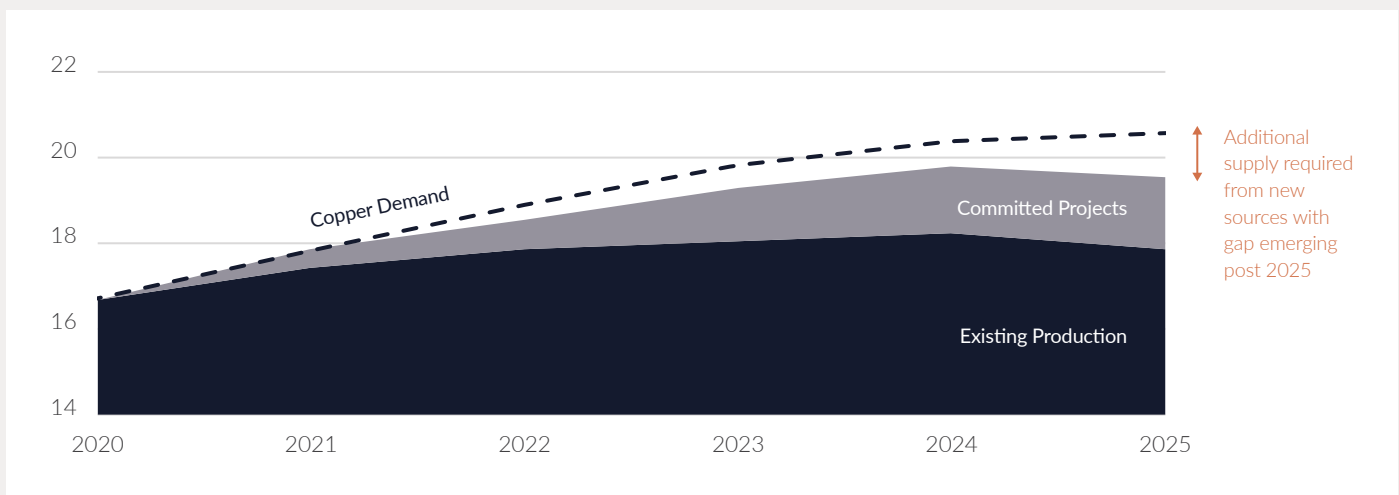
Declining discovery rates

The rate of discovery particularly for large-scale economically exploitable copper deposits continues to decline. Since 2015 despite an average of US\$1.9Bn in exploration spending there have only been two major discoveries (Winu in Western Australia and Marimaca in Chile).²⁰ 29Metals believes current levels of exploration spending are insufficient to meet future demand, as demonstrated in declining discovery rates and a thinning project pipeline.

Supply and balance outlook

Medium-to-longer term supply challenges are expected to significantly impact the market with potential to result in a deficit. That trend is expected to continue, which would create a longer-term structural challenge for the industry.

Figure 2.20 – Mined copper supply¹ vs mined copper demand balance, kt Cu



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Notes

1 Mined copper supply from existing mining operations and commissioned projects not yet in production in 2020.

20 A major discovery is defined in line with the S&P Global Market Intelligence definition as a deposit containing at least 500,000 tonnes of copper in reserves, resources, and past production.

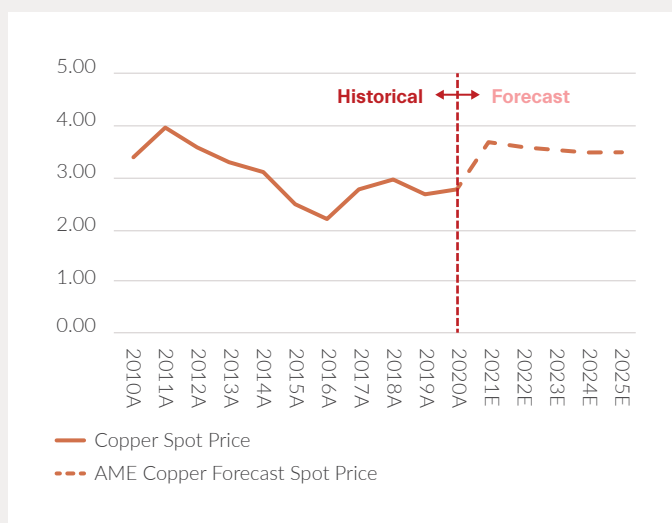
2.4.4 Copper Price Outlook

Copper is an internationally traded commodity with its price determined by the major commodity exchanges which include the London Metal Exchange ('LME'), Commodity Exchange Inc. ('COMEX') and Shanghai Futures Exchange ('SHFE'). The traded copper price generally reflects the current and expected future balance of worldwide copper supply and demand. During 2020, the spot copper settlement price averaged US\$2.80/lb²¹, and during 2021 has averaged US\$4.07/lb at 28 May 2021.²²

In 2020, prices rebounded by year-end from March lows, reaping the benefits of recovering demand from stimulus packages which lifted prices. A continued global recovery and rebounding demand outside of China is forecast to result in the copper price remaining robust with a forecast average price of US\$3.68/lb in 2021.²¹

Post 2021, the copper price is forecast to gradually soften to US\$3.49/lb in 2025 as a level of supply growth occurs from existing committed projects.²¹ Thereafter, 29Metals believes the market is expected to be increasingly challenged by the supply constraints discussed above, which presents a long-term positive outlook for the copper price.

Figure 2.21 – Copper spot price and forecast 2010–2025, US\$/lb¹



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Notes

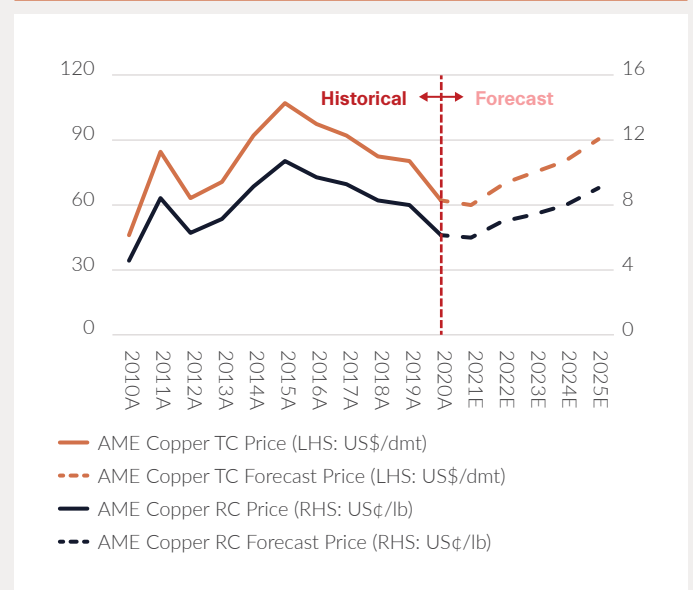
1 AME European traded price, see footnote 1 of this section 2 (Industry Overview).

21 AME. See footnote 1 of this section 2 (Industry Overview).
22 Bloomberg.

2.4.5 Copper concentrate Treatment and Refining Charges

During 2020, copper concentrate deliveries to China failed to keep pace with the country's expanding smelter capacity, and TCs/RCs slid to eight-year lows due to competition for raw material. As output impacted by COVID-19 disruptions stabilises, and the concentrate market comes more into balance, medium term TCs are forecast to slowly increase up to US\$90/dmt of concentrate and RCs up to US\$0.09/lb of material measured in 2025.²¹

Figure 2.22 – Copper concentrate treatment and refining benchmark price and forecast 2010–2025, US\$/dmt¹



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Notes

1 AME European traded price, see footnote 1 of this section 2 (Industry Overview).

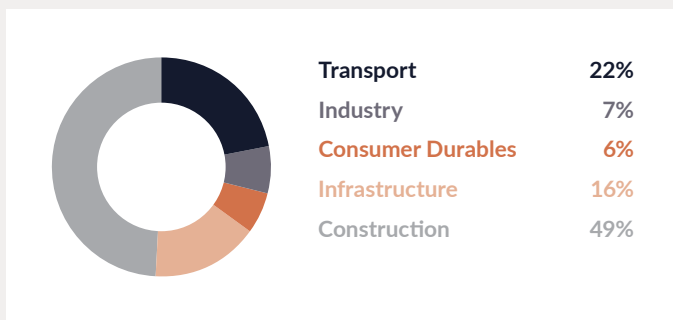
21 AME. See footnote 1 of this section 2 (Industry Overview).
22 Bloomberg.

2.5 Zinc Market

2.5.1 Demand

The largest users of refined zinc are galvanised steel producers which accounted for ~50% of global demand in 2020.²³ Key galvanised steel producers include ArcelorMittal, Baosteel, JFE Steel, NSSMC, Nucor, Posco, Magnitogorsk Iron and Steel, and ThyssenKrupp. These producers continue to announce new galvanising lines as they look to generate additional revenue through value-added products and specific goods for customers which is expected to drive refined zinc demand growth. This alongside zinc's use in die cast and alloys results in the demand for the commodity primarily being positively exposed to fiscal stimulus' impact on the construction, transportation and infrastructure industries given its end-use in these sectors.

Figure 2.23 – Zinc by industry end-use in 2020



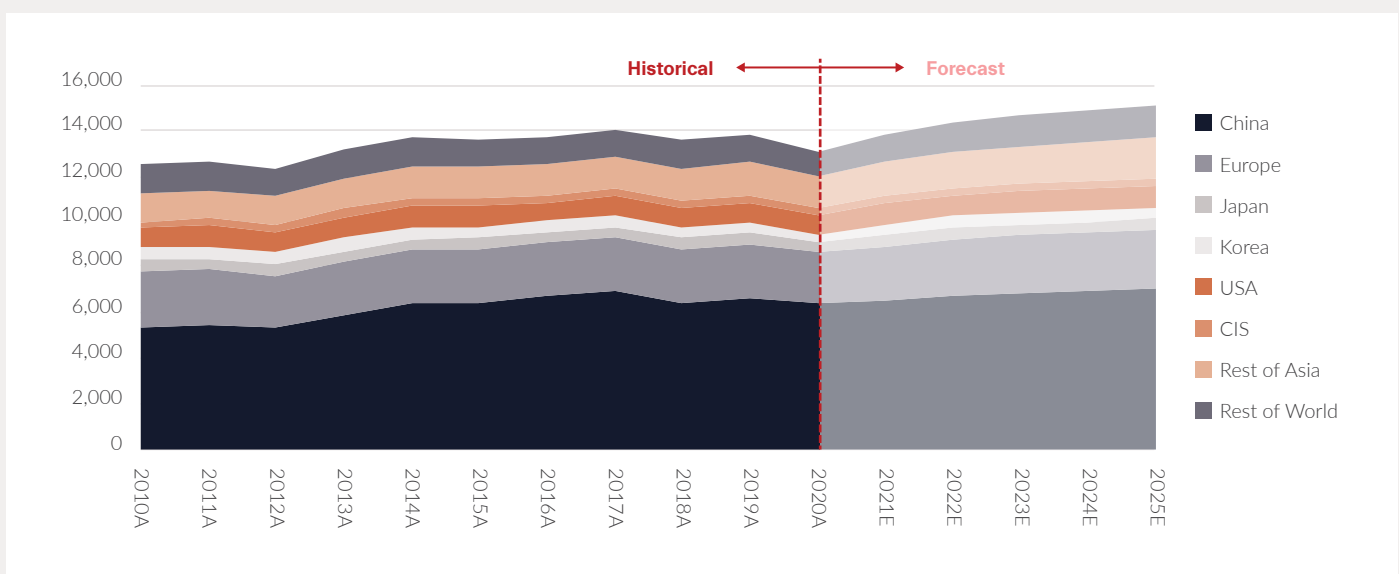
Source: AME. See footnote 1 of this section 2 (Industry Overview).

Global zinc consumption has grown at 0.4% p.a. over the period 2010–2020.²³ The zinc market experienced strong growth of 1.6% p.a. from 2010–2017 driven primarily by China's investment in infrastructure and construction and its emergence as the world's pre-eminent manufacturing hub.²³ From 2018–2020 the market contracted due to reduced downstream demand for consumer goods, machinery and automobiles.

Near-term global zinc demand growth of 3.0% p.a. on average forecast between 2020–2025 (Figure 2.24) is expected to be driven by China. China continues to bolster economic growth through government backed infrastructure spending and tax incentives for vehicles.²³ In addition, the rest of Asia is expected to contribute demand growth of 6.5% p.a. over the same period as the world's fastest growing economy continues to industrialise and steel producers bring additional galvanised steel capacity to market.²³

A range of uses exist which present potential upside for long-term zinc demand which include increased use of coated steel, zinc oxide additives to fertiliser and new zinc-based battery technologies.

Figure 2.24 – Finished zinc demand by country 2010–2025, kt



Source: AME. See footnote 1 of this section 2 (Industry Overview).

23 AME. See footnote 1 of this section 2 (Industry Overview).

2.5.2 Supply

Mined zinc supply is diverse with production not dominated by any single asset or production region. Glencore is the largest producer accounting for 8.6% of global mined zinc supply in 2020 with production derived from three of the five largest zinc producing mines – McArthur River and Mount Isa mines in Australia, and the Antamina mine in Peru.²⁴ Glencore has historically cut capacity in periods of demand downturns for example from 2014–2018 to avoid over-supply and to support prices. Other significant producers include Hindustan Zinc, Nexa Resources, Teck Resources and Boliden.

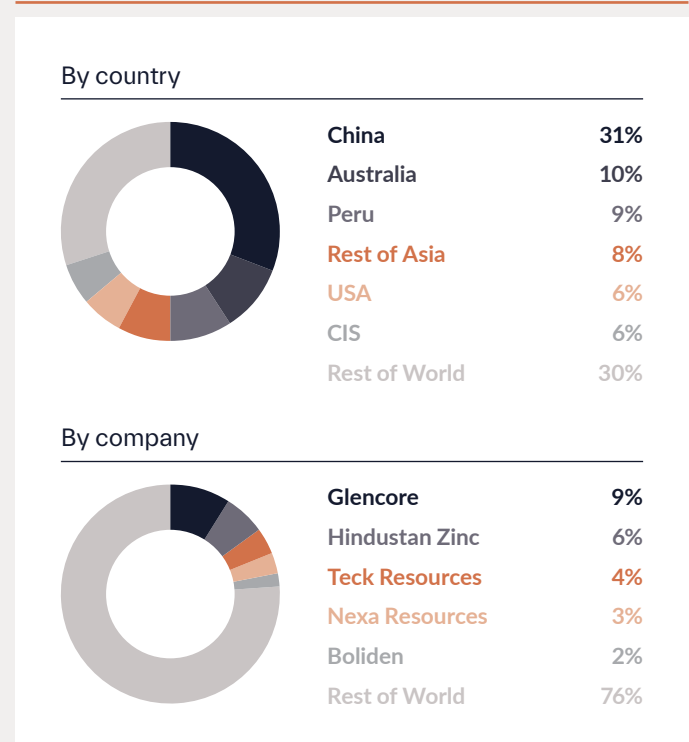
Whilst China is the largest zinc producer by country, production capacity in China is primarily comprised of smaller operations.

By 2025, global zinc in-concentrate supply is forecast to reach 15.2 Mt.²⁴ Growth in output is expected to be driven primarily by the following projects: Ramp up of New Century's 270 ktpa Century tailings project, expansion of Glencore's 430 ktpa McArthur River operation, increased zinc output at Antamina and the development of South32's 270 ktpa Hermosa project.²⁴ Smelting capacity is expected to increase to match the supply of zinc concentrates from major restarts which include American Zinc Recycling's 150 ktpa Mooresboro (Horsehead) smelter in the US, Harmonee's 45 ktpa Kardjali operation in Bulgaria and new capacity from Industrias Peñoles' 120 ktpa expansion of its Torreon smelter and the ongoing expansions of Hindustan Zinc's smelters in Rajasthan.²⁴

2.5.3 Zinc price outlook

Zinc is an internationally traded commodity with its price determined by the major commodity exchanges which include the LME, COMEX and SHFE. Prices on these exchanges generally reflect the worldwide balance of zinc supply and demand. During 2020, the spot zinc settlement price averaged US\$1.05/lb²⁴, and has averaged US\$1.27/lb in 2021 to-date at 28 May 2021.²⁵ Increasing Chinese demand is expected to be matched by increasing supply, so zinc prices are expected to remain steady with the price forecast to be US\$1.20/lb in 2021 which is broadly aligned to the year end 2020 level.²⁴ The zinc price is forecast to remain largely consistent with 2021 levels over the period 2022–2025 given strong demand growth despite potential for supply-side expansion.²⁴

Figure 2.25 – Mined zinc production by country and company in 2020

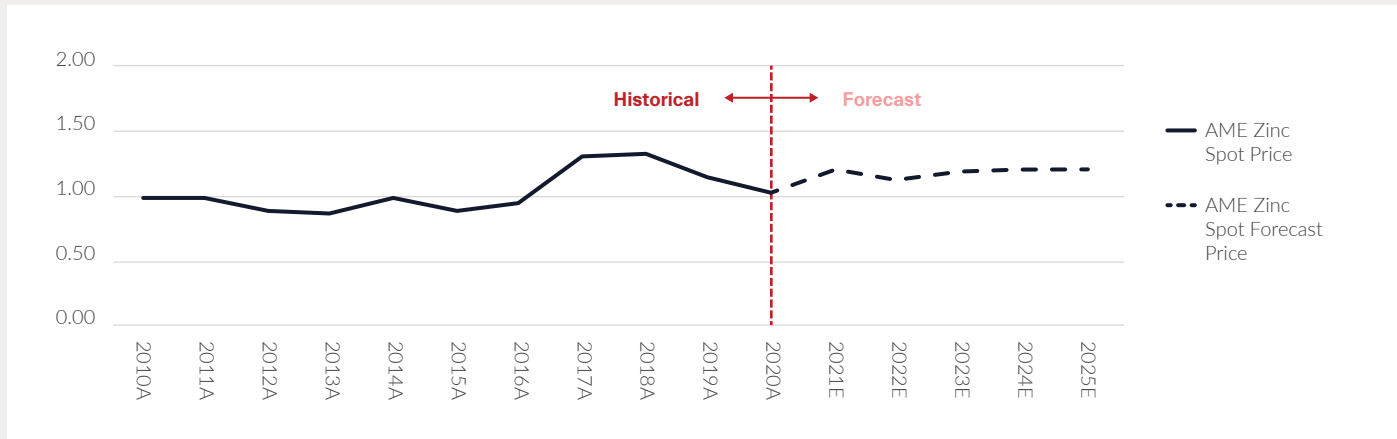


Source: AME. See footnote 1 of this section 2 (Industry Overview).

²⁴ AME. See footnote 1 of this section 2 (Industry Overview).

²⁵ Bloomberg.

Figure 2.26 – LME zinc price and forecast 2010–2025, US\$/lb¹



Source: AME. See footnote 1 of this section 2 (Industry Overview).

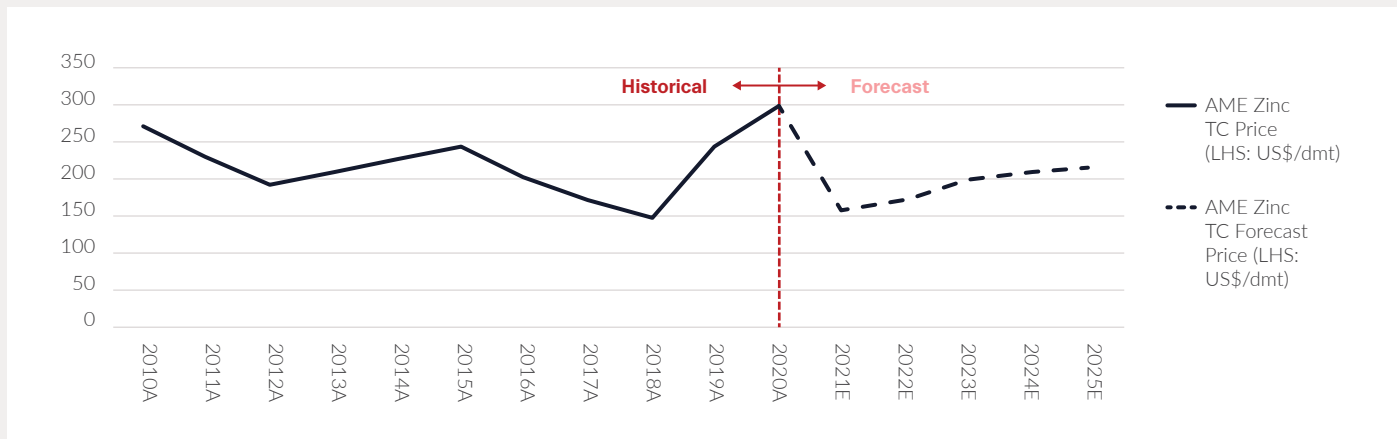
Notes

1 AME European traded price, see footnote 1 of this section 2 (Industry Overview).

2.5.4 Zinc concentrate TCs

In 2020 benchmark zinc concentrate TCs were set at a 12-year high of US\$300/dmt of zinc concentrate, up 22% from 2019.²⁶ The rise in TCs was the result of greater concentrate availability relative to smelter capacity. The 2021 benchmark TCs, set each year through negotiations between Korea Zinc and Canadian resources firm Teck Resources, have been set at US\$159/dmt, down 47% from 2020 on decreased concentrate availability.²⁶ Over the medium term, the zinc TCs are forecast to trend upwards falling back in line with historical levels as the market moves back to balance.²⁶

Figure 2.27 – Historical benchmark zinc treatment changes and forecast 2010–2025, US\$/dmt¹



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Notes

1 AME European traded price, see footnote 1 of this section 2 (Industry Overview).

²⁶ AME. See footnote 1 of this section 2 (Industry Overview).

2.6 Gold Market

2.6.1 Demand

Gold's unique characteristic as a store of value means that it commands perennial demand. The main use for gold is in jewellery, accounting for 46% of total demand in 2019, and dropping to 28% in 2020 due to COVID-19 related consumer weakness.²⁷ Growing wealth in China, India, and other developing countries with a cultural affinity to gold has resulted in strong consumer demand growth. China and India accounted for 50% of global consumer gold demand in 2020.

The main drivers of the gold price on a day-to-day basis are economic and geopolitical factors as investors turn to gold as a safe haven when global uncertainty is high, and typically when yields on other investments are low. Many investors also hold gold as it is uncorrelated to other commodity growth drivers.

Following the 2008 global financial crisis, investors such as central banks have increased their investment in gold as a long-term alternative store of value versus holding reserves of foreign exchange currencies. Central bank holdings of gold increased 14% from 2010 to 2020.²⁷ This trend is expected to continue as geopolitical risk and global uncertainty remains high following the COVID-19 pandemic. As such, investor demand for gold electronically traded funds ('ETFs') rose to a high in September 2020 due to heightened investor uncertainty due to COVID-19.

Low or negative global interest rates also favour gold demand. In several jurisdictions, benchmark interest rates are negative. Yields on government bonds have fallen along the curve. Gold is strongly correlated to the 10-year US treasury yields, and with real yields expected to remain negative, this is positive for gold demand. The US Federal Reserve has advised that it will permit inflation to run higher than 2%²⁸ while rates are expected to remain low into 2023, and other central banks including the RBA have similar strategies of keeping rates low for extended periods.

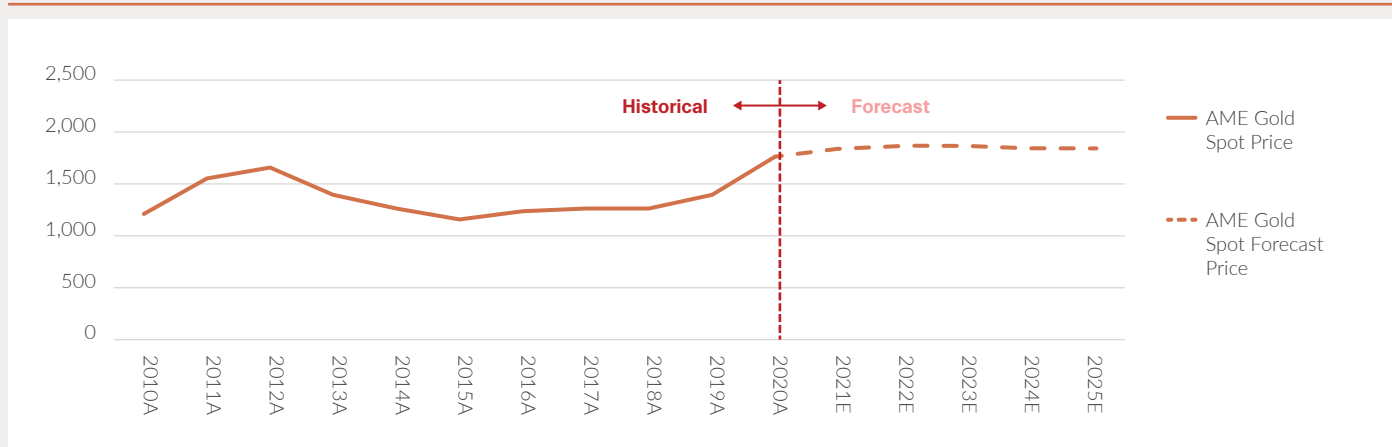
2.6.2 Supply

Gold is supplied from newly mined gold, scrap metal, and previous investment sold back into the market. Despite high gold prices, the supply of gold from mines has risen at only a 1.8% CAGR between 2010 and 2020.²⁷ This is attributed to a lack of new large-scale gold mines being developed, which in turn is a result of a decline in gold exploration budgets, and the same supply challenges experienced in the copper market (see section 2.4.3.2).

2.6.3 Price Outlook

Gold is an internationally traded commodity with its price determined by the major commodity exchanges which includes the LME, COMEX and SHFE. Consistent with its use as a safe haven, the gold price often behaves more like a currency as opposed to reflecting supply-demand balances as for other commodities. During 2020, the spot gold settlement price averaged US\$1,777/oz finishing the year up 24% (on a year over year) basis to US\$1,895/oz.²⁷ In 2021 as at 28 May 2021, the spot gold settlement price averaged US\$1,799/oz.²⁹ With continued volatility expected, recovering physical demand, and low interest rates, the gold price is forecast to be US\$1,850/oz in 2021, levelling out at US\$1,850/oz in 2025.²⁷

Figure 2.28 – LME gold price and AME forecast 2010–2025, US\$/oz¹



Notes

1 AME. See footnote 1 of this section 2 (Industry Overview).

27 AME. See footnote 1 of this section 2 (Industry Overview).

28 Source: The Federal Reserve. Press Release: 17 March 2021.

29 Bloomberg.

2.7 Silver Market

2.7.1 Demand

The traditional uses of silver have been industrial applications, jewellery, photography, and silverware. Over recent years, improved demand for silver coins and investment have offset the structural decline of the photography and silverware sectors. This trend was exacerbated in 2020 with net silver ETF inflows up >200% compared to 2019 levels.³⁰ Industrial demand for silver is also expected to improve in line with global economic recovery. Longer term, silver is expected to benefit from its precious metal role as an inflation hedge, its use in electromagnetic shielding associated with 5G developments, and the post COVID-19 green energy transition due to its use in solar installations.

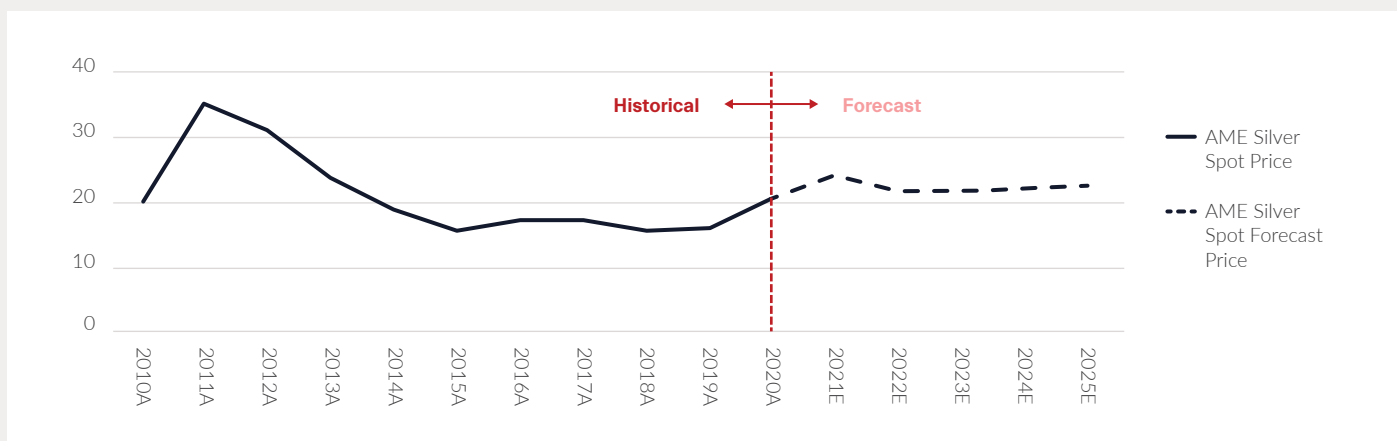
2.7.2 Supply

In 2019, 82% of silver supply came from mine supply with the balance being scrap.³¹ Mine supply has reduced year on year since 2015.³⁰ In addition to primary silver mines, silver can be produced as a by-product of lead/zinc mining, so supply often correlates with the price of the primary metals with which silver is mined.

2.7.3 Price Outlook

Silver is an internationally traded commodity with its price determined by the major commodity exchanges which include the LME, COMEX and SHFE. During 2020, the spot silver settlement price averaged US\$20.66/oz³², and in 2021 has averaged US\$26.36/oz as at 28 May 2021.³⁰ Whilst the silver price has historically been correlated to gold given its similar value store characteristics, its industrial use exposure means it also benefits when industrial metals rally. Recent strength has been driven by silver ETF inflows, physical demand, and positive industrial fundamentals. The silver price forecast is US\$24.00/oz for 2021 before declining to US\$21.56/oz in 2022 and then trending upwards to US\$22.54/oz by 2025.³² The forecast reflects expectations that ETF demand will remain elevated in 2021 before tapering off thereafter, coupled with strong industrial demand growth for silver throughout the forecast period.

Figure 2.29 – LME silver price and AME forecast 2010–2025, US\$/oz¹



Source: AME. See footnote 1 of this section 2 (Industry Overview).

Notes

1 AME European traded price, see footnote 1 of this section 2 (Industry Overview).

³⁰ Bloomberg.

³¹ The Silver Institute. World Silver Survey 2020.

³² AME. See footnote 1 of this section 2 (Industry Overview).

29
Metals

3.0

Business
Summary



Golden Grove at dusk

29Metals is a copper-focused mining company with a portfolio of long-life production assets and a pipeline of organic growth opportunities.

Portfolio Overview



GOLDEN GROVE



CAPRICORN COPPER



REDHILL



Key Highlights

Majority independent Board

Highly experienced Board and management team with a track record of safe, efficient and successful operations

87kt Cu-eq¹ (CY20)

Substantial copper producer, with all assets in Tier 1 jurisdictions

2.8% demand CAGR (2020–25)²

Electrification, decarbonisation and the global transition to a greener economy underpins attractive demand-supply outlook for copper

10+ years

High grade, long mine life copper portfolio, complemented by diversified by-product revenue

\$400m+³

Recent significant investment delivering meaningful operational improvements

¹ Cu-eq is copper equivalent contained metal. Refer to important information at the beginning of this Prospectus regarding Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.

² 2020–25 compound annual growth rate (CAGR) in copper demand. Refer to section 2.4.

³ \$400m+ capital investment since acquisition by EMR Capital.

3.1 Business Summary

29Metals is a new copper-focused mining company aiming to be a leading ASX-listed copper producer, offering investors an opportunity to invest in:

- Copper, capitalising on the important role that copper will play in global economic growth, electrification, decarbonisation and the global transition to a greener economy; and
- Diversified production, across two producing assets with significant by-product credits from gold, zinc and silver.

At completion of the Offer, 29Metals will have:

- two long-life producing assets:
 - Golden Grove
Western Australia, Australia
Producing:

C Copper	G Gold
Z Zinc	S Silver
 - Capricorn Copper
Queensland, Australia
Producing:

C Copper	S Silver
-----------------	-----------------
- a pipeline of organic growth opportunities, including:
 - identified productivity and operational improvements;
 - in-mine and near-mine growth opportunities at Golden Grove and Capricorn Copper; and
 - a portfolio of exploration interests, including regional tenement interests surrounding Capricorn Copper and Golden Grove, and a strategic tenement package and project in Redhill located in Chile, the world's largest copper producing country;

- a substantial mineral inventory
with 901 kt Cu-eq in Ore Reserves and 3,455 kt Cu-eq in Mineral Resources;^{4,5}
- low Net Debt⁶,
positioning the Company for future growth;
- a highly experienced leadership team
with a majority-independent Board, committed to sustainable growth in shareholder value; and
- a major shareholder in EMR Capital
that is supportive of copper, the assets, the leadership team and the Company's organic growth ambitions.

Significant investment in 29Metals' assets over the past three years, including investment in processing capacity and exploration drilling, has positioned the business for growth. 29Metals' objective is to increase production (in contained metal copper equivalent terms) by more than 50% over five years through the Company's pipeline of organic growth opportunities.⁷

29Metals is headquartered in Melbourne, with support offices located in Perth, Western Australia, and Brisbane, Queensland, and a total workforce of 1,130 (on a full-time equivalent ('FTE') basis, inclusive of on-site contractor personnel).

4 Refer to Important Information at the beginning of this Prospectus regarding references to Ore Reserves and Mineral Resources in this Prospectus. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements and methodology for calculating Ore Reserves and Mineral Resources in copper equivalent terms, and section 6 (Risks) for information regarding the risks associated with Ore Reserves and Minerals Resources estimates.

5 Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the use of copper equivalent (Cu-eq) metrics in this Prospectus.

6 Net Debt is defined as total borrowings (including lease liabilities and derivative financial assets and liabilities), less cash and cash equivalents. Refer to section 5.7.2 for further detail on 29Metals' indebtedness

7 This represents the current expectation of potential growth and is not a production target.

3.2 Historical and Forecast Key Operating and Pro Forma Financial Metrics⁸

Set out in the table below is a summary of key operating and financial metrics for 29Metals for the three years ended 31 December 2020 and forecast operating and financial metrics for FY2021.

29Metals' historical and forecast key operating and pro forma financial metrics

	Unit	FY2018A ¹	FY2019A ¹	FY2020A ¹	FY2021F ¹
Operating Information					
Ore Mined	kt	2,516	2,955	3,289	3,287
Ore Milled	kt	2,575	2,897	3,186	3,108
Metal Production²					
Copper	kt	34	44	41	37
Gold	koz	52	70	63	41
Zinc	kt	65	58	54	54
Silver	koz	2,023	1,939	1,928	1,914
Lead	kt	7	5	3	4
Total Cu-eq³ production	kt Cu-eq ³	80	92	87	67
EBITDA⁴	\$ million	181	255	176	221
Capital expenditure⁵	\$ million	83	105	115	107
Sustaining	\$ million	17	17	30	25
Mine development	\$ million	36	47	57	60
Growth	\$ million	3	21	12	12
Exploration ⁶	\$ million	26	19	15	10

Notes:

- 1 Historical financial information for FY2018A–2020A (inclusive) is derived from the Pro forma Historical Financial Information and Forecast Financial Information for FY2021F is derived from Pro Forma Forecast Financial Information (refer to section 5 (Financial Information)).
- 2 Production is cited on a contained metal-in-concentrate basis.
- 3 Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.
- 4 EBITDA is non-IFRS Financial Information. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS Financial Information.
- 5 Data derived from unaudited management accounts.
- 6 Includes Redhill.

⁸ Refer to section 5 (Financial Information) for further information regarding historical and forecast financial information.

3.3 History of 29Metals



29Metals' portfolio consists of three copper-focused assets that, prior to completion of the Offer⁹, are owned by the EMR Capital Investors:

- Golden Grove in Western Australia
- Capricorn Copper in Queensland
- Redhill in Chile

EMR Capital recognised that there were limited options for exposure to copper-focused mining companies listed on the ASX. The opportunity to form a new copper-focused company, positioned to participate in decarbonisation, electrification and the global push towards a greener economy, became 29Metals.

From 2019, EMR Capital continued to invest in the 29Metals assets in anticipation of the Offer¹⁰. In addition, EMR Capital identified and progressively recruited critical roles, including the Managing Director & Chief Executive Officer, to shape 29Metals for the Offer and prepare 29Metals to successfully transition to operate as a standalone company.

⁹ Refer to section 10.3.1 for information regarding the Restructure that will occur in connection with the Offer and will result in 29Metals acquiring Golden Grove, Capricorn Copper and Redhill.

¹⁰ Further information regarding the investment made in the 29Metals assets since acquisition by EMR Capital is set out in sections 3.10.3.2, 3.11.3.2 and 3.12.4.1.

3.4 About EMR Capital

EMR Capital is a private equity manager specialising in global investments in mining opportunities, co-founded by Owen Hegarty OAM (Executive Chairman) and Jason Chang (Managing Director & Chief Executive Officer) in 2011.

Since inception, EMR Capital has raised approximately US\$2.7 billion in funds under management (at 31 December 2020)¹¹.

The investment strategy of EMR Capital is to identify assets within its four strategic commodities – copper, gold, coking coal and potash – with material improvement opportunities via:

- increasing production through utilisation of latent capacity, improved productivity and optimisation;
- focusing on all-in-sustaining costs;
- implementing changes to the management structure and promoting a culture that enhances health and safety performance, productivity and ESG practices; and
- exploration, to increase mineral inventory and extend mine-life.

Since acquisition, EMR Capital has overseen the investment of over \$400 million into the 29Metals portfolio. An overview of the investments made since acquisition of the 29Metals assets is set out below.

Investment in 29Metals' assets since acquisition by EMR Capital

	Investments made	Performance Outcomes
Golden Grove	<ul style="list-style-type: none"> ▪ Exploration drilling ▪ Various process plant upgrades to improve milling reliability, throughput and recovery ▪ Mine infrastructure upgrades (including refrigeration, ventilation and decline development) ▪ Move to single mining contractor 	<ul style="list-style-type: none"> ▪ Ore Reserves growth of 246% and Mineral Resources growth of 224%¹ ▪ Increased mine-life to more than ten years currently ▪ Increase in mining rate from 0.9 Mt in 2016 to 1.4 Mt in 2020² ▪ Reduction in site unit costs from \$193/tonne of ore mined in 2017 to \$173/tonne of ore mined in 2020³ ▪ Completion of Gossan Valley pre-feasibility study
Capricorn Copper	<ul style="list-style-type: none"> ▪ Studies for the restart of mining operations and refurbishment of the plant and site infrastructure ▪ Drilling to improve orebody knowledge and extend Mineral Resources base ▪ Environmental processes and infrastructure improvements 	<ul style="list-style-type: none"> ▪ Recommended mining operations ▪ Developed two new orebodies, creating three mining fronts, intended to enhance operational flexibility, including development and ramp-up of the Esperanza sublevel cave ('SLC') ▪ Established mine-life in excess of ten years ▪ Staged increase in mining and milling rates, demonstrating annualised mining and milling rate of 2 Mtpa in H2 2020
Redhill	<ul style="list-style-type: none"> ▪ Regional exploration campaigns to identify priority targets for copper and precious metals ▪ Comprehensive geological mapping 	<ul style="list-style-type: none"> ▪ Confirmed prospectivity for VHMS, <i>Cutters-style</i>⁴ copper-silver, and orogenic and epithermal gold deposits ▪ Declared maiden Mineral Resources⁵ estimate of 4.3 Mt @ 1.66% Cu-eq, 0.29g/t Au and 33g/t Ag for the Cutters project ▪ Completed conceptual mine study for Cutters project

Notes:

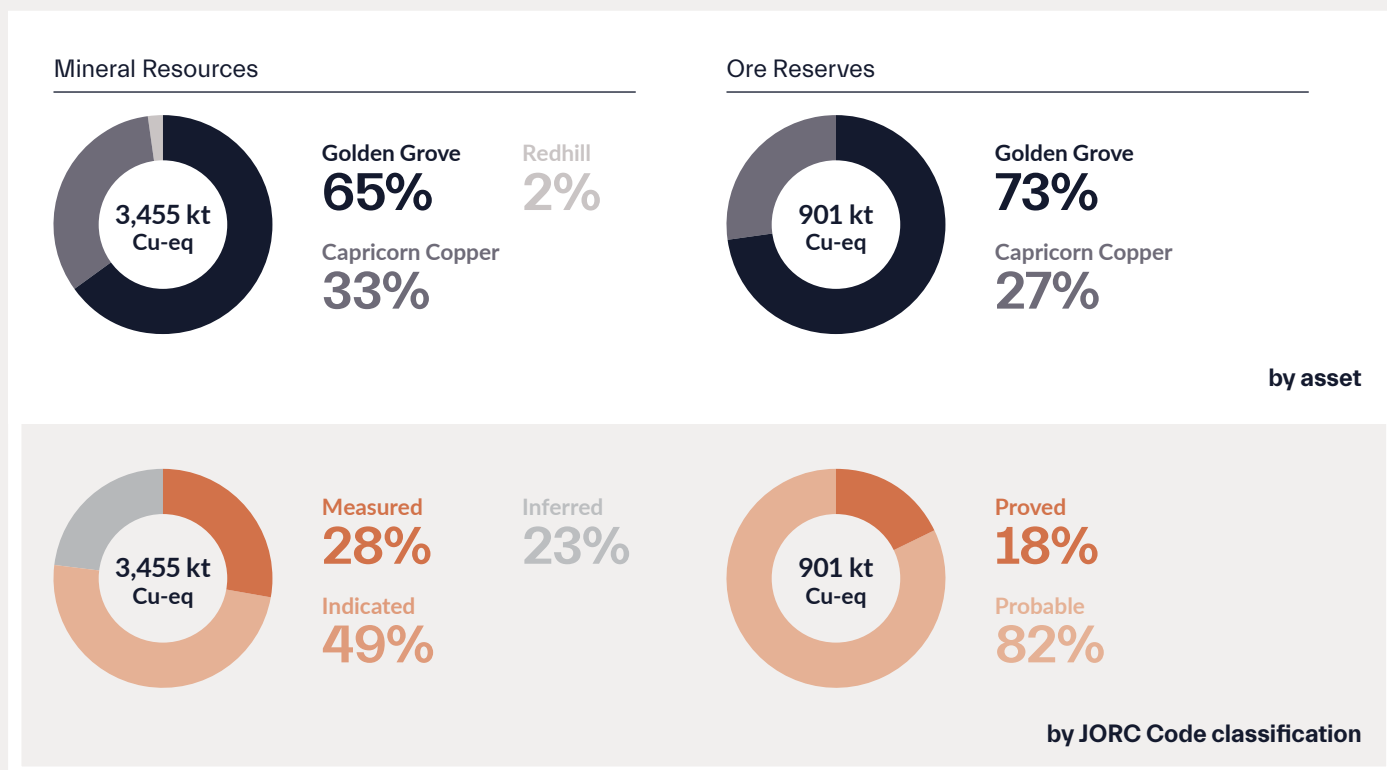
- 1 Ore Reserves and Mineral Resources growth (in tonnes) at Golden Grove shown after depletion by production. Percentage growth applies most recent Ore Reserves and Mineral Resources estimates as against the 2016 corresponding estimates derived from public disclosures by MMG Limited. Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.
- 2 Mining rate shown excludes open pit copper oxide ore mined.
- 3 Data derived from unaudited management accounts. Site unit costs are operating costs relating to mining (net of mine development), processing, maintenance, geology, general & administrative activities, and port and transport, are shown before AASB 16 leasing adjustments.
- 4 Refer to section 3.12.4.2 for a description of the Cutters project deposits.
- 5 Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

¹¹ Includes joint venture and co-investment funds.

3.5 Ore Reserves and Mineral Resources¹²

29Metals has a substantial mineral inventory across its two producing mines, Golden Grove and Capricorn Copper, and its exploration interests (including Redhill in Chile).

Figure 3.1 – 29Metals Ore Reserves and Mineral Resources by Asset and JORC classification (tonnes contained metal Cu-eq¹)



Notes:

1. Cu-eq is copper equivalent contained metal terms. Refer to Important Information at the beginning of this Prospectus regarding the use of Cu-eq metrics in this Prospectus.

Set out below is a summary of 29Metals' Ore Reserves and Mineral Resources estimates on a Group basis.

Mineral Resources

Asset	Tonnes (Mt)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Pb (%)	Cu (kt)	Au (koz)	Zn (kt)	Ag (Moz)	Cu-eq (%)	Cu-eq (kt)
Golden Grove	57.8	1.6	0.7	4.5	30	0.3	926	1,301	2,615	56	3.9	2,249
Capricorn Copper	62.5	1.8	-	-	8	-	1,100	-	-	15	1.8	1,124
Sub total	120.2	1.7	0.3	2.2	18	0.1	2,026	1,301	2,615	71	2.8	3,373
Redhill	4.3	1.7	0.3	-	33	-	71	40	-	5	1.9	82
Total	124.6	1.7	0.3	2.1	19	0.1	2,097	1,341	2,615	76	2.8	3,455

Ore Reserves

Asset	Tonnes (Mt)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Pb (%)	Cu (kt)	Au (koz)	Zn (kt)	Ag (Moz)	Cu-eq (%)	Cu-eq (kt)
Golden Grove	14.3	1.7	0.9	5.6	36	0.4	241	433	804	16	4.6	653
Capricorn Copper	13	1.8	-	-	11	-	240	-	-	4.8	1.8	247
Total	27.8	1.7	0.5	2.9	24	0.2	481	433	804	21	3.2	901

Further information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Persons statements, is set out in section 4 (Ore Reserves and Mineral Resources).

¹² Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

Mineral Resources and Ore Reserves information expressed in Cu-eq terms have been calculated by 29Metals. Refer to important information at the beginning of this Prospectus regarding the use of Cu-eq metrics in this Prospectus and section 4.3 for information regarding the calculation of Cu-eq for Mineral Resources and Ore Reserves.

3.6 Vision, Strategy and Values

3.6.1 Vision and Strategy

29Metals' vision is to be a leading ASX-listed copper producer offering investors an opportunity to invest in:

- copper, capitalising on the important role that copper will play in electrification, decarbonisation and the global transition to a greener economy;
- diversified production with significant by-product credits from gold, zinc and silver; and
- profitable and sustainable growth.

29Metals' strategy over the near-to-medium term is focused on delivering against its operating plan and exploiting the pipeline of organic growth opportunities in the portfolio.

As outlined in section 3.7, 29Metals' objective is to increase its production in Cu-eq terms¹³ by more than 50% over five years.¹⁴

While it is not a focus of 29Metals in the near-term, 29Metals may evaluate external growth opportunities on an opportunistic and selective basis. External growth opportunities will only be pursued where 29Metals is confident the opportunity will enhance shareholder value.

Figure 3.2 – 29Metals strategy



3.6.2 Capital Structure

3.6.2.1 Balance sheet

At completion of the Offer, 29Metals will have low Net Debt¹⁵. It is 29Metals' intention to replace the SFA with new corporate facilities, providing 29Metals with greater flexibility relative to the existing asset-level debt facilities which, in addition to operating cashflows, is expected to provide greater capacity to withstand commodity price volatility.¹⁶

¹³ Cu-eq is *copper equivalent contained metal*. Refer to Important Information at the beginning of this Prospectus regarding the use of copper equivalent (Cu-eq) metrics in this Prospectus.

¹⁴ This represents the current expectation of potential growth and is not a production target.

¹⁵ Net Debt is total debt including lease liabilities and derivative financial assets and liabilities, less cash and cash equivalents. Refer to section 5.3.

¹⁶ Refer to section 5 (Financial Information) for information regarding the capital structure of 29Metals following completion of the Offer and section 10.6.2 for information regarding the SFA.

3.6.2.2 Hedging

29Metals' strategy is to be unhedged in relation to copper as it seeks to provide investors with exposure to the attractive demand-supply outlook for copper, underpinned by decarbonisation, electrification and the global transition to a greener economy.¹⁷

Prior to Completion, there are hedges in place at Capricorn Copper covering a portion of copper production in 2021 and 2022 (the CC Hedges¹⁸). 29Metals intends to cash settle the 2021 CC Hedges from Offer proceeds, up to an aggregate of \$40 million.¹⁹ 29Metals will look to close out the remaining CC Hedges covering a portion of Capricorn Copper's 2022 copper production either as scheduled or via opportunistic early cash settlement from operating free cash flows (subject to market conditions and future capital requirements).

3.6.3 Values

The 29Metals Values are shown in Figure 3.3.

Figure 3.3 – 29Metals values



The Board, Executive Leadership Team and senior functional and operational leaders of 29Metals are committed to the 29Metals Values and fostering a culture that embraces:

- **Delivery**, a relentless commitment across the organisation to do what we say we will do;
- **Good governance**, timely decision making within a robust and transparent governance framework;
- **Safety and sustainability**, meet our commitments;
- **Owner's mentality**, across the organisation, approaching tasks as an owner would – “my job, my responsibility, my workplace; our company, our reputation, our community”;
- **Performance**, clear links between performance outcomes, rewards and shareholder value; and
- **Continuous improvement**, across all aspects of the business.

¹⁷ Refer to section 6.2.2 for risks associated with commodity price fluctuation and the impact of hedging.

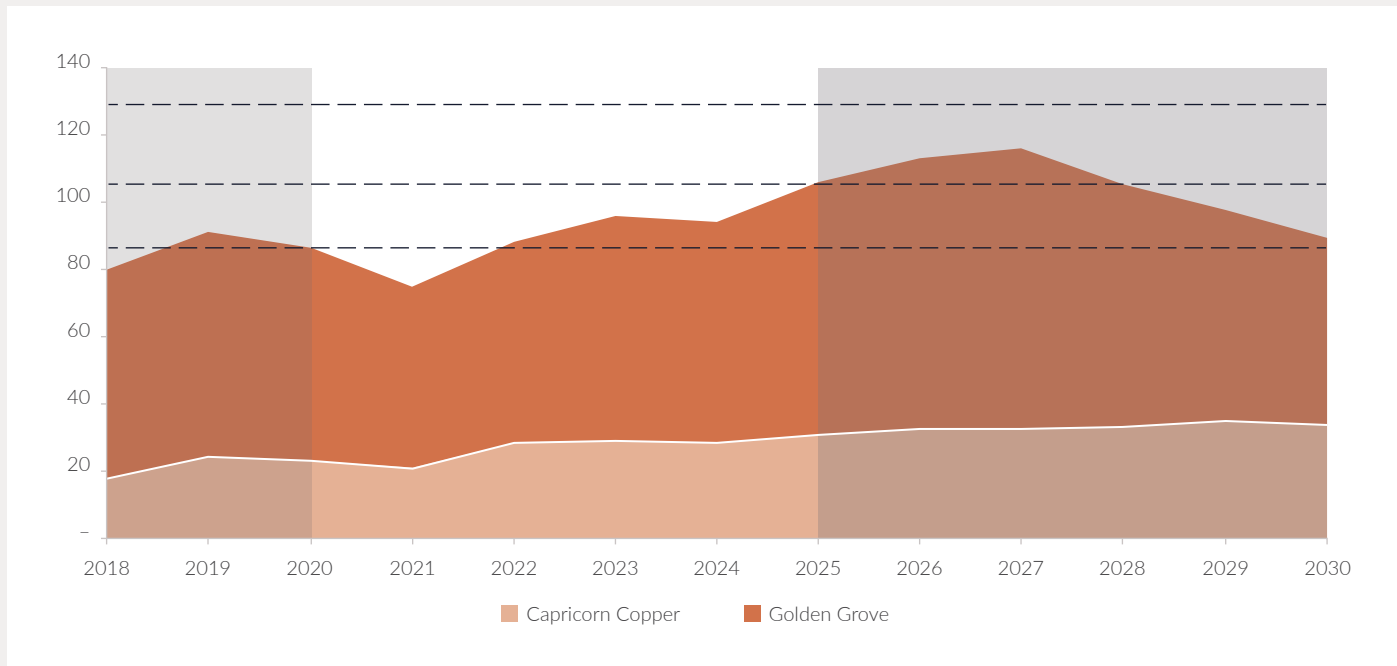
¹⁸ Refer to section 10.6.10 for further information regarding the CC Hedges.

¹⁹ Cash settlement of up to \$40 million is included in the Derivative Payout, Debt and Working Capital Reduction line item in the uses of Offer proceeds set out in section 8.1.2.

3.7 Mine Life and Organic Growth

29Metals' producing assets – Golden Grove and Capricorn Copper – each have an expected mine life in excess of ten years, with mine plans that extend beyond that period. The initial ten year mine-life for Golden Grove and Capricorn Copper, as independently reviewed by the Technical Expert²⁰, is set out on a combined basis in Figure 3.4.

Figure 3.4 – 29Metals 10-year LOM production profile (in constant CY2020 kt Cu-eq contained metal terms¹)



1. Production is shown in Cu-eq terms²¹. Metal prices, production and recovery assumptions for the purposes of calculating Cu-eq are as follows: (A) Metal price assumptions: For 2018 and 2019, average daily benchmark metal prices published by FactSet applied for the purposes of calculating Cu-eq (2018: Cu US\$6,520/t; Zn US\$2,920/t; Au US\$1,268/oz; Ag US\$16/oz; Pb US\$2,241/t. 2019: Cu US\$6,003/t; Zn US\$2,549/t; Au US\$1,393/oz; Ag US\$16/oz; Pb US\$1,999/t). For 2020-2030 (inclusive), constant 2020 average daily benchmark metal prices published by FactSet applied for the purposes of calculating Cu-eq (Cu US\$6,175/t; Zn US\$2,266/t; Au US\$1,773/oz; Ag US\$21/oz; Pb US\$1,823/t); and (B) Production and recovery assumptions: For 2018 and 2019, actual historical recovery and metal production assumptions have been adopted; for 2021, production and metallurgical recovery assumptions in the Forecast Financial Information have been adopted (refer to section 5.9.2); for FY2022 to FY2030 projected metal production (which is stated after metallurgical recovery factors have been applied) has been taken from the Technical Reports (refer to section 14.0 of the Golden Grove Technical Report and section 14.0 of the Capricorn Copper Technical Report).

In addition to growth included in the current mine plans, 29Metals has a pipeline of organic growth opportunities which underpin its growth aspirations, including:

- identified productivity and operational improvement opportunities;
- *in-mine* and *near-mine* growth opportunities; and
- exploration upside.

Set out in section 3.7.1-3.7.3, below, is an overview of 29Metals' priority organic growth opportunities. Except as stated, none of the organic growth opportunities outlined in sections 3.7.1-3.7.3 are included in the current mine plans profile shown in Figure 3.4.

The organic growth opportunities outlined in sections 3.7.1-3.7.3 are at varying levels of maturity. Further work, such as technical studies and drilling, is required before the relevant opportunity can be included in the mine plans.²² For example, Gossan Valley at Golden Grove is currently in the feasibility study stage with a current Mineral Resources estimate. Decisions regarding the future development of Gossan Valley are contingent upon the outcomes of the study, planned additional drilling and a final investment decision.²³

²⁰ Refer to Technical Reports for Golden Grove and Capricorn Copper set out in section 11 (Technical Reports).

²¹ Refer to Important Information at the beginning of this Prospectus regarding the use of copper equivalent (Cu-eq) metrics in this Prospectus.

²² Refer to section 6 (Risks), including section 6.2.2, for information regarding risks associated with growth objectives, exploration and development activities.

²³ Refer to section 2.5 of the Golden Grove Technical Report for further information regarding Gossan Valley.

3.7.1 Productivity and operational improvements

Significant investment has been made at Golden Grove and Capricorn Copper to position both assets for the future. There are a number of identified further productivity and operational improvement opportunities which are expected to contribute to 29Metals' growth ambitions, along with reducing unit costs, including:

- at Capricorn Copper:
 - achieving a consistent 2 Mtpa mining and milling rate; and
 - potential, through accelerated technical work, to bring forward access to the higher-grade Pluto orebody; and
- at Golden Grove:
 - increasing backfill capacity to support an increase in mining rate to 1.6 Mtpa;²⁴
 - optimising sequential flotation for incremental improvement in metallurgical recoveries and product quality;
 - potential to increase milling rate to 2 Mtpa in conjunction with the development of Gossan Valley (refer to section 3.7.2);
 - changing the sub-level intervals applied in Xantho Extended to reduce development costs and bring forward higher-grade Xantho Extended ore (relative to the current LOM plans); and
 - accelerating drilling out and technical work associated with the Cervantes ore body to support bringing forward Cervantes as a production source relative to the LOM plan.

None of the productivity and operational improvement opportunities outlined above are included in the current mine plans for Golden Grove and Capricorn Copper (respectively), other than increasing backfill capacity at Golden Grove.

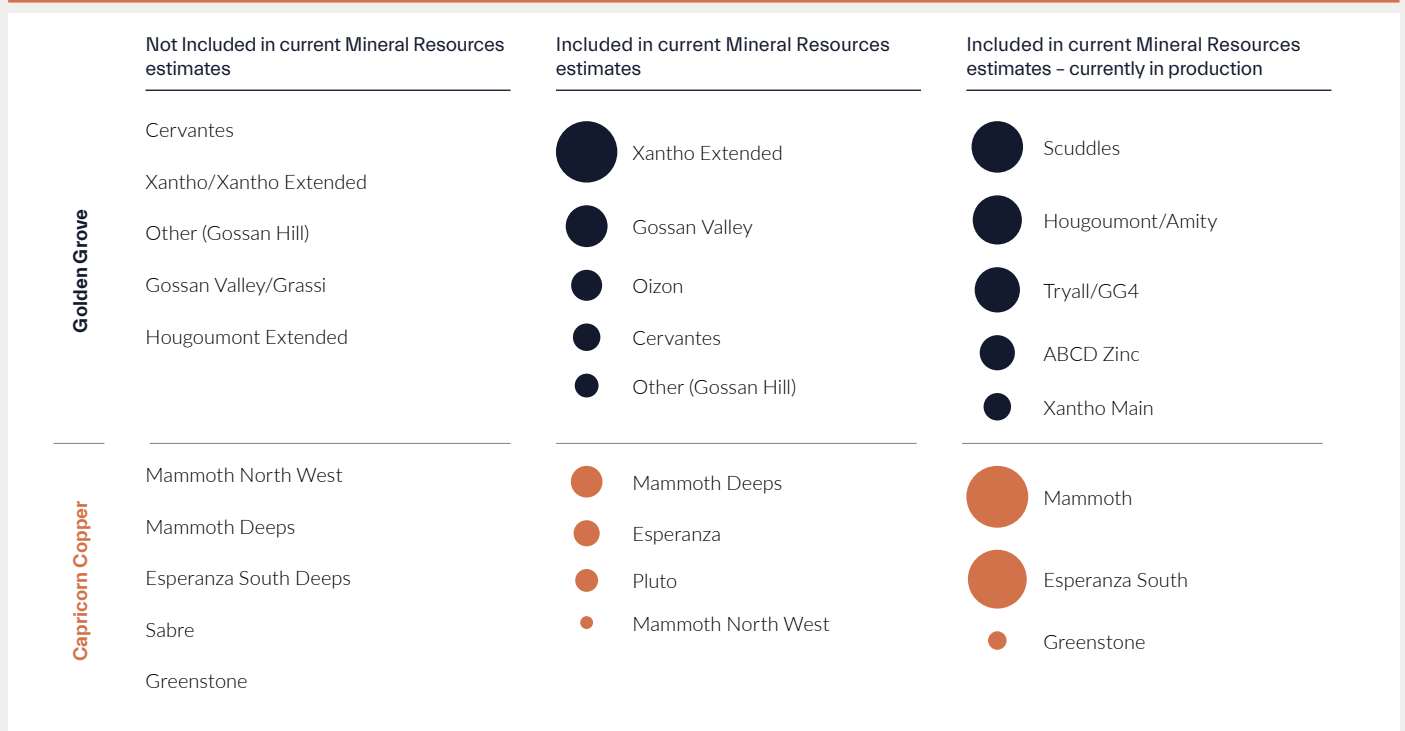
Further information regarding the identified productivity and operational improvement opportunities at Golden Grove and Capricorn Copper is set out in sections 3.10.10.1 and 3.11.10.1 (respectively).

3.7.2 In-mine and near-mine growth opportunities

29Metals has a pipeline of *in-mine* and *near-mine* growth opportunities at both Golden Grove and Capricorn Copper that have the potential to:

- increase operational flexibility;
- support additional production growth relative to the current mine plans; and/or
- extend mine life.

Figure 3.5 – Golden Grove and Capricorn Copper *in-mine* and *near-mine* organic growth opportunities¹



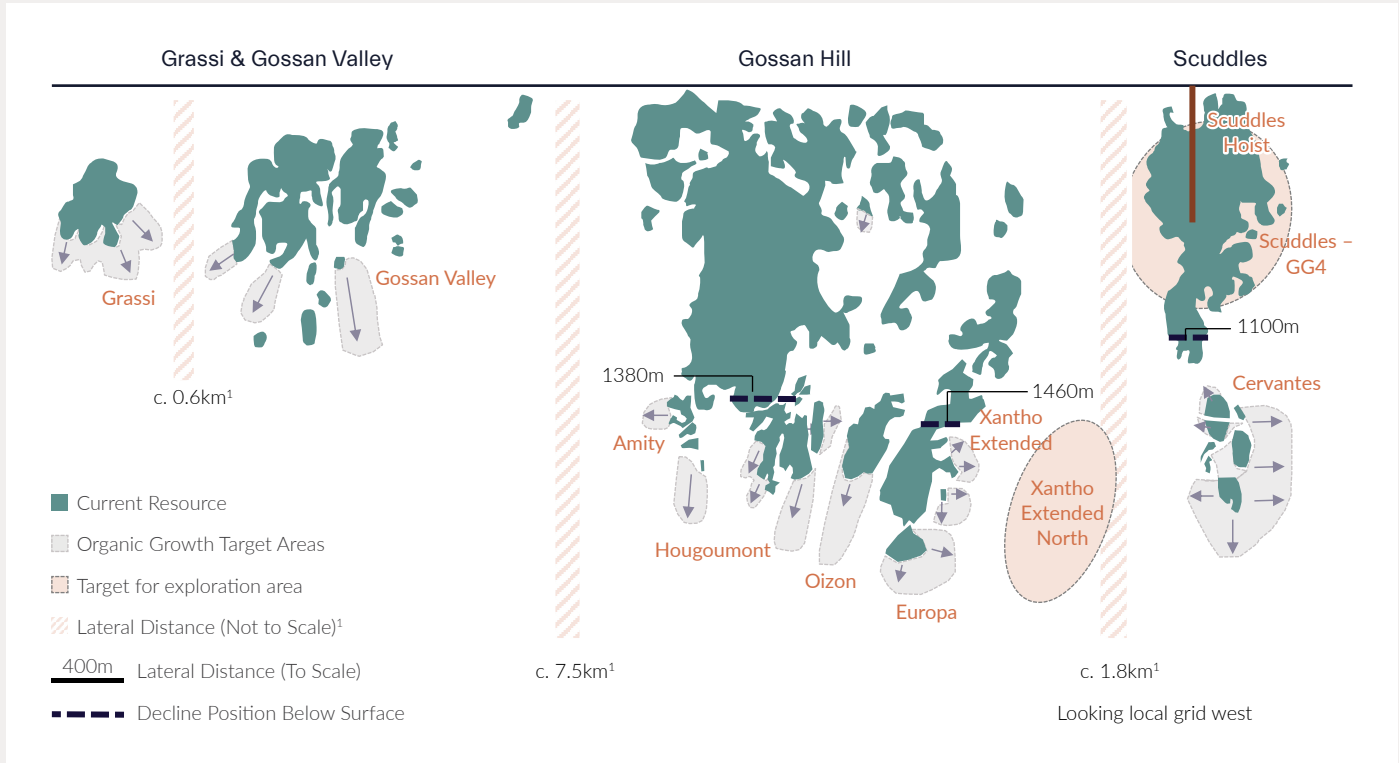
Notes:

1. References to Mineral Resources estimates are 29Metals' Mineral Resources estimate for the relevant asset (refer to section 4 (Ore Reserves and Mineral Resources)).

24. Implementation of paste fill at Golden Grove is subject to regulatory approvals. Refer to section 6.2.1.2 for information regarding regulatory approval risks.

Figures 3.6 and 3.7 depict the location of identified *in-mine* and *near-mine* growth opportunities at Golden Grove and Capricorn Copper (respectively) relative to existing mining operations.

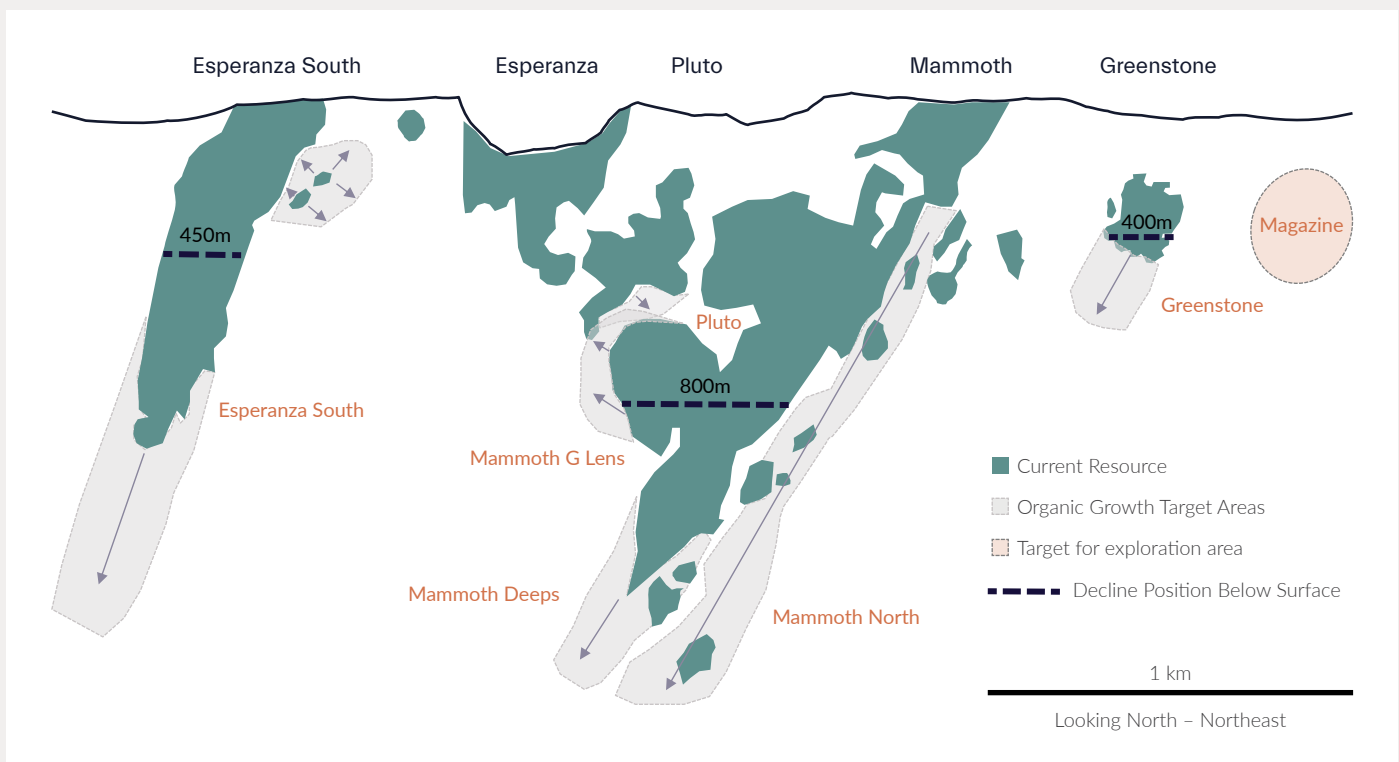
Figure 3.6 – Long-section – Golden Grove *in-mine* and *near-mine* growth opportunities¹



Notes:

1. Shaded orange bars denote lateral distance between key targets on an illustrative basis (not to scale).

Figure 3.7 – Long-section – Capricorn Copper *in-mine* and *near-mine* growth opportunities



Information regarding each of the priority *in-mine* and *near-mine* opportunities at Golden Grove and Capricorn Copper is set out below.

In-mine / near-mine opportunity

Current Status and priority activity	
Golden Grove	
Cervantes	<ul style="list-style-type: none"> 270m below the Scuddles decline Mineral Resource¹: 2.3 Mt @ 6.9% Zn, 1.1% Cu, 34g/t Ag, 0.5g/t Au Resource extension potential as open at depth and along strike
Xantho Extended and Europa	<ul style="list-style-type: none"> Decline has advanced to the first level of stopes in this area Mineral Resource¹: 9.0 Mt @ 1.9% Cu, 8.1% Zn, 0.9g/t Au, 34g/t Ag Resource extension potential as open at depth and partially along strike
Oizon	<ul style="list-style-type: none"> 300m north of the Hougomont decline with development of a further decline linking Hougomont and Xantho Extended to provide access to Oizon underway Mineral Resource¹: 3.4 Mt @ 2.3% Cu, 2.1% Zn, 0.5g/t Au, 26g/t Ag Resource extension potential as open at depth
Gossan Valley	<ul style="list-style-type: none"> 7.1km South of Gossan Hill Mineral Resource¹: 6.1 Mt @ 0.9% Cu, 6.7% Zn, 0.5g/t Au, 16g/t Ag Open down plunge and along strike in a number of discrete areas Potential to become third mining front at Golden Grove, with scope to underpin an increase in mining and milling rate at Golden Grove to 2 Mtpa Feasibility study underway
Xantho Extended North²	<ul style="list-style-type: none"> Priority target for exploration at Golden Grove
Capricorn Copper	
Greenstone	<ul style="list-style-type: none"> Active Mining Area Mineral Resource¹: 2.1 Mt @ 1.8% Cu, 77 ppm Co Resource extension potential as open at depth
Mammoth Deeps	<ul style="list-style-type: none"> Mineral Resource¹: 6.9 Mt @ 1.9% Cu Resource extension potential as open at depth and partially along strike
Esperanza South	<ul style="list-style-type: none"> Active Mining Area Mineral Resource¹: 16.9 Mt @ 1.7% Cu, 645ppm Co, 16g/t Ag Resource extension potential as open at depth
Pluto	<ul style="list-style-type: none"> Approximately 400m from Mammoth Mineral Resource¹: 3.2 Mt @ 2.1% Cu Partially open along strike
Mammoth North	<ul style="list-style-type: none"> Approximately 200m from Mammoth Mineral Resource¹ (only inferred³ category): 1.6 Mt @ 1.26% Cu Resource extension potential as open at depth and along strike

Notes:

1. Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources estimates. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.
2. Refer to section 3.12.3 for more information regarding exploration at Golden Grove, including the Xantho Extended North target.
3. There is a low level of geological confidence associated with Inferred Resources and there is no certainty that further exploration work will result in the determination of Indicated Resources. Refer to section 2.3.2 for further information regarding Inferred Resources.

Further information regarding the *in-mine* and *near-mine* growth opportunities at Golden Grove and Capricorn Copper, including activity planned for FY2021, is set out in sections 3.10.10.2 and 3.11.10.2 (respectively).

3.7.3 Exploration

Exploration is the third limb of 29Metals' organic growth strategy, with exploration opportunities in the prospective tenement packages around existing mining operations at Capricorn Copper and Golden Grove, as well as the regional tenement package at Redhill in Chile.

29Metals plans to take a systematic and disciplined approach to exploration seeking to identify, prioritise, test and prove economic mineralisation with the objective of:

- increasing Mineral Resources, including re-classifying material that is currently unclassified for JORC reporting purposes into Mineral Resources;
- increasing technical confidence to support re-classifying material classified as *Inferred* Mineral Resources to *Measured* or *Indicated* Mineral Resources categories, and Mineral Resources to Ore Reserves; and
- identifying new deposits with the potential to be new ore sources at our existing producing mines (to extend mine life, provide additional operating flexibility and/or increase production) or potential new mines.

29Metals has a number of high priority targets for exploration, including highly prospective targets within reasonable trucking distance of the established ore processing facilities at Golden Grove and Capricorn Copper (respectively). Information regarding 29Metals' exploration interests, including priority targets for exploration, is set out in section 3.12.







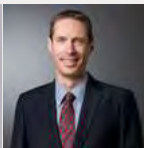





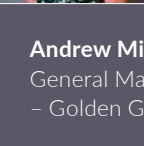




3.8 Leadership Team

29Metals is led by a highly experienced Board and Executive Leadership Team, supported by highly experienced functional and senior operational leaders and an established workforce at each of our assets.

29Metals management structure is set out in Figure 3.8 below.

Figure 3.8 – 29Metals management structure

Board of Directors		Owen Hegarty OAM Chair and Non-executive Director (<i>EMR Nominee</i>)		Peter Albert Managing Director & Chief Executive Officer		Fiona Robertson Independent Non-executive Director
		Jacqui McGill Independent Non-executive Director		Martin Alciaturi Independent Non-executive Director		
Board Committees	Audit, Governance & Risk Committee		Remuneration & Nominations Committee		Health, Safety, Environment & Community Committee	
	Executive		Peter Albert Managing Director & Chief Executive Officer		Ed Cooney Chief Operating Officer	
			Peter Herbert Chief Financial Officer		Clifford Tuck General Counsel & Company Secretary	
Senior Functional and Operational Leaders		Stacey Apostolou Group Manager Commercial & Finance		Mark van Heerden Group Manager Geology		Michael Slifirski Group Manager Investor Relations
		Andrew Millar General Manager Operations – Golden Grove		Scott Jones General Manager Operations – Capricorn Copper		Walter Muehlebach CEO Redhill

The 29Metals leadership team has significant direct experience with the 29Metals assets, including:

- Chair, Owen Hegarty OAM, was Managing Director & Chief Executive Officer of Oxiana Limited (later, OZ Minerals) which previously owned Golden Grove;
- Managing Director & Chief Executive Officer, Peter Albert, and Chief Operating Officer, Ed Cooney, have been Chief Executive Officer and Operations Director, respectively, for Golden Grove and Capricorn Copper since March 2020; and
- a number of 29Metals senior functional and operational leaders have been in place for a number of years, including Group Manager Geology, Mark van Heerden, who has led the resource extension and exploration efforts at Golden Grove for seven years.

Strategic direction, oversight and advice, group functions (including treasury and support services) and governance will be provided by the new 29Metals head office, with the experienced asset leadership teams having responsibility for day-to-day operations at the asset level.

Refer to section 7 (Key People, Interests and Benefits) for further information regarding the Board and 29Metals executives.

The Board intends to appoint an additional Independent Director. Following completion of the Offer, the Board will commence a process to identify suitable candidates for that role. In addition, EMR Capital intends to nominate a second EMR Nominee to the Board in accordance with the Relationship Deed.²⁵ It is the intention of the Board and EMR Capital that these future appointments will be made contemporaneously so that the majority of the Board are independent Directors at all times.

²⁵ Refer to section 10.6.9 for further information regarding the Relationship Deed.

3.9 ESG

3.9.1 Commitment to good governance, safety and sustainability

Consistent with the 29Metals values and the expectations of its stakeholders and the community, 29Metals is committed to:

- robust governance and ethical business practices, including transparency and public reporting;
- the priority of the health and safety of its workforce and the communities in or near which 29Metals conducts its business;
- sustainability and 29Metals' 'social licence to operate', including the responsible use of natural resources, effective and responsible management of mining waste (including tailings storage) and contributing to the global effort to respond to the risks of climate change.

Figure 3.9 – 29Metals' approach to ESG



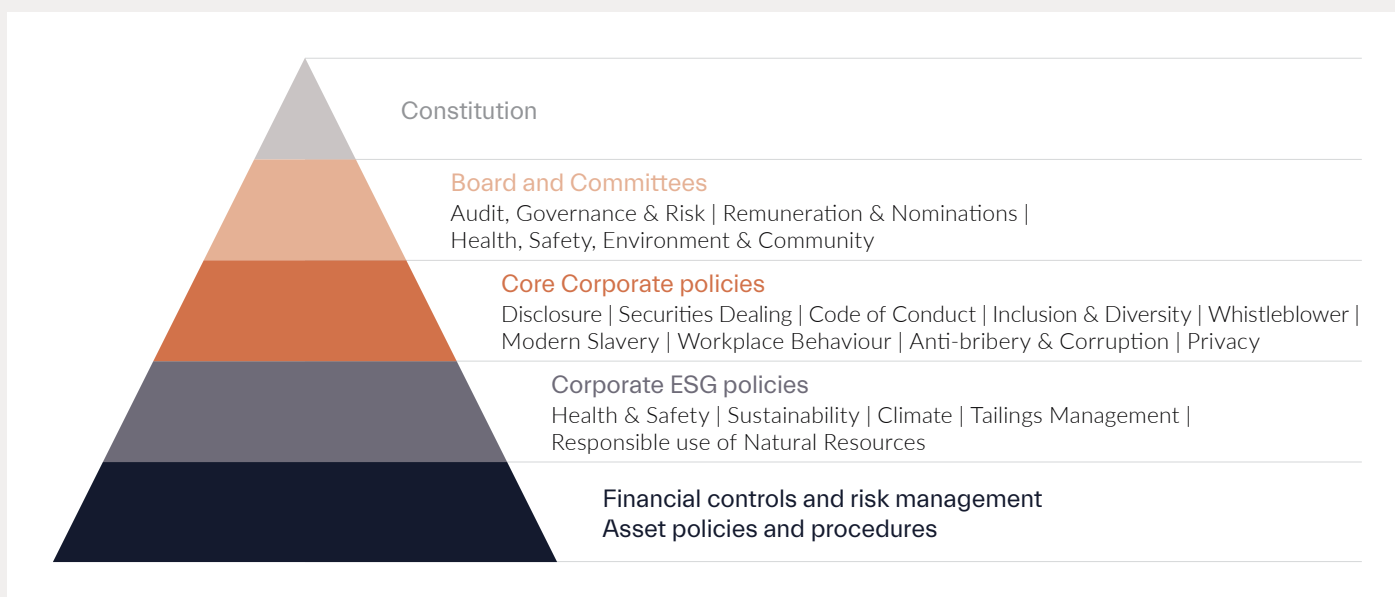
3.9.2 Governance overview

29Metals has established a robust governance framework, to be overseen by its majority independent Board.

The foundations of the governance framework are:

- clear accountabilities;
- financial controls.
- risk management; and

Figure 3.10 – 29Metals governance framework



Further information regarding 29Metals' Constitution and governance framework, including key governance policies, and the Board, Board Committees and their respective charters, is set out in section 7.6.

3.9.3 Health and safety

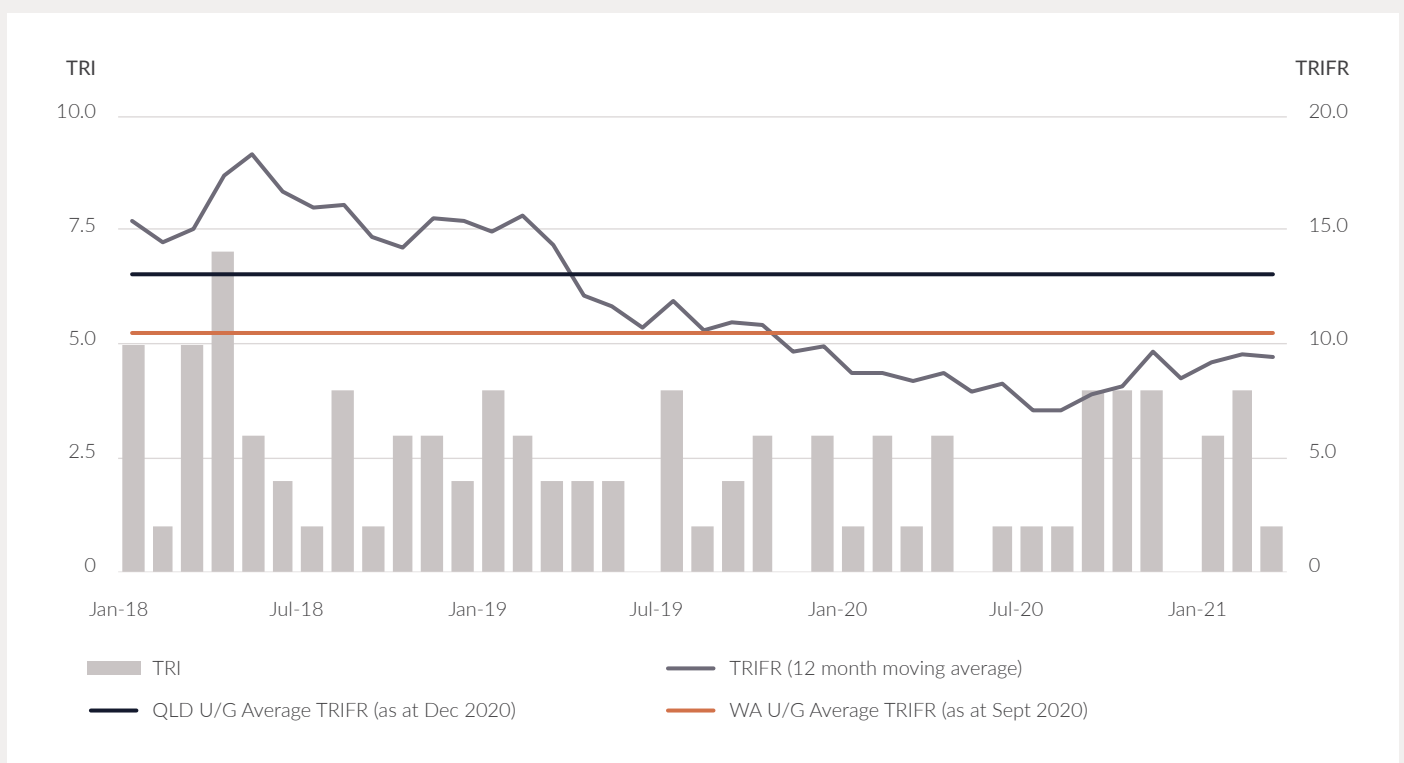
The health, safety and wellbeing of 29Metals’ workforce and the communities in or near which 29Metals conducts its business is the Company’s highest priority.

29Metals has comprehensive health and safety policies, standards and procedures.

Through improved management systems and processes, and the commitment of the workforce, there has been significant improvement in health and safety performance at the 29Metals assets over the past three years.

Figure 3.11 shows the TRIFR lagging indicator performance from January 2018 to March 2021 for Golden Grove and Capricorn Copper, on a combined basis, relative to benchmark data for underground mining in Queensland and Western Australia.

Figure 3.11 – Golden Grove and Capricorn Copper TRIFR and TRI (2018–2021)



Notes:

TRI – Total recordable incidents

TRIFR – Total recordable injury frequency rate (per million hours worked, shown as a rolling 12-month average)

QLD U/g average sourced from Queensland Government published industry data (Dec 2020)

<https://www.data.qld.gov.au/dataset/quarterly-mines-and-quarries-safety-statistics-data/resource/60fc8acd-7e7c-48ac-808d-0c4dc3ca87e7>

WA U/g average sourced from Western Australian Department of Mines (Sept 2020)

https://www.dmp.wa.gov.au/Documents/Safety/MSH_QSS_JulSep20.pdf

The site health and safety systems at Golden Grove and Capricorn Copper have been tested by the impacts of COVID-19 during 2020 (and continuing). Despite the challenges of COVID-19, including the impact of travel restrictions and border closures on the fly-in fly-out ('FIFO') members of the 29Metals workforce and supply chains, 29Metals maintained normal operations and achieved no recorded cases across the workforce at the operating sites (including contractors).

29Metals recognises that there is always more that can be done to improve health and safety outcomes. 29Metals is committed to extending the support and care that it provides to all its people, and the communities in or near which 29Metals conducts its business, to manage mental health challenges.

3.9.4 Sustainability

Responsible stewardship of the environment and engaging with and contributing to the local, regional and broader communities in which 29Metals conducts its business are fundamental to 29Metals' social licence to operate.

3.9.4.1 Environmental management

Mining operations and exploration activities have an impact on the natural environment. 29Metals is committed to managing the impact of its business operations responsibly and in accordance with the Company's legal obligations. In particular, 29Metals is focused on managing key environmental risks and improving environmental performance where necessary, such as at Capricorn Copper where the long history of mining operations has brought certain environmental performance challenges that are 29Metals' responsibility as the owner and operator of the mine.²⁶

Key environmental management priorities for 29Metals include management of tailings, responsible use of natural resources (water in particular) and the impacts of climate change.

Tailings management

The responsible management of mine waste, tailings in particular, is a key focus area for 29Metals. 29Metals assets have detailed management systems and processes for tailings storage facilities. Each of the tailings storage facilities at 29Metals' operating sites is subject to annual assurance programs undertaken by independent experts.

Tailings storage facilities are a key consideration for mine closure planning.

29Metals supports the Global Industry Standard on Tailings Management published by the International Council on Mining and Metals (August 2020) (the 'ICMM Tailings Standard') as a framework for the responsible management of tailings. 29Metals is assessing the application of the ICMM Tailings Standard to identify opportunities to enhance its approach to tailings management.

Responsible use of natural resources

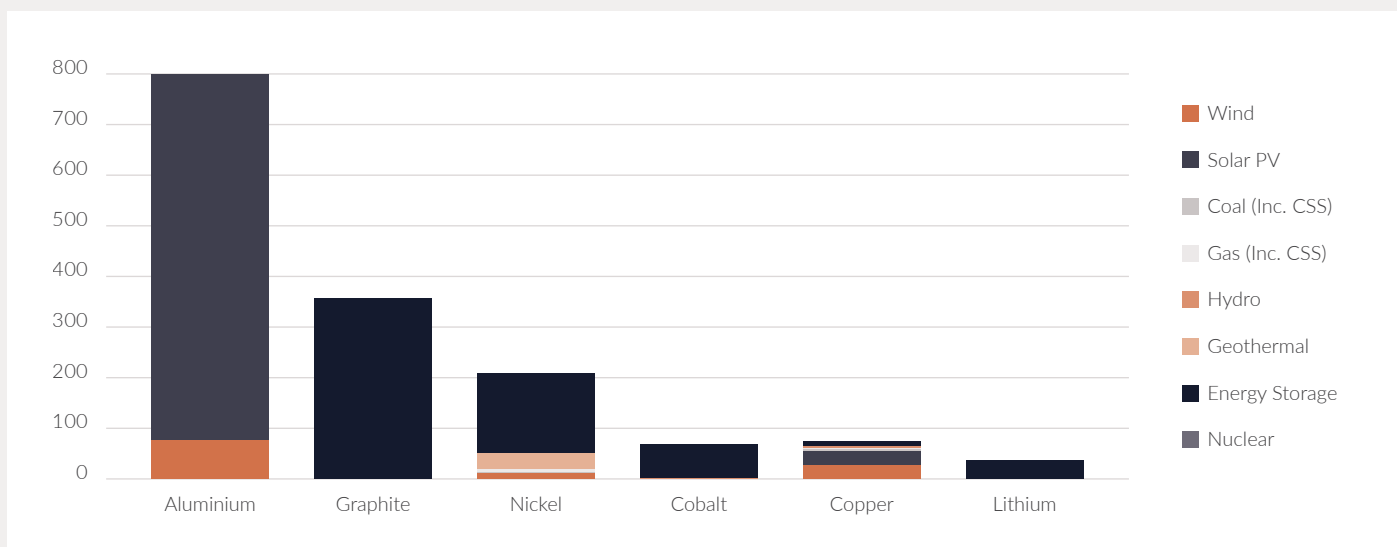
29Metals is committed to managing its impact on finite natural resources, particularly water resources. 29Metals is taking meaningful steps to reduce the amount of fresh water and groundwater used in mining and ore processing operations. 29Metals has programs in place at each of its operating sites to identify and implement strategies designed to reduce the volume of fresh water and groundwater drawn from surface and groundwater sources for use at its mines, including strategies for the treatment and re-use of process wastewater.

Impacts of climate change

The impacts of climate change are a global issue, and 29Metals recognises that it has a part to play. 29Metals' approach to climate change includes:

- a focus on copper:
 - a critical input into the technologies at the heart of electrification, decarbonisation and the global transition to a greener economy; and
 - lower life-cycle emissions relative to other battery component metals, (as shown in Figure 3.12); and
- 29Metals' high-grade underground assets require less total material movement (and associated emissions) and result in less surface disturbance, relative to open pit mining operations of a similar scale.

Figure 3.12 – Relative emissions intensity of battery metals and use in renewable energy technology (MtCO₂e)



Source: Minerals for Climate Action – The Mineral Intensity of the Clean Energy Transition (2020); "Cumulative Global Warming Potential from Extraction and Processing of Minerals, Not Including Operations, Using Cradle-to-Gate Through 2050 Under 2DSs".

²⁶ Refer to section 3.11.11 for further information regarding environmental management at Capricorn Copper.



In addition, 29Metals is committed to identifying and implementing strategies to reduce its energy usage and associated carbon emissions, including through:

- as part of 29Metals' continuous improvement culture, reviewing mining and processing operations to identify and pursue opportunities to reduce energy intensity;
- exploring partnering opportunities with key suppliers and other industry participants, including the adoption of electric underground mining equipment in collaboration with other underground mining companies and equipment manufacturers;
- supporting alternative energy suppliers for 29Metals' operating mines utilising a higher proportion of renewable energy sources; and

- improving data capture and analytics

to support a targeted approach to reducing its carbon emissions

Climate risks are included in 29Metals' risk management framework.

3.9.4.2 Community

29Metals is committed to making meaningful contributions to the local, regional and broader community in or near which the Company conducts its business, through:

- direct and indirect economic contributions, including taxes, royalties, employment and business opportunities, and financial support to community programs, including programs to directly benefit the traditional custodians of the land where 29Metals conducts its business; and
- respectful engagement, and clear and accessible communication with community stakeholders regarding 29Metals' business activities and potential impacts on the community.

Further information regarding community contributions by 29Metals at each of its producing assets, including community programs, is included in sections 3.10.12 and 3.11.12.

3.10 Golden Grove

Asset Location



Key Highlights

Gossan Valley presents a third mining front opportunity

with the potential to underpin increased production rate of 2 Mtpa

World-class VHMS geological system

located on the first quartile of the cost curve, benefiting from a diversified revenue stream

10+ year mine life

with significant mine-life extension potential at existing orebodies and highly prospective *near-mine* growth opportunities

>\$230m

invested since acquisition in 2017, with material Ore Reserves and Mineral Resources estimates growth, and modern infrastructure providing a platform for future growth

246% Ore Reserves growth (CY2016–CY2020)²⁷

History of mine life extensions with further near-term *in-mine* and regional upside

²⁷ Growth in Golden Grove Ore Reserves estimates from 2016 to 2020.

Snapshot of Golden Grove

Location	Western Australia
Ownership	100%
Commodities	C Copper G Gold Z Zinc S Silver L Lead
Status	Producing
Commercial production	Commenced in 1990
Ore Reserves ^{1,2}	14.3 Mt at 4.6% Cu-eq for 0.7 Mt Cu-eq
Mineral Resources ^{1,2}	57.8 Mt at 3.9% Cu-eq for 2.2 Mt Cu-eq
Mine Life	10+ years
Mining Method	Long hole open stoping ('LHOS')
Processing	Conventional flow sheet with crushing, grinding, gravity and flotation
Products	Three types of mineral concentrates: <ul style="list-style-type: none"> ▪ copper concentrate ▪ high precious metals ('HPM') concentrate ▪ zinc concentrate <p>Concentrate products are sold under offtake contracts, to international commodity trading customers and smelters.</p>

Notes:

- 1 Ore Reserves and Mineral Resources cited on a contained metal basis. Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding the risk associated with Ore Reserves and Minerals Resources estimates.
- 2 Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.



3.10.1 Historical and Forecast Key Operating and Pro forma Financial metrics²⁸

Set out in the table below is a summary of key operating and financial metrics for Golden Grove for the three years ended 31 December 2020 and forecast operating and financial metrics for FY2021.

	Unit	FY2018A ¹	FY2019A ¹	FY2020A ¹	FY2021F ²
Operating Information					
Ore Mined	kt	1,215	1,373	1,442	1,522
Ore Milled	kt	1,248	1,291	1,377	1,483
Metal Production³					
Copper	kt	16	21	19	16
Gold	koz	52	70	63	41
Zinc	kt	65	58	55	54
Silver	koz	1,915	1,704	1,679	1,664
Lead	kt	7	5	3	4
Total Cu-eq⁴ production	kt Cu-eq ⁴	62	68	63	46
C1 Costs⁵					
	\$ million	(74)	(85)	(0)	18
	US\$/lb	(1.58)	(1.38)	(0.01)	0.42
AISC⁶					
	\$ million	(24)	(15)	78	89
	US\$/lb	(0.51)	(0.24)	1.37	2.08
EBITDA⁷	\$ million	206	246	160	170
Capital expenditure⁸					
	\$ million	44	75	84	68
Sustaining	\$ million	8	7	23	16
Mine development	\$ million	22	31	36	34
Growth	\$ million	3	21	12	10
Exploration	\$ million	11	16	13	7

Notes:

- 1 Historical financial information for FY2018A–2020A (inclusive) is derived from the Pro forma Historical Financial Information (refer to section 5 (Financial Information)).
- 2 FY2021F is derived from the Pro forma Forecast Financial Information (refer to section 5 (Financial Information)).
- 3 Production is cited on a contained metal-in-concentrate basis.
- 4 Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.
- 5 C1 Costs is mining costs, processing costs, maintenance costs, site general & administrative costs, realisation costs (including shipping and logistics costs), and treatment and refining charges, adjusted for stockpile movements and net of by-product credits. C1 Costs is cited in dollar million (\$million) terms and US\$ per pound of payable copper sold.
- 6 AISC is C1 Costs plus royalties cost, corporate admin costs, sustaining capital and capitalised development costs, but excludes growth capital and exploration. AISC is cited in dollar million (\$million) terms and US\$ per pound of payable copper sold. AISC is non-IFRS Financial Information.
- 7 EBITDA, AISC and C1 Costs are non-IFRS Financial Information. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS Financial Information.
- 8 Data derived from unaudited management accounts.

3.10.2 Location

The Golden Grove mine is located in the mid-west region of Western Australia, approximately 450 km north-east of Perth and 250 km east of Geraldton. The nearest local population is the town of Yalgoo, approximately 50 km north of the mine.

Access to Golden Grove is via sealed roads from Perth to Paynes Find and from Geraldton to Yalgoo. The Yalgoo to Paynes Find road is sealed between Yalgoo and Golden Grove while the remainder between Golden Grove and Paynes Find is a formed gravel road that can be closed to traffic during periods of wet weather.

Golden Grove has a sealed airstrip and terminal building for access by air and is serviced by charter flights from Perth and Geraldton.

²⁸ Refer to section 5 (Financial Information) for further information regarding historical and forecast financial information.

3.10.3 History

3.10.3.1 History of Golden Grove mine

The first mining discovery in the area now known as Golden Grove was the discovery of the Gossan Hill deposit in 1971 by an unincorporated joint venture between Aztec Mining and AMAX Mining Limited.

Mining operations commenced in 1989 with the development of the Scuddles underground mine, followed by the commencement of mining at the Gossan Hill underground mine in 1996 and the Gossan Hill open pit mine in 2012.

Golden Grove has undergone a number of ownership changes since the first Golden Grove discovery, most recently with EMR Capital's acquisition from MMG Limited in 2017.

A summary of the history of Golden Grove is set out in Figure 3.13.

Figure 3.13 – Golden Grove history and key milestones

1971	▪ Discovery of first Golden Grove deposit – Gossan Hill – Aztec Mining and AMX Mining Limited joint venture
1979	▪ Discovery of Scuddles deposit
1983	▪ First Golden Grove mining lease granted
1990	▪ First production from Scuddles underground mine
1991	▪ Normandy Poseidon acquires Golden Grove
1997	▪ Expansion and Gossan Hill approved
1999	▪ First production from Gossan Hill underground mine
2000	▪ Amity and Catalpa deposits discovered
2001	▪ Hougoumont and Ethel deposits discovered
2002	▪ Newmont Mining Corporation acquires Golden Grove (via acquisition of Normandy Mining Limited) ▪ Discovery of Xantho
2005	▪ Oxiana Limited (later, Oz Minerals following merger with Zinifex Limited in 2008) acquires Golden Grove
2006	▪ Discovery of Xantho Extended and Cervantes
2008	▪ MMG Limited acquires Golden Grove
2010	▪ Discovery of Gossan Valley and Oizon
2012	▪ First production from Gossan Hill copper oxide open pit
2016	▪ First production from Scuddles gold oxide open pit
2017	▪ EMR Capital acquires Golden Grove

3.10.3.2 Investment since EMR Capital acquisition

More than \$230 million has been invested in Golden Grove since EMR Capital acquired it in 2017²⁹, including:

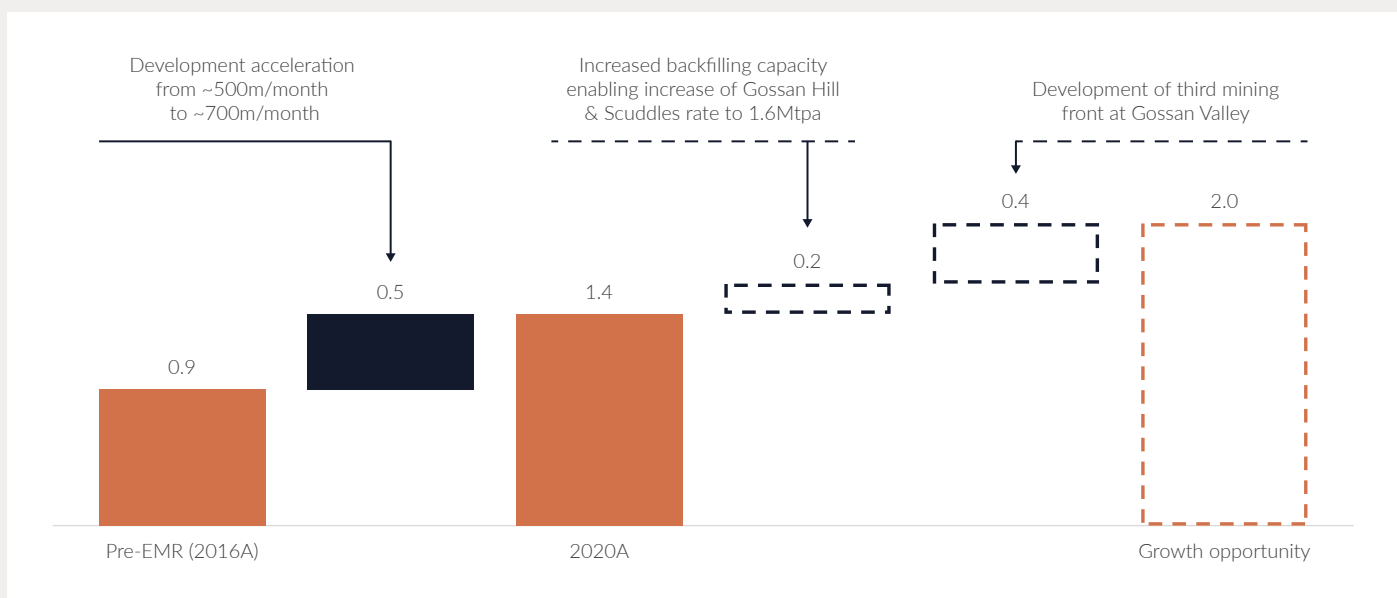
- upgrading the processing facilities and underground infrastructure;
- drilling to expand the resource base and extend mine life;
- upgrading surface infrastructure; and
- implementing changes to the management structure to improve safety performance and productivity.

Set out below is an overview of the investments in Golden Grove since EMR Capital's acquisition.

Productivity improvements

Mining rate	<p>Increased mining rate from 0.9 Mtpa (2016) to 1.4 Mtpa (2020), driven by:</p> <ul style="list-style-type: none"> ▪ opening up additional mining fronts to increase mining flexibility ▪ changes to operating model and management structure, including rationalising mining contracts to a single highly capable mining contractor with modern mobile mining fleet ▪ increasing development rates from 500m/month to 800m/month ▪ upgrading ventilation and cooling systems to increase capacity to main mining fronts and support increased mining rates ▪ Refer to Figure 3.14
Milling rate and recoveries	<p>Increased milling capacity from 1.4 Mtpa (2016) to 1.8 Mtpa (2021) and improving metallurgical recoveries, driven by:</p> <ul style="list-style-type: none"> ▪ installation of gravity gold circuit to increase gold recoveries (2017) ▪ installation of replacement pebble crusher (2018), increasing plant reliability, and secondary crusher (2019) to increase mill throughput to 1.7 Mtpa ▪ installation of new flotation circuit (copper) to facilitate sequential flotation of all product streams adding operational flexibility and improving metallurgical recoveries (March 2021) ▪ Refer to Figure 3.14

Figure 3.14 – Mining rate (in Mtpa)

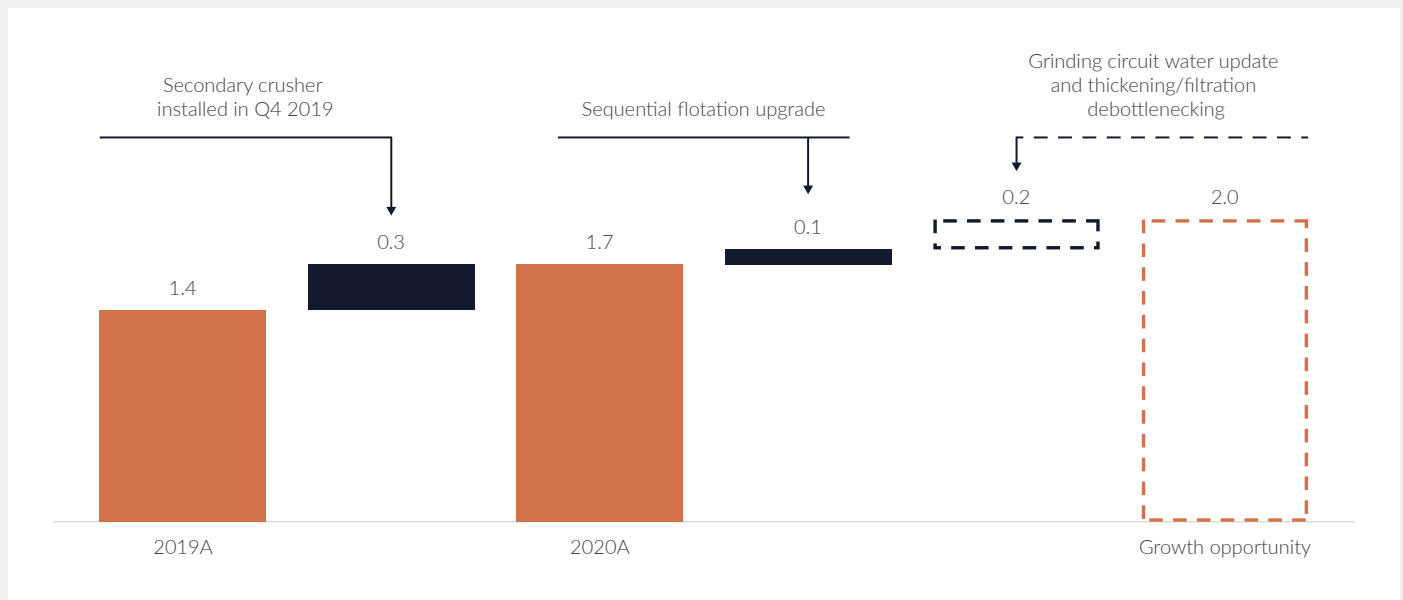


Note

Hatched outline bars reflect potential growth via identified productivity and operating initiatives and the Gossan Valley *near-mine* growth opportunity. Refer to section 3.10.10 and 3.10.11 for further information.

²⁹ Invested capital cited excludes acquisition costs.

Figure 3.15 – Milling rate (in Mtpa)

**Note**

Hatched outline bars reflect potential growth via identified productivity and operating initiatives. Refer to section 3.10.10 for further information.

Mine-life¹**Mineral Resources**

224% increase in Mineral Resources 2016 to 2020, through a combination of:

- **Drilling** – series of drilling campaigns, contributing² 12.4 Mt
- **Net Smelter Return (NSR) cut-off changes** – contributing² 10.6 Mt (2017)
- **FX and commodity price change** – contributing² 9.7 Mt increase (2017)
- **Re-assessment of material previously assessed as non-recoverable** – contributing² 11.0 Mt increase (2019)

Ore Reserves

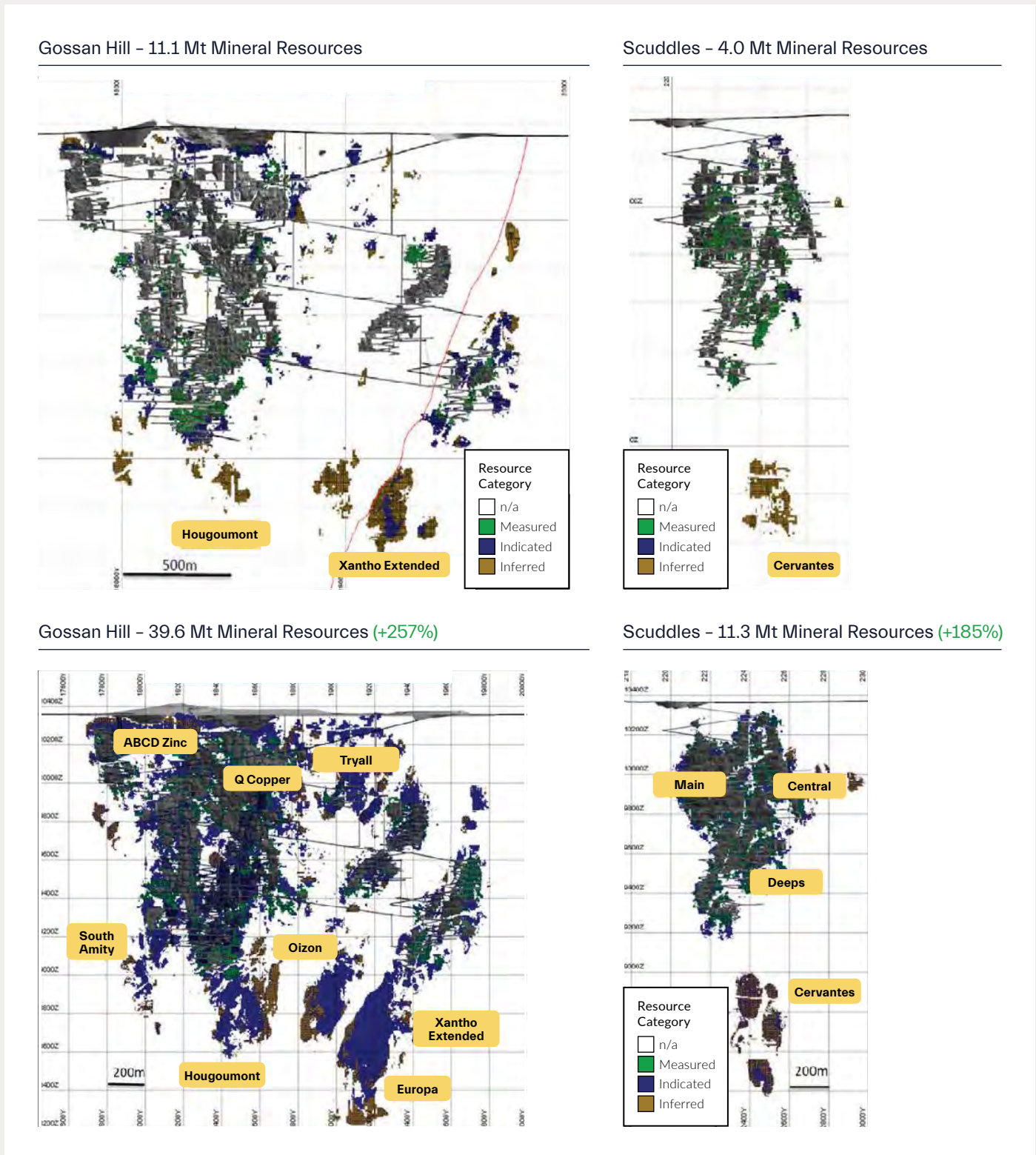
246% increase in Ore Reserves 2016 to 2020

Notes

1 Ore Reserves and Mineral Resources growth at Golden Grove shown after depletion by production. Percentage growth applies most recent Ore Reserves and Mineral Resources estimates as against 2016 estimates derived from public disclosures by MMG Limited (in tonnes). Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

2 Contribution to total Mineral Resources increase 2017–2020 (inclusive) in Mineral Resources tonnes.

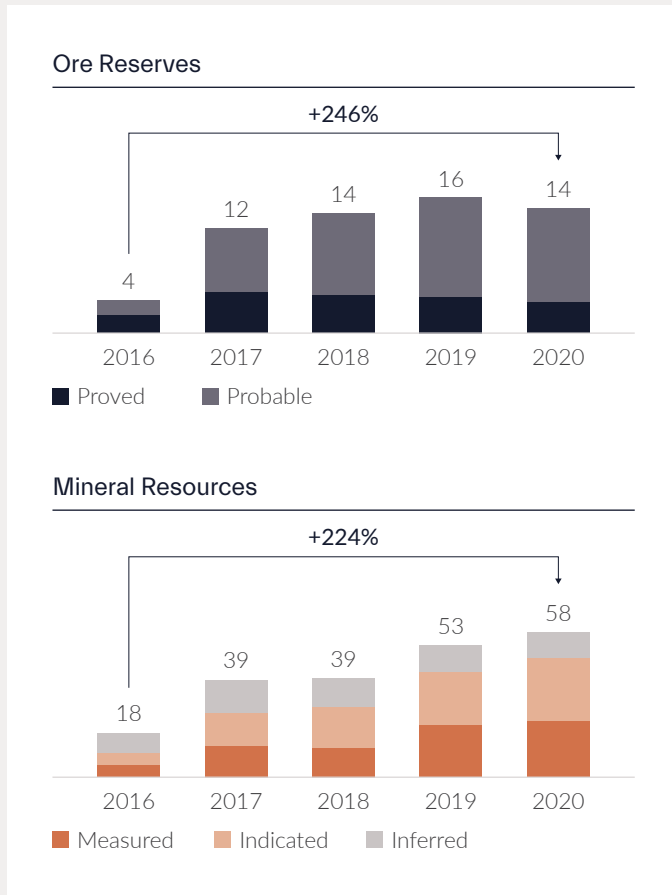
Figure 3.16 – Mineral Resources growth at Gossan Hill and Scuddles (2016–2020)



The long-sections above depict reported Mineral Resources for Gossan Hill and Scuddles at Golden Grove in 2016 (first row of images) and 2020 (second row of images), in each case looking local grid west, and by Mineral Resources category. Diagrams exclude material from remnant mining areas that were below cut-off grades for 2020 Mineral Resources estimates.³⁰

30 Mineral Resources growth for Gossan Hill and Scuddles at Golden Grove shown after depletion by production. Percentage growth applies the most recent Ore Reserves and Mineral Resources estimate as against the 2016 estimates derived from public disclosures by MMG Limited (in tonnes Mineral Resources). Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

Figure 3.17 – Ore Reserves and Mineral Resources growth at Golden Grove (Mt)



Other improvements

Infrastructure

- Upgrade the electrical infrastructure to the mine
- Fibre optic installed underground to facilitate remote loading from surface
- Major overhaul of SAG and ball mills and significant remediation of structural steel in plant
- Upgraded process plant control room

3.10.4 Geology

Golden Grove comprises a series of Volcanic-Hosted Massive Sulphide ('VHMS') deposits located in the Murchison Province of the Yilgarn Block, within the Archean aged Yalgoo-Singleton Greenstone Belt.

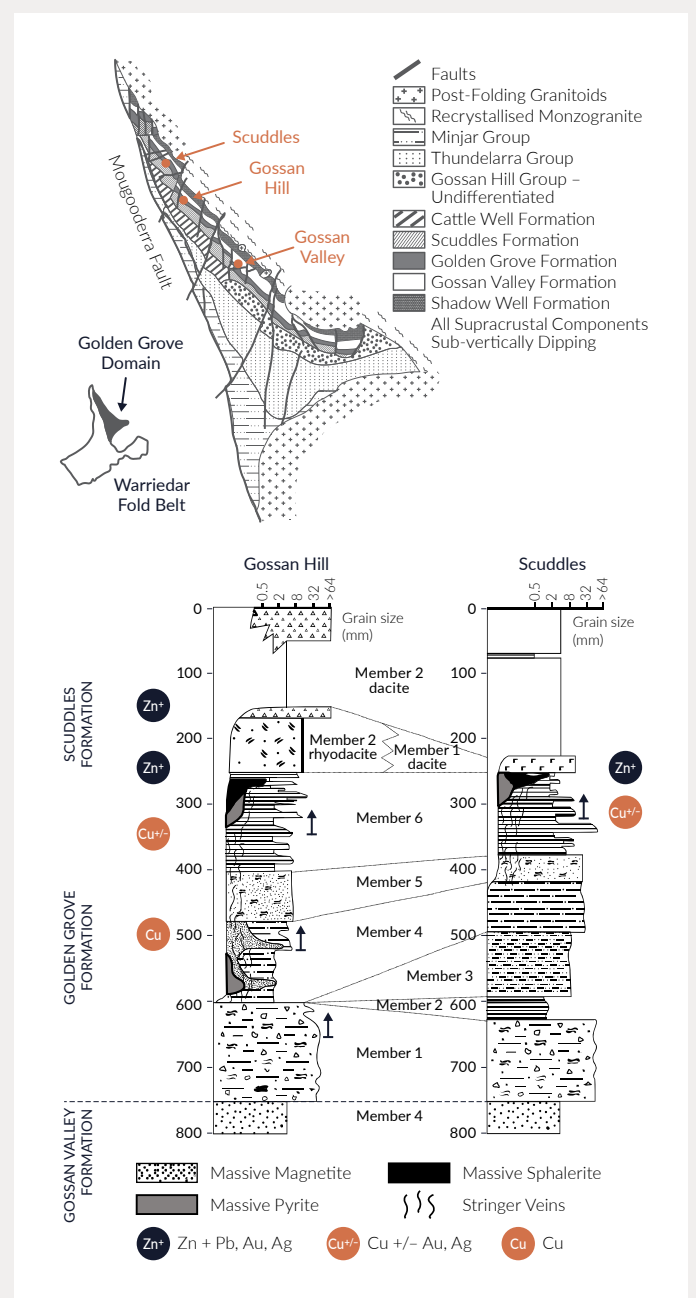
Mineralisation occurs at the base of the Warriedar Fold Belt within a sequence of steeply dipping intermediate to felsic volcanoclastic sediments, lavas and associated autoclastic breccias, referred to as the Golden Grove Formation. The Golden Grove Formation is underlain by the Gossan Valley Formation and overlain by the Scuddles Formation.

Mineralisation at Golden Grove consists of massive to semi-massive sulphides, including sphalerite, massive pyrite with sphalerite, chalcopyrite, galena, gold and low-grade silver.

There is some variability in composition between the orebodies. In some areas, a zone of mixing can exist between copper and zinc ores where economic grades of both metals are present, while other areas show distinct separation of copper and zinc lenses.

Mineralisation can occur in multiple stratigraphic positions within both the Golden Grove Formation as well as the overlying Scuddles Formation.

Figure 3.18 – Golden Grove geological setting



A number of intrusives crosscut the stratigraphic sequence, including (from oldest to youngest) dacites, dolerites, and rhyolites. Brittle structures associated with late-stage regional sinistral deformation are also present. Examples of these structures within the mine are the Racehorse and Catalpa faults.

Golden Grove's mining leases cover all known occurrences of the host Golden Grove Formation.

3.10.5 Mining

The Golden Grove mine currently consists of two operating mines:

- the Gossan Hill underground mine (currently mining the Xantho, Hougomont and Amity orebodies); and
- the Scuddles underground mine.

The Gossan Hill mine is accessed by decline, with ore trucked to surface and crushed at the Gossan Hill *run of mine* ('ROM') pad, before being transported approximately 3km by overland conveyor to the processing plant located proximate to the Scuddles mine. Waste from the Gossan Hill mine is trucked to surface and dumped at the south end of the ROM pad or disposed of internally into existing voids underground.

The Gossan Hill decline extends through the Xantho orebody and has reached the top of Xantho Extended (approximately 1.4 km below surface³¹).

Scuddles is accessed by decline but also has a shaft to hoist ore with the majority of ore undergoing primary crushing underground before being hoisted to surface. Waste that is not utilised as fill for mined voids underground is trucked to surface and dumped at the Gossan Hill ROM pad.

The mining method employed at both Scuddles and Gossan Hill is long hole open stoping with backfill. Currently, backfill for both mines is by cemented hydraulic fill ('CHF') produced at surface by combining deslimed tailings with cement which is pumped underground via an established reticulation network. It is planned to establish an above ground paste-fill plant at Gossan Hill to increase fill capacity utilising reclaimed tailings with the potential to be converted to direct wet tailings feed in the future.³²

Ventilation at Gossan Hill is via two intakes, the Southern Downcast with 3.7 MW of installed cooling and the Far North Downcast with 7 MW of installed cooling. At Scuddles, ventilation air intake is via the portal and the hoisting shaft and return air is exhausted via the northern upcast primary vent fan.

The Golden Grove operations team is responsible for operational management of the mine, including short-to-long term planning, mine design and scheduling, ventilation, drill and blast design, mine survey, geotechnical, mine control, backfill and shaft operations.

Mining is performed by a mining contractor (ByrneCut)³³.

The mining contractor is responsible for underground mining and maintenance activities, with other specialised contracts for drilling consumables, explosives and charge-up services, ground support, boxhole boring and CHF installations.

3.10.6 Processing

The Golden Grove processing plant is a conventional base metals processing plant that has been in continuous operation since 1991. Since the acquisition of Golden Grove by EMR Capital in 2017, a number of enhancements have been made to the plant to improve throughput and metallurgical recoveries, and add operational flexibility, including installation of a gold gravity circuit (2017), replacement of the pebble crusher (2018), installation of a secondary crusher (2019) and installation of sequential flotation (commissioned in Q1 2021).

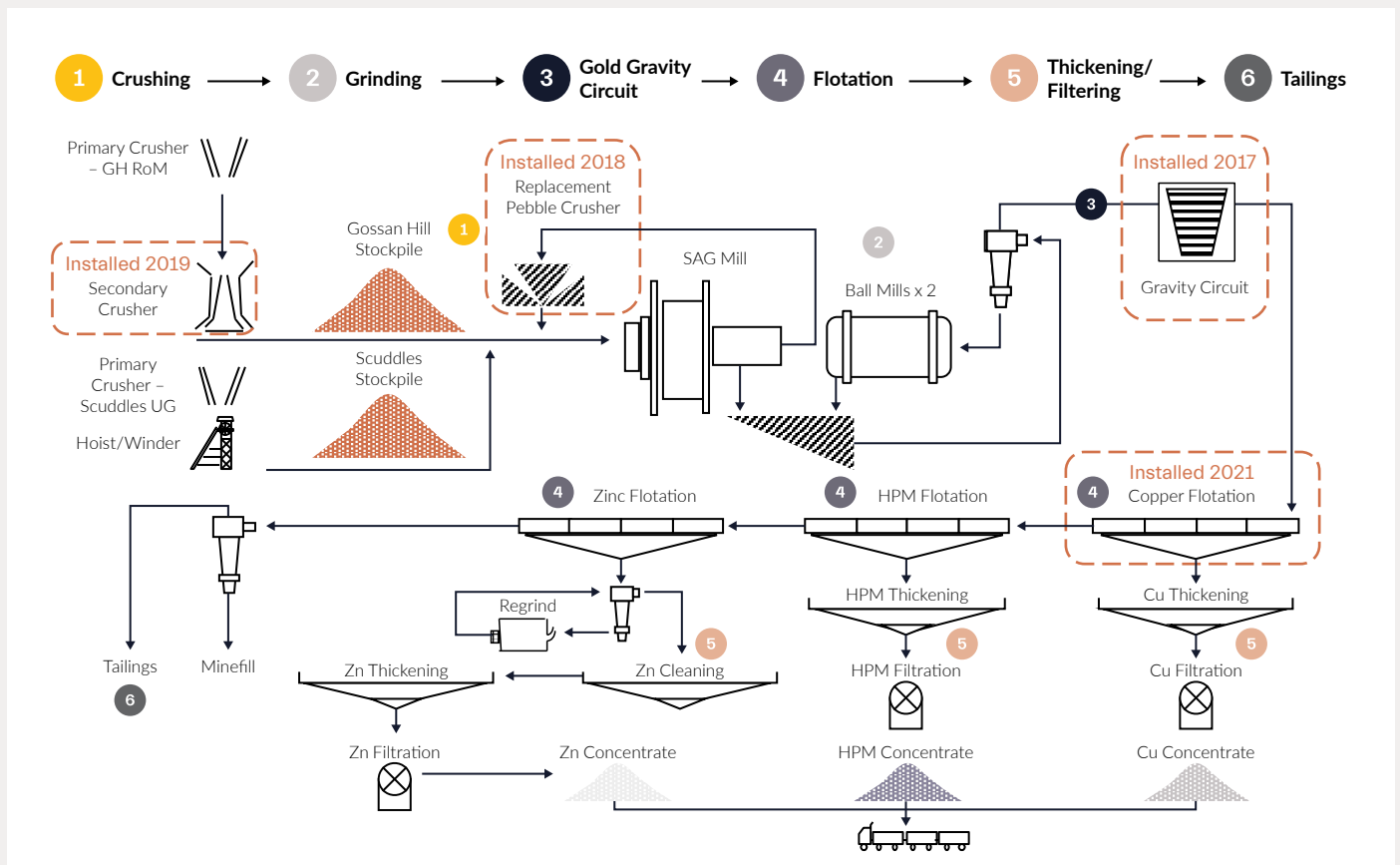
The Golden Grove process plant is depicted in the flow sheet shown in Figure 3.19 and an overview of the process is set out below.

³¹ Refer to long-section in Figure 3.16.

³² Implementation of paste fill at Golden Grove is subject to regulatory approvals. Refer to section 6.2.1.2 for information regarding regulatory approval risks.

³³ Refer to section 10.6.3 for more detail on 29Metals' agreement with ByrneCut at Golden Grove.

Figure 3.19 – Golden Grove process flow sheet



- | | | |
|---|--|---|
| 1 | Crushing | <ul style="list-style-type: none"> Gossan Hill ore is trucked to surface ROM stockpiles and then fed to a surface primary jaw crusher, then conveyed to a secondary crusher, installed in 2019, and then conveyed to a crushed ore stockpile adjacent to the Scuddles processing plant Scuddles ore is fed to an underground primary jaw crusher and then hoisted to the surface via shaft and conveyed to its own dedicated crushed ore stockpile at the Scuddles processing plant |
| 2 | Grinding | <ul style="list-style-type: none"> Crushed ore is conveyed to the mill for a two-stage wet grinding circuit that includes a primary semi-autogenous grinding ('SAG') mill and two secondary ball mills Oversize material is fed to a pebble crusher then returned to the SAG mill The ball mills operate in closed circuit with hydrocyclones. Oversize coarse material is returned to the mill for further grinding. Fine material is the feed to the gravity circuit and then to the flotation circuit |
| 3 | Gold Gravity Circuit | <ul style="list-style-type: none"> The fines from the cyclones feed into the gravity concentrator which acts like a centrifuge separating the heavier gold, silver, lead and iron particles from the process slurry before the flotation stage Every 45 minutes a 60 kg batch of high gold concentrate is dumped into the concentrate hopper for transfer to the HPM thickener |
| 4 | Flotation | <ul style="list-style-type: none"> The flotation process separates the valuable minerals as a froth from waste material. Flotation tailings are processed through a cyclone with coarse tailings materials reporting to the CHF plant and the slimes reporting to the tailings storage facility With the introduction of a dedicated copper circuit (comprising an Eriez Stack cell, three tank cells and a Jameson cell) in March 2021, the plant provides sequential flotation for each of its concentrate product streams – copper, HPM and zinc – with the ability to simultaneously produce three concentrate products |
| 5 | Thickening/Filtering | <ul style="list-style-type: none"> Concentrate thickening is via conventional thickeners After thickening, the concentrate goes through a filtering and dewatering process where most of the water is removed so that what remains is a metal concentrate in "cake" form (<10% moisture) |
| 6 | Concentrate storage and haulage | <ul style="list-style-type: none"> Concentrate product is stored in an on-site storage facility pending loading and transportation to the port Concentrate is trucked from site to the Port of Geraldton for export |

3.10.7 Tailings storage facilities

Waste from the processing plant is transported by pipeline, either:

- to the CHF plant where it is mixed with cement to fill mine voids (refer to section 3.10.5); or
- to engineered tailings storage facilities.

There are three engineered tailings storage facilities at Golden Grove – TSF 1, TSF 2 and TSF 3.

An overview of the tailings storage facilities at Golden Grove is set out below.

Facility	Design and construction method	Operation	Status
TSF 1	<ul style="list-style-type: none"> ▪ Upstream construction method ▪ Embankment raised in three stages 	1990–1999	<ul style="list-style-type: none"> ▪ Care and maintenance since 1999 ▪ Cover placement completed in December 2016 ▪ Planned further 7m raise in late 2021 in preparation for further use in 2022/23
TSF 2	<ul style="list-style-type: none"> ▪ Upstream construction method ▪ Embankment raised in eight stages 	1999–2010	<ul style="list-style-type: none"> ▪ Care and maintenance since 2013 ▪ Cover placement completed in 2015 ▪ Reclaimed tailings to be used as feed for paste fill plant from H2 2021
TSF 3	<ul style="list-style-type: none"> ▪ Upstream construction method (first three raises) and centre-line method (fourth raise) 	2011–2021	<ul style="list-style-type: none"> ▪ Commenced operation in 2011 ▪ Current active tailings deposition ▪ Fourth raise completed in January 2021

Consideration of tailings storage capacity is ongoing in the context of the Golden Grove life of mine planning. As noted above, it is proposed to undertake a further raise of TSF 1, following which TSF 1 would return to being the active tailings storage facility at Golden Grove. Planning has also commenced to assess a further raise of TSF 3 and a potential new fourth tailings storage facility.³⁴

Golden Grove has established tailings storage facility management systems and processes in place for all active and decommissioned tailings storage facilities, including detailed monitoring (borehole and piezometer monitoring), inspections and aerial surveys.

Golden Grove's tailings storage facilities are also subject to bi-annual assurance inspections undertaken by a third-party tailings storage facility expert. The audit is undertaken in accordance with the Western Australia Department of Mines, Industry Regulation and Safety ('DMIRS') TSF code of practice and guidelines, and Australian National Committee on Large Dams ('ANCOLD') guidelines. The report includes key findings and recommendations.

³⁴ Subject to regulatory approvals. Refer to section 6.2.1.2 for information regarding regulatory approval risks.

3.10.8 Site Infrastructure

Set out below is an overview of the site infrastructure at Golden Grove.

Figure 3.20 – Golden Grove site infrastructure



- 1 Site Camp
- 2 Copper Oxide Pit (not in use)
- 3 Open Pit Waste Rock Dump
- 4 Airstrip & Golden Grove Airport
- 5 Gossan Hill ROM
- 6 Gossan Hill Primary Crusher
- 7 Gossan Hill Portal
- 8 Gossan Hill Mine Office
- 9 Overland Conveyor
- 10 Settling Ponds
- 11 TSF 1
- 12 TSF 2
- 13 TSF 3
- 14 Core Yard
- 15 Scuddles Gold Oxide Pit (not in use)
- 16 Scuddles Administration Office
- 17 Scuddles Winder
- 18 Processing Plant
- 19 Warehouse, Reagents and Laydown Maintenance Workshop
- 20 Mining Contractors Surface Workshops

Water	<ul style="list-style-type: none"> Total site water demand is ~620 ML per annum Golden Grove meets its water demand needs through groundwater primarily sourced through dewatering of the Gossan Hill and Scuddles underground mines Groundwater extraction is licensed by the WA Department of Water. The current licence expires in 2024¹ and authorises the extraction of up to 3.51 GL per annum Dewatering of Gossan Hill mine provides 290 ML per annum and dewatering of Scuddles mine provides 540 ML per annum The site is equipped with two potable water bores to ensure the site's potable demand can be met Bore water is treated in a site reverse osmosis ('RO') plant and the wastewater (Brine) from the RO plant is added to the process water circuit Excess treated water is discharged to Lake Wownaminya via pipeline from the mine site (subject to water quality and monitoring requirements)
Power	<ul style="list-style-type: none"> Golden Grove is connected to grid power via the southern distribution centre at Three Springs The Golden Grove site network has a capacity of ~21 MW, consistent with current peak demand, with plans to increase network capacity to ~27 MW to accommodate further upgrades to cooling and ventilation (~2025) Golden Grove also has three 1.15 MW diesel back-up generators to enable essential services and underground fans to operate during power outages, and to prevent bogging of tanks and thickeners in the process plant
Road Transportation	<ul style="list-style-type: none"> Access to the Golden Grove operations is via sealed roads from Perth to Paynes Find and from Geraldton to Yalgoo. The Yalgoo to Paynes Find road is sealed between Yalgoo and Golden Grove while the remainder between Golden Grove and Paynes Find is a formed gravel road that can be closed to traffic during periods of wet weather Concentrate is transported from Golden Grove to Geraldton Port via contracted kibble trucks arranged in quad trailer configurations (road trains). Up to eight kibble trucks currently operate doing two trips per day, six days per week
Port	<ul style="list-style-type: none"> The nearest port facility is at Geraldton, WA. At the Geraldton Port, concentrates are transferred to an enclosed storage shed prior to ship loading and export. Storage capacity at the port is 30–40,000 dmt. Loading is conducted by the Geraldton Port Authority facility managed by Bulkwest Logistics and normally occurs in 10,000 tonne parcels
Airstrip	<ul style="list-style-type: none"> The site has a sealed airstrip and terminal building and is serviced by charter flights from Perth and Geraldton. Flight times from Perth are 1 hour and 45 minutes from Geraldton
Camp	<ul style="list-style-type: none"> Golden Grove has an accommodation village and amenities located 5 km south south-west of the mine offices with capacity for 591 personnel

Notes

1 Refer to section 10.7 for information regarding the regulatory framework, including renewal processes for key licences and permits.

3.10.9 Mineral concentrates sales and marketing

Golden Grove produces copper, HPM³⁵ and zinc mineral concentrates for sale.

At Golden Grove, 29Metals has long term Offtake Contracts in place for the majority of its production until the end of 2025/2026, comprising:

- Offtake Contracts with Trafigura Pte Ltd (**'Trafigura'**), a global commodities trading firm:
 - covering up to 390,000 dmt of Golden Grove copper concentrate production until the end of 2025;
 - covering up to 480,000 dmt of Golden Grove zinc concentrate production during the term (subject to delivery obligations under the Korea Zinc Offtake Contract referred to below) until the end of 2026; and
 - including allowing Trafigura to make an offer for 100% of Golden Grove's HPM concentrate production until the end of 2025,
 (together, the **'GG Trafigura Offtake Contracts'**); and
- an Offtake Contract with Korea Zinc Company Limited (**'Korea Zinc'**), a general non-ferrous metal smelting company, for a fixed annual volume of zinc concentrates produced at Golden Grove, which Offtake Contract remains in place unless cancelled by Korea Zinc or Golden Grove by providing 12 months' notice in writing.

In connection with the GG Trafigura Offtake Contracts, there is also a 'non-performance agreement' whereby 29Metals will be required to compensate Trafigura if 29Metals fails to meet certain agreed minimum contractual quantities (i.e., aggregate volume of concentrates delivered into the relevant contract in a defined period), unless Trafigura agrees otherwise. This non-performance agreement applies to the copper and zinc GG Trafigura Offtake Contracts.

Further information regarding the GG Trafigura Offtake Contracts is included in section 10.6.5.

3.10.10 Organic Growth

3.10.10.1 Productivity and operational improvements

29Metals has a number of identified productivity and operations improvement opportunities at Golden Grove which provide 29Metals with additional operational flexibility and production growth potential.

Set out below is further information regarding productivity and operational improvement opportunities identified by 29Metals. None of these opportunities are currently included in the Golden Grove mine plan³⁶ other than paste fill:

- **Sequential flotation** – commissioned in March 2021, the installation of a separate copper flotation circuit, is expected to improve metallurgical recoveries and provides capability to simultaneously produce all three mineral concentrate products, eliminating the need to *campaign-treat* different ore types which simplifies both mining and processing operations and enhances efficiency. The set-up of the plant post commissioning of sequential flotation can support a milling rate of up to 1.8 Mtpa. 29Metals has identified further upside potential with optimisation, supporting additional improvements in metallurgical recoveries relative to LOM plan assumptions;
- **Paste fill plant (Gossan Hill)** – increasing the capacity to place backfill at Golden Grove with introduction of a paste plant, planned for 2021, to support an increase in the Gossan Hill and Scuddles mining rate to 1.6 Mtpa;³⁷
- **Mill throughput** – an increase in milling rate to 2 Mtpa is being investigated in conjunction with the future development of a third mining front at Gossan Valley (see below); and
- **Changes to sub-level interval in Xantho Extended mine design** – increasing the sub-level intervals applied in Xantho Extended from 30m (per current mine plans). The higher interval has been applied at Scuddles as this has the potential to reduce development costs and bring forward higher grade Xantho Extended material (relative to the current LOM plans).

³⁵ Lead metal is recovered in HPM concentrate. Payability for lead metal content in HPM concentrates varies materially as 29Metals preferentially seeks to maximise the payability of copper in HPM concentrate.

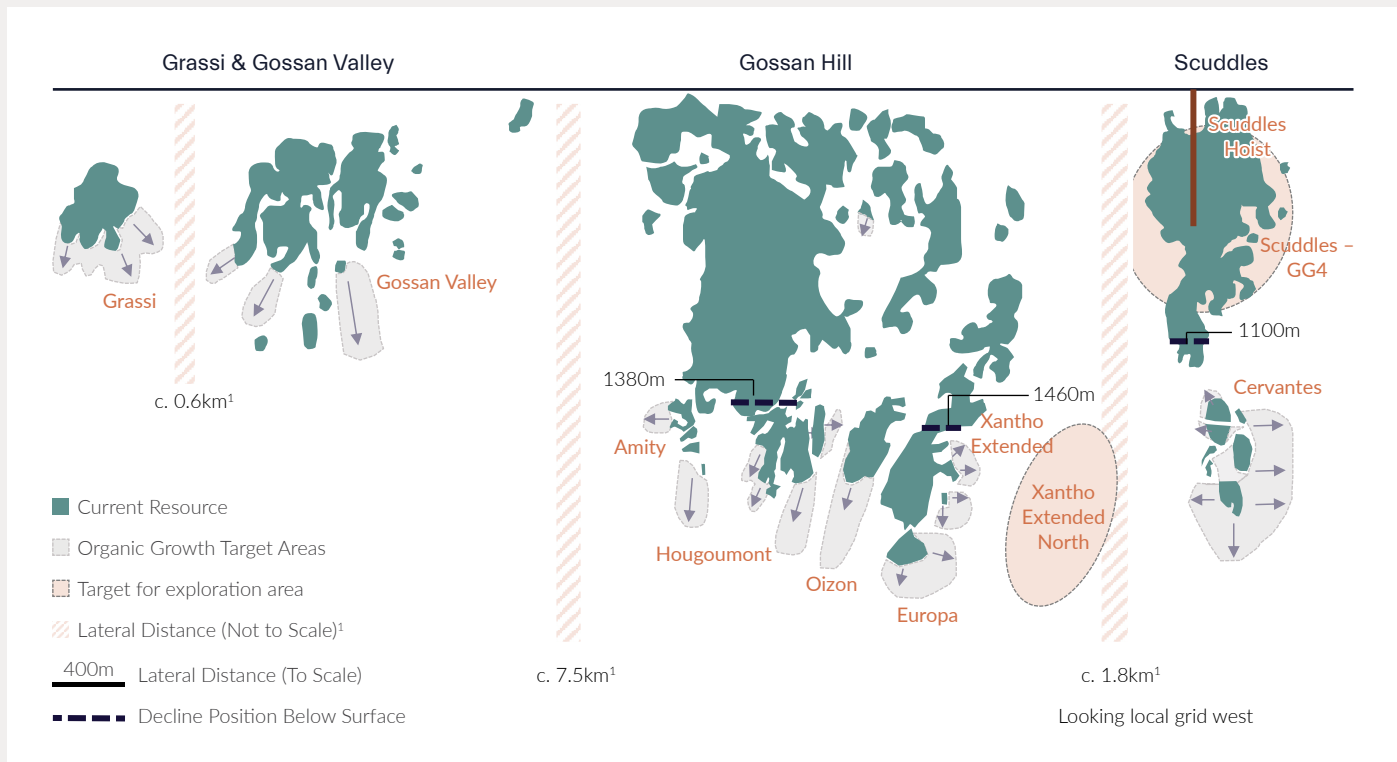
³⁶ Refer to Golden Grove Technical Report in section 11 (Technical Reports) for information regarding the Golden Grove mine plan.

³⁷ Implementation of paste fill at Golden Grove is subject to regulatory approvals. Refer to section 6.2.1.2 for information regarding regulatory approval risks.

3.10.10.2 In-mine and near-mine growth opportunities

Golden Grove has a number of *in-mine* and *near-mine* growth opportunities as shown in Figure 3.21 and outlined below. None of the opportunities shown are currently included in the Golden Grove mine plan³⁸ in the five-year period 2021–2025 (inclusive).

Figure 3.21 – Long-section – Golden Grove *in-mine* and *near-mine* growth opportunities (not included in LOM plan 2021–2025)



Notes

1 Shaded orange bars denote lateral distance between key targets on an illustrative basis (not to scale).

In-mine / near-mine opportunity

	Description of opportunity
Cervantes	<ul style="list-style-type: none"> 270 m below the Scuddles decline Mineral Resource¹: 2.3 Mt @ 1.1% Cu, 6.9% Zn, 0.5g/t Au, 34g/t Ag Open at depth and along strike 7 km of resource extension drilling and 11km of resource conversion drilling planned for 2021
Xantho Extended and Europa	<ul style="list-style-type: none"> Decline has advanced to the first level of stopes from this area Mineral Resource¹: 9.0 Mt @ 8.1% Zn, 1.9% Cu, 34g/t Ag, 0.9g/t Au Open at depth and along strike 3 km of resource extension and 3.4 km of resource conversion drilling planned for 2021
Oizon	<ul style="list-style-type: none"> 300 m north of the Hougomont Decline Mineral Resource¹: 3.4 Mt @ 2.3% Cu, 2.1% Zn, 26g/t Ag, 0.5g/t Au; open at depth Utilise access to underground drilling locations via Hougomont – Xantho decline 2 km of Resource Conversion drilling planned for 2021

Notes

1 Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources estimates. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

38 Refer to Golden Grove Technical Report in section 11 (Technical Reports) for information regarding the Golden Grove mine plan.

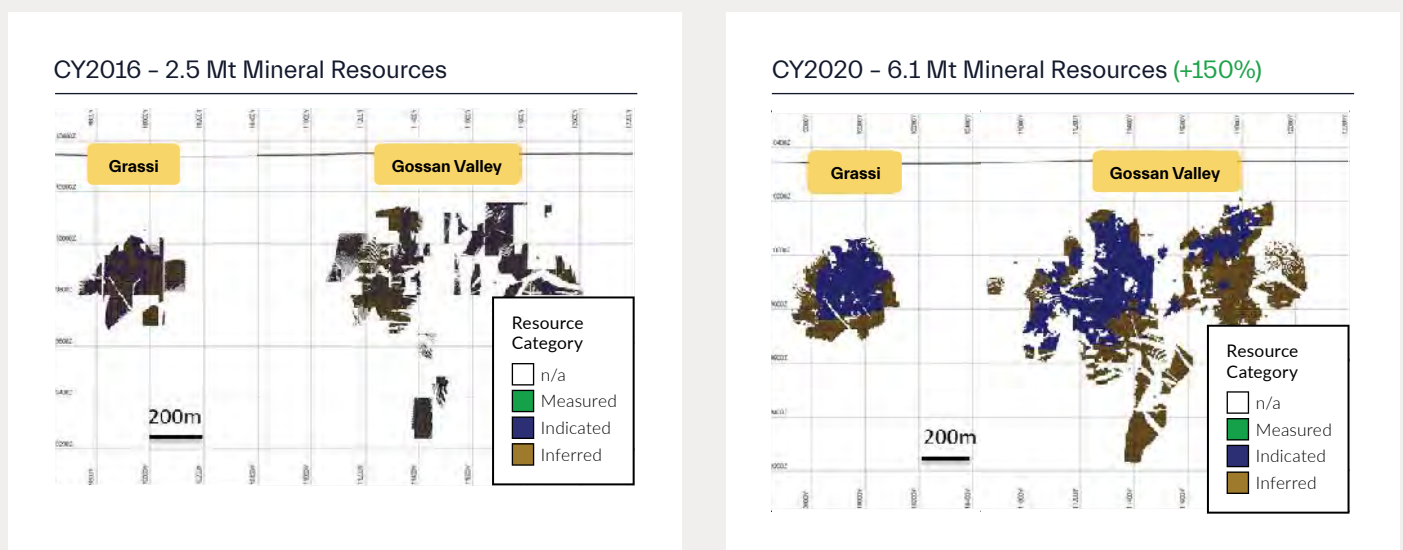
In-mine/near-mine opportunity

	Description of opportunity
Gossan Valley	<ul style="list-style-type: none"> 7.1 km South of Gossan Hill – potential to be third Golden Grove mining front Mineral Resource¹: 6.1 Mt @ 0.9% Cu, 6.7% Zn, 0.5g/t Au, 16g/t Ag Open down plunge and along strike in several discrete areas 10 km of Resource Extension drilling planned for 2021 Feasibility Study for development of Gossan Valley to be completed in 2021 Potential to underpin an increase in mining and milling rate at Golden Grove to 2 Mtpa Refer to Figure 3.22 for diagram depicting growth in Mineral Resources tonnes at Gossan Valley from 2016 to 2020
Xantho Extended North ²	<ul style="list-style-type: none"> Priority target for exploration at Golden Grove – targeting Hougoumont-type mineralisation Drilling planned for 2021 to be undertaken in combination with the resource extension and resource conversion drilling at Xantho Extended and Europa (refer above)

Notes

- Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources estimates. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.
- Refer to section 3.12.3 for more information regarding exploration at Golden Grove, including the Xantho Extended North target.

Figure 3.22 – Gossan Valley Mineral Resources growth (2016–2020)



The long-sections above depict reported Mineral Resources for Gossan Valley in 2016 (left) and 2020 (right), in each case looking local grid west, by Mineral Resources category.

3.10.10.3 Exploration

Refer to section 3.12.3 for information regarding exploration, including regional exploration, at Golden Grove.

3.10.11 Health, Safety & Environment

Golden Grove operates under a health, safety, environment and community ('HSEC') management system that is aligned to ISO Standard 14001 and ISO Standard 45001. The HSEC management system provides a structured and systematic approach to identifying and managing the site's HSEC risks and opportunities, enabling continuous improvement.

During 2020, Golden Grove implemented several health and safety programs, including:

- implementation of strict COVID-19 management controls;
- implementation of critical control verification audits focused on major risks;
- an update of the site safety plan;
- roll out of a "leadership safety interactions" program;
- third-party audit of compliance with the site's management system standards;
- review and update of the site incident, emergency and crisis management procedures and training; and
- launch of a "vital behaviours safety program".

Key environmental management activities undertaken during 2020 included:

- annual independent external review of mine closure plan estimates;
- improvement to site water management systems; and
- completion of flora and fauna surveys.

3.10.12 Community, Native Title and Cultural Heritage

3.10.12.1 Community

Golden Grove makes a significant contribution to the local and regional community, and the state of Western Australia, by way of taxes, mineral royalties, wages, local suppliers, and community programs and donations.

The table below summarises the direct and indirect contributions to the community at Golden Grove in 2020.

Direct and indirect economic contributions	<ul style="list-style-type: none"> ▪ Taxes paid – \$26.3 million (corporate income tax) ▪ Mining royalties paid – \$17.3 million ▪ Wages – \$33.83 million ▪ Local/regional contractors – \$29.59 million (aggregate contract award value)
Employment	<ul style="list-style-type: none"> ▪ 23% of the workforce resides locally

Golden Grove also maintains an active stakeholder engagement program, retaining strong ties to local communities and stakeholders. Some of the key community contributions and programs at Golden Grove include:

- contributions towards the Yalgoo Shire to fund a number of community development activities;
- contributions towards the broader Midwest region that aim to support education, employment and local community projects;
- Bayalgu Indigenous pre-employment program aimed at providing training and support for local people to join the workforce;
- ongoing support for SHINE, a program for underprivileged girls in the Geraldton region; and
- donations to the Royal Flying Doctor Service.

3.10.12.2 Native title and cultural heritage

The Golden Grove tenement area has been the subject of two native title determinations:

- the Yamatji Nation Determination on 7 February 2020, and associated Indigenous Land Use Agreement ('ILUA') registered on 30 July 2020, confirmed that native title does not exist in the area covered by the Golden Grove tenements, confirmed the validity of existing tenements, including the Golden Grove tenements within the determination area, and included a release from native title compensation; and
- the Badimia People Determination in May 2015 confirmed that native title does not exist in the relevant determination area.

Regardless, as noted in section 3.10.12.1 above, Golden Grove maintains a positive relationship with local indigenous groups, which includes cultural heritage surveys and engagement to identify local heritage and manage any impacts.

In relation to cultural heritage:

- all of the areas covered by current mining operations at Golden Grove have been covered by cultural heritage surveys;
- identified cultural heritage sites have been protected and avoided; and
- cultural heritage management plans, prepared in consultation with traditional owner groups, are in place for registered heritage sites as well as other sites of significance to traditional owner groups.

Golden Grove's protocols require heritage notices be provided to traditional owners prior to any ground disturbing works. Additionally, if a new potential heritage site is discovered protocols require the cessation of works, establishment of a buffer zone around the area, submission of a heritage notice, and development of further heritage management plans in consultation with traditional owners.

Heritage surveys have been completed over areas proposed for additional surface disturbance, and there have been no identified cultural heritage issues.

3.10.13 Workforce

The total workforce at Golden Grove is 770 on an FTE basis. The breakdown of the Golden Grove workforce is set out below:

Department	Golden Grove/ Contractor	Pax
Mining	Mining Contractor	444
Mining Technical & Exploration	Golden Grove & Drilling Contractor	68
Process & Maintenance	Golden Grove & Plant Contractor	144
Safety & Sustainability	Golden Grove	15
Corporate, Finance and HR	Golden Grove	8
Accom & Site Services	Site Services Contractor	91
Total		770

The workforce, including contractor personnel all work on a roster system. Rosters vary across employees and contractors, including to account for work priorities, but are typically fourteen-on and seven-off, eight-on and six-off, or fourteen-on and fourteen-off. Approximately 95% of Golden Grove's employees are residents of Western Australia, with 20% being resident in the Geraldton and mid-west region.

3.10.14 Key suppliers

The following contractors are considered key suppliers at Golden Grove:

- Byrnegut – the underground mining services contractor; and
- Mid West Ports Authority – the provider of port handling and loading facilities.

Further information regarding the contractual arrangements with key suppliers at Golden Grove is included in section 10.6.3.

3.10.15 Tenements³⁹

The Golden Grove tenements comprise 29 contiguous tenements granted under the Mining Act 1978 (WA), including 17 mining leases, six general purpose leases and six miscellaneous licences. Details regarding the Golden Grove tenements are set out in the following table.

	Tenement	Original Grant Date	Current Expiry Date
1.	G59/19	06/06/1989	05/06/2031
2.	G59/20	06/06/1989	05/06/2031
3.	G59/21	06/06/1989	05/06/2031
4.	G59/22	06/06/1989	05/06/2031
5.	G59/23	06/06/1989	05/06/2031
6.	G59/24	26/07/1990	25/07/2032
7.	L59/22	29/11/1988	28/11/2023
8.	L59/26	27/11/1989	26/11/2024
9.	L59/28	27/02/1990	26/02/2025
10.	L59/29	27/02/1990	26/02/2025
11.	L59/34	27/01/1994	26/01/2024
12.	L59/41	31/10/1996	30/10/2021
13.	M59/143	10/05/1989	09/05/2031
14.	M59/195	18/05/1990	17/05/2032
15.	M59/227	08/05/1991	07/05/2033
16.	M59/3	09/12/1983	08/12/2025
17.	M59/361	02/03/1995	01/03/2037
18.	M59/362	02/03/1995	01/03/2037
19.	M59/363	02/03/1995	01/03/2037
20.	M59/480	02/07/2008	01/07/2029
21.	M59/543	05/02/2002	04/02/2023
22.	M59/88	19/05/1988	18/05/2030
23.	M59/89	19/05/1988	18/05/2030
24.	M59/90	19/05/1988	18/05/2030
25.	M59/91	19/05/1988	18/05/2030
26.	M59/92	19/05/1988	18/05/2030
27.	M59/93	19/05/1988	18/05/2030
28.	M59/94	19/05/1988	18/05/2030
29.	M59/95	19/05/1988	18/05/2030

In addition to the mining tenements identified above, Golden Grove is the 'tenant' under the Muralgarra pastoral lease covering an area in which a number of the Golden Grove tenements lie. The lease currently expires in 2042.

³⁹ Refer to section 6 (Risks) for information regarding risks associated with security of mining tenure and section 10 (Additional Information) for information regarding the regulatory framework in Western Australian in relation to mining tenements.

3.11 Capricorn Copper

Asset Location



Capricorn Copper processing plant

Key Highlights

In-mine and near-mine organic growth opportunities

and regional exploration potential

High-grade copper and silver operation located in a Tier-1 jurisdiction

with a growing production profile and further upside from latent mill capacity

10+ year mine life

supported by significant investment of more than US\$160 million since EMR Capital acquisition

Multiple ore sources provide operational flexibility

and diversified production profile

Snapshot of Capricorn Copper

Location	Queensland
Ownership	100%
Commodities	C Copper S Silver
Status	Producing
Commercial production	Large Scale Mining Commenced in 1969
Ore Reserves ^{1,2}	13 Mt at 1.8% Cu-eq for 0.25 Mt Cu-eq
Mineral Resources ^{1,2}	62.5 Mt at 1.8% Cu-eq for 1.1 Mt Cu-eq
Mine Life	10+ years
Mining Method	<ul style="list-style-type: none"> Sub-level caving – Esperanza South Long hole open stoping – Greenstone and Mammoth
Processing	<ul style="list-style-type: none"> Conventional flow sheet with crushing, grinding and flotation
Products	<ul style="list-style-type: none"> Copper concentrate with silver by-product Concentrate products are sold under offtake contracts, to international commodity trading customers and smelters

Notes:

- Ore Reserves and Mineral Resources cited on a contained metal basis. Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding the risk associated with Ore Reserves and Minerals Resources estimates.
- Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.



3.11.1 Historical and Forecast Operating and Pro Forma Financial metrics⁴⁰

Set out in the table below is a summary of key operating and financial metrics for Capricorn Copper for the three years ended 31 December 2020 and forecast operating and financial metrics for FY2021.

	Unit	FY2018A ¹	FY2019A ¹	FY2020A ¹	FY2021F ²
Operating Information					
Ore Mined	kt	1,301	1,583	1,847	1,765
Ore Milled	kt	1,326	1,605	1,808	1,624
Metal Production³					
Copper	kt	18	23	22	20
Silver	koz	108	235	250	250
Total Cu-eq⁴ production	kt Cu-eq ⁴	18	24	23	21
C1 Costs⁵					
	\$ million	143	161	165	166
	US\$/lb	3.18	2.30	2.49	2.95
AISC⁶					
	\$ million	187	199	205	213
	US\$/lb	4.16	2.84	3.09	3.79
EBITDA⁷					
	\$ million	(6)	28	35	70
Capital expenditure⁸					
	\$ million	38	30	31	40
Sustaining	\$ million	10	11	7	9
Mine development	\$ million	14	16	22	26
Growth	\$ million	-	-	-	2
Exploration	\$ million	15	3	2	3

Notes:

- 1 Historical financial information for FY2018A–2020A (inclusive) is derived from the Pro forma Historical Financial Information (refer to section 5 (Financial Information)).
- 2 FY2021F is derived from the Pro forma Forecast Financial Information (refer to section 5 (Financial Information)).
- 3 Production is cited on a contained metal-in-concentrate basis.
- 4 Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.
- 5 C1 Costs is mining costs, processing costs, maintenance costs, site general & administrative costs, realisation costs (including shipping and logistics costs), and treatment and refining charges, adjusted for stockpile movements and net of by-product credits. C1 Costs is cited in dollar million (\$'million) terms and US\$ per pound of payable copper sold.
- 6 AISC is C1 Costs plus royalties cost, corporate admin costs, sustaining capital and capitalised development costs, but excludes growth capital and exploration. AISC is cited in dollar million (\$'million) terms and US\$ per pound of payable copper sold. AISC is non-IFRS Financial Information.
- 7 EBITDA, AISC and C1 Costs are non-IFRS Financial Information. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS Financial Information.
- 8 Data derived from unaudited management accounts.

3.11.2 Location

Capricorn Copper is located approximately 120 kilometres north of Mount Isa. Access to Capricorn Copper is via road to Mount Isa (including approximately 85 kilometres of unsealed road). From Mount Isa, the region is connected to coastal port regions and larger cities by air, rail (via Yurbi which is approximately 135 km east of Mount Isa) and regional highway networks.

⁴⁰ Refer to section 5 (Financial Information) for further information regarding historical and forecast financial information.

3.11.3 History

3.11.3.1 History of Capricorn Copper mine

Copper mineralisation was first discovered in the area of Capricorn Copper in the 1880s. Smaller scale mining commenced from the 1920's, in the form of small open cut mines and some underground mining, continuing intermittently until the 1960's.

In 1969 Survey and Mining Limited acquired the mining rights for the area now known as Capricorn Copper and commenced development of the first Capricorn Copper deposit – Mammoth. 1970 marked the beginning of large-scale mining operations at Capricorn Copper, and included the construction of ore processing facilities and the first production of mineral concentrates.

There have been numerous changes in ownership of Capricorn Copper, culminating in EMR Capital's acquisition of a majority interest in Capricorn Copper in 2015 and subsequent acquisition of the minority interest in 2018 (taking EMR Capital ownership to 100%).

A summary of the history and key milestones for Capricorn Copper is set out below in Figure 3.23.

Figure 3.23 – Capricorn Copper history and key milestones

1880's	▪ Discovery of copper mineralisation in region around Capricorn Copper (Mount Oxide)
1920's	▪ Commencement of small-scale mining, continues intermittently through to the 1960's
1923	▪ Discovery of the Mammoth deposit
1960	▪ First mining lease pegged for what is now known as Capricorn Copper ▪ Discovery of Esperanza deposit
1969	▪ Acquired by Survey and Mining Limited
1970	▪ Development of Mammoth deposit commences ▪ Commissioning of processing plant and first mineral concentrates produced
1971	▪ Acquired by Gunpowder Copper, a joint venture between Consolidated Goldfields Limited and Mitsubishi Limited
1989	▪ Acquired by Adelaide Brighton Cement Limited
1996	▪ Acquired by Aberfoyle Resources Limited ▪ Completion of studies for Esperanza open pit mining operations
1998	▪ Autoclave leach plant and 45,000 tpa SX/EW plant commissioned ▪ Acquired by Western Metals Limited
1999	▪ Produced 32 kt copper cathode
2003	▪ Acquired by Aditya Birla Minerals Limited
2008	▪ Placed into care and maintenance
2011	▪ Mining of Mammoth orebody recommences
2013	▪ Placed into care and maintenance
2015	▪ EMR Capital acquires a majority interest (95%) in Capricorn Copper
2016	▪ Completion of Bankable Feasibility Study for refurbishment of the processing facilities and recommencement of mining operations
2017	▪ Recommencement of commercial mining operations
2018	▪ EMR Capital acquires the minority interest in Capricorn Copper (now 100%)

3.11.3.2 Investment since acquisition by EMR Capital Investors

More than \$200 million has been invested in Capricorn Copper since EMR Capital acquired the asset in 2015^{41,42}, including:

- restart of mining operations;
- refurbishment of the process plant;
- drilling to expand the resource base and extend mine life; and
- implementing changes to the management structure to improve safety performance and productivity.

Set out below is an overview of significant investment in Capricorn Copper since acquisition by EMR Capital.

Investment since acquisition by EMR Capital Investors

Refurbishment and restart of mining operations

Refurbishment project	<p>Completed Bankable Feasibility Study and refurbishment of the Capricorn Copper process plant</p> <ul style="list-style-type: none"> ▪ Completed BFS for restart of Capricorn Copper (2016) ▪ Process plant refurbishment, including structural repairs, electrical and control system upgrades, reconditioning of mill drives and refurbishment of fire safety equipment and assay laboratory ▪ Process plant upgrades, including installation of new apron feeder, SAG mill feed chutes, and High Intensity Grinding mill ▪ Re-commencement of mining operations in 2017 from Mammoth and development of two new ore sources in Esperanza South and Greenstone
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Productivity

Mining rate	<p>Re-commencement of mining operations and ramp up in Mining Rates to 1.8 Mtpa</p> <ul style="list-style-type: none"> ▪ Established mining operations at three orebodies providing operational flexibility ▪ Initiation of highly productive longitudinal Sub Level Caving operations at Esperanza South ▪ Implemented contract mining with leading mining contractor
Milling rate	<p>Consistent improvement in milling rates to 1.8 Mtpa</p> <ul style="list-style-type: none"> ▪ Implemented operation and maintenance contractor, leveraging technical capabilities and depth of team ▪ Optimised float feed sizing, improved plant control, and redesigned mill configuration and maintenance program

Mine-life

Resources	<p>Significant investment to increase confidence in 1.1 Mt Cu-eq Mineral Resources base^{1,2}</p> <ul style="list-style-type: none"> ▪ Independent assessment of the Capricorn Copper Mineral Resources estimates ▪ 74,943 metres of drilling between 2016 and 2020 to support Mineral Resources estimates
Reserves	<p>Establishment of Ore Reserves of more than 0.2 Mt Cu-eq^{3,4}</p> <ul style="list-style-type: none"> ▪ Five orebodies, underpinning Ore Reserves estimates ▪ Ongoing infill drilling program to continue to enhance confidence in mineral inventory and mine planning

Notes:

- 1 Refer to Important Information at the beginning of this Prospectus regarding references to Ore Reserves and Mineral Resources in this Prospectus. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding the risk associated with Ore Reserves and Minerals Resources estimates.
- 2 Cu-eq is "copper equivalent contained metal". Refer also to Important Information at the beginning of this Prospectus regarding the use of copper equivalent (Cu-eq) metrics in this Prospectus.
- 3 Refer to Important Information at the beginning of this Prospectus regarding references to Ore Reserves and Mineral Resources in this Prospectus. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding the risk associated with Ore Reserves and Minerals Resources estimates.
- 4 Cu-eq is *copper equivalent in contained metal terms*. Refer also to Important Information at the beginning of this Prospectus regarding the use of copper equivalent (Cu-eq) metrics in this Prospectus.

41 As noted above, EMR Capital acquired a majority interest in Capricorn Copper in 2015 and subsequently acquired the remaining minority interest in 2018.

42 Invested capital cited excludes acquisition costs.

Investment since acquisition by EMR Capital Investors

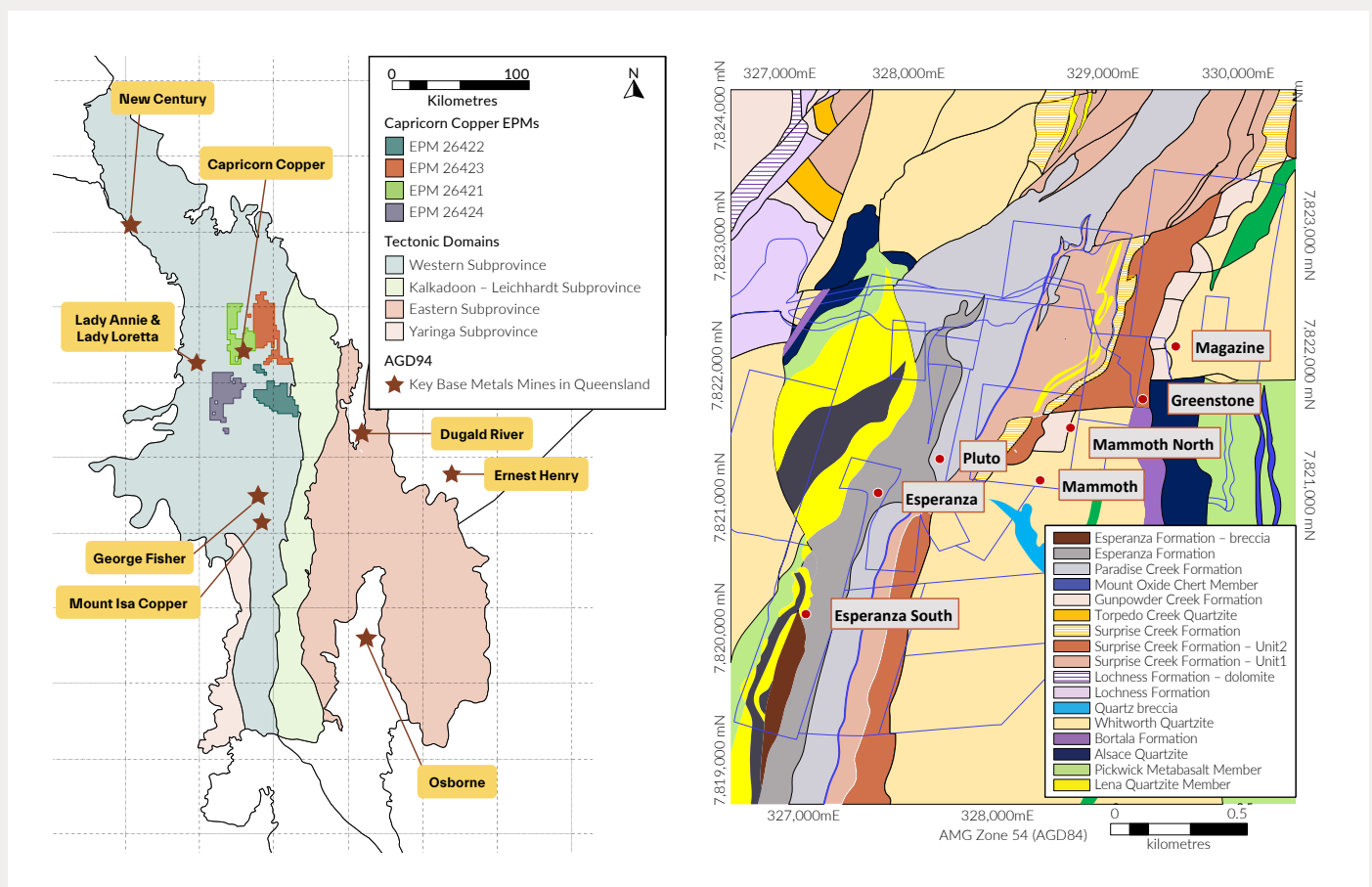
Safety and sustainability

Water management	<p>Significant investment in water management infrastructure, to reduce reliance on raw water sources to support processing operations and address on-site water inventory compliance issues</p> <ul style="list-style-type: none"> Installation of reverse osmosis plants to treat process and mine wastewater for re-use in mineral processing, reducing raw water consumption by up to 2 ML per day (2019) Introduction of new water management strategy and discharge infrastructure for the treatment and discharge of excess water on site (2020)
Health & Safety	<p>Continuous improvement in safety performance, demonstrating TRIFR rates below industry benchmarks</p> <ul style="list-style-type: none"> Management changes with a renewed focus on safety performance and completion of a comprehensive independent safety audit (2018) Implemented software management system for health and safety risk and hazard reporting (MYOSH) (2018) Major Risk Control assurance program initiated (2020)

3.11.4 Geology

Capricorn Copper consists of several structurally controlled, sediment-hosted copper deposits located within the Western Fold Belt of the Mt Isa Inlier.

Figure 3.24 – Capricorn Copper geological setting



The structures are Middle Proterozoic in age, and the region hosts significant known deposits, including Mount Isa (Cu, Pb, Zn, Ag), Century (Zn, Pb, Ag), Cannington (Ag, Pb, Zn), and Osborne & Ernest Henry (Cu, Au).

There are two dominant styles of mineralisation at Capricorn Copper:

- breccia-hosted within quartzites – Mammoth and Greenstone deposits; and
- shear-hosted within shales/siltstones – Esperanza, Esperanza South and Pluto deposits.

The occurrence of mineralisation at Capricorn Copper varies between the different deposits:

Capricorn Copper deposits mineralisation

Mammoth	<p>Mineralisation occurs in multiple lenses as 10–30m wide breccia zones developed at the point of intersection between major structures</p> <p>Mineralisation consists of breccia-fill bornite, chalcocite, pyrite, and locally arsenopyrite, with a gangue of chlorite-haematite. Chalcocite is present closer to surface with chalcocite and bornite dominant at depth</p>
Greenstone	<p>Mineralisation occurs in multiple lenses and comprises veinlets and breccia-fill bornite, chalcocite, pyrite, and locally arsenopyrite, with a gangue of chlorite-haematite</p> <p>Chalcocite is present closer to surface with chalcocite and bornite dominant at depth</p>
Esperanza, Esperanza South and Pluto	<p>Mineralisation occurs as shear-hosted mineralisation in shale/siltstone, with chalcocite veins and bornite within the upper levels, transitioning to chalcocite-pyrite mineralisation at depth</p> <p>Copper species include chalcocite, covellite, bornite, chalcocite and native copper, and post-date and replace pyrite</p> <p>Esperanza – mineralisation is hosted in graphitic siltstones and consists of a supergene chalcocite blanket with lesser native copper underlying a silicified cap, with mineralisation grading into chalcocite at depth. Most of the chalcocite blanket was mined by previous open pit mining operations</p> <p>Esperanza South – mineralisation occurs over a 50–75m wide zone in variably silicified siltstones, locally brecciated and plunging steeply south, sub-parallel to the Esperanza fault. Higher grade copper mineralisation occurs in a westerly hanging-wall zone and an easterly footwall zone, with stockwork mineralisation between these two zones. Veins and disseminations of chalcocite occur with bornite and pyrite, with grades typically 2–3% Cu, but supergene chalcocite has been shown to increase grades to 4% Cu and above</p> <p>Pluto – the Pluto deposit is highly leached in a zone approximately 200m in strike and 2–30m in width, and contains predominantly supergene chalcocite, cuprite and native copper and is therefore metallurgically distinct compared with the other deposits</p>

Mineralisation is predominantly copper accompanied by silver. Silver grades have tended to increase with depth at Esperanza and Esperanza South. Minor cobalt, nickel and arsenic mineralisation is also present, typically associated with pyrite, with higher arsenic mineralisation within some Mammoth lodes.

3.11.5 Mining

Of the five known deposits at Capricorn Copper with three currently in production:

Esperanza South ('ESS'), Mammoth and Greenstone. The other two deposits – Esperanza and Pluto – are currently planned to come into production from 2026.

Access to ESS and Mammoth is via two separate declines. Access to Greenstone is via an access drive from the Mammoth decline.

At Mammoth, the historical decline has been rehabilitated and extended to provide access to mining areas known as Mammoth Remnants and Mammoth Deeps, and a further access drive from the Mammoth decline is planned to access Esperanza and Pluto for mining in the future.

At ESS, Capricorn Copper has developed new mine infrastructure comprising the decline, ventilation rises, power supply network and groundwater pumping.

At Greenstone, a separate return air rise and emergency egress rise have been developed.

Mining in ESS applies sub-level caving. Mining at Mammoth and Greenstone applies long-hole open stoping with waste-rock or paste fill.

In the future, mining of Esperanza and Pluto will employ LHOS mining methods.

Ore is transported by truck to surface via the ESS and Mammoth declines (as applicable).

At Greenstone and Mammoth waste rock is partially used as backfill with surplus waste rock trucked to surface and deposited in the waste rock dump.

The Capricorn Copper operations team is responsible for operational management of the mine, including short-to-long term planning, mine design and scheduling, ventilation, drill and blast design, mine survey, geotechnical, mine control and backfill.

Mining is performed by a mining contractor⁴³. The mining contractor is responsible for underground mining and maintenance activities, with other specialised contracts for drilling consumables, explosives and ground support.

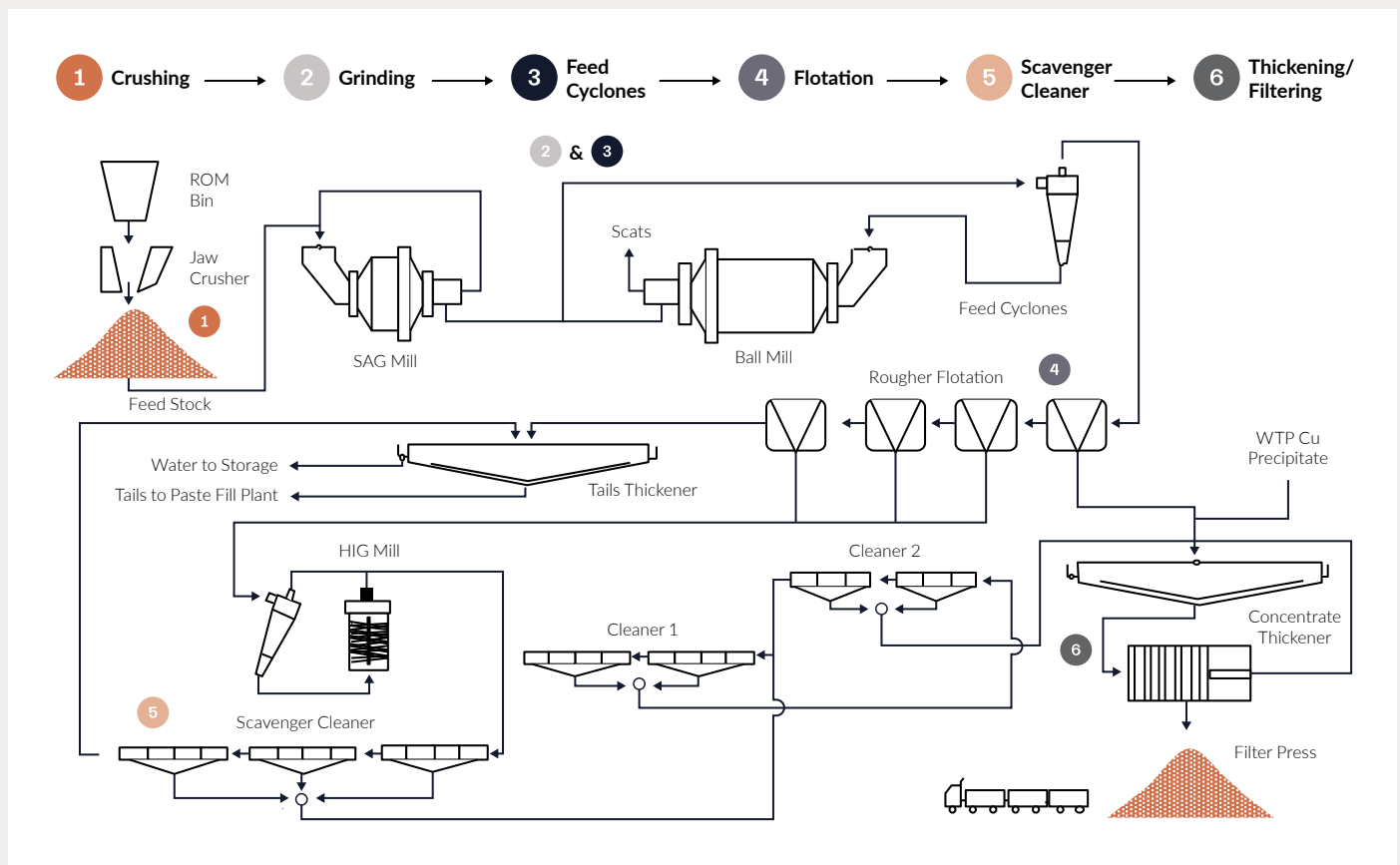
3.11.6 Processing

A critical component of the Capricorn Copper refurbishment and restart project was the refurbishment of the Capricorn Copper process plant following an extended period in care and maintenance (2013–2016).

The Capricorn Copper processing plant is a conventional flow sheet involving crushing, grinding, screening and flotation to produce mineral concentrates. The Capricorn Copper process is depicted in Figure 3.25 and an overview of the process is set out in the table below.

⁴³ Refer to section 10.6.3 for more detail on 29Metals agreements with Byrnegut.

Figure 3.25 – Capricorn Copper process flow sheet



- 1 Crushing**

 - Ore mined is hauled to the surface via truck to the ROM surface stockpile
 - Ore is then fed via front-end loader to a single toggle jaw crusher
 - Crushed ore is then fed to the crushed ore stockpile ('COS') via conveyor
- 2 Grinding**

 - Ore is reclaimed from the COS by plate feeders and delivered to the grinding circuit via conveyor
 - The grinding circuit has two stages comprising a SAG mill and secondary ball mill
 - Target grind size of approximately 106 µm (micrometre) particles
 - The ball mill operates in a closed circuit with hydrocyclones. Oversize material to the ball mill for further grinding and undersize material is the feed for the flotation circuit
- 3 Screening**

 - SAG mill discharge is screened via trommel, with oversize material recycled back to the SAG mill for further grinding via a series of scats conveyors. Undersize material is passed to a cyclone feed sump and from there to the ball mill (see above)
- 4 Flotation**

 - The first stage of flotation is a single train of 4 x 100m³ flotation tank cells where Lime, collector and frother are added
 - The first rougher cell produces final mineral concentrate grade material that is fed to the concentrate thickener (refer below)
 - Concentrate from the remaining three rougher cells is reground in a high-intensity grind mill ('HIG') with the material then passing to scavenger flotation cells
 - Concentrate from the scavenger flotation cells then passes to the cleaner scavenger cells
 - Concentrate from the cleaner flotation cells is final mineral concentrate grade and is fed to the concentrate thickener (refer below)
 - Waste from the flotation circuit is thickened in the tailings thickener before being transported to tailings storage facilities
- 5 Scavenger/ Cleaner**

 - Concentrate from the flotation circuit is fed into a high-rate thickener
 - Thickened concentrate is then pumped to a vertical plate filter to produce a filter "cake" with moisture content of ~10%
 - Concentrate stored in enclosed storage facilities on site
 - Concentrate loaded into containers and trucked from site to Mt Isa Mines Smelter or rail load-out facility in Yurbi
 - Exported concentrate is transported by rail from Yurbi to Port of Townsville
- 6 Thickening/ Filtration and Concentrate production**

Operation and maintenance of the Capricorn Copper processing plant is undertaken by a contractor ('Ausenco')⁴⁴.

44 Refer to section 10.6.8 for a summary of 29Metals' agreement with Ausenco.

3.11.7 Tailings storage facilities

3.11.7.1 Overview

Waste from the processing plant is transported by pipeline, either:

- to the paste plant for placement in underground mine voids; or
- to tailings storage facilities.

An overview of the tailings storage facilities at Capricorn Copper is set out below.

Facility ¹	Design and construction method	Operation	Status
Esperanza TSF ('ETSF')	<ul style="list-style-type: none"> ▪ Constructed as a cross-valley facility ▪ Raises have utilised upstream construction method 	1999–2013	<ul style="list-style-type: none"> ▪ Placed in care and maintenance in 2013 ▪ Environmental approval process underway for additional three metre raise as part of new long-term tailings management strategy for extended life of mine (refer to section 3.11.10)
Esperanza Pit TSF ('EPit')	<ul style="list-style-type: none"> ▪ Pit void from historic open pit mining operations 2017–current (Esperanza open pit) 		<ul style="list-style-type: none"> ▪ Obtained environmental approvals to commence using the EPit as tailings storage facility in 2017 as part of restart and refurbishment project ▪ Current active tailings deposition ▪ Refer below for information regarding life of mine tailings management strategy

Notes:

- 1 In addition, there is an historic tailings storage facility at Capricorn Copper known as the Old Mammoth TSF. Capricorn Copper completed outstanding closure and rehabilitation actions for the Old Mammoth TSF in early 2020.

Capricorn Copper has established tailings storage facility management systems and processes for all active and decommissioned tailings storage facilities, including detailed monitoring, inspections and aerial survey.

ETSF and EPit are also subject to annual assurance inspections undertaken by a third-party tailings storage facilities expert as part of the annual inspection for regulated structures at the site. All regulated structures at the site (which includes TSFs) are required to be inspected and certified annually by a suitably qualified and experienced engineer under the terms of Capricorn Copper's environmental authority and the requirements set out in the *Dam Safety Management Guidelines* applied by the Queensland Department of Natural Resources, Mines and Energy. The annual inspection covers both the EPit and the ETSF. The annual inspection report includes key findings and recommendations.

3.11.7.2 Updated life of mine tailings management strategy

Through the investment in Capricorn Copper, there has been a material extension to forecast mine life. The result of extending the economically productive life of the asset necessitated a review of the tailings management strategy. The updated tailings management strategy adopts a life of mine approach to tailings and subsequent closure and rehabilitation obligations.

The updated strategy is a staged approach over the extended life of mine whereby it is proposed to:

- **Stage 1 (2021):**
 - undertake a 3m lift of the ETSF to increase capacity in preparation for transitioning back to the ETSF for tailings storage for a period of approximately nine months commencing no later than November 2021;
 - continue tailings deposition into the EPit until completion of the ETSF lift;
- **Stage 2 (2022):**
 - once tailings storage has transitioned to ETSF, undertake works to increase the capacity of the EPit and implement diversion and other water run-off mitigation strategies to reduce surface run-off water reporting to the EPit (which, in turn, increases the capacity of the EPit for future tailings storage and reduces the risk of uncontrolled release of contaminated water from the site);
 - following completion of the EPit works, transition tailings storage back to the EPit for a period of approximately three years;
 - undertake a further 3 m lift of the ETSF;
- **Stage 3 (2025):**
 - transition again to storing tailings in the ETSF (following the further lift completed in stage 2) for a period of approximately six months;
 - once tailings storage has transitioned to the ETSF, undertake works to further increase the tailings storage capacity of the EPit;
- **Stage 4 (2026+):**
 - following completion of the further EPit works, transition back to the EPit for a period of approximately two years; and
 - repeat stages 2 to 4 (as required) for the balance of the life of mine.

Each of the stages of the updated tailings management strategy will require separate regulatory approvals that must be applied for, and successfully obtained, progressively over the coming years.⁴⁵

For the purposes of stage 1 of the updated tailings management strategy (above), the regulatory approval process is underway. Capricorn Copper has submitted applications for regulatory approvals to:

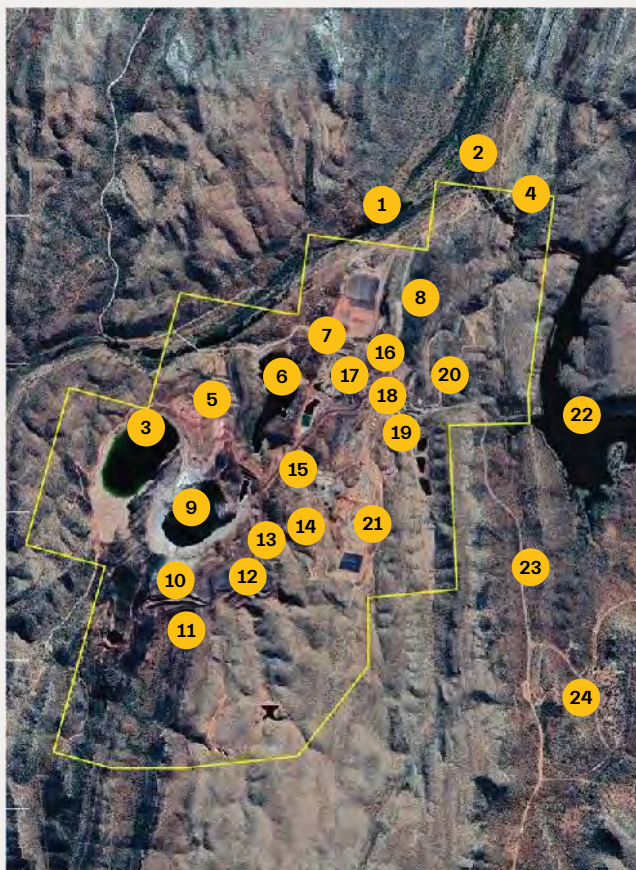
- undertake the ETSF lift and commence tailings deposition in the ETSF; and
- increase the current authorised level for tailings deposition in the EPit, to accommodate the regulatory approval timetable and the time required to complete the construction of the proposed ETSF lift and enable continued deposition of tailings in the EPit pending completion of the ETSF lift.

To accommodate the time required to secure relevant approvals and complete the ETSF lift construction works, 29Metals has adjusted the Capricorn Copper production rate to mitigate the risk of fully utilising available tailings storage capacity in the EPit.⁴⁶ That adjustment to the production profile at Capricorn Copper is reflected in the Forecast Financial Information (refer to section 5.9.2.2 for further information).

3.11.8 Site Infrastructure

Set out below in Figure 3.26 is an overview of the site infrastructure at Capricorn Copper.

Figure 3.26 – Capricorn Copper site infrastructure



- | | |
|-----------------------------------|------------------------------------|
| 1 Gunpowder Creek | 17 ROM |
| 2 Greenstone | 18 Concentrator |
| 3 Esperanza TSF | 19 Mammoth Mine Portal |
| 4 Creek | 20 Ergon Switchyard and Substation |
| 5 North waste Dump | 21 Helipad |
| 6 Mill Creek Dam | 22 Lake Waggaboonya |
| 7 Admin Office | 23 Gunpowder Road |
| 8 Old Mammoth TSF (Rehabilitated) | 24 Mine Camp |
| 9 Esperanza Pit | |
| 10 Esperanza Waste Dump | |
| 11 Esperanza South Mine Portal | |
| 12 Second ROM | |
| 13 Magazine | |
| 14 Paste Plant | |
| 15 Mammoth Waste Dump | |
| 16 Workshops | |

Notes:

- 1 Refer to Figure 3.27.

⁴⁵ Refer to section 6.2.1.2 for information regarding regulatory approval risks.

⁴⁶ Refer to section 5.9.2.2 for further information regarding the specific assumptions applied in the Forecast Financial Information in relation to stage 1 of the updated tailings management strategy. Refer to section 6.2.1.2 for information regarding regulatory approval risks.

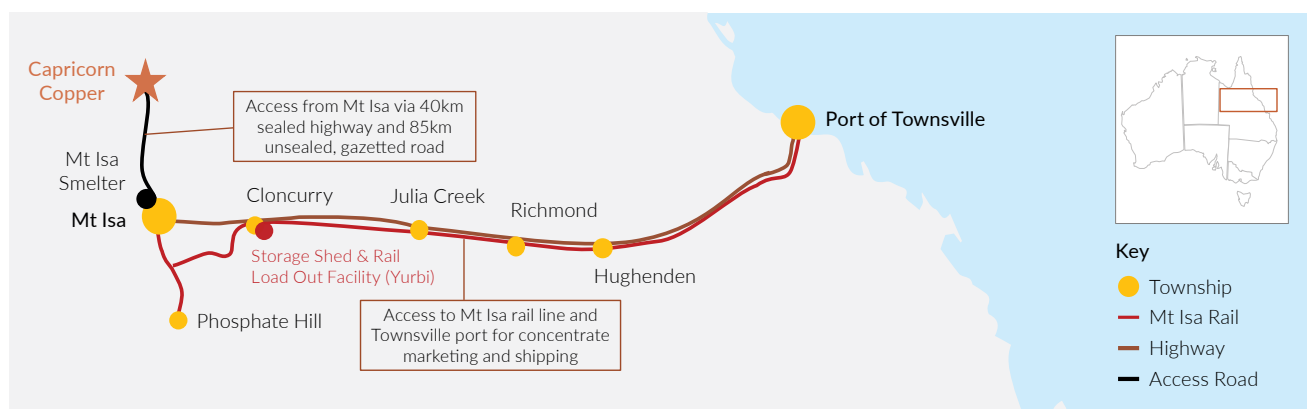
Capricorn Copper infrastructure

Water	<ul style="list-style-type: none"> • Potable water supply to the camp and operations is from Lake Waggaboonya • Water for processing operations is principally drawn from water storage facilities on-site, including the Esperanza Pit tailings storage facility, with some raw water drawn from Lake Waggaboonya. • Water reclaimed from Esperanza Pit is treated via reverse osmosis and blended with raw water drawn from Lake Waggaboonya
Power	<ul style="list-style-type: none"> • Electricity is supplied to the operation via a high voltage transmission line from the 302MW capacity Diamantina power station located in Mt Isa. The power line and the site transformer installation are owned by Ergon Ltd • There is the potential from 2024 onwards for the mine to source power from the proposed “Copper String” development, which involves a new grid connection from Townsville to Mt Isa, which could significantly lower the mine’s power costs
Road Transportation¹	<ul style="list-style-type: none"> • Capricorn Copper is accessed by sealed road from Mt Isa via the Barkly Highway (the highway connecting Tennant Creek and Mt Isa) and a mostly unsealed local road which runs northwards to the mine site from a point on the Barkly Highway about 40 km northwest of Mt Isa • The local access road has a number of creek crossings with concrete causeways which are subject to flooding during and immediately after wet season rainfall. However, access to site is generally only subject to short interruptions. The unsealed road is maintained by Capricorn Copper • All stores, reagents and supplies are trucked to site along the access road, and all concentrate product is trucked from site, either to Mt Isa or to the rail loading facility in Yurbi, approximately 15 km east of Cloncurry
Rail¹	<ul style="list-style-type: none"> • Mineral concentrates are stored separately in an 8,000t-capacity shed at Yurbi prior to loading into rail wagons for transporting by rail to the port of Townsville for export to world markets • Some reagents are also transported by rail from Townsville to Mt Isa
Port¹	<ul style="list-style-type: none"> • Concentrate is transported from site by road to Yurbi for transportation by rail to the Port of Townsville for dispatch to customers or by Road to the Glencore-owned smelter in Mt Isa • Rail transportation via Yurbi is under a concentrate handling agreement with South32
Airstrip	<ul style="list-style-type: none"> • A sealed airstrip is located around 10 km south of the mine-site adjacent to the access road to the mine. Most employees travel to the operation by road from Mt Isa (company transport is co-ordinated with commercial flights into Mt Isa) but the mining contractor utilises the airstrip to support charter flights for some of its employees from Townsville and Cairns
Camp	<ul style="list-style-type: none"> • Employee accommodation is located around 4 km southeast of the mine site. The camp comprises around 325 single rooms with attached bathrooms and messing facilities

Notes:

1 Refer to Figure 3.27.

Figure 3.27 – Capricorn Copper mineral concentrate logistics map



3.11.9 Mineral concentrates sales and marketing

Capricorn Copper produces copper mineral concentrates which include silver. At Capricorn Copper, 29Metals has a long-term copper concentrate Offtake Contract in place with Trafigura that it is likely to cover the vast majority of copper concentrate produced at Capricorn Copper until expiry in 2026. In certain circumstances, the Trafigura Offtake Contract at Capricorn Copper will continue for life of mine.

Further information regarding the Capricorn Copper Offtake Contracts, including the circumstances in which the contract may be extended for the life of mine, is included in section 10.6.6.

3.11.10 Organic Growth opportunities

3.11.10.1 Productivity and operational improvements

29Metals has a number of identified productivity and operational improvement opportunities at Capricorn Copper which provide 29Metals with additional operational flexibility and production growth potential.

Set out below is further information regarding productivity and operational improvement opportunities identified by 29Metals none of which are currently included in the Capricorn Copper mine plan⁴⁷ during the five-year period 2021–2025 (inclusive).

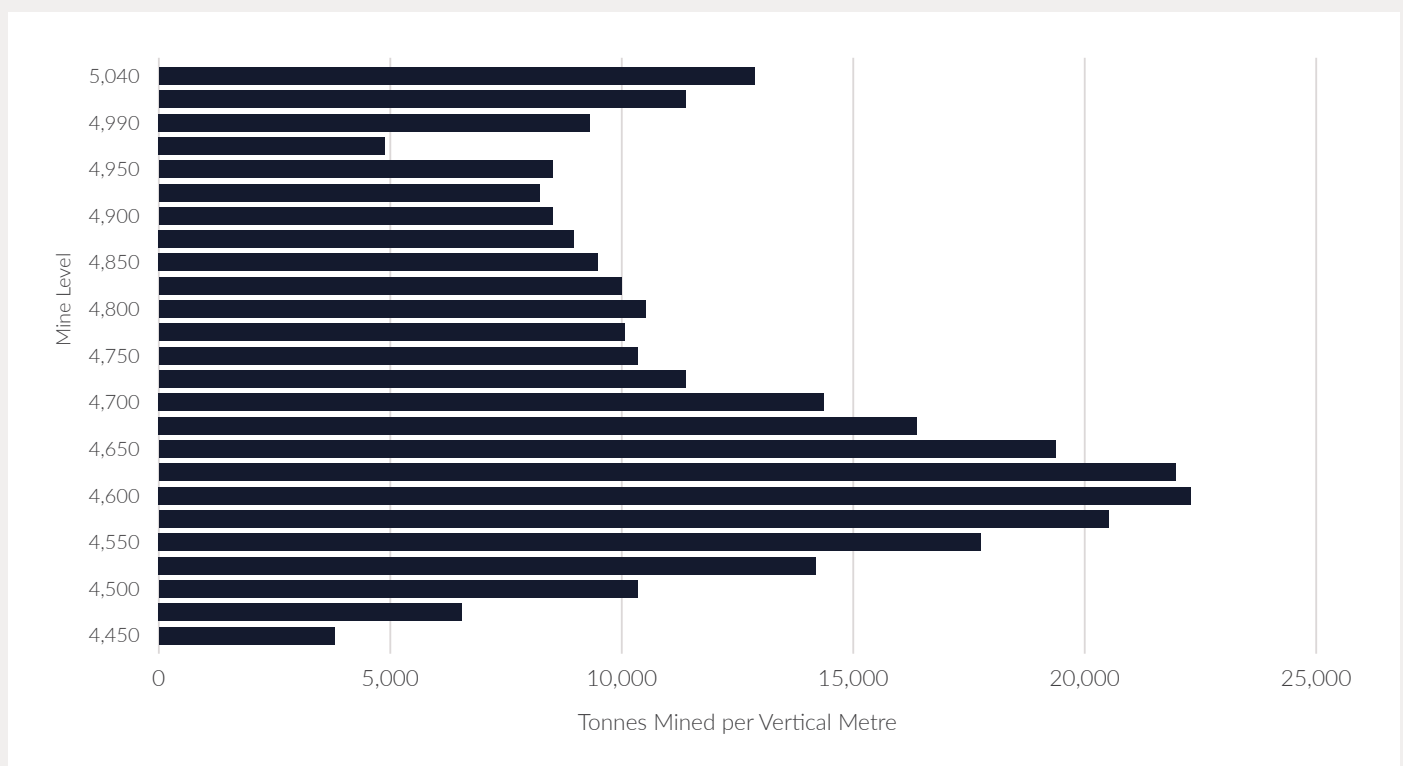
Capricorn Copper – identified productivity and operational improvement opportunities

Milling and mining rate	<ul style="list-style-type: none"> Milling and mining at annualised rate of 2 Mtpa was achieved in the second half of 2020 Opportunity to establish consistent mining and milling rate of 2 Mtpa Current mine plan¹ includes increasing tonnes per vertical metre at Esperanza South, which, combined with the resource extension potential referred to in section 3.11.10.2 (refer below), has the potential to underpin a consistent mining rate of 2 Mtpa. Refer to Figure 3.28 which depicts tonnes per vertical metre in Esperanza South generally increasing at depth
Early access to Pluto ore	<ul style="list-style-type: none"> Pluto higher grade Mineral Resource² Opportunity to potentially bring forward access to the higher-grade Pluto ore in the mine plan, subject to further technical studies and test work

Notes:

- 1 Refer to Capricorn Copper Technical Report in section 11 (Technical Reports) for information regarding the Capricorn Copper mine plan.
- 2 Refer to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals Ore Reserves and Mineral Resources estimates, including Competent Persons statements. Refer also to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources estimates, and section 6 (Risks) for risks relating to Ore Reserves and Mineral Resources estimates.

Figure 3.28 – Esperanza South tonnes mined per vertical metre

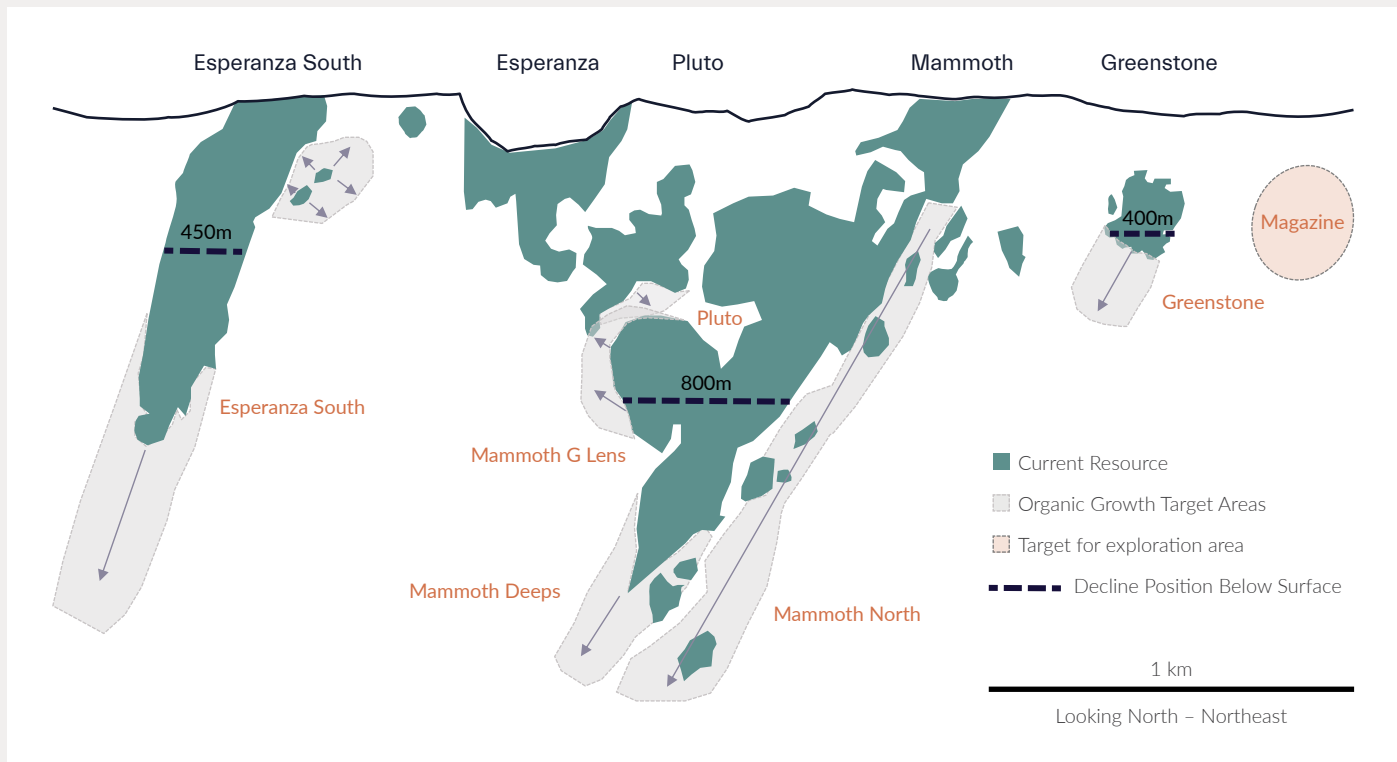


⁴⁷ Refer to Capricorn Copper Technical Report in section 11 (Technical Reports) for information regarding the Capricorn Copper mine plan.

3.11.10.2 Near-mine and in-mine growth opportunities

Capricorn Copper has a number of *in-mine* and *near-mine* growth opportunities as shown in Figure 3.29 and outlined below. None of the opportunities shown is currently included in the Capricorn Copper mine plan⁴⁸ for the five-year period 2021–2025 (inclusive).

Figure 3.29 – Long-section – Capricorn Copper *in-mine* and *near-mine* growth opportunities



In-mine / near-mine opportunity

	Current Status and priority activity
Greenstone	<ul style="list-style-type: none"> Active Mining Area Mineral Resource¹: 2.1 Mt @ 1.8% Cu, 77 ppm Co Open at depth 2 km of resource conversion drilling planned for 2021
Mammoth Deeps	<ul style="list-style-type: none"> Active Mining Area Mineral Resource¹: 6.9 Mt @ 1.9% Cu Open at depth and partially along strike 4.3km of resource conversion drilling planned for 2021
Esperanza South	<ul style="list-style-type: none"> Active Mining Area Mineral Resource¹: 16.9Mt @ 1.7% Cu 645ppm Co, 16g/t Ag Open at depth (remains open down plunge). Potential for the orebody to widen at depth (refer to long-section above) Opportunity to further grow Esperanza South and provide base load to the mine plan for an extended period 5.6km of resource conversion drilling planned for 2021

Notes

- 1 Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources estimates. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

48 Refer to Capricorn Copper Technical Report in section 11 (Technical Reports) for information regarding the Capricorn Copper mine plan.

In-mine/near-mine opportunity

Current Status and priority activity

Esperanza South

Pluto

- Approximately 400m from Mammoth
- Mineral Resource¹: 3.2 Mt @ 2.1% Cu
- Partially open along strike

Mammoth North

- Approximately 200m from Mammoth
- Mineral Resource¹ (only inferred² category): 1.6 Mt @ 1.26% Cu
- Open at depth and along strike
- Targeting the intersection between the Mammoth extended and portal faults where there have been significant high-grade intersections. 1.4 km plunge to test
- Focus in 2021 is to follow up on historic drilling results at a spacing suitable to support Mineral Resource
- 2.5 km of Resource Extension drilling planned for 2021

Notes

- 1 Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources estimates. Refer also to section 4 (Ore Reserves and Mineral Resources) for more information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Person's statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.
- 2 There is a low level of geological confidence associated with *Inferred Resources* and there is no certainty that further exploration work will result in the determination of *Indicated Resources*. Refer to section 2.3.2 for further information regarding *Inferred Resources*.

3.11.10.3 Exploration

Refer to section 3.12.2 for information regarding exploration, including regional exploration, at Capricorn Copper.

3.11.11 Health, Safety & Environment

Capricorn Copper operates an HSEC management system aligned with international standards for management systems and risk management (ISO14001, ISO45001 and ISO31000). The HSEC management system provides a structured and systematic approach to identifying and managing the site's HSEC risks and opportunities, enabling continuous improvement. The HSEC management system was further refined in 2020 with updated performance standards and procedures.

A number of safety improvement activities were completed in 2020, including:

- Development and implementation of strong and effective COVID-19 controls;
- Critical control assurance audits for the site's major safety risks were embedded across all departments;
- Review and update of the site wide risk assessment;
- Two independent site wide safety audits completed; and
- Continued regular emergency response team training.

Capricorn Copper operates under an environmental management system implemented by an on-site dedicated environment management team, focused on site critical environmental risks and associated controls. The environmental management system includes monitoring of environmental impacts on site and in the receiving environment (including water quality monitoring).

Historic compliance issues and water management

As noted above, the area now known as Capricorn Copper has a long history of small and larger-scale mining operations and related activities. Historical environmental compliance issues (which pre-date EMR Capital ownership of the asset) resulted in a series of legal actions being successfully pursued by regulatory authorities against previous owners and operators of the mine.

A critical environmental risk at Capricorn Copper is the level of accumulated water held in regulated on-site storage facilities, which exceeds the prescribed limits for the onset of the traditional wet season (November to April).

In 2019, the Queensland Department of Environment and Science ('DES') issued an Environmental Protection Order ('EPO') requiring Capricorn Copper to take various steps to reduce stored water levels and mitigate the risk of an uncontrolled release of untreated water to the receiving environment.

Following completion of the 2019/20 wet season (November – April), Capricorn Copper engaged with the DES to discuss measures required to address the ongoing risk of uncontrolled release of water from the site as well as the historic Court orders. Following that engagement, the DES issued a new EPO setting out further actions required to be taken by Capricorn Copper to further reduce stored water levels and mitigate the risk of an uncontrolled release of untreated water from the site. In addition, the historic Court orders were vacated by the Court with the consent of DES.

The requirements of the 2020 EPO apply until 1 November 2022 or when the levels of stored water in all of the regulated structures is below the prescribed limits for the beginning of the wet season (whichever occurs first).

From 8 March 2021 only one relevant facility exceeds the prescribed limits for the beginning of the wet season (the other two facilities are within the prescribed limit). That facility, the EPit, remains above prescribed limits, however, the water level in the EPit has been lowered by approximately 6.2 vertical metres as a result of the actions taken by Capricorn Copper since November 2020.

In addition, consistent with its commitments under the EPO, Capricorn Copper has a number of ongoing projects with the objective of reducing the amount of raw water used by the site in normal operations (such as process water) and maximising the re-use of treated water, directed at:

- achieving a negative water balance and preventing accumulation of excess water on site; and
- reducing Capricorn Copper's consumption of critical natural resources (in this case, water).

The focus on water management at Capricorn Copper has resulted in a 46% reduction in the volume of fresh water drawn by Capricorn Copper in 2020 (relative to 2019).

3.11.12 Community, Native Title and Cultural Heritage

3.11.12.1 Community

Capricorn Copper makes a significant contribution to the local and regional community, and the state of Queensland, by way of mineral royalties, wages, local suppliers and community programs and donations.

The table below summarises the direct and indirect contributions to the community at Capricorn Copper in 2020.

Direct and indirect economic and community contributions

Direct and indirect economic contributions	<ul style="list-style-type: none"> ▪ Wages – \$14.5 million ▪ Local/regional contractors – \$10 million (aggregate contract award value)
Employment	<ul style="list-style-type: none"> ▪ 16% of the workforce resides locally
Community programs and donations	<ul style="list-style-type: none"> ▪ Community program and donations contributions – \$90,000

Capricorn Copper also operates an active stakeholder engagement program, maintaining relationship with stakeholders including traditional owners and neighbouring pastoralists. Some of the key community contributions and programs at Capricorn Copper include:

- re-established Civil Aviation certification of the local airport, enabling commercial aircraft access to the local community;
- upgraded and maintained local roads, providing long lasting infrastructure benefits; and
- sponsorship of a number of community organisations.

3.11.12.2 Native title and cultural heritage

All Capricorn Copper mining tenements are valid for Native Title purposes. Capricorn Copper has entered into certain native title agreements, including ancillary agreements and deeds of variation, which include non-binding targets for employment positions for native title holders in roles relating to the project and contracts for the supply of goods and services relating to the project to associated businesses.

Capricorn Copper has entered into a cultural heritage management agreement with a local indigenous group for ML 90180, ML 90181 and ML 90182, on relatively standard terms for agreements of this kind. Key terms of the agreement include:

- acknowledgement that a cultural heritage survey was conducted prior to entry into the agreement;
- monitoring of high impact activities in defined areas by representatives of the Native Title Party⁴⁹;
- processes for agreeing on the management of new discoveries of Aboriginal cultural heritage;
- responsibility on Capricorn Copper for storage and safety of all artefacts and significant Aboriginal objects removed from the project area to facilitate the project, which can be discharged by payment to the Native Title Party of reasonable costs to store, manage and ensure long-term safety;
- remuneration of Native Title Party representatives for performing services under the agreement; and
- dispute resolution procedures.

⁴⁹ Kalkadoon Native Title Aboriginal Corporation.

3.11.13 Workforce

The total workforce at Capricorn Copper is 337 on an FTE basis, inclusive of contractors. The breakdown of the Capricorn Copper workforce is set out below:

Department	Capricorn Copper/ Contractor	Pax
Mining	Mining Contractor	175
Mining Technical & Exploration	Capricorn Copper	36
Process & Maintenance	Plant Contractor	92
Safety & Sustainability	Capricorn Copper	12
Corporate, Finance and HR	Capricorn Copper	5
Accom & Site Services	Site Services Contractor	17
Total		337

The workforce, including contractor personnel, all work on a roster system. Rosters vary across employees and contractors, including to account for work priorities, but are typically fifteen-on thirteen-off, eight-on and six-off, or eleven-on and ten-off.

The majority of the workforce, including contractor personnel are *drive-in drive-out* ('DIDO')/FIFO with approximately 70% of the workforce residing in Queensland, including 10% that reside in the local Mount Isa area.

3.11.14 Key Capricorn Copper suppliers

Capricorn Copper has the following key suppliers:

- Byrnegut – the underground mining services contractor; and
- Ausenco – the operations and maintenance services contractor.

Further information regarding the contractual arrangements with key suppliers at Capricorn Copper is included in section 10.6.

3.11.15 Tenements⁵⁰

The Capricorn Copper tenements comprise four exploration permits for minerals and 31 mining leases, granted under the *Mineral Resources Act 1989* (Qld). Details regarding the Capricorn Copper tenements are set out in the following table.

Capricorn Copper tenements

	Tenement	Original Grant Date	Current Expiry Date
1.	EPM 26421	08/12/2017	07/12/2022
2.	EPM 26422	08/12/2017	07/12/2022
3.	EPM 26423	08/12/2017	07/12/2022
4.	EPM 26424	08/12/2017	07/12/2022
5.	ML 5407	02/11/1972	31/03/2030
6.	ML 5412	07/03/1974	31/03/2028
7.	ML 5413	07/03/1974	31/03/2027
8.	ML 5418	07/03/1974	31/03/2027
9.	ML 5419	07/03/1974	31/03/2027
10.	ML 5420	07/03/1974	31/03/2027
11.	ML 5429	07/03/1974	31/03/2032
12.	ML 5430	07/03/1974	31/03/2030
13.	ML 5441	07/03/1974	31/03/2030
14.	ML 5442	07/03/1974	31/03/2030
15.	ML 5443	07/03/1974	31/03/2030
16.	ML 5444	07/03/1974	31/03/2030
17.	ML 5451	07/03/1974	31/03/2030
18.	ML 5454	07/03/1974	31/03/2028
19.	ML 5457	07/03/1974	31/03/2028
20.	ML 5459	07/03/1974	31/03/2028
21.	ML 5467	07/03/1974	31/03/2028
22.	ML 5469	17/01/1974	31/01/2026
23.	ML 5470	10/01/1974	31/01/2026
24.	ML 5485	30/05/1974	31/03/2026
25.	ML 5486	10/01/1974	31/03/2027
26.	ML 5489	27/09/1973	31/03/2026
27.	ML 5500	17/01/1974	31/03/2026
28.	ML 5548	12/06/1975	30/06/2017 (renewal lodged)
29.	ML 5549	13/02/1975	31/03/2029
30.	ML 5550	01/03/1976	28/02/2017 (renewal lodged)
31.	ML 5562	01/11/1981	31/10/2023
32.	ML 5563	21/01/1982	31/01/2024
33.	ML 90180	05/01/2018	31/01/2033
34.	ML 90181	05/01/2018	31/01/2033
35.	ML 90182	05/01/2018	31/01/2033

⁵⁰ Refer to section 6 (Risks) for information regarding risks associated with security of mining tenure and section 10 (Additional Information) for information regarding the regulatory framework in Queensland in relation to mining tenements.

3.12. Exploration^{51,52}



Key Highlights

Substantial prospective exploration interests across three jurisdictions

- **Golden Grove;** Mining leases covering 129km² contain five drill ready targets within 10km of current mine
- **Capricorn Copper:** One of the largest land packages in the Mount Isa region with 1,858km² of highly prospective, relatively unexplored ground
- **Redhill:** Historic mine site with significant known high-grade copper, gold and silver mineralisation and 227km² regional tenement position in Chile, providing access to the world's largest copper producing country

Systematic and disciplined approach

to exploration, seeking to identify, prioritise, test and prove economic mineralisation to define potential upside

Figure 3.30 – 29Metals exploration portfolio



GOLDEN GROVE
Western Australia, Australia

CAPRICORN COPPER
Queensland, Australia

HEAD OFFICE
Melbourne, Australia

REDHILL
Chile, South America

GOLDEN GROVE

Mining Leases

129km²

Prospective For

- C Copper S Silver
- Z Zinc L Lead
- G Gold

CAPRICORN COPPER

Mining and Exploration Leases

1,858km²

Prospective For

- C Copper S Silver
- G Cobalt L Lead
- Z Zinc

REDHILL

Exploration and
Exploitation Concessions

227km²

Prospective For

- C Copper S Silver
- G Gold

⁵¹ Refer to Important Information at the beginning of this Prospectus regarding references to Ore Reserves and Mineral Resources in this Prospectus. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding the risks associated with Ore Reserves and Minerals Resources estimates, and exploration.

⁵² There is a low level of geological confidence associated with *Inferred Resources* and there is no certainty that further exploration work will result in the determination of *Indicated Resources*. Refer to section 2.3.2 for further information regarding *Inferred Resources*.



3.12.1 Overview

29Metals has a large exploration portfolio comprising:

- a regional tenement position at Capricorn Copper, in the highly prospective Western Fold Belt of the Mount Isa Inlier totalling 1,858 km² of exploration leases;
- mining leases totalling 129 km² at Golden Grove containing all known occurrences of the Golden Grove Formation as well as ground prospective for stand-alone shear/vein hosted gold deposits; and
- a 227 km² regional tenement position at Redhill in Chile, providing 29Metals with a toehold in a highly prospective region in the largest copper producing country globally.

29Metals intends to take a systematic and disciplined approach to exploration, seeking to identify, prioritise, test and prove economic mineralisation, and leverage off an extensive knowledge-base and history of discovery at the 29Metals assets.

The objectives of the Company's exploration activities are to:

- increase Mineral Resources, including moving material that is currently unclassified for JORC reporting purposes into Mineral Resources;
- increase the level of confidence in our mineral inventory to:
 - support re-classifying material classified as Inferred Mineral Resources to Measured or Indicated Mineral Resources categories;
 - support re-classifying material classified as Mineral Resources to Ore Reserves; and
- identify new deposits with the potential to be:
 - new ore sources at our existing producing mines, thereby extending mine life, providing additional operating flexibility or increasing production; or
 - new mines.

3.12.2 Capricorn Copper

29Metals holds exploration interests covering approximately 1,858 km² within the highly prospective Western Fold Belt of the Mount Isa Inlier.

This region is host to the world class Mount Isa mine (Pb, Zn, Ag and Cu), as well as the Lady Annie, Mt Oxide, Lady Loretta and Century mines (among others).

29Metals' approach to exploration in the Capricorn Copper regional tenement package is framed around the regional characteristics summarised below.

Regional characteristics

Known Deposit types	<p>Structurally controlled copper – examples include:</p> <ul style="list-style-type: none"> ▪ Mammoth, Esperanza South, Esperanza, Greenstone (Capricorn Copper) ▪ Mt Oxide, Mt Kelly, Lady Annie (third-party properties) <p>Sediment-hosted lead, zinc, silver – examples include:</p> <ul style="list-style-type: none"> ▪ Mount Isa mines, George Fisher – Hilton, Lady Loretta (third-party properties) <p>Strata bound copper – examples include:</p> <ul style="list-style-type: none"> ▪ Mt Watson, Walford Creek (third-party properties)
Favourable host rocks	<ul style="list-style-type: none"> ▪ Whitworth quartzite ▪ Surprise creek formation ▪ McNamara group siltstones ▪ Mt Isa group siltstones
Significant regional structures	<p>Regional north-east trending faults:</p> <ul style="list-style-type: none"> ▪ Esperanza fault ▪ Mt Gordon fault <p>Regional east-west trending faults:</p> <ul style="list-style-type: none"> ▪ Mammoth fault ▪ Mammoth Extended fault ▪ Investigator fault ▪ Crocodile fault ▪ Mt Jeanette fault ▪ Mt Robert fault

Figure 3.31 – Capricorn Copper regional setting

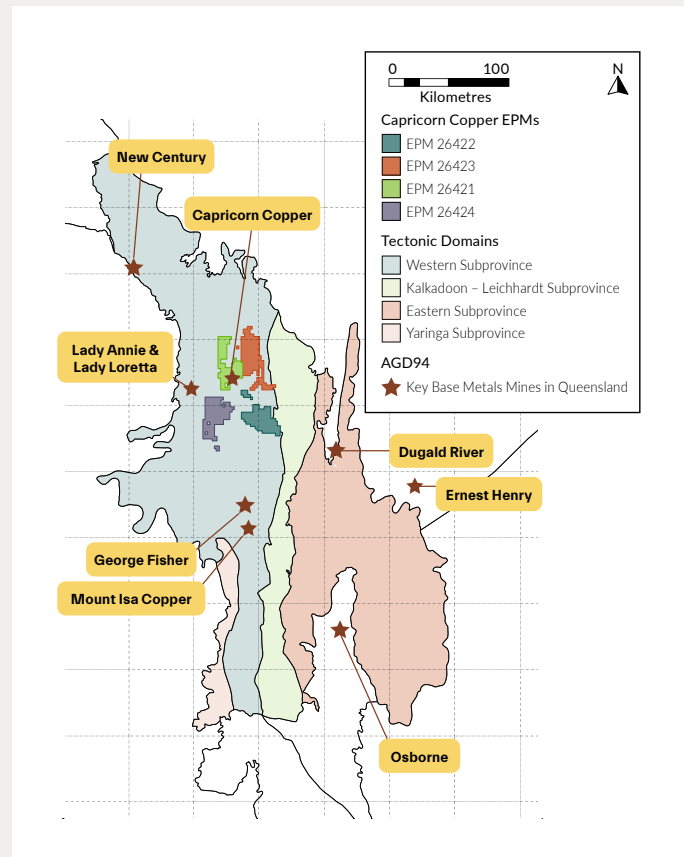
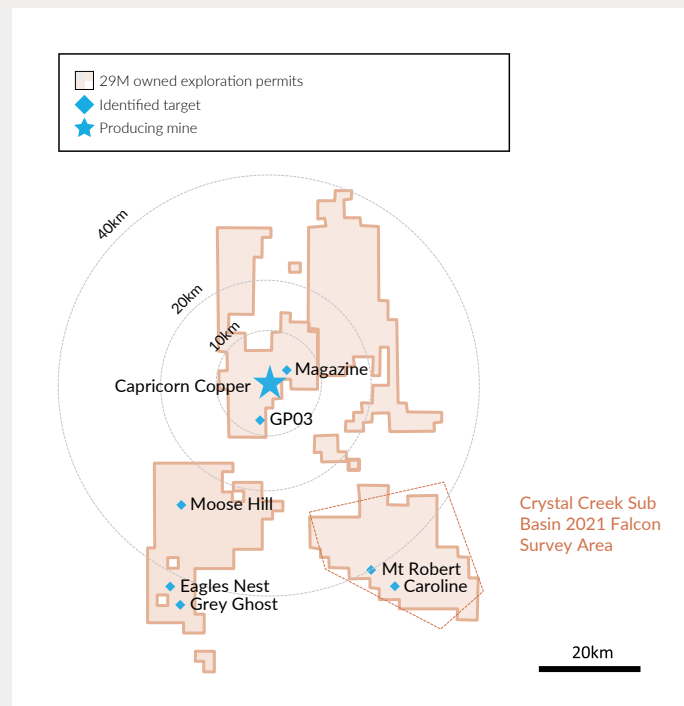


Figure 3.32 – Capricorn Copper key targets for exploration



Information regarding 29Metals key targets for future exploration at Capricorn Copper is set out in the following table. This does not represent the entire list of prospects or targets on the leases.

Capricorn Copper – targets for exploration and prospects

Target	Target Metal	Proximity to Mine (km)	Description	Work Completed
Drill ready targets				
Magazine	Cu	1	Exploration Target immediately north of Greenstone associated with the mammoth extended fault	Mapping, soil sampling, 2x drillholes in 2018
GP03	Cu, Ag	3	Similar soil geochemistry to Esperanza South and located within the same structural setting as Esperanza South. Two drillholes conducted in 2018 intersected heavy brecciation and significant leaching	Mapping, soil sampling, 2x drillholes in 2018, ground gravity
Moose Hill	Cu, Ag	28	Coherent Cu in soil anomaly (>500ppm) over an area of 350 m x 220 m adjacent to the east west trending Crocodile Fault. Historical drillhole did not test the main copper anomaly	Historic drilling, mapping, soil sampling, and ground gravity
Eagles Nest	Cu, Ag	43	Coherent Cu in soil anomaly associated with east-west faulting. Some historic drilling only partially testing the area	Historic drilling, mapping, soil sampling, and ground gravity
Grey Ghost	Pb, Zn, Ag	45	Untested coherent Pb in soil anomaly, with strong core over 920 m strike length. Dispersed zinc in soil anomaly present to the north. Pb anomaly is just to the east of the Mt Gordon Fault, a major structure in the Mt Isa Region	Mapping, soil sampling, and ground gravity
Mt Robert	Cu	39	Area of significant copper in soil anomalism associated with historic artisanal copper mining activity hosted within the east-west Mt Robert Fault	Historic drilling, mapping, soil sampling
Caroline	Cu	42	Elevated soil geochemistry with a coincident ground electromagnetic conductor on a southeast extension of the Mt Robert Fault. Best historic drilling was relatively near surface	Historic drilling, historic ground EM, mapping, soil sampling
Prospects				
Crystal Creek Sub-Basin	Pb, Zn, Ag	39	Broad area of lead-zinc anomalism within Mt Isa Group rocks suggests the potential for a deposit at depth	Contains drill ready targets Mt Robert and Caroline. FALCONplus survey covering entire block conducted March 2021

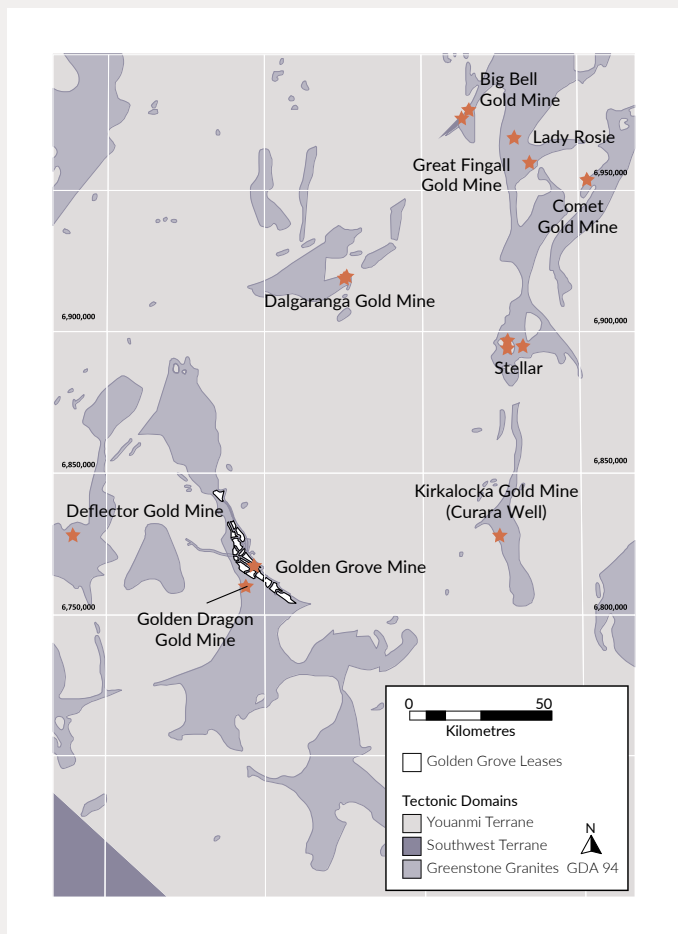
3.12.3 Golden Grove

The area covered by the Golden Grove mining leases, covering approximately 129 km² has a history of discovery.

The Golden Grove mining leases cover all known occurrences of the Golden Grove formation and are also considered prospective for gold within the overlying formations.

However, despite the maturity of Golden Grove as a mineral province, the Golden Grove tenements remain relatively under-explored with limited exploration drilling undertaken outside the areas of known mineralisation at Scuddles, Gossan Hill and Gossan Valley (and immediate surrounds). In particular, historic exploration has focused on identifying sulphide mineralisation within 400 m of surface (other than at Scuddles, Gossan Hill, Gossan Valley and surrounding areas where drilling associated with known mineralisation has extended to depths up to 1.8 km). As a result, 29Metals considers Golden Grove remains prospective for further exploration success.

Figure 3.33 – Golden Grove regional setting

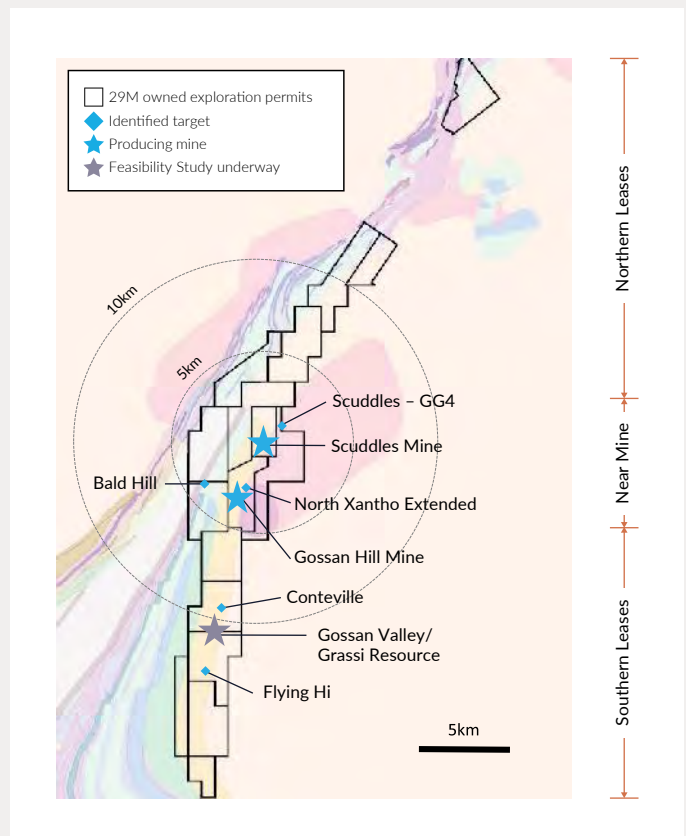


Our approach to continuing exploration at Golden Grove is framed around the regional characteristics summarised below.

Regional characteristics

Known Deposit types	<p>VHMS – examples include:</p> <ul style="list-style-type: none"> Gossan Hill, Scuddles and Gossan Valley (Golden Grove) <p>Shear/vein hosted and disseminated gold – examples include:</p> <ul style="list-style-type: none"> Golden Dragon district (adjacent to Golden Grove) (third party property)
Favourable host rocks	<ul style="list-style-type: none"> Golden Grove formation (base metals) Scuddles formation (base metals) Mougooderra formation (gold)
Significant regional structures	<p>Regional north-northwest trending shear zones:</p> <ul style="list-style-type: none"> Chulaar shear Mougooderra shear

Figure 3.34 – Golden Grove regional structures



Information regarding 29Metals key exploration targets at Golden Grove is set out in the following table.

Golden Grove – targets for exploration and prospects

Target	Target Metal	Proximity to Mine (km)	Description ^{1,2}	Work Completed
Drill ready targets				
Xantho Extended North	Zn, Cu, Pb, Au, Ag	<1	<ul style="list-style-type: none"> Conceptual target directly north of Gossan Hill mine related to the presence of a large dacite intrusion north of the Xantho Extended resource. Large dacite may be occupying an original feeder for VHMS mineralisation. Prospective units directly to the north of the dacite have not been drill tested. 	Geological modelling and interpretation
Scuddles-GG4	Cu	<1	<ul style="list-style-type: none"> The GG4 stratigraphic position at Scuddles is poorly tested, with drilling primarily focusing on testing the mineralised GG6 position. GG4 at Gossan Hill hosts significant mineralisation such as the Tryall orebody which has a Mineral Resource of 2.1 Mt @ 2.31% Cu. Historic drilling has intersected both Cu and Zn mineralisation, however no significant follow up or systematic drill testing of the GG4 position has been completed. 	Geological modelling and interpretation
Conteville	Cu, Zn, Au, Ag	7	<ul style="list-style-type: none"> Base metals mineralisation directly north of Gossan Valley. Current Mineral Resources (inferred category) of 150 kt @ 8.3% Zinc, 24g/t Ag, and 0.5g/t Au. Open north, south, and at depth. 	Historic Drilling, Geological modelling and interpretation, resource modelling
Flying Hi	Cu, Zn, Au, Ag	10	<ul style="list-style-type: none"> Near surface Mineral Resources (inferred category) of 670 kt @ 2.1% Copper, 2.6% Zinc, 18g/t Ag, and 0.6g/t Au. 	Historic Drilling, Geological modelling and interpretation, resource modelling
Bald Hill	Au	2	<ul style="list-style-type: none"> A machine learning algorithm owned by third party SensOre has predicted a large intrusion related gold deposit on the Golden Grove Mine leases. The certainty and accuracy of the prediction are unknown due to the proprietary nature of the predictive algorithm. 	Predictive algorithm, multi-element geochemistry on historic pulps

Notes

- 1 Refer to Important Information at the beginning of this Prospectus regarding references to Ore Reserves and Mineral Resources in this Prospectus. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources, including Competent Person's statements, and section 6 (Risks) for information regarding the risk associated with Ore Reserves and Minerals Resources estimates.
- 2 There is a low level of geological confidence associated with *Inferred Resources* and there is no certainty that further exploration work will result in the determination of *Indicated Resources*. Refer to section 2.3.2 for further information regarding *Inferred Resources*.

3.12.4 Redhill



Redhill comprises the Cutters project, located in the area of a high-grade historical *Cutters Cove* copper mine, and a prospective regional tenement package covering over 500 km strike in Chile, the largest copper mining nation globally.

Snapshot of Redhill

Location	Redhill is located in Region XII, the southernmost region of Chile, approximately 110 km southwest of the regional capital city of Punta Arenas
Ownership	100%
Minerals	C Copper S Silver G Gold
Status	Regional exploration Conceptual mine study (Cutters Project)
Mineralisation type	Mesothermal polymetallic quartz-sulphide veins ("Cutters style"); VHMS; orogenic and epithermal gold deposits
Mineral Resource ¹	4.3 Mt at 1.9% Cu-eq ² (Cutters Project) (inferred category ³)

Notes:

- 1 Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer to section 4 (Ore Reserves and Mineral Resources) for further information regarding Ore Reserves and Mineral Resources estimates, including Competent Persons' statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.
- 2 Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the calculation and use of copper equivalent (Cu-eq) metrics in this Prospectus.
- 3 There is a low level of geological confidence associated with *Inferred Resources* and there is no certainty that further exploration work will result in the determination of *Indicated Resources*. Refer to section 2.3.2 for further information regarding *Inferred Resources*.

3.12.4.1 Overview

Redhill lies on the eastern shore of the Canal Jeronimo, a fjord used for shipping to transport coal from the nearby Mina Invierno coal facility, and by the local fishing industry. Access to Redhill from Punta Arenas is by an initial 120 km drive on paved and all-weather gravel road to the settlement of Lina and then approximately 50 km by boat.

Since EMR Capital's initial investment in 2012, US\$14 million has been invested to advance the Cutters project through exploration and evaluation, including three drilling programs, supporting a maiden Mineral Resources estimate of 4.3 Mt @ 1.7% Cu, 34 g/t Ag and 0.3 g/t Au (1.9% Cu-eq) (*Inferred Resource* category⁵³), and completing a conceptual mine study for the project.

Figure 3.35 – Major milestones in Redhill's history

1970-75	▪ 212 kt of ore produced @ 1.72% Cu
1991-93	▪ Regional sampling across property that identified 48 priority targets
2006	▪ Exeter Resources acquired the project
2007	▪ Conducted exploration drilling on previously identified targets
2011	▪ Redhill acquired the project package
2012	▪ EMR Capital made its first investment in Redhill in 2012
2013	▪ Phase I Drilling Program – ten holes (1,797 m)
2014	▪ Phase II Drill Program – seven holes (542 m)
2015	▪ Completed geophysical survey and identified new drill targets ▪ First regional exploration campaign
2016	▪ Phase III Drill Program – ten holes (1,835 m) ▪ Mineral Resources for Cutter project of 4.3 Mt @ 1.9% Cu-eq ^{1,2}
2017	▪ Second regional exploration campaign and conceptual mine study

Notes:

- 1 Refer to Important Information at the beginning of this Prospectus regarding the use of copper equivalent (Cu-eq) in this Prospectus.
- 2 Mineral Resources estimate for Cutters project is *Inferred Resources*. There is a low level of geological confidence associated with *Inferred Resources* and there is no certainty that further exploration work will result in the determination of *Indicated Resources*. Refer to section 2.3.2 for further information regarding *Inferred Resources*.

3.12.4.2 Cutters Project

The Cutters project is centred on the historic Cutters Cove underground mine which operated from 1971 to 1975.

The Cutters project area includes six identified areas of mineralisation – referred to as Cristina, Cutters, Ingleses, Angelica, Gorda and Franceses.

Since 2013 three drilling programs (totalling 4,174 m) and surface sampling around Cutters Cove has been undertaken to support a maiden Mineral Resources estimate of 4.3 Mt @ 1.9% Cu-eq (82 kt Cu-eq)⁵⁴, with potential to expand the resource base.

During 2016 and 2017, Redhill completed a conceptual mine study to assess the project's technical viability and to demonstrate that there were no material technical, regulatory or social barriers to the future development of the mine and associated mineral processing facilities.

No decision has been taken at this stage regarding progressing the Cutters project towards development. 29Metals' strategy in relation to Redhill is to continue to test the regional prospectivity of the tenement landholding to assist with further de-risking the project and identifying potential for additional economic mineralisation within the Cutters project area.

53 There is a low level of geological confidence associated with *Inferred Resources* and there is no certainty that further exploration work will result in the determination of *Indicated Resources*. Refer to section 2.3.2 for further information regarding *Inferred Resources*.

54 Refer to Important Information at the beginning of this Prospectus regarding Ore Reserves and Mineral Resources. Refer to section 4 (Ore Reserves and Mineral Resources) for further information regarding Ore Reserves and Mineral Resources estimates, including Competent Persons' statements, and section 6 (Risks) for information regarding risks associated with Ore Reserves and Mineral Resources estimates.

3.12.4.3 Regional Exploration

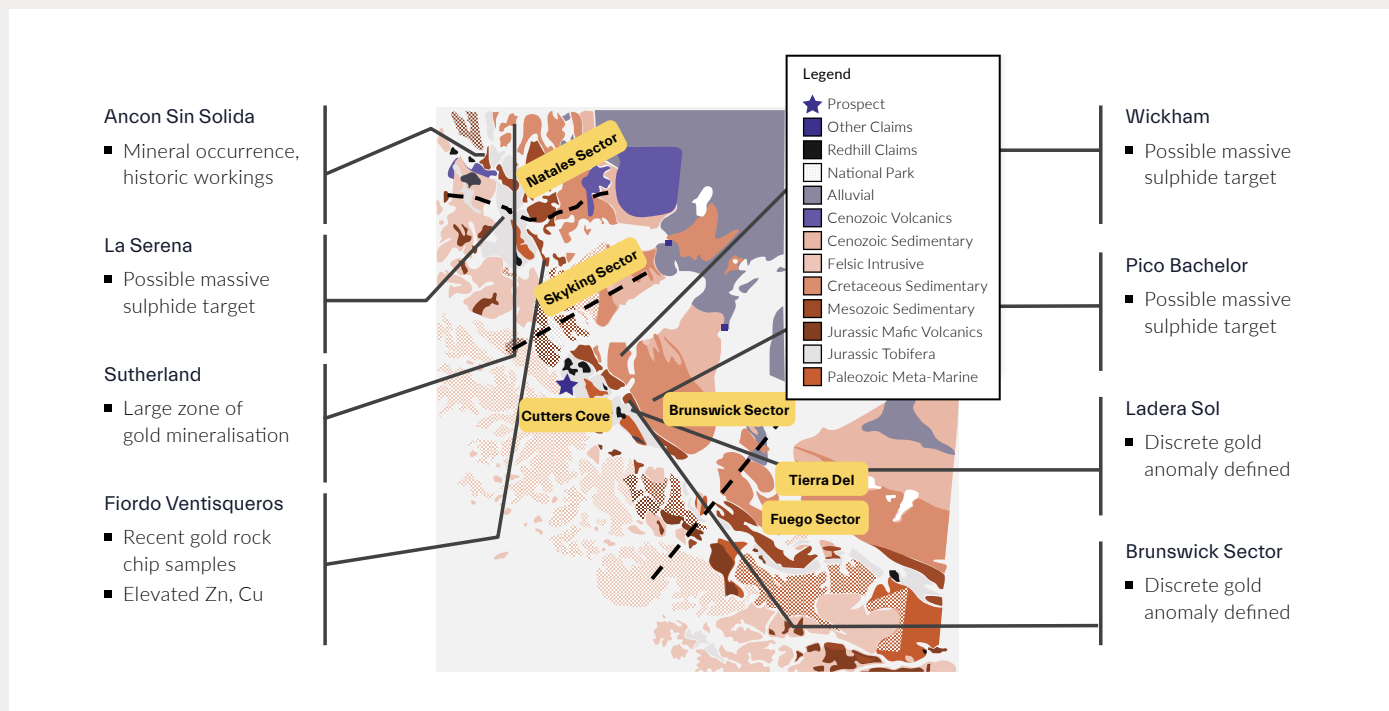
The Redhill tenement package comprises an additional 70 concessions outside the Cutters area covering an area of 195 km² considered prospective from VHMS, orogenic gold, epithermal precious metal and Cutters-style mesothermal copper-silver mineralisation.

Limited historical regional reconnaissance exploration identified 48 priority targets on the basis of mineral occurrences, visual anomalies and zones of prospective geology. That work included collation of historical exploration data, regional geological mapping, and acquisition of regional geophysical datasets and aerial photography. Ground assessments included mapping, drainage sampling, and preliminary rock chip and trench sampling.

Redhill has completed two subsequent regional exploration programs with the aim of advancing a number of these known prospects, to test their potential to host economic deposits, as well as identify and evaluate potential for new high-quality targets in the region. A summary of these results is shown in Figure 3.36.

No decision has been taken at this stage regarding progressing the Redhill regional exploration position in the immediate term. As noted above, 29Metals' strategy in relation to Redhill is to continue to test the regional prospectivity of the tenement landholding to assist with further de-risking the project and identifying potential for additional economic mineralisation within the Cutters project area.

Figure 3.36 – Redhill regional exploration findings



3.13 Corporate

3.13.1 Corporate offices

29Metals' registered office and head office is located in the Melbourne CBD. In addition, 29Metals has support offices located in Perth and Brisbane.

3.13.2 Insurance

Each of 29Metals' assets maintains standalone insurances customary for the risks associated with the business activities of those assets, including (for example) property and business interruption insurance, third party and general liability, and cargo and transit insurances (as applicable). Following completion of the Offer, 29Metals will assess the benefits of transitioning the existing asset-based insurance programs to a group insurance program.

With effect from Listing, 29Metals will have a conventional group D&O insurance program which will replace existing asset D&O insurance programs.

3.13.3 Information, Communications and Technology ('ICT')

Each of 29Metals' operating assets, Golden Grove and Capricorn Copper, and its corporate offices operates under standalone ICT systems with arrangements in place for the aggregation of relevant data for human resources, finance and accounting, and reporting purposes. Technology services are provided with disaster recovery and back up protocols in place.

29

Metals

4.0

Ore Reserves and Mineral Resources



Checking the core

This section sets out the:

- Ore Reserves and Mineral Resources estimates for the 29Metals Group (section 4.1);
- Ore Reserves and Mineral Resources estimates for each of Golden Grove, Capricorn Copper and Redhill, including corresponding Competent Person statements and associated disclosures (section 4.2); and
- the methodology applied by 29Metals for the purposes of expressing Ore Reserves and Mineral Resources estimates in contained metal copper equivalent (Cu-eq)¹ terms (section 4.3).

29Metals Ore Reserves and Mineral Resources estimates are reported in accordance with the JORC Code.

Important information regarding Ore Reserves and Mineral Resources estimates is set out at the beginning of this Prospectus and an overview of the JORC Code is included in section 2.3. Information regarding risks associated with Ore Reserves and Mineral Resources estimates is included in section 6 (Risks).

4.1 29Metals Group Ore Reserves and Mineral Resources Estimates

4.1.1 29Metals Group Mineral Resources estimates

Mineral Resources estimates for the 29Metals Group are set out below as the aggregation of Mineral Resources estimates for each of Golden Grove, Capricorn Copper and Redhill. The individual Mineral Resources estimates for Golden Grove, Capricorn Copper and Redhill, including corresponding Competent Person's statements, are set out in section 4.2.

Copper equivalent (Cu-eq) data shown has been calculated by 29Metals. Refer to section 4.4 for information regarding the methodology applied by 29Metals to calculate copper equivalent contained metal for Ore Reserves and Mineral Resources estimates.

4.1.2 29Metals Group Ore Reserves estimates

Ore Reserves estimates for the 29Metals Group are set out below as the aggregation of Ore Reserves estimates for each of Golden Grove and Capricorn Copper. The individual Ore Reserves estimates for Golden Grove and Capricorn Copper, including corresponding Competent Person's statements, are set out in section 4.2.

Copper equivalent (Cu-eq) data shown has been calculated by 29Metals. Refer to section 4.4 for information regarding the methodology applied by 29Metals to calculate copper equivalent contained metal for Ore Reserves and Mineral Resources estimates.

¹ Refer to important information at the beginning of this Prospectus regarding copper equivalent (Cu-eq) metrics.

Mineral Resource

Category	Asset	Grade											Contained Metal											Copper Equivalent ¹	
		Tonnes (Mtt)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Pb (%)	Co (ppm)	As (ppm)	Cu (kt)	Au (koz)	Zn (kt)	Ag (koz)	Pb (kt)	Co (kt)	As (kt)	Cu-eq ¹ (%)	Cu-eq ¹ (kt)							
Measured	Golden Grove	22.7	1.7	0.8	3.6	34	0.3	-	385	602	814	24,505	70	-	-	-	3.8	858							
	Capricorn Copper	5.4	1.8	-	-	6	-	146	96	-	-	1,110	-	1	11	1.8	98								
	Sub-Total	28.2	1.7	0.7	2.9	28	0.2	28	482	602	814	25,615	70	1	11	3.4	956								
Indicated	Redhill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
	Total	28.2	1.7	0.7	2.9	28	0.2	28	482	602	814	25,615	70	1	11	3.4	956								
	Golden Grove	24.9	1.6	0.7	5.3	29	0.3	-	400	546	1,323	23,182	74	-	-	4.1	1,033								
Inferred	Capricorn Copper	33.8	1.9	-	-	8	-	379	638	-	-	8,534	-	13	46	1.9	651								
	Sub-Total	58.6	1.8	0.3	2.3	17	0.1	218	1,038	546	1,323	31,716	74	13	46	2.9	1,683								
	Redhill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-								
Measured, Indicated & Inferred	Total	58.6	1.8	0.3	2.3	17	0.1	218	1,038	546	1,323	31,716	74	13	46	2.9	1,683								
	Golden Grove	10.1	1.4	0.5	4.7	25	0.2	-	140	153	477	8,281	22	-	-	3.5	359								
	Capricorn Copper	23.3	1.6	-	-	7	-	337	366	-	-	5,481	-	8	32	1.6	375								
Measured, Indicated & Inferred	Sub-Total	33.4	1.5	0.1	1.4	13	0.1	235	507	153	477	13,762	22	8	32	2.2	734								
	Redhill	4.3	1.7	0.3	-	33	-	-	71	40	-	4,611	-	-	-	1.9	82								
	Total	37.7	1.5	0.2	1.3	15	0.1	208	578	193	477	18,373	22	8	32	2.2	816								
Measured, Indicated & Inferred	Golden Grove	57.8	1.6	0.7	4.5	30	0.3	-	926	1,301	2,615	55,968	166	-	-	3.9	2,249								
	Capricorn Copper	62.5	1.8	-	-	8	-	343	1,100	-	-	15,125	-	21	88	1.8	1,124								
	Sub-Total	120.2	1.7	0.3	2.2	18	0.1	178	2,026	1,301	2,615	71,093	166	21	88	2.8	3,373								
Measured, Indicated & Inferred	Redhill	4.3	1.7	0.3	-	33	-	-	71	40	-	4,611	-	-	-	1.9	82								
	Total	124.5	1.7	0.3	2.1	19	0.1	172	2,097	1,341	2,615	75,704	166	21	88	2.8	3,455								

Notes: Mineral Resources estimates for each asset are as at the effective date for the underlying estimate (Refer to section 4.2). Estimates are subject to rounding (one significant figure).

1 Copper equivalent grade and contained metal calculated by 29Metals. Refer to section 4.3.

Ore Reserves

Category	Asset	Grade											Contained Metal											Copper Equivalent ¹	
		Tonnes (Mtt)	Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Pb (%)	Co (ppm)	As (ppm)	Cu (kt)	Au (koz)	Zn (kt)	Ag (koz)	Pb (kt)	Co (kt)	As (kt)	Cu-eq ¹ (%)	Cu-eq ¹ (kt)							
Proved	Golden Grove	3.6	1.3	1.4	4.1	47	0.5	-	47	157	149	5,467	17	-	-	-	4.1	146							
	Capricorn Copper	1	1.9	-	-	8	-	-	20	-	-	300	-	-	2	1.8	20								
	Total	4.7	1.4	1.0	3.2	38	0.4	-	67	157	149	5,767	17	-	2	3.5	166								
Probable	Golden Grove	10.7	1.8	0.8	6.1	32	0.4	-	194	277	655	11,017	40	-	-	-	4.7	508							
	Capricorn Copper	12	1.8	-	-	11	-	-	220	-	-	4,600	-	-	15	1.8	227								
	Total	23.1	1.8	0.4	2.8	21	0.2	-	414	277	655	15,617	40	-	15	3.2	735								
Proved & Probable	Golden Grove	14.3	1.7	0.9	5.6	36	0.4	-	241	433	804	16,484	57	-	-	-	4.6	653							
	Capricorn Copper	13	1.8	-	-	11	-	-	240	-	-	4,800	-	-	18	1.8	247								
	Total	27.3	1.7	0.5	2.9	24	0.2	-	481	433	804	21,284	57	-	18	3.2	901								

Notes: Ore Reserves estimates for each asset are as at the effective date for the underlying estimate (Refer to section 4.2). Estimates are subject to rounding (one significant figure).

1 Copper equivalent grade and contained metal calculated by 29Metals. Refer to section 4.3.

4.1.3 29Metals Competent Persons

The table below sets out information regarding the Competent Persons for the Ore Reserves and Mineral Resources estimates for Golden Grove, Capricorn Copper and Redhill (respectively).

Estimate

	Name	Qualification	Membership	Employer
Golden Grove				
Mineral Resources	Leonard Mafurutu	Geology (Hons)	MAusIMM (CP)	EMR Golden Grove
Ore Reserves	Alex Torres	Mining Engineer	AusIMM	EMR Golden Grove
Capricorn Copper				
Mineral Resources	Danny Kentwell <i>(Estimation & Reporting)</i>	BSc. Surveying MSc Geostatistics	FAusIMM	SRK Consulting
	Matt Price <i>(Sampling Techniques and Data, and Reporting of Exploration Results)</i>	Masters in Geoscience	AIG	Capricorn Copper
Ore Reserves	Christopher Desoe	BE(Mining)	FAusIMM (CP) RPEQ	Australian Mine Design and Development Pty Ltd
Redhill				
Mineral Resources	Tim Callaghan	BSc (Hons) M. Econ. Geol	MAusIMM MAIG	Resource & Exploration Geology

4.2 Asset Ore Reserves and Mineral Resources Estimates

4.2.1 Golden Grove Mineral Resources estimates

Set out below are the Mineral Resources estimates for Golden Grove as at 30 June 2020. The JORC Table 1 disclosures for the Mineral Resources estimates set out below are included in Annexure A (29Metals' Ore Reserves and Mineral Resources – JORC Table 1 disclosures).

Mineral Resources

	Category	Tonnes (Mt)	Grade					Contained Metal					
			Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Pb (%)	Cu Metal (kt)	Au Metal (koz)	Zn Metal (kt)	Ag Metal (koz)	Pb Metal (kt)	
Ore Type	Oxide Copper	Measured	0.0	0.0	4.4	0.0	84.3	0.0	0	4	0	78	0
		Indicated	0.4	3.2	0.6	0.0	4.8	0.0	14	9	0	67	0
		Inferred	0.0	2.4	0.1	0.0	6.1	0.0	0	0	0	1	0
		Total	0.5	3.0	0.9	0.0	9.78	0.0	14	13	0	146	0
	Partial Oxide Zinc	Measured	0.1	1.2	2.4	10.2	164.3	1.8	2	10	13	674	2
		Indicated	0.4	0.9	1.9	3.4	116.7	0.8	4	25	15	1,603	3
		Inferred	0.3	0.5	1.4	3.9	79.9	0.5	2	15	13	860	2
		Total	0.9	0.8	1.8	4.6	109.7	0.9	7	50	41	3,138	8
	Primary Zinc	Measured	8.2	0.5	1.2	9.0	60.6	0.7	43	312	738	16,007	61
		Indicated	11.6	0.6	0.9	10.9	37.7	0.6	74	330	1,265	14,070	66
		Inferred	4.8	0.4	0.5	9.4	33.1	0.4	21	83	449	5,061	19
		Total	24.6	0.6	0.9	10.0	44.5	0.6	138	725	2,452	35,138	146
	Primary Copper	Measured	14.4	2.4	0.6	0.4	16.8	0.0	341	277	63	7,746	7
		Indicated	12.4	2.5	0.5	0.4	18.6	0.0	309	181	44	7,441	4
		Inferred	5.0	2.3	0.3	0.3	14.5	0.0	118	55	16	2,359	2
		Total	31.9	2.4	0.5	0.4	17.1	0.0	767	512	122	17,546	13
	Total	Measured	22.7	1.7	0.8	3.6	33.5	0.3	385	602	814	24,505	70
		Indicated	24.9	1.6	0.7	5.3	29.0	0.3	400	546	1,323	23,182	74
		Inferred	10.1	1.4	0.5	4.7	25.4	0.2	140	153	477	8,281	22
		Total	57.8	1.6	0.7	4.5	30.1	0.3	926	1,301	2,615	55,968	166

Notes Estimates are subject to rounding (one significant figure).

Cut-off value is based on Net Smelter Return (NSR) expressed as a dollar value (details in section 4.2.1.1). Note that the reporting cut-off is deposit specific and varies between \$121.83 and \$145.00 Net Smelter Revenue per tonne (NSR/t). Figures are rounded according to JORC guidelines.

Competent Person's statement

The Mineral Resources estimates set out in the table above are based on and fairly represent information and supporting documentation compiled by Leonard Mafurutu, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM Membership No. 316349). Mr Mafurutu is a full-time employee of EMR Golden Grove Pty Ltd.

Mr Mafurutu has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Mr Mafurutu consents to the inclusion of the information regarding Mineral Resources set out in this section 4.2.1 in the form and context in which it appears.

4.2.1.1 Economic Cut-Off Assumptions

The following assumptions were applied for the purposes of the Golden Grove Mineral Resources estimates.

Commodity price assumptions

Commodity Price/FX	Unit	Long Term Assumption
Copper	US\$/t	7,716
Lead	US\$/t	2,425
Zinc	US\$/t	3,306
Gold	US\$/oz	1,600
Silver	US\$/oz	23
AUD:USD		0.75

NSR cut-off assumptions

Orebody	Net Smelter Return (NSR) \$/t
ABCD	121.83
ABCD Oxide	121.83
Amity	129.55
Camberwarra	125.02
D Zinc	124.69
Tryall	122.95
Tryall Cu-Au Oxide	122.95
Ethel/Catalpa	126.47
Hougoumont Main and Hangingwall	129.55
Hougoumont Extended	136.87
Upper Xantho	130.95
Xantho Extended	137.43
Oizon	136.26
GG4	124.69
Scuddles – Zinc	126.13
Scuddles – Copper	126.13
Scuddles Oxide	122.95
Cervantes – Zinc	133.57
Cervantes – Copper	133.57
Gossan Valley	135.00
Grassi	135.00
Felix	135.00
Flying Hi	145.00

4.2.2 Golden Grove Ore Reserves estimates

Set out below is the Ore Reserves estimates for the Gossan Hill and Scuddles mines at Golden Grove as at 30 June 2020. The JORC Table 1 disclosures for the Ore Reserves estimates set out below are included in Annexure A (29Metals' Ore Reserves and Mineral Resources – JORC Table 1 disclosures).

Ore Reserves

	Category	Tonnes (kt)	Grade					Contained Metal					
			Cu (%)	Au (g/t)	Zn (%)	Ag (g/t)	Pb (%)	Cu Metal (kt)	Au Metal (koz)	Zn Metal (kt)	Ag Metal (koz)	Pb Metal (kt)	
Ore Type	Primary Zinc	Proved	2,473	0.9	1.4	5.8	53.5	0.6	22	112	144	4,255	16
		Probable	8,797	1.6	0.9	7.4	36.2	0.5	145	255	650	10,232	40
		Total	11,270	1.5	1.0	7.0	40.0	0.5	167	366	794	14,487	56
	Primary Copper	Proved	896	2.3	0.8	0.2	15.8	–	21	24	2	456	–
		Probable	1,939	2.5	0.4	0.2	12.6	–	49	22	5	785	–
		Total	2,835	2.4	0.5	0.2	13.6	–	69	46	7	1,241	1
	Primary Gold	Proved	225	2.0	2.9	1.2	104.6	0.4	4	21	3	756	1
		Probable	–	–	–	–	–	–	–	–	–	–	–
		Total	225	2.0	2.9	1.2	104.6	0.4	4	21	3	756	1
	Total	Proved	3,595	1.3	1.4	4.1	47.3	0.5	47	157	149	5,467	17
		Probable	10,735	1.8	0.8	6.1	31.9	0.4	194	277	655	11,017	40
		Total	14,330	1.7	0.9	5.6	35.8	0.4	241	433	804	16,484	57

Notes: Estimates are subject to rounding (one significant figure).

Competent Person's statement

The Ore Reserves estimates set out above are based on and fairly represent information and supporting documentation compiled by Alex Torres, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AUSIMM Membership No. 308966).

At the time that the Ore Reserves estimates were generated, Mr Torres was a full-time employee of EMR Golden Grove Pty Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Alex Torres consents to the inclusion of the information regarding Ore Reserves set out in this section 4.2.2 in the form and context in which they appear.

4.2.2.1 Economic Cut-Off Assumptions

The following assumptions were applied for the purposes of the Ore Reserves estimates for Gossan Hill and Scuddles.

Commodity price assumptions

Commodity Price/FX	Unit	Long Term Assumption
Copper	US\$/t	6,614
Lead	US\$/t	2,094
Zinc	US\$/t	2,425
Gold	US\$/oz	1,400
Silver	US\$/oz	21
AUD:USD		0.73

NSR cut-off assumptions

Cut-off Value by Orebody	\$/tonne
ABCD	121.83
Amity – Remnant	129.55
D Zinc	136.85
Tryall	135.12
Ethel/Catalpa	126.47
Hougoumont Main & HW Remnant	135.19
Hougoumont Extended	149.04
Xantho	143.11
Xantho Extended	149.60
Oizon	148.42
GG4	130.33
Scuddles	131.78

4.2.3 Capricorn Copper Mineral Resources estimates

Set out below is the Mineral Resources estimate for Capricorn Copper as at 31 May 2020. The JORC Table 1 disclosures for the Mineral Resources estimates set out below are included in Annexure A (29Metals' Ore Reserves and Mineral Resources – JORC Table 1 disclosures).

Mineral Resources

Orebody	Category	Tonnes (Mt)	Grade						Contained Metal						
			Cu (%)	Ag (ppm)	Co (ppm)	As (ppm)	S (%)	Fe (%)	Cu (kt)	Ag (koz)	Co (kt)	As (koz)	S (kt)	Fe (kt)	
Orebody	Esperanza South	Measured	0.6	2.0	19	574	961	12.9	12.2	13	387	0	1	82	77
		Indicated	8.7	1.8	18	700	1,037	11.9	12.8	159	5,056	6	9	1,040	1,118
		Inferred	7.5	1.6	14	587	875	9.5	12.5	121	3,396	4	7	717	943
		Total	16.9	1.7	16	645	962	10.9	12.6	293	8,838	11	16	1,838	2,139
	Esperanza	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-
		Indicated	2.7	2.3	11	1,472	2,203	6.0	21.3	62	972	4	6	162	575
		Inferred	1.3	1.7	9	1,103	1,352	7.7	18.5	22	368	1	2	100	241
		Total	4.0	2.1	10	1,352	1,926	6.6	20.4	84	1,340	5	8	262	816
	Pluto	Measured	-	-	-	-	-	-	-	-	-	-	-	-	-
		Indicated	2.3	2.3	1	239	277	0.9	11.2	53	52	1	1	21	258
		Inferred	0.9	1.6	1	238	259	0.4	13.6	14	26	0	0	4	122
		Total	3.2	2.1	1	239	272	0.8	11.9	67	78	1	1	24	380
	Greenstone	Measured	0.4	1.8	1	75	133	1.0	2.2	6	12	0	0	4	8
		Indicated	1.2	1.9	1	83	100	0.8	2.7	24	40	0	0	10	33
		Inferred	0.5	1.5	1	64	96	0.8	2.7	8	17	0	0	4	14
Total		2.1	1.8	1	77	105	0.8	2.6	38	68	0	0	18	55	
Mammoth	Measured	4.4	1.7	5	91	2,243	8.0	8.6	77	711	0	10	352	381	
	Indicated	18.8	1.8	4	109	1,598	4.9	7.5	340	2,415	2	30	924	1,408	
	Inferred	13.0	1.5	4	134	1,756	4.8	7.5	201	1,674	2	23	618	977	
	Total	36.2	1.7	4	116	1,734	5.2	7.6	617	4,801	4	63	1,895	2,765	
Total	Measured	5.4	1.8	6	146	1,954	8.1	8.6	96	1,110	1	11	437	466	
	Indicated	33.8	1.9	8	379	1,356	6.4	10.1	638	8,534	13	46	2,156	3,393	
	Inferred	23.3	1.6	7	337	1,353	6.2	9.9	366	5,481	8	32	1,443	2,297	
	Total	62.5	1.8	8	343	1,407	6.5	9.9	1,100	15,125	21	88	4,037	6,155	

Notes: Estimates are subject to rounding (one significant figure).

Competent Person's statement

Information that relates to the sampling techniques, sample and geology data and interpretations (section 1 of the JORC Code Table 1²) and reporting of these results (section 2 of the JORC Code Table 1) for inclusion in the Capricorn Copper Mineral Resources estimates are based on and fairly represent information and supporting documentation compiled by Matthew Price. At the time that the Mineral Resources estimates were generated, Mr Price was a full-time employee of Capricorn Copper. Mr Price is a Member of the Australian Institute of Geoscientists (MAIG, Membership No. 4452).

The Mineral Resources estimate was prepared under review by Danny Kentwell. Mr Kentwell is a full-time employee of SRK and is a fellow of the Australasian Institute of Mining and Metallurgy (FAusIMM, Member No. 20341).

Mr Price and Mr Kentwell have sufficient experience that is relevant to the style of mineralisation, type of deposit and the activity being undertaken to qualify as Competent Persons as defined in the JORC Code. Mr Price and Mr Kentwell consent to the inclusion of Mineral Resources estimates for Capricorn Copper in the form and context in which it appears.

4.2.3.1 Economic Cut-Off Assumptions

The following assumptions were applied for the purposes of the Mineral Resources estimates for Capricorn Copper:

Cut-off assumptions

Orebody	Cut-off (% Cu)
Esperanza South	0.8% Cu
Esperanza	1.0% Cu
Pluto	1.0% Cu
Greenstone	1.0% Cu
Mammoth	1.0% Cu

4.2.4 Capricorn Copper Ore Reserves estimates

Set out below is the Ore Reserves estimate for Capricorn Copper as at 1 December 2020. The JORC Table 1 disclosures for the Ore Reserves estimates set out below are included in Annexure A (29Metals' Ore Reserves and Mineral Resources – JORC Table 1 disclosures).

Ore Reserves

	Category	Grade			Contained Metal				
		Tonnes (Mt)	Cu (%)	Ag (g/t)	As (ppm)	Cu (kt)	Ag (koz)	As (kt)	
Orebody	Esperanza South	Proved	0.2	1.8	16	900	3	100	0
		Probable	7.0	1.6	17	1,000	109	3,900	7
		Total	7.1	1.6	17	1,000	112	4,000	7
	Esperanza	Proved	-	-	-	-	-	-	-
		Probable	0.5	1.9	11	2,000	9	200	1
		Total	0.5	1.9	11	2,000	9	200	1
	Pluto	Proved	-	-	-	-	-	-	-
		Probable	1.2	2.6	1	300	32	-	0
		Total	1.2	2.6	1	300	32	-	0
	Greenstone	Proved	0.1	2.0	1	100	2	-	0
		Probable	0.3	1.7	1	100	6	-	0
		Total	0.5	1.8	1	100	8	-	0
	Mammoth Deeps	Proved	0.0	2.5	2	1,600	0	-	0
		Probable	2.0	2.0	5	2,000	39	300	4
		Total	2.0	2.0	5	2,000	39	300	4
	Mammoth Remnants	Proved	0.8	2.0	5	2,700	15	100	2
		Probable	1.3	1.9	5	2,000	25	200	3
		Total	2.1	1.9	5	2,300	40	300	5
Stockpile	Proved	0.1	1.4	25	1,000	1	100	0	
	Probable	-	-	-	-	-	-	-	
	Total	0.1	1.4	25	1,000	1	100	0	
Total	Proved	1	1.9	8	2,000	20	300	2	
	Probable	12	1.8	11	1,200	220	4,600	15	
	Total	13	1.8	11	1,300	240	4,800	18	

Note: Estimates are subject to rounding (one significant figure).

Competent Person's statement

The information regarding Capricorn Copper Ore Reserves are based on and fairly represent information and supporting documentation compiled by Christopher Desoe, a Competent Person who is a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM (CP) Membership No. 104206).

Mr Desoe is a full-time employee of Australian Mine Design and Development Pty Ltd and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Mr Desoe consents to the inclusion of the information regarding Capricorn Copper Ore Reserves estimates in the form and context in which they appear.

4.2.4.1 Economic Cut-off Assumptions

The following assumptions were applied for the purposes of the Ore Reserves estimates for Capricorn Copper. An initial set of cut-off grades was applied to create stope shapes. These cut-off grades are shown under "Stope/SLC Design" in the table below. A final, revised set of cut-off grades, shown under "Final Ore Selection" in the table below, was subsequently applied to exclude any stopes for which the overall stope grade was not greater than the cut-off.

Cut-off assumptions

Orebody	Cut-off Grade (% Cu)	
	Stope/SLC Design	Final Ore Selection
Esperanza South Total	1.22% Cu	1.22% Cu
Esperanza South Shutoff	1.02% Cu	1.02% Cu
Esperanza South Development	0.63% Cu	0.63% Cu
Greenstone	1.18% Cu	1.22% Cu
Greenstone Development	0.57% Cu	0.57% Cu
Mammoth (Remnants and Deeps)	1.42% Cu	1.41% Cu
Mammoth Development	0.58% Cu	0.58% Cu
Pluto	1.38% Cu	1.46% Cu
Pluto Development	0.57% Cu	0.57% Cu
Esperanza	1.23% Cu	1.28% Cu
Esperanza Development	0.57% Cu	0.57% Cu

Commodity price and forex for estimate

Pricing/FX	Unit	Long Term
Copper	US\$/t	6,614
AUD:USD		0.73

4.2.5 Redhill Mineral Resources estimates

Set out below are the Mineral Resources estimates for Redhill as at 16 May 2016.³ The JORC Table 1 disclosures for the Mineral Resources estimates set out below are included in Annexure A (29Metals' Ore Reserves and Mineral Resources – JORC Table 1 disclosures).

Mineral Resources

Deposit	Category	Tonnes (kt)	Grade			Contained Metal		
			Cu (%)	Au (g/t)	Ag (g/t)	Cu (t)	Au (oz)	Ag (koz)
Cristina	Inferred	1,304	2.27	0.25	41	29,601	10,481	1,719
Angelica	Inferred	574	1.54	0.40	53	8,840	7,382	978
Gorda	Inferred	354	0.57	1.60	56	2,018	18,210	637
Cutters	Inferred	317	3.01	0.06	51	9,542	612	520
Franceses	Inferred	1,740	1.22	0.06	14	21,249	3,124	757
Total	Inferred	4,289	1.66	0.29	33	71,249	39,809	4,611

Note: Estimates are subject to rounding (one significant figure).

³ No material changes to the Mineral Resources for Redhill since 16 May 2016.

Competent Person's statement

The Redhill Mineral Resources estimates are based on and fairly represents information and supporting documentation compiled by Tim Callaghan, a Competent Person who is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM Membership No. 222210). Mr Callaghan is a full-time employee of Resource and Exploration Geology.

Mr Callaghan has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Tim Callaghan consents to the inclusion of the information regarding the Redhill Mineral Resources estimates in the form and context in it appears.

4.2.5.1 Economic Cut-off Assumptions

The following assumptions were made in calculation of the Redhill Mineral Resources estimate:

Cut-off assumptions

Deposit	Cutoff (% Cu)
Cristina	0.4% Cu
Angelica	0.4% Cu
Gorda	0.4% Cu
Cutters	0.4% Cu
Franceses	0.4% Cu

Cut-off grades have been determined from metal prices provided by EMR Capital (2016), approximate industry average sulphide recoveries and Chilean Mine Gate production costs and capture material that has reasonable prospects of extraction.

Commodity price for estimates

Pricing	Unit	
Copper	US\$/lb	3.00
Gold	US\$/oz	1,300
Silver	US\$/oz	22

4.3 Conversion of Ore Reserves and Mineral Resources Estimates to Copper Equivalent (Cu-eq)

This section 4.3 outlines the methodology applied by 29Metals to express Ore Reserves and Mineral Resources contained metal estimates in copper equivalent contained metal (Cu-eq) terms.

Ore Reserves and Mineral resources estimates expressed in this Prospectus in *contained metal copper equivalent* (Cu-eq) terms have been estimated by 29Metals. Calculation of relevant copper equivalent metrics is based upon Ore Reserves and Mineral Resources estimates (as applicable) but has not been verified by the Competent Persons for the underlying Ore Reserves and Mineral Resources estimates.

For Ore Reserves and Mineral Resources, copper equivalent has been calculated using:

- Contained metal – the contained metal data derived from the applicable Ore Reserves and Mineral Resources estimates;
- Metallurgical recovery:
 - for Golden Grove and Capricorn Copper, actual 2020 metallurgical recovery rates;
 - for Redhill, the metallurgical recovery assumptions from the Conceptual Mine Study⁴; and
- Metal prices – the metal prices outlined in the metal prices table below.

For the purposes of the calculation, 29Metals has assumed 100% of the contained metal (post application of the metallurgical recovery) is payable under its mineral concentrates Offtake Contracts. The percentage of contained metal in 29Metals' mineral concentrates that is payable under its Offtake Contracts varies from contract to contract (and may vary between shipments).⁵ 29Metals considers that each of the metals included in the calculation have a reasonable prospect of being produced and sold by the Company in its mineral concentrate products and having regard to the variability of payable metal between Offtake Contracts (and between shipments of mineral concentrates).

The following formula summarises the calculation methodology applied:

Copper Equivalency Formula

$$\text{Copper Equivalent Metal (Cu-eq t)} = \left(\frac{\begin{aligned} &(\text{Cu Metal t} \times \text{Cu Price US\$/t} \times \text{Cu Recovery \%}) \\ &+ (\text{Au Metal oz} \times \text{Au Price US\$/oz} \times \text{Au Recovery \%}) \\ &+ (\text{Zn Metal t} \times \text{Zn Price US\$/t} \times \text{Zn Recovery \%}) \\ &+ (\text{Ag Metal oz} \times \text{Ag Price US\$/oz} \times \text{Ag Recovery \%}) \\ &+ (\text{Pb Metal t} \times \text{Pb Price US\$/t} \times \text{Pb Recovery \%}) \end{aligned}}{(\text{Cu Price US\$/t} \times \text{Cu Recovery \%})} \right)$$

$$\text{Copper Equivalent Grade (Cu-eq \%)} = \left(\frac{\text{Copper Equivalent Metal (Cu-eq t)}}{\text{Ore Tonnes (t)}} \right)$$

⁴ Refer to section 3.12.4 and the technical report for Redhill.

⁵ Refer to section 2.2 for an overview of Offtake Contracts, including variability in the *payability* for metals in mineral concentrates products.

Metal price assumptions

Metal Pricing		Golden Grove	Capricorn Copper	Redhill
Copper	US\$/t	\$6,614	\$6,614	\$6,614
Gold	US\$/oz	\$1,500	n/a	\$1,500
Zinc	US\$/t	\$2,205	n/a	n/a
Silver	US\$/oz	\$19	\$19	\$19
Lead	US\$/t	\$1,984	n/a	n/a
Cobalt	US\$/t	n/a	\$32,000	n/a

Metallurgical recovery

Metal Pricing		Golden Grove	Capricorn Copper	Redhill
Copper	%	85.6%	82.9%	93.0%
Gold	%	75.3%	n/a	0%
Zinc	%	88.1%	n/a	n/a
Silver	%	79.4%	44.6%	78.0%
Lead	%	30.0%	n/a	n/a
Cobalt	%	n/a	0%	n/a
Arsenic	%	n/a	0%	n/a
Sulphur	%	n/a	0%	n/a
Iron	%	n/a	0%	n/a

The following tables shows the copper equivalent calculations for 29Metals' Ore Reserves and Mineral Resources estimates.

Mineral Resources

Asset	Contained Metal							Recovery Applied							Copper Equivalent	
	Cu (kt)	Au (koz)	Zn (kt)	Ag (koz)	Pb (kt)	Co (kt)	As (kt)	Cu (%)	Au (%)	Zn (%)	Ag (%)	Pb (%)	Co (%)	As (%)	Grade (%)	Metal (kt)
Measured																
Golden Grove	385	602	814	24,505	70	-	-	85.6	75.3	88.1	79.4	30.0	-	-	3.8	858
Capricorn Copper	96	-	-	1,110	-	1	11	82.9	-	-	44.6	-	-	-	1.8	98
Sub-Total	482	602	814	25,615	70	1	11							3.4	956	
Redhill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	482	602	814	25,615	70	1	11							3.4	956	
Indicated																
Golden Grove	400	546	1,323	23,182	74	-	-	85.6	75.3	88.1	79.4	30.0	-	-	4.1	1,033
Capricorn Copper	638	-	-	8,534	-	13	46	82.9	-	-	44.6	-	-	-	1.9	651
Sub-Total	1,038	546	1,323	31,716	74	13	46							2.9	1,683	
Redhill	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	1,038	546	1,323	31,716	74	13	46							2.9	1,683	
Inferred																
Golden Grove	140	153	477	8,281	22	-	-	85.6	75.3	88.1	79.4	30.0	-	-	3.5	359
Capricorn Copper	366	-	-	5,481	-	8	32	82.9	-	-	44.6	-	-	-	1.6	375
Sub-Total	507	153	477	13,762	22	8	32							2.2	734	
Redhill	71	40	-	4,611	-	-	-	93.0	-	-	78.0	-	-	-	1.9	82
Total	578	193	477	18,373	22	8	32							2.2	816	
Measured, Indicated & Inferred																
Golden Grove	926	1,301	2,615	55,968	166	-	-	85.6	75.3	88.1	79.4	30.0	-	-	3.9	2,249
Capricorn Copper	1,100	-	-	15,125	-	21	88	82.9	-	-	44.6	-	-	-	1.8	1,124
Sub-Total	2,026	1,301	2,615	71,093	166	21	88							2.8	3,373	
Redhill	71	40	-	4,611	-	-	-	93.0	-	-	78.0	-	-	-	1.9	82
Total	2,097	1,341	2,615	75,704	166	21	88							2.8	3,455	

Ore Reserves

Asset	Contained Metal							Recovery Applied							Copper Equivalent	
	Cu (kt)	Au (koz)	Zn (kt)	Ag (koz)	Pb (kt)	Co (kt)	As (kt)	Cu (%)	Au (%)	Zn (%)	Ag (%)	Pb (%)	Co (%)	As (%)	Grade (%)	Metal (kt)
Proved																
Golden Grove	47	157	149	5,467	17	-	-	85.6	75.3	88.1	79.4	30.0	-	-	4.1	146
Capricorn Copper	20	-	-	300	-	-	2	82.9	-	-	44.6	-	-	-	1.8	20
Total	67	157	149	5,767	17	-	2							3.5	166	
Probable																
Golden Grove	194	277	655	11,017	40	-	-	85.6	75.3	88.1	79.4	30.0	-	-	4.7	508
Capricorn Copper	220	-	-	4,600	-	-	15	82.9	-	-	44.6	-	-	-	1.8	227
Total	414	277	655	15,617	40	-	15							3.2	735	
Proved & Probable																
Golden Grove	241	433	804	16,484	57	-	-	85.6	75.4	88.1	79.4	30.0	-	-	4.6	653
Capricorn Copper	240	-	-	4,800	-	-	18	82.9	-	-	44.6	-	-	-	1.8	247
Total	481	433	804	21,284	57	-	18							3.2	901	

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Metals

5.0

Financial
Information



5.1 Introduction

5.1.1 Overview

29Metals was incorporated on 27 May 2021. It commenced trading activities upon the acquisition of Capricorn Copper Holdings and Lighthouse Minerals (the '**Initial Restructure**'). These acquisitions have been accounted for as common control transactions. Refer to section 10.3.1 for further information regarding the Initial Restructure and section 5.2.1 for further detail on accounting for the acquisitions relating to the Initial Restructure.

29Metals has also entered into conditional agreements to acquire Golden Grove LP, the parent of Golden Grove Holdings and Redhill Mining on Completion (the '**IPO Acquisitions**'). For the purposes of the IPO Acquisitions, 29Metals has determined that the *acquirer* for accounting purposes is the Golden Grove Group in accordance with AASB 3 *Business Combinations*. Refer to section 10.3.1 for further detail on the IPO Acquisitions and section 5.2.2 for further detail on accounting for the IPO Acquisitions.

The statutory historical financial information relevant to 29Metals in this Prospectus has been derived from the historical consolidated financial reports of Golden Grove Holdings. The Pro Forma Historical Financial Information (as defined below) for 29Metals in the Prospectus reflects pro forma adjustments described in section 5.2.5.

5.1.2 Financial Information

The financial information of 29Metals contained in this section 5 includes the pro forma and statutory historical financial information for the years ended 31 December 2018, 31 December 2019 and 31 December 2020, as well as pro forma and statutory forecast financial information for the year ending 31 December 2021, as follows:

- Pro forma historical financial information for 29Metals, comprising the:
 - pro forma historical statements of comprehensive income for FY2018, FY2019 and FY2020 ('Pro Forma Historical Results');
 - pro forma historical cash flow information for FY2018, FY2019 and FY2020 ('Pro Forma Historical Cash Flows Information'); and
 - pro forma historical statement of financial position as at 31 December 2020 ('Pro Forma Historical Balance Sheet'), (together, the '**Pro Forma Historical Financial Information**'); and
- statutory historical financial information for Golden Grove Holdings, comprising the:
 - statutory historical statements of comprehensive income for FY2018, FY2019 and FY2020 ('Statutory Historical Results');
 - statutory historical cash flow information for FY2018, FY2019 and FY2020 ('Statutory Historical Cash Flows Information'); and
 - statutory historical statement of financial position as at 31 December 2020 ('Statutory Historical Balance Sheet'), (together, the '**Statutory Historical Financial Information**')

together, the Pro Forma Historical Financial Information and the Statutory Historical Financial Information form the **Historical Financial Information**;

- pro forma forecast financial information for 29Metals, comprising the:
 - pro forma forecast statement of comprehensive income for FY2021 ('Pro Forma Forecast Results'); and
 - pro forma forecast cash flow information for FY2021 ('Pro Forma Forecast Cash Flows Information'), (together, the '**Pro Forma Forecast Financial Information**' or '**Pro Forma Forecast**'); and
- statutory forecast financial information for 29Metals, comprising the:
 - statutory forecast statement of comprehensive income for FY2021 ('Statutory Forecast Results'); and
 - statutory forecast cash flow information for FY2021 ('Statutory Forecast Cash Flows Information'), (together, the '**Statutory Forecast Financial Information**' or '**Statutory Forecast**').

The Pro Forma Forecast Financial Information and the Statutory Forecast Financial Information together form the **Forecast Financial Information**.

The Historical Financial Information and the Forecast Financial Information together form the **Financial Information**.

The basis of preparation and presentation of the Financial Information is set out in section 5.2.

This section 5 (Financial Information) should be read in conjunction with this Prospectus as a whole, including (without limitation) the risk factors set out in section 6 (Risks).

Investors should note that past results are not a guarantee of future performance.

Unless otherwise stated, all amounts in this section 5 (Financial Information) are presented in Australian dollars and are rounded to the nearest thousand. Any discrepancies between totals and the sum of the components in tables, figures and diagrams contained in this section 5 (Financial Information) are due to rounding.

5.1.3 Additional information

The following items are set out in this section 5 (Financial Information):

- basis of preparation and presentation of the Financial Information (section 5.2);
- explanation of certain non-IFRS financial measures (section 5.3);
- pro forma adjustments and reconciliations of the Statutory Historical Financial Information to the Pro Forma Historical Financial Information, and the Statutory Forecast Financial Information to the Pro Forma Forecast Financial Information (section 5.4.3);
- selected reconciliations of the Statutory Historical Results to the Pro Forma Historical Results and Statutory Historical Cash Flow Information to the Pro Forma Historical Cash Flow Information (section 5.6.3 and Annexure C);
- segment information (section 5.5);
- historical and forecast cash flow information (section 5.6);
- Statutory Historical Balance Sheet and Pro Forma Historical Balance Sheet (section 5.7.1);
- summary of 29Metals' indebtedness (section 5.7.2);

- information regarding liquidity and capital resources (section 5.7.3);
- information regarding 29Metals' commitments and contingencies and off-balance sheet arrangements (section 5.7.5);
- management discussion and analysis of the Historical Financial Information (see section 5.8) and Forecast Financial Information (section 5.9);
- the general assumptions and the specific assumptions underlying the Forecast Financial Information (sections 5.9.1 and 5.9.2);
- analysis of the sensitivity of the Forecast Financial Information to changes in certain key assumptions (section 5.10);
- a discussion of 29Metals' approach to financial risk management framework (section 5.11);
- 29Metals' approach to capital management and proposed dividend policy (section 5.12); and
- critical accounting estimates and judgements (section 5.13) and significant accounting policies (Annexure B).

5.2 Basis of Preparation and Presentation of the Financial Information

The Financial Information in this section 5 has been prepared and presented in accordance with the recognition and measurement principles of Australian Accounting Standards ('AAS') and on a consolidated basis.

The Financial Information is presented in an abbreviated form and does not include all the presentation and disclosures, statements or comparative information required by AAS. Except for the impact of leases described in section 5.2.3.1 on the Statutory Historical Financial Information, the significant accounting policies of 29Metals set out in Appendix B and the critical accounting estimates and judgments set out in section 5.13, have been consistently applied throughout the periods presented in the Financial Information.

The Pro Forma Historical Results, Pro Forma Forecast Results, Pro Forma Historical Cash Flow Information and Pro Forma Forecast Cash Flow Information have been prepared as if:

- the Initial Restructure;
- the IPO Acquisitions;
- the repayment of Capricorn Copper Pty Ltd's external borrowings;
- settlement of the 2021 CC Hedges (as defined in section 10.6.10);
- reduction of Golden Grove OpCo's external borrowings;
- reduction of the Group's trade and other payables; and
- the Offer

had occurred on 1 January 2018.

Refer to section 5.4.3 for an explanation of the pro forma adjustments made to reflect these transactions.

5.2.1 Accounting for the Initial Restructure

The Initial Restructure has been evaluated in accordance with AASB 3 *Business Combinations* and 29Metals has determined that it is a common control transaction whereby 29Metals has elected to account for the acquisition of Capricorn Copper Holdings and Lighthouse Minerals at book value rather than fair value.

The Directors consider that the continuation of the existing accounting values most appropriately reflects the substance of the Initial Restructure prior to the IPO Acquisitions.

5.2.2 Accounting for the IPO Acquisitions

The IPO Acquisitions will occur at Completion. The acquisition of the Golden Grove Group has been evaluated in accordance with AASB 3 *Business Combinations* and 29Metals has determined that the acquirer for accounting purposes is the Golden Grove Group. Accordingly, 29Metals is accounted for as a reverse acquisition business combination in accordance with AASB 3 *Business Combinations*.

As such, the consolidated financial report of 29Metals will be a continuation of the pre-existing accounting values of the Golden Grove Group's consolidated assets and liabilities.

The acquisition of Redhill Mining has been accounted for as an asset acquisition.

5.2.2.1 Reverse acquisition of 29Metals by Golden Grove Group

The reverse acquisition of 29Metals (which includes Capricorn Copper Holdings and Lighthouse Minerals) has been accounted for as a business combination in accordance with AASB 3 *Business Combinations*, which requires that the identifiable assets acquired (including intangible assets), and the liabilities and contingent liabilities assumed are measured at their respective fair values. The purchase consideration is then allocated across the fair value of these identifiable assets (including mineral rights), liabilities and contingent liabilities with the residual value (if any) allocated to goodwill. For the purposes of the Pro Forma Historical Balance Sheet, the assets and liabilities have been recorded at their provisional fair values on the 31 December 2020 balance date.

As part of the pro forma adjustments to include the historical results and cash flow information of Capricorn Copper Holdings, the 31 December 2020 acquisition fair values for mineral rights and PPE have been pushed back to 1 January 2018.

As the effective date of the IPO Acquisitions will be different to the date assumed in the Pro Forma Historical Financial Information, the provisional purchase price allocation will be different to that reflected in the Pro Forma Historical Balance Sheet. In addition, under AAS, 29Metals will have up to 12 months from the date of the IPO Acquisitions to amend and finalise the relevant fair values. If the fair values are amended, the balance sheet and statement of comprehensive income reflected in future financial statements may be impacted and subject to impairment testing.

5.2.2.2 Acquisition of Redhill Mining

The acquisition of Redhill Mining has been accounted for in accordance with AASB 6 *Exploration for and Evaluation of Mineral Resources*, because Redhill Mining does not constitute a business as it is a single asset company with no operations and so it is an acquisition of net assets. Under AASB 2 *Share Based Payment*, the consideration for the acquisition of Redhill is required to be allocated to the individual identifiable assets and liabilities on the basis of their relative fair values at the date of purchase with no recognition of goodwill.

5.2.3 Accounting standards, interpretations and segment reporting

Certain new accounting standards and interpretations have been published, including some which have become mandatory for the Group entities making up 29Metals to adopt within the period covered by the Historical Financial Information and would have been mandatory for 29Metals to adopt if it had existed at the time of mandatory application. An outline of these new standards and 29Metals' assessment of the impact of these new standards on the Pro Forma Historical Financial Information and Forecast Financial Information is set out in this section 5.2.3.

5.2.3.1 AASB 16 Leases

AASB 16 *Leases* ('AASB 16') supersedes AASB 117 *Leases*, Interpretation 4 *Determining whether an Arrangement contains a Lease*, Interpretation 115 *Operating Leases-Incentives* and Interpretation 127 *Evaluating the Substance of Transactions Involving the Legal Form of a Lease*.

AASB 16 introduced a single, on-balance sheet lease accounting model for lessees. Under AASB 16, a lessee will recognise a right-of-use asset and a lease liability for the obligation to make lease payments. AASB 16 was adopted by Golden Grove Holdings and Capricorn Copper Holdings from 1 January 2019. The main impact of adopting AASB 16 has been the requirement, as a lessee, to recognise a lease liability and corresponding right-of-use asset on balance sheet for all leases with a term of more than 12 months, unless the underlying asset is of low value.

AASB 16 would have been applicable to 29Metals from 1 January 2019. Accordingly, a pro forma adjustment has been applied to the FY2018 Pro Forma Historical Financial Information to reflect the impact of AASB 16 across all Historical Financial Information periods for all relevant entities for comparison purposes. Under AASB 16, the operating lease expenses are derecognised, and a depreciation charge and interest expense are recognised in the statement of comprehensive income. Refer to section 5.4.4 for further information regarding the impact of AASB 16 to the Pro Forma Historical Results and the Pro Forma Forecast Results.

5.2.3.2 AASB Interpretation 23 Uncertainty over Income Tax Treatments

AASB Interpretation 23 *Uncertainty over Income Tax Treatments* ('AASB Interpretation 23') would have been applicable to 29Metals at 1 January 2020. The new interpretation clarifies the accounting for uncertainties in income taxes in relation to the determination of taxable profit/(tax loss), tax bases, unused tax losses, unused tax credits and tax rates. This has not had a material impact on 29Metals.

5.2.3.3 AASB 8 Operating Segments

A description of the segments on which 29Metals reports (for the purposes of AASB 8 *Operating Segments*) is set out in section 5.5. 29Metals' reporting segments are Golden Grove and Capricorn Copper. In addition, Exploration (which includes Redhill and expansionary exploration at Golden Grove and Capricorn Copper), and, Corporate and other, are presented separately for the purpose of reconciliation to 29Metals' consolidated financial statements. These reporting and other segments are the same as those 29Metals expects to report in its future consolidated financial statements.

5.2.4 Preparation of the Statutory Historical Financial Information

The Statutory Historical Financial Information has been derived from the consolidated financial reports of Golden Grove Holdings for FY2018, FY2019 and FY2020.

The consolidated financial reports of Golden Grove Holdings for FY2018, FY2019 and FY2020 were prepared in accordance with AAS, presented in Australian dollars and subject to audit by Golden Grove Holdings' independent auditor, Ernst and Young Australia, in accordance with Australian Auditing Standards. The audit opinions issued to the members of Golden Grove Holdings relating to Golden Grove Holdings' financial reports for FY2018, FY2019 and FY2020 were unmodified.

The historical results of Golden Grove Holdings for FY2018 were reclassified to align with 29Metals' line item classifications in the statement of comprehensive income.

The historical results of Golden Grove LP (the historical parent entity of Golden Grove Holdings) have been included as pro forma adjustments incorporating the historical financial information of Golden Grove LP after elimination of intercompany results, cash flows and balances. These incremental amounts are not considered to be sufficiently material to warrant inclusion in the statutory Historical Financial Information and have only been included as part of the pro forma adjustments, as described in section 5.2.5.4.

5.2.5 Preparation of the Pro Forma Historical Financial Information

5.2.5.1 Pro forma adjustments to the historical statements of comprehensive income and cash flow information

The Pro Forma Historical Financial Information has been derived from the Statutory Historical Financial Information and incorporates the following pro forma adjustments to the historical statements of comprehensive income and cash flow information:

- inclusion of historical results and cash flow information for Capricorn Copper Holdings, Lighthouse Minerals and Redhill Mining as if 29Metals had owned these entities since 1 January 2018;
- inclusion of historical results and cash flow information of Golden Grove LP since 1 January 2018 to complete the pro forma historical results and cash flow information of the accounting acquirer Group;
- application of 29Metals' accounting policies, as set out in Annexure B (29Metals' Significant and Critical Accounting Policies), including the retrospective application of AASB 16, as if it had applied from 1 January 2018;
- impact of the change in capital structure to reflect repayment of Capricorn Copper Pty Ltd's external borrowings, settlement of the 2021 CC Hedges, reduction of Golden Grove OpCo's external borrowings and reduction of the 29Metals Group's trade and other payables (the '**Derivative Payout, Debt and Working Capital Reduction**');
- removal of historical acquisition costs;
- inclusion of estimated incremental costs of operating as a listed entity;

- removal of the estimated costs of the Offer including estimated costs associated with the IPO Acquisitions; and
- taxation adjustments.

5.2.5.2 Historical financial information of Capricorn Copper

The historical results and cash flow information for Capricorn Copper have been derived from Capricorn Copper Holdings' financial reports for FY2018, FY2019 and FY2020, and Lighthouse Minerals' unaudited financial records for FY2018, FY2019 and FY2020.

The financial reports of Capricorn Copper Holdings for FY2018, FY2019 and FY2020 were prepared in accordance with AAS, presented in Australian dollars and subject to audit by Capricorn Copper Holdings' independent auditor, Ernst and Young Australia, in accordance with Australian Auditing Standards. The audit opinions issued to the members of Capricorn Copper Holdings relating to Capricorn Copper Holdings' financial reports for FY2018, FY2019 and FY2020 were unmodified. However, the audit opinion over the financial report for FY2019 included an emphasis of matter: subsequent events – impact of the Coronavirus (COVID-19) Outbreak. The audit opinion issued for FY2020 included an emphasis of matter over the material uncertainty related to going concern.

The historical results of Capricorn Copper Holdings for FY2018 were reclassified to align with 29Metals' line item classifications in the statement of comprehensive income.

5.2.5.3 Historical financial information of Redhill Mining

The historical results and cash flow information for Redhill Mining have been derived from Redhill Mining's consolidated financial statements for FY2018, FY2019 and FY2020. The consolidated financial statements of Redhill Mining for FY2018, FY2019 and FY2020 were prepared in accordance with Hong Kong Financial Reporting Standards issued by the Hong Kong Institute of Certified Public Accountants, presented in US dollars and subject to audit by Redhill Mining's external auditor, BDO Limited (Hong Kong), in accordance with Hong Kong Standards on Auditing. The audit opinions issued to the shareholders of Redhill Mining relating to Redhill Mining's consolidated financial statements for FY2018, FY2019 and FY2020 were unmodified. However, the audit opinion issued for FY2020 included an emphasis of matter over the material uncertainty related to going concern.

5.2.5.4 Historical financial information of Golden Grove LP

The financial statements of Golden Grove LP for FY2018, FY2019 and FY2020 were prepared in accordance with US generally accepted accounting principles ('US GAAP'), presented in US dollars and subject to audit by Golden Grove LP's independent auditor, Ernst and Young Ltd, Cayman Island, in FY2019 and in FY2020, and Ernst and Young Australia in FY2018, in accordance with International Standards on Auditing. The audit opinions issued to The General Partner relating to Golden Grove LP's financial statements for FY2018, FY2019 and FY2020 were unmodified.

The historical results and cash flow information of Golden Grove LP after elimination of intercompany results, cash flows and balances were converted to AAS, and Australian dollars, to align with 29Metals' accounting policies, presentational currency and reclassified to align with 29Metals' line item classifications in the statement of comprehensive income and cash flow information.

5.2.5.5 Pro forma adjustments to the historical balance sheet

The Pro Forma Historical Balance Sheet has been derived from the Statutory Historical Balance Sheet and incorporates the application of pro forma adjustments as if each of the following had occurred on 31 December 2020:

- inclusion of historical balance sheet information of Golden Grove LP to complete the pro forma historical balance sheet information of the accounting acquirer, the Golden Grove Group;
- the Initial Restructure;
- the IPO Acquisitions including the reverse acquisition of 29Metals and asset acquisition of Redhill Mining;
- the Derivative Payout, Debt and Working Capital Reduction;
- the impact of the Golden Grove Group joining the 29Metals Australian tax consolidated Group; and
- the impact of the Offer and Offer costs, including costs associated with the IPO Acquisitions.

5.2.5.6 Foreign currency conversion

For the purposes of the Financial Information, the financial information relating to Golden Grove LP and Redhill Mining has been converted from US dollars to Australian dollars.

For conversion of the assets and liabilities on the statements of financial position of these entities into Australian dollars, the rate that was used was 0.7702 at 31 December 2020. For conversion of statements of comprehensive income and cash flow information of these respective entities into Australian dollars, the following rates were used:

- 0.7476 (average rate) for FY2018;
- 0.6952 (average rate) for FY2019; and
- 0.6908 (average rate) for FY2020.

29Metals has determined that its reporting currency for future periods will be Australian dollars and its consolidated financial statements will be prepared on this basis.

The Pro Forma Historical Financial Information presented in this Prospectus has been prepared solely for the purposes of inclusion in this Prospectus and has been reviewed by KPMG Transaction Services, in accordance with the Australian Standard on Assurance Engagements ASAE 3450 *Assurance Engagements Involving Corporate Fundraisings and/or Prospective Financial Information*. The Limited Assurance Investigating Accountant's Report on the Pro Forma Historical Financial Information is included in section 9 (Investigating Accountant's Report). Investors should note the scope and limitations of the Limited Assurance Investigating Accountant's Report on the Pro Forma Historical Financial Information.

Investors should also note that the Pro Forma Historical Financial Information included in this Prospectus does not purport to be in compliance with Article 11 of Regulation S-X of the Rules and Regulations of the SEC. Article 11 of Regulation S-X contains specific requirements regarding the nature, extent and determination of acceptable pro forma adjustments, and the reporting periods for which pro forma financial information may be presented.

5.2.6 Preparation of Forecast Financial Information

The basis of preparation and presentation of the Pro Forma Forecast Financial Information and Statutory Forecast Financial Information is consistent with the basis of preparation and presentation of the Pro Forma Historical Financial Information.

The Directors of 29Metals have prepared the Forecast Financial Information with due care and attention and consider all best estimate assumptions, when taken as a whole, to be reasonable at the time of preparing this Prospectus. However, investors should be aware that the assumptions may not eventuate in full or in part and investors are cautioned not to place undue reliance on the Forecast Financial Information.

The Forecast Financial Information has been prepared on the basis of numerous assumptions, including the general assumptions and the specific assumptions set out in sections 5.9.1 and 5.9.2, respectively. This information is intended to assist investors in assessing the reasonableness and likelihood of the assumptions occurring and is not intended to be a representation that the assumptions will prove to be correct.

The Pro Forma Forecast Financial Information has been prepared on the basis that the Initial Restructure, the IPO Acquisitions (including the reverse acquisition of 29Metals (including Capricorn Copper Holdings and Lighthouse Minerals) and asset acquisition of Redhill Mining), the Derivative Payout, Debt and Working Capital Reduction and the Offer had occurred prior to the beginning of FY2021.

The Statutory Forecast Financial Information has been prepared on the basis that the Initial Restructure, the IPO Acquisitions (including the reverse acquisition of 29Metals (including Capricorn Copper Holdings and Lighthouse Minerals) and asset acquisition of Redhill Mining), the Derivative Payout, Debt and Working Capital Reduction and the Offer will occur on or about the date of Completion.

Investors should be aware that the timing of actual events and the magnitude of their impact might differ from that assumed in preparing the Forecast Financial Information and that this may have a material positive or negative effect on 29Metals' actual financial performance, cash flows or financial position. In addition, the assumptions upon which the Forecast Financial Information is based are by their nature subject to significant uncertainties and contingencies, many of which are outside the control of 29Metals. Accordingly, no assurance can be given to investors that the outcomes disclosed in the Forecast Financial Information will occur.

Investors are advised to review the general assumptions and specific assumptions set out in sections 5.9.1 and 5.9.2, respectively, in conjunction with the critical accounting estimates set out in section 5.13, the significant accounting policies set out in Annexure B (Significant and Critical Accounting Policies), the sensitivity analysis set out in section 5.10 and the other information in this Prospectus as a whole, including (without limitation) the risks set out in section 6 (Risks).

Except as required by law, 29Metals has no intention to update or revise the Forecast Financial Information following the issue of this Prospectus, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affecting the information contained in this Prospectus.

The Pro Forma Forecast Financial Information and the Statutory Forecast Financial Information presented in this Prospectus have been prepared solely for inclusion in this Prospectus and have been reviewed by KPMG Transaction Services, in accordance with the Australian Standard on ASAE 3450 *Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information*, as stated in its Limited Assurance Investigating Accountant's Report on the Forecast Financial Information set out in section 9 (Investigating Accountant's Report). Investors should note the scope and limitations of that report.

5.3 Explanation of Certain Non-IFRS Financial Information

29Metals uses certain measures to manage and report on its business that are not recognised under AAS. These measures are collectively referred to as '**non-IFRS financial information**'. 29Metals use non-IFRS financial information to assess the performance of the business and to provide additional insights into the underlying performance of its assets.

Investors should note that because this non-IFRS financial information is not based on AAS the non-IFRS financial information does not have standard definitions. As a result, the way 29Metals calculates these measures may differ from similarly titled measures used by other companies. Investors should therefore not place undue reliance on the non-IFRS financial information. The non-IFRS financial information should be read in conjunction with the financial information prepared in accordance with AAS and not as replacements for AAS measures.

A description of the non-IFRS financial information used in this Prospectus is set out below.

- **EBITDA** is earnings before finance income, finance costs, any unrealised foreign exchange gains or losses, any realised and unrealised gains or losses on derivative financial instruments, income tax expense and D&A. Because it eliminates all gains and losses on forward commodity contracts (copper) and swaps (gold), the non-cash charges for D&A, and unrealised foreign exchange gain or losses, 29Metals considers that EBITDA is useful to help evaluate the operating performance of the business without the impact of those items, and before finance income and finance costs and tax charges, which are significantly affected by the capital structure and historical tax position of 29Metals;
- **Working Capital** is the sum of trade receivables and inventories less trade payables, royalties, other creditors and accruals, GST and employee liabilities. 29Metals uses this measure to provide insight into 29Metals' short-term liquidity. Investors should take note that Working Capital does not reflect 29Metals' future requirements for Working Capital, capital expenditure or contractual commitments;
- **Net Cash or Net Debt** is total debt excluding lease liabilities, financial liabilities and derivative financial assets and liabilities less cash and cash equivalents. 29Metals uses this measure to understand its overall credit position. Investors should consider that cash and cash equivalents may be required for purposes other than debt reduction;
- **Net Drawn Debt** is total debt (excluding lease liabilities, financial liabilities and derivative financial assets and liabilities), less cash and cash equivalents (excluding Cash Backed Indemnity Amount). 29Metals uses this measure to understand its overall credit position. Investors should consider that cash and cash equivalents may be required for purposes other than debt reduction;
- **Operating Free Cash Flows** is net cash flow from operating activities less capital expenditure and excluding the net payout of derivative financial instruments. 29Metals considers that Operating Free Cash Flows is a useful measure of the operating cash flow generated by the business after capital expenditure but before debt servicing commitments and settlement of derivative financial instruments, but should not be considered as a replacement of net cash provided by or used in operating activities;
- **Average Realised Price** is gross revenue from metal in-concentrate sales (exclusive of Quotational Period ('QP') gains/(losses)) divided by sales volume;
- **C1 Costs** is mining costs, processing costs, maintenance costs, site general & administrative costs, realisation costs (including shipping and logistics costs), and treatment and refining charges, adjusted for stockpile movements and net of by-product credits (non-copper metal related). C1 Costs is cited per pound of payable copper sold and in \$ million terms; and
- **AISC** is C1 Costs plus royalties cost¹, corporate costs, sustaining capital and capitalised development costs, but excludes growth capital and exploration. AISC is cited per pound of payable copper sold and in \$ million terms.

¹ Refer to section 10.7.1.2 for information regarding government royalties payable under applicable mining legislation in Western Australia and Queensland.

5.4 Pro Forma Historical Results, Statutory Historical Results, Pro Forma Forecast Results and Statutory Forecast Results

5.4.1 Pro Forma Historical Results, Pro Forma Forecast Results and Statutory Forecast Results

Table 5.1 sets out a summary of the Pro Forma Historical Results for FY2018, FY2019 and FY2020 and the Pro Forma Forecast Results for FY2021 and Statutory Forecast Results for FY2021.

Table 5.1: Summary of Pro Forma Historical Results, Pro Forma Forecast Results and Statutory Forecast Results

\$000	Notes	Pro Forma Historical			Pro Forma Forecast	Statutory Forecast
		FY2018	FY2019	FY2020	FY2021	FY2021
Revenue	1	524,906	657,170	625,114	665,330	557,160
Cost of sales	2	(428,555)	(499,423)	(557,738)	(550,211)	(438,035)
Gross profit		96,351	157,747	67,376	115,119	119,125
Other income	3	5,471	7,766	442	73	22
Net gain/(loss) on derivative financial instruments	4	(18,208)	(6,022)	(5,515)	(32,524)	16,477
Net foreign exchange gain/(loss)	5	(9,836)	(4,956)	28,783	(2,308)	(2,308)
Administration expenses	6	(18,721)	(19,162)	(19,458)	(19,701)	(66,477)
Other expenses	7	(3,183)	(4,872)	(3,988)	-	-
Profit before net finance costs and income tax expense		51,874	130,501	67,640	60,659	66,839
Finance income	8	1,026	1,763	314	429	407
Finance costs	9	(20,220)	(15,498)	(21,715)	(12,003)	(10,581)
Profit before income tax expense		32,680	116,766	46,239	49,085	56,665
Income tax (expense)/benefit	10	(14,579)	(35,022)	(13,045)	(12,561)	117,773
Net profit for the year attributable to members		18,101	81,744	33,194	36,524	174,438
Reconciliation to EBITDA:						
Net profit for the year attributable to members		18,101	81,744	33,194	36,524	174,438
Add: Income tax expense/(benefit)		14,579	35,022	13,045	12,561	(117,773)
Less: Finance income		(1,026)	(1,763)	(314)	(429)	(407)
Add: Finance costs		20,220	15,498	21,715	12,003	10,581
Profit before net finance costs and income tax expense		51,874	130,501	67,640	60,659	66,839
Add: Depreciation and amortisation		100,175	114,954	131,791	126,102	94,456
Add: Unrealised net foreign exchange (gain)/loss		10,573	3,570	(28,840)	1,703	1,703
Add: Net (gain)/loss on derivative financial instruments		18,208	6,022	5,515	32,524	(16,477)
EBITDA	11	180,830	255,047	176,106	220,988	146,521

Notes:

- Revenue includes revenue from the sale of copper, gold, zinc and silver and shipping service revenue, net of TC/RCs, together with realised and unrealised fair value movements on receivables subject to QP adjustment.
- Cost of sales comprises mining costs, processing costs, site services costs, D&A, stockpile movements, government royalties, other production and selling costs.
- Other income largely consists of net gain on disposal of PPE and income accrued in relation to a third party's rights to mine oxide ore sources at Golden Grove that ceased in FY2019.
- Net gain/(loss) on derivative financial instruments comprises of realised and unrealised gain and losses on gold commodity swaps and copper forward contracts.
- Net foreign exchange gain/(loss) comprises of realised and unrealised gain and loss on foreign exchange in respect to loans, cash and trade receivables.
- Administration expenses comprises corporate costs and salaries, professional advisor fees, insurance costs and other general expenses. For FY2021, Offer related expenses are also included.
- Other expenses comprise credit losses on other receivables, rehabilitation expenses and write off of PPE.
- Finance income primarily relates to interest income from cash at bank.
- Finance costs comprises interest expense on loans, interest expense on lease liabilities, amortisation of capitalised borrowing costs and unwinding of the discount on provisions for rehabilitation.
- Income (tax expense)/benefit has been calculated at the Australian corporate tax rate in effect at the time of each respective income statement. The Statutory Forecast includes a one-off income tax benefit of \$134.8 million as a result of the Golden Grove Group joining the 29Metals Australian tax consolidated Group.
- EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.4.2 Statutory Historical Results

Table 5.2 sets out a summary of the Statutory Historical Results for FY2018, FY2019 and FY2020.

Table 5.2: Statutory Historical Results

\$000	Statutory Historical		
	FY2018	FY2019	FY2020
Revenue	402,363	473,418	434,451
Cost of sales	(251,972)	(284,609)	(325,839)
Gross profit	150,391	188,809	108,612
Other income	5,060	7,476	73
Net gain on derivative financial instruments	-	-	8,359
Net foreign exchange gain/(loss)	(6,806)	(2,418)	26,807
Administration expenses	(2,082)	(4,036)	(3,710)
Other expenses	(3,253)	-	(3,988)
Profit before net finance costs and income tax expense	143,310	189,831	136,153
Finance income	994	1,579	287
Finance costs	(11,841)	(11,526)	(18,232)
Profit before income tax expense	132,463	179,884	118,208
Income tax expense	(44,288)	(53,732)	(34,514)
Net profit for the year attributable to members	88,175	126,152	83,694
Reconciliation to EBITDA:			
Net profit for the year attributable to members	88,175	126,152	83,694
Add: Income tax expense	44,288	53,732	34,514
Less: Finance income	(994)	(1,579)	(287)
Add: Finance costs	11,841	11,526	18,232
Profit before net finance costs and income tax expense	143,310	189,831	136,153
Add: Depreciation and amortisation	35,789	50,139	56,148
Add: Unrealised net foreign exchange (gain)/loss	8,322	2,290	(27,437)
Add: Net (gain) on derivative financial instruments	-	-	(8,359)
EBITDA¹	187,421	242,260	156,505

Notes:

1. EBITDA is a non-IFRS financial measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.4.3 Pro forma adjustments to the Statutory Historical Results and Statutory Forecast Results

Table 5.3 sets out the pro forma adjustments that have been made to 29Metals' statutory historical revenue, net profit after income tax expense attributable to members and EBITDA for FY2018, FY2019 and FY2020 and statutory forecast revenue, net profit after income tax expense attributable to members and EBITDA for FY2021.

Table 5.3: Summary of pro forma adjustments to the Statutory Historical Results and Statutory Forecast Results

\$000	Notes	Historical			Forecast
		FY2018	FY2019	FY2020	FY2021
Statutory revenue		402,363	473,418	434,451	557,160
Capricorn Copper Holdings and Lighthouse Minerals pre-IPO acquisition	1	122,543	183,752	190,663	108,170
Pro forma revenue		524,906	657,170	625,114	665,330
Statutory net profit after income tax expense attributable to members		88,175	126,152	83,694	174,438
Golden Grove LP	2	(667)	(356)	(978)	-
Redhill Mining pre-IPO acquisition	3	(750)	(752)	(405)	(189)
Capricorn Copper Holdings and Lighthouse Minerals pre-IPO acquisition	1	(89,246)	(55,142)	(69,623)	(57,573)
Impact of AASB 16	4	(790)	-	-	-
Impact of Derivative Payout, Debt and Working Capital Reduction	5	5,093	5,074	1,183	103
Incremental public company costs	6	(13,085)	(13,073)	(12,146)	(4,749)
Historical acquisition costs	7	-	1,131	10,000	-
Offer costs	8	-	-	-	54,828
Income tax expense/(benefit) on the pro forma adjustments	9	29,371	18,710	21,469	(130,334)
Pro forma net profit after income tax expense attributable to members		18,101	81,744	33,194	36,524
Statutory EBITDA	10	187,421	242,260	156,505	146,521
Golden Grove LP	2	(667)	(356)	(978)	-
Redhill Mining pre-IPO acquisition	3	(734)	(742)	(405)	(189)
Capricorn Copper Holdings and Lighthouse Minerals pre-IPO acquisition	1	(16,687)	25,827	23,141	26,024
Impact of AASB 16	4	24,582	-	-	-
Impact of Derivative Payout, Debt and Working Capital Reduction	5	-	-	(11)	(1,447)
Incremental public company costs	6	(13,085)	(13,073)	(12,146)	(4,749)
Historical acquisition costs	7	-	1,131	10,000	-
Offer costs	8	-	-	-	54,828
Pro forma EBITDA	10	180,830	255,047	176,106	220,988

Notes:

- Assumes the acquisition for the purposes of the Initial Restructure was 1 January 2018 and includes pro forma adjustment to reflect 12 months of trading results for each reporting period. 29Metals will recognise the results of Capricorn Copper Holdings and Lighthouse Minerals on Completion. This adjustment also includes higher D&A charges on account of increase to PPE, and mineral rights, associated with new fair values arising from the provisional purchase price allocation.
- Incremental historical results of Golden Grove LP after elimination of transactions with Golden Grove Holdings, conversion to \$ and alignment with Golden Grove Holdings' AAS accounting policies.
- Assumes the acquisition date of Redhill Mining was 1 January 2018 and includes pro forma adjustment to reflect 12 months of trading results for each reporting period. 29Metals will recognise the results of Redhill Mining on Completion of the Offer.
- Reflects the application of AASB 16 as if it had been in place since the start of FY2018. Refer to section 5.4.4 for further information.
- Adjustment removes finance costs, net loss on financial instruments and net foreign exchange gain/(loss) relating to the Derivative Payout, Debt and Working Capital Reduction.
- This adjustment incorporates additional estimated compliance costs, annual listing fees, incremental executive remuneration costs and the Staff Offer Incentive associated with being a listed company.
- One-off costs associated with prior acquisitions of Golden Grove and Capricorn Copper have been removed from the historical trading results. This adjustment consists of the removal of prior acquisition costs of \$1.1 million in FY2019 relating to historical acquisition of Golden Grove and contingent consideration recognised of \$10.0 million in FY2020 relating to the historical acquisition of Capricorn Copper.
- Removal of expenses related to the Offer consisting of estimated stamp duty in respect of Golden Grove and costs attributable to secondary raising component of the Offer.
- Adjustment reflects the tax effect of the pro forma adjustments. It includes removal of one-off income tax benefit of \$134.8 million as a result of Golden Grove joining the tax consolidated Group.
- EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.4.4 Impact of AASB 16 Leases to the Pro Forma Historical Results and Pro Forma Forecast Results

Under the previous AASB 117 *Leases*, operating lease expenses were recognised in the statement of comprehensive income over the lease term within cost of sales and administration expenses (and were included within EBITDA).

The new accounting standard for leases, AASB 16, became mandatory on 1 January 2019. Under AASB 16, the operating lease expenses are derecognised, and a depreciation charge and interest expense are recognised in the statement of comprehensive income. While AASB 16 has no impact on net cash flows, it has significant impact on financing and operating cash flows because under AASB 16, the principal lease repayments are presented separately within financing cash flows, whereas under the previous AASB 117, these payments were included in operating cash flows. As a result, the application of AASB 16 also has a significant impact on EBITDA.

AASB 16 has been applied to the presentation of the Pro Forma Historical Financial Information and the Forecast Financial Information on a consistent basis, as if this standard applied from 1 January 2018.

A pro forma adjustment has been applied to the FY2018 Pro Forma Historical Financial Information to reflect the impact of AASB 16 across all periods for all relevant entities.

The table below illustrates the impact AASB 16 has had on the Pro Forma Historical Financial Information and Pro Forma Forecast Financial Information.

Table 5.4: Pro forma historical and forecast impact of application of AASB 16 Leases

\$000	FY2018	FY2019	FY2020	FY2021
Operating lease expense	24,582	25,655	23,825	33,124
Impact on EBITDA	24,582	25,655	23,825	33,124
Depreciation expense	(21,498)	(20,751)	(24,746)	(31,144)
Impact on profit before finance costs and income tax expense	3,084	4,905	(920)	1,980
Interest expense	(4,212)	(2,490)	(1,837)	(1,375)
Impact on profit before income tax expense	(1,128)	2,415	(2,757)	605
Income tax expense	338	(725)	827	(182)
Impact on profit after income tax expense	(790)	1,691	(1,930)	424

5.5 Segment Information

5.5.1 Background

In accordance with AASB 8 *Operating Segments*, 29Metals has adopted the following reporting segments:

- Golden Grove; and
- Capricorn Copper

In addition, 'Exploration' and 'Corporate and other' are not reporting segments but are disclosed for the purpose of reconciliation to the Company's consolidated financial information.

These reporting segments and other information reflect how 29Metals expects to monitor and report the results of the business. Section 3 (Company Overview) contains a description of each of the assets included in these segments and other information.

Refer to sections 5.8 and 5.9 for management discussion and analysis of 29Metals' results of operations on a segment basis.

5.5.2 Segment pro forma historical revenue and EBITDA, segment pro forma forecast revenue and EBITDA and segment statutory forecast revenue and EBITDA

Table 5.5 sets out 29Metals' segment pro forma historical revenue and EBITDA for FY2018, FY2019 and FY2020, segment pro forma forecast revenue and EBITDA for FY2021 and segment statutory forecast revenue and EBITDA for FY2021.

Table 5.5: Segment pro forma historical revenue and EBITDA, segment pro forma forecast revenue and EBITDA and segment statutory forecast revenue and EBITDA

\$000	Pro Forma Historical			Pro Forma Forecast	Statutory Forecast
	FY2018	FY2019	FY2020	FY2021	FY2021
Key financial metrics – revenue					
Golden Grove	402,363	473,418	434,451	433,390	433,390
Capricorn Copper	122,543	183,752	190,663	231,940	123,770
Reportable segments	524,906	657,170	625,114	665,330	557,160
Total revenue	524,906	657,170	625,114	665,330	557,160
Key financial metrics – EBITDA					
Golden Grove	205,617	246,296	160,215	170,431	168,351
Capricorn Copper	(6,000)	28,046	35,349	70,384	44,697
Reportable segments	199,617	274,342	195,564	240,815	213,048
Exploration	(734)	(742)	(405)	(331)	(142)
Corporate and other	(18,053)	(18,553)	(19,053)	(19,496)	(66,385)
Total EBITDA¹	180,830	255,047	176,106	220,988	146,521

Notes:

1. EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

Table 5.6 sets out 29Metals' segment statutory historical revenue and EBITDA for FY2018, FY2019 and FY2020.

Table 5.6: Segment statutory historical revenue and EBITDA

\$000	Statutory Historical		
	FY2018	FY2019	FY2020
Key financial metrics – revenue			
Golden Grove	402,363	473,418	434,451
Key financial metrics – EBITDA¹			
Golden Grove	187,421	242,260	156,505

Notes:

1. EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.6 Historical and Forecast Cash Flow Information

5.6.1 Pro Forma Historical Cash Flows Information, Pro Forma Forecast Cash Flows information and Statutory Forecast Cash Flows Information

Table 5.7 sets out the Pro Forma Historical Cash Flows Information for FY2018, FY2019 and FY2020, the Pro Forma Forecast Cash Flows Information for FY2021 and the Statutory Forecast Cash Flows Information for FY2021.

Refer to sections 5.8 and 5.9 for management discussion and analysis of the Pro Forma Historical Cash Flows Information, Pro Forma Forecast Cash Flows Information and Statutory Forecast Cash Flows Information.

Table 5.7: Summary of Pro Forma Historical Cash Flows Information for FY2018, FY2019 and FY2020, Pro Forma Forecast Cash Flows Information for FY2021 and Statutory Forecast Cash Flows Information for FY2021

\$000	Notes	Pro Forma Historical			Pro Forma Forecast	Statutory Forecast
		FY2018	FY2019	FY2020	FY2021	FY2021
Net profit for the year attributable to members		18,101	81,744	33,194	36,524	174,438
Interest and other finance costs	1	18,435	14,265	16,234	12,003	10,581
Depreciation and amortisation	2	100,175	114,954	131,791	126,102	94,456
Other items	3	25,990	4,146	(23,906)	7,971	(42,477)
Changes in working capital	4	32,626	(27,270)	(4,982)	(36,404)	(204,160)
Net cash flows from operating activities		195,327	187,839	152,331	146,196	32,838
Payments for property, plant and equipment	5	(23,367)	(30,114)	(37,673)	(41,176)	(35,503)
Proceeds from the sale of property, plant and equipment	6	1,386	47	96	-	-
Payments for development activities	7	(39,803)	(57,112)	(57,874)	(60,431)	(47,987)
Exploration expenditure	8	(16,241)	(6,661)	(11,839)	(11,895)	(5,684)
Net cash flows used in investing activities		(78,025)	(93,840)	(107,290)	(113,502)	(89,174)
Proceeds from share issue	9	36,176	33,169	-	-	218,340
Proceeds from external borrowings	10	115,841	-	146,946	-	-
Repayment of borrowings	11	(71,117)	(57,278)	(3,252)	(26,060)	(78,729)
Repayment of lease liabilities	12	(21,498)	(24,803)	(22,971)	(31,749)	(26,343)
Share buy back	13	(185,817)	-	(176,030)	-	-
Interest and borrowing costs paid	14	(16,425)	(11,867)	(12,667)	(14,171)	(12,860)
Net cash flows from/(used in) financing activities		(142,840)	(60,779)	(67,974)	(71,980)	100,408
Net increase/(decrease) in cash and cash equivalents		(25,538)	33,220	(22,933)	(39,286)	44,072
Reconciliation of Operating Free Cash Flows						
Net cash flows from operating activities		195,327	187,839	152,331	146,196	32,838
Less: Payments for property, plant and equipment		(23,367)	(30,114)	(37,673)	(41,176)	(35,503)
Less: Payments for development activities		(39,803)	(57,112)	(57,874)	(60,431)	(47,987)
Less: Exploration expenditure		(16,241)	(6,661)	(11,839)	(11,895)	(5,684)
Add: Net payout of derivative financial instruments		7,049	8,682	7,755	27,983	27,983
Operating Free Cash Flows	15	122,965	102,634	52,700	60,677	(28,353)

Notes:

- Interest and other finance costs are non-operating items.
- Depreciation and amortisation are non-cash items.
- Other items largely consist of movements in foreign exchange rates, net realisable value write-down for zinc concentrate stockpiles, gain/(loss) on derivative financial instruments, credit loss on trade receivables and gain/(loss) on sale of PPE. The pro forma forecast FY2021 other items largely relate to the reversal of unrealised net loss on derivative financial instruments and foreign exchange.
- Changes in working capital include movements in trade receivables, inventory, trade payables, royalties, other creditors and accruals, GST, income tax balances and employee liabilities.
- Payments for PPE reflect cash paid for purchase of fixed assets.
- Proceeds from sale of PPE relate to cash received for the disposal of fixed assets.
- Payments for development activities reflects development expenditure incurred.
- Reflects expenditure incurred for exploration and evaluation activities.
- Proceeds from share issues.
- Relates to proceeds from external borrowings.
- Relates to repayment of external borrowings.
- Relates to repayment of principal component of AASB 16 *Lease Liabilities*.
- Buy back of ordinary shares.
- Interest and borrowing costs paid on debt, including interest on lease liabilities.
- Operating Free Cash Flows is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.6.2 Statutory Historical Cash Flows Information

Table 5.8 sets out a summary of the Statutory Historical Cash Flows Information for FY2018, FY2019 and FY2020.

Table 5.8: Summary of Statutory Historical Cash Flows Information

\$000	Statutory Historical		
	FY2018	FY2019	FY2020
Net profit for the year attributable to members	88,175	126,152	83,694
Interest and other finance costs	11,841	10,421	12,800
Depreciation and amortisation	35,789	50,139	56,148
Other items	10,919	4,922	(29,125)
Changes in working capital	25,239	(3,147)	7,085
Net cash flows from operating activities	171,963	188,487	130,602
Payments for property, plant and equipment	(11,060)	(25,952)	(31,294)
Proceeds from the sale of property, plant and equipment	1,386	47	96
Payments for development activities	(25,172)	(39,930)	(37,950)
Exploration expenditure	(7,589)	(3,712)	(9,740)
Net cash flows used in investing activities	(42,435)	(69,547)	(78,888)
Loans from/(to) related parties	-	1,123	(1)
Proceeds from external borrowings	115,841	-	146,946
Repayment of borrowings	(71,117)	(57,278)	(3,252)
Repayment of lease liabilities	-	(15,491)	(13,374)
Share buy back	(185,817)	-	(176,030)
Interest and borrowing costs paid	(11,324)	(9,520)	(11,631)
Net cash flows used in financing activities	(152,417)	(81,166)	(57,342)
Net increase/(decrease) in cash and cash equivalents	(22,889)	37,774	(5,628)
Reconciliation of Operating Free Cash Flows			
Net cash flows from operating activities	171,963	188,487	130,602
Less: Payments for property, plant and equipment	(11,060)	(25,952)	(31,294)
Less: Payments for development activities	(25,172)	(39,930)	(37,950)
Less: Exploration expenditure	(7,589)	(3,712)	(9,740)
Add: Net payout of derivative financial instruments	-	-	502
Operating Free Cash Flows¹	128,142	118,893	52,120

Notes:

1. Operating Free Cash Flows is a non-IFRS financial measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.6.3 Pro forma adjustments to the Statutory Historical Cash Flows Information and the Statutory Forecast Cash Flows Information

Table 5.9 sets out the pro forma adjustments that have been made to the Statutory Historical Cash Flows Information for FY2018, FY2019 and FY2020 and Statutory Forecast Cash Flows Information for FY2021. Refer to Annexure C (Selected Reconciliations) for a reconciliation of the Statutory Historical Cash Flows Information to the Pro Forma Historical Cash Flows Information and the Statutory Forecast Cash Flows Information to Pro Forma Forecast Cash Flows Information.

Table 5.9: Pro forma adjustments to the Statutory Historical Cash Flows Information and Statutory Forecast Cash Flows Information

\$000	Notes	Historical			Forecast
		FY2018	FY2019	FY2020	FY2021
Statutory net cash flows from operating activities		171,963	188,487	130,602	32,838
Golden Grove LP	1	-	1,123	(1)	-
Redhill Mining pre-IPO acquisition	2	(750)	(614)	(400)	(200)
Capricorn Copper Holdings and Lighthouse Minerals pre-IPO acquisition	3	12,731	7,267	30,782	26,343
Impact of AASB 16	4	24,582	-	-	-
Impact of Derivative Payout, Debt and Working Capital Reduction	5	(20,314)	-	(11)	31,943
Incremental public company costs	6	(13,085)	(13,073)	(12,146)	(4,749)
Historical acquisition costs	7	16,214	759	-	-
Offer costs	8	-	-	-	54,828
Reduction in tax payments	9	3,986	3,890	3,505	5,193
Pro forma net cash flows from operating activities		195,327	187,839	152,331	146,196
Statutory net cash flows used in investing activities		(42,435)	(69,547)	(78,888)	(89,174)
Redhill Mining pre-IPO acquisition	2	(443)	(218)	(158)	(5,187)
Capricorn Copper Holdings and Lighthouse Minerals pre-IPO acquisition	3	(35,147)	(24,075)	(28,244)	(19,141)
Pro forma net cash flows used in investing activities		(78,025)	(93,840)	(107,290)	(113,502)
Statutory net cash flows used in financing activities		(152,417)	(81,166)	(57,342)	100,408
Golden Grove LP	1	-	(1,123)	1	-
Capricorn Copper Holdings and Lighthouse Minerals pre-IPO acquisition	3	27,599	7,389	(8,965)	(11,422)
Impact of AASB 16	4	(24,582)	-	-	-
Impact of Derivative Payout, Debt and Working Capital Reduction	5	6,560	14,121	(1,668)	57,374
Proceeds from the Offer (net)	8	-	-	-	(218,340)
Pro forma net cash flows provided by financing activities		(142,840)	(60,779)	(67,974)	(71,980)
Pro forma net cash flows		(25,538)	33,220	(22,933)	(39,286)

Notes:

- Incremental net cash flows information of Golden Grove LP after elimination of transactions with Golden Grove Holdings, conversion to AUD and alignment with Golden Grove Holdings' AAS accounting policies.
- Assumes the acquisition date of Redhill Mining was 1 January 2018 and includes pro forma adjustment to reflect 12 months of net cash flows for each reporting period.
- Assumes the acquisition date of Capricorn Copper Holdings and Lighthouse Minerals was 1 January 2018 and includes pro forma adjustment to reflect 12 months of net cash flows for each reporting period.
- AASB 16 has no impact on net cash flows. Under AASB 16, the principal lease repayments and interest on lease liabilities are presented separately with financing cash flows. Under the previous AAS, these payments were included in operating cash flows.
- This adjustment removes the finance costs, net gain/(loss) on derivative financial instruments, net foreign exchange gain/(loss) and other cash flows in respect of the Derivative Payout, Debt and Working Capital Reduction.
- This adjustment incorporates additional estimated compliance costs, annual listing fees, incremental executive remuneration costs and the Staff Offer Incentive associated with being a listed company.
- Removal of one-off costs and cash flows associated with prior acquisition of Golden Grove.
- The proceeds from the Offer, net of Offer costs, are removed on a pro forma basis.
- This adjustment reflects lower tax payments from the pro forma adjustments.

5.7 Balance Sheet Information

5.7.1 Statutory Historical Balance Sheet and Pro Forma Historical Balance Sheet

Table 5.10 sets out the adjustments that have been made to the Statutory Historical Balance Sheet of Golden Grove Holdings as at 31 December 2020 to present the Pro Forma Historical Balance Sheet of 29Metals as though the Initial Restructure, the IPO Acquisitions and the Offer were completed on 31 December 2020.

In addition, cash and cash equivalents in the Pro Forma Historical Balance Sheet, have been adjusted to reflect the Derivative Payout, Debt and Working Capital Reduction as if it occurred as at 31 December 2020 and as such have not been adjusted for the anticipated cash requirements of the business between 31 December 2020 and Completion.

As a result, the Pro Forma Historical Balance Sheet is provided for illustrative purposes only and is not indicative of 29Metals' actual financial position upon Completion or at any future date.

Table 5.10: Statutory Historical Balance Sheet and Pro Forma Historical Balance Sheet

\$000	Statutory (Golden Grove Holdings) 31 December 2020	Golden Grove LP	Golden Grove Group	Capricorn Copper Holdings and Lighthouse Minerals	Redhill Mining	Derivative Payout, Debt and Working Capital Reduction	Tax consolid- ation	Impact of the Offer	Pro forma 31 December 2020
	1	2	3	4	5	6	7	8	
Current assets									
Cash and cash equivalents	107,215	-	107,215	5,738	7	(139,299)	-	176,512	150,173
Trade and other receivables	19,796	-	19,796	13,563	-	-	-	-	33,359
Inventories	25,038	-	25,038	16,196	-	-	-	-	41,234
Prepayments	3,643	-	3,643	1,064	-	-	-	-	4,707
Other current assets	-	-	-	-	3	-	-	-	3
Derivative financial assets	2,763	-	2,763	-	-	-	-	-	2,763
Total current assets	158,455	-	158,455	36,561	10	(139,299)	-	176,512	232,239
Non-current assets									
Exploration and evaluation assets	25,975	-	25,975	-	-	-	-	-	25,975
Mine properties	210,831	-	210,831	381,253	12,136	-	-	-	604,220
Property plant and equipment	143,993	-	143,993	79,610	-	-	-	-	223,603
Right of use assets	25,101	-	25,101	21,632	-	-	-	-	46,733
Deferred tax assets	-	-	-	-	-	-	93,254	24,446	117,700
Derivative financial assets	6,098	-	6,098	-	-	-	-	-	6,098
Total non-current assets	411,998	-	411,998	482,495	12,136	-	93,254	24,446	1,024,329
Total assets	570,453	-	570,453	519,056	12,146	(139,299)	93,254	200,958	1,256,568
Current liabilities									
Trade and other payables	40,001	142	40,143	70,040	38	(31,990)	-	-	78,231
Lease liabilities	19,102	-	19,102	10,094	-	-	-	-	29,196
Derivative financial liabilities	-	-	-	64,097	-	(32,994)	-	-	31,103
Financial liabilities	-	-	-	-	-	-	-	13,000	13,000
Provisions	5,953	-	5,953	3,627	-	-	-	-	9,580
Interest bearing liabilities	28,507	-	28,507	55,406	-	(73,713)	-	-	10,200
Income tax payable	-	3,953	3,953	-	-	-	-	-	3,953
Shareholder tax funding payable	3,617	(3,617)	-	-	-	-	-	-	-
Total current liabilities	97,180	478	97,658	203,264	38	(138,697)	-	13,000	175,263
Non-current liabilities									
Lease liabilities	4,967	-	4,967	11,538	-	-	-	-	16,505
Provisions	65,758	-	65,758	29,787	-	-	-	-	95,545
Interest bearing liabilities	191,763	-	191,763	-	-	-	-	-	191,763
Deferred tax liabilities	41,561	-	41,561	60,069	-	-	(41,561)	-	60,069
Total non-current liabilities	304,049	-	304,049	101,394	-	-	(41,561)	-	363,882
Total liabilities	401,229	478	401,707	304,658	38	(138,697)	(41,561)	13,000	539,145
Net assets	169,224	(478)	168,746	214,398	12,108	(602)	134,815	187,958	717,423
Equity									
Share capital	89,877	(89,877)	-	214,398	12,108	-	-	226,338	452,844
Reserves	(269,878)	269,878	-	-	-	-	-	-	-
Retained earnings	349,225	(179,822)	169,403	-	-	(602)	134,815	(38,380)	265,236
FCTR	-	(657)	(657)	-	-	-	-	-	(657)
Total equity	169,224	(478)	168,746	214,398	12,108	(602)	134,815	187,958	717,423

Notes:

1. Reported assets and liabilities of Golden Grove Holdings as at 31 December 2020.
2. Reflects the inclusion of Golden Grove LP and incremental asset and liability balances after elimination of transactions with Golden Grove Holdings, conversion to Australian dollars and alignment with 29Metals' accounting policies, as stated in Annexure B. Golden Grove LP has historically accounted under US GAAP which includes measuring investments in securities at fair value and provides disclosure of an allocation of partners' capital between the limited partners and the carried interest holder. Under 29Metals' AAS accounting policies the investment in Golden Grove Holdings eliminates on consolidation.
3. Golden Grove Group subtotal, represents the consolidated Golden Grove Group, which will be the accounting acquirer for accounting purposes at Completion.
4. Accounting for the reverse acquisition of 29Metals on Completion. Under the terms of the Share Sale and Purchase Agreement – Capricorn Copper Holdings Pty Ltd and Lighthouse Minerals Pty Ltd, the purchase consideration of \$214.4 million will be based on an AUD Offer price of A\$2.00 applied to 107,199,052 Shares held by the shareholders of Capricorn Copper Holdings and Lighthouse Minerals in 29Metals prior to the Offer. For the purposes of the pro forma balance sheet, the acquired assets, liabilities and contingent liabilities have been recorded at their provisional fair values in accordance with AASB 3 *Business Combinations*. The acquired net assets exclude deferred tax assets in respect of historical tax losses to the extent those tax losses are not considered probable of recovery, in accordance with accounting standards, shareholder loan of \$9.0 million payable to EMR Capital Investment (No.6B) Pte. Ltd. as this will be converted to Shares in 29Metals on acquisition and contingent consideration payable to MetalsX of \$10.0 million as this payment obligation will be paid by EMR Capital Investment (No.6B) Pte. Ltd. The provisional assessment performed has resulted in PPE of \$79.6 million, right of use assets of \$21.6 million, inventory of \$16.2 million and mine properties of \$381.3 million and net deferred tax liability of \$60.1 million. The share capital reflects the Shares in 29Metals of \$214.4 million as the expected purchase consideration to acquire Capricorn Copper Holdings and Lighthouse Minerals.
5. Reflects the acquisition of Redhill Mining on Completion. Under the terms of the Share Sale and Purchase Agreement – Redhill Mining Hong Kong Limited, the purchase consideration of \$12.1 million will be based on an AUD Offer price of A\$2.00 and will be funded by the Shares held by the shareholders of Redhill Mining in 29Metals prior to the Offer. For the purposes of the pro forma balance sheet, Redhill Mining's assets and liabilities have been accounted for as an asset and liability acquisition and reflect the allocation of the purchase consideration attributable to Redhill Mining. The acquired net assets exclude EMR Capital Investment (No.4B) Pte. Ltd.'s convertible note of \$4.0 million as this will be converted to Shares in 29Metals on acquisition. The share capital reflects the issued Shares in 29Metals of \$12.1 million as the expected purchase consideration to acquire Redhill Mining.
6. Reflects the impact of the Derivative Payout, Debt and Working Capital Reduction, most notably, the repayment of Capricorn Copper's external borrowings of \$56.0 million (USD43.1 million), payments to reduce certain Capricorn Copper trade and other payables of \$32.0 million, settlement of the 2021 CC Hedges of \$33.0 million and partial repayment of Golden Grove's external borrowings of \$18.3 million (USD14.0 million).
7. Reflects the impact of the Golden Grove Group joining the Australian tax consolidated Group of 29Metals. The deferred tax asset of \$93.3 million that arises has a corresponding entry through the profit and loss, and is based on the consideration payable by 29Metals, under the terms of the Share Sale and Purchase Agreement – Golden Grove Holdings (No. 1) Pty Ltd. The consideration of \$488.7 million is based on an AUD Offer price of A\$2.00 applied to the issue of 244,346,764 Shares in 29Metals to shareholders of Golden Grove LP.
8. The impact of the Offer adjustment reflects Offer proceeds of \$245.0 million based on 122,500,000 New Shares to be issued by 29Metals based on an AUD Offer price of A\$2.00, less Offer costs of \$81.5 million, including stamp duty, adviser fees and other related costs. Of the Offer costs, \$18.7 million are accounted for in share capital, representing the proportion of New Shares issued relative to the sale of existing Shares. In addition, \$13.0 million of cash retained by 29Metals as the Cash Backed Indemnity Amount and a corresponding financial liability to EMR Capital Investment (No.6B) Pte. Ltd., as summarised in section 10.6.12.3.

Table 5.11: Purchase consideration of the acquisition of Golden Grove Group, Capricorn Copper Holdings and Lighthouse Minerals and Redhill Mining

\$000	
Purchase consideration	
Golden Grove Group	488,694
Capricorn Copper Holdings and Lighthouse Minerals	214,398
Redhill Mining	12,108

The purchase consideration of Golden Grove Group, Capricorn Copper Holdings and Lighthouse Minerals and Redhill Mining will be determined under the Initial Restructure and IPO Acquisitions with reference to the Offer Price applied to the Shares issued to their shareholders immediately prior to Completion, as set out in Table 5.11.

For the purpose of the Pro Forma Historical Balance Sheet, the provisional fair values of the acquired assets, liabilities and contingent liabilities of Capricorn Copper Holdings and Lighthouse Minerals include a derivative liability of \$64.1 million relating to the 2021 and 2022 CC Hedges based on the LME Copper spot price at 28-May 2021. The settlement of the 2021 CC Hedges on Completion has been reflected in the Derivative Payout, Debt and Working Capital Reduction pro forma adjustment (refer to Table 5.10). The actual amount paid to settle the 2021 CC Hedges will be different to the amount initially recognised in the pro forma balance sheet as it will be based on the copper price at the date of settlement.

In addition, as noted in section 5.2, investors should be aware that 29Metals has up to 12 months to amend and finalise the fair values of the assets, liabilities and contingent liabilities acquired in respect of Capricorn Copper Holdings and Lighthouse Minerals, from the effective date of the acquisitions. In the event that 29Metals amends the fair values, this will further impact the balance sheet and statement of comprehensive income reflected in future financial statements. Refer to section 5.2.2.1 and section 10.3.1 for further information regarding the Initial Restructure.

5.7.2 Indebtedness

The Pro Forma Historical Balance Sheet at 31 December 2020 has been adjusted to reflect the Derivative Payout, Debt and Working Capital Reduction and the impact of the Offer following Completion, as if each had occurred or were in place at 31 December 2020. As such, the pro forma Net Debt as at 31 December 2020 of \$132.7 million has not been adjusted to reflect the cash flows of the business between 31 December 2020 and Completion. Accordingly, the pro forma Net Debt will be different to the expected Net Debt upon Completion.

Based on Net Debt at Completion and after the Initial Restructure, the IPO Acquisitions, the Offer, the Derivative Payout, Debt and Working Capital Reduction and expected cash flows to the date of Completion, 29Metals would expect to have a cash and cash equivalents balance of approximately \$118.1 million, resulting in Net Drawn Debt of \$89.1 million and Net Debt of \$133.8 million at Completion, as compared to pro forma cash and cash equivalents of \$150.2 million and pro forma Net Drawn Debt of \$64.8 million and pro forma Net Debt of \$132.7 million at 31 December 2020.

Table 5.12 sets out the indebtedness of 29Metals as at 31 December 2020 on a statutory and pro forma basis.

Table: 5.12: Summary of indebtedness

	Statutory	Pro Forma
	31 December 2020	31 December 2020
\$000		
Insurance premium funding	494	494
Syndicated facility – term loan	219,776	201,469
Intercompany tax funding payable	3,617	–
Derivative financial liabilities	–	31,103
Lease liabilities	24,069	45,701
Financial liabilities	–	13,000
Total debt	247,956	291,767
Cash and cash equivalents	107,215	150,173
Derivative financial assets	8,861	8,861
Net Debt	131,880	132,733
Net Drawn Debt	116,672	64,790
Restricted cash	–	1,819
Cash – Cash Backed Indemnity Amount ¹	–	13,000
Cash – Golden Grove Holdings	107,215	107,215
Pro forma Net Drawn Debt/FY2020 pro forma EBITDA		0.4
Statutory Net Drawn Debt/FY2020 statutory EBITDA	0.7	

Notes:

1. The cash held by 29Metals to secure the indemnity from EMR Capital Investment (No.6B) Pte. Ltd. in respect of the possible contingent payment to the vendors from whom EMR Capital Investment (No.6B) Pte. Ltd. initially acquired Lighthouse Minerals of \$12.5 million and the estimated provision of legal costs of \$0.5 million. Refer to section 10.6.12.3 for further information.

The SFA is intended to remain in place at Completion and consent has been received from Golden Grove Holdings' lenders for this. The term loan component of the SFA is expected to be repaid to a level of USD150.0 million (\$194.2 million) at Completion and cannot be redrawn, with the Revolving Credit Facility of USD20.0 million (\$25.9 million) remaining undrawn at Completion (and available to be drawn if required). Refer to section 10.6.2 for further information regarding the SFA.

Under the terms of the SFA, distributions from Golden Grove Holdings to 29Metals are subject to various conditions including compliance with the distribution financial covenants and ensuring a minimum prescribed cash balance of USD10.0 million (\$12.9 million). In addition, the borrower (Golden Grove OpCo) must on any date on which a distribution is made apply an amount equal to 65% of the distribution to the prepayment of the term loan component of the SFA. Pro forma cash at Golden Grove Group was \$107.2 million at 31 December 2020.

It is 29Metals' intention to replace the SFA with new corporate facilities, providing 29Metals with greater flexibility relative to the asset-level debt facilities which, in addition to operating cash flows, is expected to provide greater capacity to withstand commodity price volatility.

Net Debt also includes restricted cash. The pro forma restricted cash of \$1.8 million relates to security deposits to support bank guarantees required under certain contracts.

5.7.3 Liquidity and capital resources

29Metals' objective is to maintain a prudent capital structure and gearing level and to have access to cash reserves and undrawn committed debt facilities to mitigate the risk of volatile external factors and financial risk in its business. Following the Completion, 29Metals' principal source of funds is expected to be cash flows from operations and borrowings under the SFA. At Completion, and after the Initial Restructure, the IPO Acquisitions, the Offer and the Derivative Payout, Debt and Working Capital Reduction and associated costs, 29Metals is expected to have undrawn funds of USD20 million (\$25.9 million) under the SFA at Golden Grove Holdings, in addition to an expected cash balance of \$118.1 million to fund its working capital requirements, capital expenditure and for other general corporate purposes.

29Metals' main uses of cash have historically been, and are expected to continue to be, the funding of its operations, working capital and capital expenditure, and the payment of borrowings and interest. Following Completion, 29Metals expects that it will have sufficient liquidity and capital resources to meet its operational and working capital requirements and stated business objectives during the forecast period.

29Metals' ability to generate sufficient cash depends on its future performance which may be subject to a number of factors beyond its control, including general economic, financial and competitive conditions and other risks described in section 6 (Risks). Over time, 29Metals may seek funding from a range of sources to diversify its funding sources in order to reduce its reliance on the bank finance market and to manage its exposure to interest rate risk on its long-term borrowings.

5.7.4 Rehabilitation provision

29Metals records a provision for the estimated future cost of rehabilitation and restoration of areas disturbed during the operations of its mines up to the reporting date. Provision has been made for future rehabilitation and restoration costs in Western Australia and Queensland (in Australia) at 31 December 2020 based on current estimates of the future costs to rehabilitate such areas, discounted to their present value based on expected future cash flows.

The provision is recognised as a liability, and separated into current (estimated rehabilitation costs arising within 12 months) and non-current components based on the expected timing of these costs.

Uncertainty exists as to the amount of rehabilitation obligations that will be incurred due to the impact of changes in environmental legislation, and many other factors, including future development activities, changes in technology, price increases and changes in interest rates.²

At each reporting date, the rehabilitation liability is remeasured in line with changes in discount rates, changes in underlying rehabilitation requirements and the expected timing or amounts of the costs to be incurred. Rehabilitation, restoration and dismantling provisions are adjusted for changes in estimates. Adjustments to the estimated amount and timing of future rehabilitation and restoration cash flows are a normal occurrence in light of the significant judgements and estimates involved.

The discount rate used in the calculation of the provision as at 31 December 2020 was 3.0% for Golden Grove and for Capricorn Copper.

Table 5.13 sets out 29Metals' statutory and pro forma rehabilitation provision by segment as at 31 December 2020.

Table 5.13: Summary of rehabilitation provision by segment

	Statutory	Pro Forma
	31 December 2020	31 December 2020
\$000		
Current		
Capricorn Copper	-	2,700
Non-current		
Golden Grove	64,982	64,982
Capricorn Copper	-	29,787
Total non-current	64,982	94,769
Total provision for rehabilitation	64,982	97,469

5.7.5 Commitments and contingencies

5.7.5.1 Exploration commitments

Table 5.14 sets out 29Metals' statutory and pro forma exploration commitments as at 31 December 2020.

Table 5.14: Summary of 29Metals' statutory and pro forma exploration commitments

	Statutory	Pro forma
	31 December 2020	31 December 2020
\$000		
Exploration commitments (within one year)		
Golden Grove	1,295	1,295
Capricorn Copper	-	1,765
Total	1,295	3,060

² Refer to section 6.2.3 for information regarding the risks associated with future rehabilitation and closure cost.

5.7.5.2 Contingent liabilities and off-balance sheet arrangements

29Metals is not currently involved in any legal proceedings nor does it have any other contingent liabilities which, individually or in the aggregate and (in the case of legal proceedings) if determined adversely, could have a material effect on the financial condition, results of operations and/or liquidity of the Group.³ Other than as described below, 29Metals did not have any off-balance sheet arrangements as at 31 December 2020 on a pro forma or statutory basis.

Capricorn Copper Pty Ltd is required to provide financial assurance to the State of Queensland in the amount of \$36.0 million as surety against future rehabilitation and closure liability at Capricorn Copper. This financial assurance is provided by NAB and backed by an indemnity from Trafigura on behalf of Capricorn Copper Pty Ltd who has provided a counter indemnity to Trafigura. Under the terms of the indemnity, 29Metals must either discharge or cash-back the Trafigura indemnity within two years of completion.⁴ As described in section 10.7.1.4, the amount of the surety is expected to increase as part of the pending ERC decision, however the amount of the surety will not be known until the ERC decision is made, subject to 29Metals' rights of appeal.

29Metals has provided bank guarantees to suppliers totalling of \$1.8 million in relation to certain supply contracts, which are cash backed as referenced in section 5.7.2.

Ten percent of the shares in Capricorn Copper Holdings are the subject of a mortgage in favour of the vendors from whom EMR Capital Investment (No.6B) Pte. Ltd. initially acquired Lighthouse Minerals. The mortgage secures the balance of the purchase price not yet paid (\$2.5 million), and a possible contingent payment of \$12.5 million which EMR Capital Investment (No.6B) Pte. Ltd. agreed with those vendors if EMR Capital Investment (No.6B) Pte. Ltd. exceeds a certain money multiple from its investment in Capricorn Copper Holdings. EMR Capital Investment (No.6B) Pte. Ltd. and 29Metals are taking steps to secure the release of the mortgage which may become litigious if not resolved consensually. As detailed in section 10.6.12.3, 29Metals will secure a Cash Backed Indemnity Amount from EMR Capital Investment (No.6B) Pte. Ltd. in relation to this matter.

Table 5.15: Summary of 29Metals' statutory and pro forma contingent liabilities

	Statutory	Pro forma
	31 December 2020	31 December 2020
\$000		
Contingencies		
Capricorn Copper environmental bond	-	35,974
Bank guarantees to suppliers	-	1,805
Total	-	37,779

5.7.6 Fair value hierarchy

29Metals uses a three-level fair value hierarchy that categorises assets and liabilities measured at fair value based on the lowest level input that is significant to the fair value measurement. These levels include:

- Level 1 – Quoted (unadjusted) market prices in active markets for identical assets and liabilities;
- Level 2 – Valuation techniques for which the lowest level input that is significant to the fair value measurement is directly or indirectly observable; and
- Level 3 – Valuation techniques for which the lowest level input that is significant to the fair value measurement is unobservable.

As at 31 December 2020, 29Metals has derivative financial instrument assets relating to commodity swaps for gold and forward contracts for copper on a pro forma basis, which have been recognised in the pro forma balance sheet as financial assets and liabilities at fair value. The commodity swaps and forward contracts are valued using valuation techniques, which employ the use of market observable inputs. The most frequently applied valuation techniques include forward pricing and swap models using present value calculations. The models incorporate various inputs including the credit quality of counterparties and forward price curves of the underlying commodity.

29Metals holds derivative instruments that either do not qualify or are not designated for hedge accounting treatment. As the commodity swaps and copper forward contracts are not designated for hedge accounting, at each subsequent reporting date, 29Metals will record the commodity swaps and copper forward contracts at fair value, with any changes in fair value recorded in 'net gain or losses of derivative financial instruments' within the statement of comprehensive income.

³ 29Metals is aware of actual or potential claims against Group companies, which claims are not considered material, at such a stage that there is no reasonable basis on which to assess future potential liability, or are not currently articulated in such a way as to enable 29Metals to make a reasonable assessment of future potential liability.

⁴ Refer to section 10.6.7 for further information regarding the Trafigura indemnity and related arrangements.

Table 5.16a: Summary of 29Metals' statutory derivative contracts

Term	Units	Volume	Contract price \$/unit	Statutory fair value at 31 Dec 2020 \$'000
Gold swaps contracts				
Expiry September 2025	Ounces	27,424	2,595	3,905
Expiry September 2025	Ounces	27,424	2,584	3,603
Expiry July 2023	Ounces	5,084	2,595	706
Expiry July 2023	Ounces	5,084	2,584	647
Total derivative financial assets (\$000)		65,016		8,861

Table 5.16b: Summary of 29Metals' pro forma derivative contracts

Term	Units	Volume	Contract price \$/unit	Pro forma fair value at 31 Dec 2020 \$'000
Gold swaps contracts				
Expiry September 2025	Ounces	27,424	2,595	3,905
Expiry September 2025	Ounces	27,424	2,584	3,603
Expiry July 2023	Ounces	5,084	2,595	706
Expiry July 2023	Ounces	5,084	2,584	647
Total derivative financial assets (\$000)		65,016		8,861
Copper forward contracts				
Maturity January 2022 to March 2022	Metric tonnes	2,394	8,957	10,422
Maturity April 2022 to June 2022	Metric tonnes	2,403	9,007	10,340
Maturity July 2022 to September 2022	Metric tonnes	2,403	9,007	10,341
Total derivative financial liabilities (\$000)		7,200		31,103
Net derivative financial assets/(liabilities) (\$000)				(22,242)

The pro forma copper forward contracts in Table 5.16b reflect those held by Capricorn Copper Holdings as at 28 May 2021 for settlement in 2022 and are described as the 2022 CC Hedges. This follows the renegotiation of 2,520 metric tonnes of copper forward contracts that as at 31 December 2020 had a maturity date in Q4 2021, to a maturity date in 2022 and also follows the settlement of the remaining 2021 CC Hedges on Completion as part of the Derivative Payout, Debt and Working Capital Reduction pro forma adjustment (refer to section 5.7.1). The pro forma derivative financial liability has been calculated based on the LME spot copper price at 28 May 2021. See section 10.6.10 for further information regarding the Capricorn Copper hedging arrangements.

The pro forma and statutory gold swap contracts set out in tables 5.16a and 5.16b each contain delivery schedules setting out timing for progressive settlement over the period to September 2025. Pursuant to these terms, 21,000 ounces will settle in 2021, 13,992 ounces will settle in 2022 and 10,008 will settle in each of 2023, 2024 and 2025.

5.7.7 Income tax

On Completion and after forming an Australian Tax consolidated Group, 29Metals expects to have the following tax attributes:

- a tax cost base of depreciable assets related to Capricorn Copper of \$233.1 million (depreciable over the life of mine);
- a tax cost base of depreciable assets related to Golden Grove of \$621.0 million that will be valued with reference to the final IPO price (depreciable over life of mine); and
- carried forward tax losses of \$179.2 million (deductible with an available fraction of approximately 8%), that have not been recognised as deferred tax assets in the Pro Forma Historical Balance Sheet.

Further tax analysis on the Company's tax attributes will be carried out after Completion and with reference to the actual date of the Offer and the tax attributes at this time, which will differ from the pro forma balance sheet date of 31 December 2020 and accordingly the tax attributes are likely to be impacted by that analysis.

5.8 Management Discussion and Analysis of Historical Financial Information

5.8.1 Key factors affecting the operating and financial performance of 29Metals, including key measures and their drivers

This section 5.8.1 discusses the key factors that have affected 29Metals' operations and relative financial performance in FY2018, FY2019 and FY2020. The discussion of these key factors is intended to provide a brief summary and does not detail all the factors affecting 29Metals' historical operating and financial performance, nor all factors that may affect its operating and financial performance in the future. Unless otherwise stated, all metrics and financial information presented in this section 5 (Financial Information) and the related commentary are on a pro forma basis.

Investors should note that past results are not a guarantee of future performance.

5.8.1.1 Production, sales volumes and profitability

29Metals' profitability is impacted by revenue realised from production activities, operating costs and sales realisation charges (such as TC/RCs – refer to section 5.8.1.5).

The revenue realised from production activities is impacted by variations in payable metal sold, which, in turn, is a product of:

- the volume of ore milled, which primarily reflects the volume of ore mined and hauled from mining operations;
- the grade of ore mined – variations between projected and actual ore grades may occur due to one or a combination of: (a) spatial compliance of mining activities relative to the mine plan; (b) the underlying accuracy of the resource model used to generate the forecast; and (c) the amount of dilution through mining relative to the mine plan;
- the rate of metallurgical recovery of metals in ore from processing which may be impacted by: (a) the grades of the ore processed; (b) the mineralogy of the ore being processed; and (c) the condition, configuration and performance of the processing facilities; and
- the timing of shipments of mineral concentrates.

29Metals' operating costs includes both fixed and variable costs. Operating costs are expressed in \$ million terms and as unit costs (which is the cost in absolute terms divided by the units of production). Typically, unit costs reduce at both Golden Grove and Capricorn Copper as sales volumes increase (and vice-versa).

5.8.1.2 Commodity prices

Changes in commodity prices have a significant impact on 29Metals' financial performance, with commodity prices impacted by the balance of supply and demand for relevant commodities. The balance of demand and supply may be driven by the availability and cost of substitute products, currency exchange rates, metal inventory levels, the cyclical nature of consumption, actions of other mining companies and participants in the commodities markets, national tariffs, general global, regional and local economic activity or other international macroeconomic and geopolitical events. Refer to section 2 (Industry Overview) for further information regarding commodity prices for 29Metals' mineral concentrate products and associated supply and demand factors. Refer also to section 6.2.2 for information regarding the risks associated with commodity prices.

The payments for shipments of mineral concentrates are typically determined by reference to an agreed payable metals percentage or formula and applicable commodity price (by reference to an agreed commodity price exchange or reference price) over a defined period often referred to as a 'quotation period' or 'QP'. The payable metal content and applicable metal price(s) are then applied to the metal content of the mineral concentrate determined by assays. Depending on the quotation period that applies to a particular shipment, and resolving any differences between the seller's assay and the final assays, the final invoice may result in a payment by the seller to the buyer (i.e., a reduction in the pre-delivery payment amount) or an additional payment by the buyer.

Copper makes up the majority of 29Metals' revenues and, as such, changes in realised copper prices generally has a greater impact on Company performance than precious or other base metals.

Commodity prices may be mitigated by entering into commodity hedging or swap arrangements. 29Metals has gold swap contracts in place for Golden Grove and will retain the 2022 CC Hedges forward copper contracts in place for Capricorn Copper, which are tabled in section 5.7.6. 29Metals will seek to opportunistically cash settle 2022 CC Hedges from operating free cash flows (subject to market conditions and future capital requirements). Movements in the mark to market value of hedges are included in the profit and loss statement as 'Net loss on derivative financial instruments', and gains/losses are excluded from EBITDA.

5.8.1.3 Fluctuations in foreign exchange rates

29Metals reports in Australian dollars ('AUD'). 29Metals' cost base at Golden Grove and Capricorn Copper in relation to mining, processing, and site services costs are primarily denominated in AUD. However, metal prices which drive 29Metals' revenue are in United States dollars ('USD'). Some selling costs, such as TC/RCs, shipping and fuel, are denominated in USD. In addition, borrowings at Golden Grove are denominated in USD.

29Metals does not hedge the AUD:USD foreign exchange rate. Accordingly, an appreciation of the AUD against the USD decreases 29Metals' reported revenue in AUD terms, which would be partly offset by reduced selling costs and interest expenses. Conversely, depreciation of the AUD against the USD increases 29Metals' reported revenue in AUD terms, which would be partly offset by increased selling costs and interest expenses.

Redhill Mining has a USD functional currency, however, the overall impact on 29Metals relating to Redhill Mining foreign exchange rate risk is not considered material.

The value of 29Metals' USD denominated debt is recorded in 29Metals' balance sheet in AUD. Movements in the AUD drawn balance of 29Metals' USD denominated debt facilities are included in the statement of Profit and Loss as net foreign exchange gains/(losses). The pro forma financial statements show that 29Metals had a \$9.8 million foreign exchange loss in FY2018, a \$5.0 million foreign exchange loss in FY2019, and a foreign exchange gain \$28.8 million in FY2020.

5.8.1.4 COVID-19 impact

The COVID-19 pandemic has caused significant volatility in the financial and commodity markets. LME historical price data shows that copper prices initially decreased 25% from USD2.79/lb on 1 January 2020 to USD2.09/lb on 23 March 2020 as the first wave of the pandemic spread. Copper prices later rebounded, rising approximately 68% to USD3.51/lb by the end of 2020, and to USD4.01/lb at the end of March 2021.⁵

In addition to commodity price volatility, COVID-19 has also impacted businesses, including mining businesses, as a result of border closures and other domestic restrictions which effect supply chains and FIFO arrangements.

Despite volatile market conditions and global economic uncertainty as a result of the ongoing COVID-19 pandemic, Golden Grove and Capricorn Copper operated continuously throughout the period. However, the future impact of the ongoing COVID-19 on 29Metals' results of operations and prospects as the pandemic evolves is uncertain. Refer to section 6.2.28 for further detail on COVID-19 related risks.

5.8.1.5 Treatment charges and refining charges

TC/RCs are the expenses associated with smelting base and precious metal concentrates and are netted off against reported Revenue. TC/RCs are specified within Offtake Contracts and are typically by reference to a defined USD/dmt benchmark and are subject to fluctuations driven by changes in global supply and demand for metals and the availability of smelting capacity. Refer to section 2.2 for more information regarding Offtake Contracts and TC/RCs.

29Metals' pro forma TC/RCs increased in FY2019 and FY2020 compared to FY2018, primarily driven by an increase in zinc concentrate TCs over the period.

5.8.1.6 Operating expenses

Operating costs are driven by the volume and cost intensity of physical activity required to exploit the mineral resource. The principal operating expenses incurred by 29Metals fall into the following categories:

- Mining costs – incurred in extracting ore from underground and transporting to surface for processing, shown net of AASB 16 leasing adjustments and capitalised mine development costs;
- Processing costs – incurred converting ore mined into mineral concentrates for export, including costs for maintaining processing plants and equipment;
- General and administration costs ('G&A') – including site support and overheads;
- Royalties – amounts payable to State governments under applicable royalty regimes;
- Other production and selling costs – including transport costs; and
- Stockpile movements – primarily reflecting the combination of ore stockpiles and timing differences between production and sales.

5.8.1.7 D&A

Depreciation expenses relate to PPE ('PPE'). Depreciation rates are applied on a units of production basis or on a straight-line basis over the useful life of an asset (as applicable). Amortisation expense relates to right of use and mine properties assets which are amortised on a units of production basis as described above. Depreciation and amortisation costs are included in the cost of sales. Refer to Appendix B (29Metals' significant and critical accounting policies) for information regarding 29Metals' accounting policies for D&A.

5.8.1.8 Working capital

29Metals' working capital relates to its trade receivables, trade payables, royalties, other creditors and accruals, GST and employee liabilities. Changes in working capital are included in the statement of cash flows.

5.8.1.9 Capital expenditure

Capital expenditure relates primarily to expenditure on PPE, mine development, and exploration. PPE capital expenditure primarily relates to physical fixed and mobile assets required to mine and process ore. Mine development primarily relates to underground access ways and infrastructure required to mine and haul ore to surface. Exploration is the capitalised cost of discovery, evaluation and resource definition.

⁵ Source: Average spot LME copper prices for the period sourced from FactSet.

5.8.2 Pro Forma Historical Results and Statutory Historical Results for FY2019 compared with FY2018

Table 5.17 sets out the Pro Forma Historical Results and Statutory Historical Results for FY2019 compared with FY2018.

Table 5.17: Summary of Pro Forma and Statutory Historical Results for FY2019 compared to FY2018

\$000	Pro Forma Historical				Statutory Historical			
	FY2018	FY2019	Change	%	FY2018	FY2019	Change	%
Revenue	524,906	657,170	132,264	25.2%	402,363	473,418	71,055	17.7%
Cost of sales								
Mining costs	(145,248)	(188,085)	(42,837)	29.5%	(112,107)	(127,162)	(15,055)	13.4%
Processing costs	(95,445)	(109,179)	(13,734)	14.4%	(52,231)	(62,909)	(10,678)	20.4%
Site services costs	(37,385)	(39,176)	(1,791)	4.8%	(20,588)	(22,020)	(1,432)	7.0%
Depreciation and amortisation	(100,175)	(114,954)	(14,779)	14.8%	(35,789)	(50,139)	(14,350)	40.1%
Stockpile movements	(7,126)	4,507	11,633	(163.2)%	(5,308)	7,973	13,281	(250.2)%
Government royalties	(23,372)	(28,300)	(4,928)	21.1%	(17,351)	(19,995)	(2,644)	15.2%
Other production and selling costs	(19,804)	(24,236)	(4,432)	22.4%	(8,598)	(10,357)	(1,759)	20.5%
Cost of sales	(428,555)	(499,423)	(70,868)	16.5%	(251,972)	(284,609)	(32,637)	13.0%
Gross profit	96,351	157,747	61,396	63.7%	150,391	188,809	38,418	25.5%
Other income	5,471	7,766	2,295	41.9%	5,060	7,476	2,416	47.7%
Net gain/(loss) on derivative financial instruments	(18,208)	(6,022)	12,186	(66.9)%	-	-	-	-
Net foreign exchange gain/(loss)	(9,836)	(4,956)	4,880	(49.6)%	(6,806)	(2,418)	4,388	(64.5)%
Administration expenses	(18,721)	(19,162)	(441)	2.4%	(2,082)	(4,036)	(1,954)	93.9%
Other expenses	(3,183)	(4,872)	(1,689)	53.1%	(3,253)	-	3,253	(100.0)%
Profit before net finance costs and income tax expense	51,874	130,501	78,627	151.6%	143,310	189,831	46,521	32.5%
Finance income	1,026	1,763	737	71.8%	994	1,579	585	58.9%
Finance costs	(20,220)	(15,498)	4,722	(23.4)%	(11,841)	(11,526)	315	(2.7)%
Profit before income tax expense	32,680	116,766	84,086	257.3%	132,463	179,884	47,421	35.8%
Income tax expense	(14,579)	(35,022)	(20,443)	140.2%	(44,288)	(53,732)	(9,444)	21.3%
Net profit for the year attributable to members	18,101	81,744	63,643	351.6%	88,175	126,152	37,977	43.1%
Reconciliation to EBITDA:								
Net profit for the year attributable to members	18,101	81,744	63,643	351.6%	88,175	126,152	37,977	43.1%
Add: Income tax expense	14,579	35,022	20,443	140.2%	44,288	53,732	9,444	21.3%
Less: Finance income	(1,026)	(1,763)	(737)	71.8%	(994)	(1,579)	(585)	58.9%
Add: Finance costs	20,220	15,498	(4,722)	(23.4)%	11,841	11,526	(315)	(2.7)%
Profit before net finance costs and income tax expense	51,874	130,501	78,627	151.6%	143,310	189,831	46,521	32.5%
Add: Depreciation and amortisation	100,175	114,954	14,779	14.8%	35,789	50,139	14,350	40.1%
Add: Unrealised net foreign exchange loss	10,573	3,570	(7,003)	(66.2)%	8,322	2,290	(6,032)	(72.5)%
Add: Net (gain)/loss on derivative financial instruments	18,208	6,022	(12,186)	(66.9)%	-	-	-	-
EBITDA¹	180,830	255,047	74,217	41.0%	187,421	242,260	54,839	29.3%

Notes:

- EBITDA¹ is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.8.2.1 Revenue

Pro forma revenue increased by \$132.3 million, or 25.2%, to \$657.2 million in FY2019, as compared to \$524.9 million in FY2018. The increase was primarily due to an increase in sales volumes for copper, driven by higher ore production volumes at both Golden Grove and Capricorn Copper, reflecting:

- an increase in copper revenue of \$89.3 million, or 34.7%, to \$346.8 million in FY2019, primarily reflecting an increase in payable copper sold;
- an increase in gold revenue of \$50.0 million, or 70.1%, to \$121.3 million in FY2019, reflecting a combination of increased payable gold sold and increased Average Realised Price;
- an increase in zinc revenue of \$13.8 million, or 7.8%, to \$191.2 million in FY2019, primarily reflecting an increase in payable zinc sold; and
- an increase in silver revenue of \$9.7 million, or 28.6%, to \$43.6 million in FY2019, primarily reflecting an increase in Average Realised Price,

partly offset by:

- a decrease in lead revenue of \$10.4 million, or 55.7%, to \$8.2 million in FY2019, reflecting a decrease in payable lead sold; and
- an increase in TC/RCS of \$24.1 million, or 77.1%, to \$55.3 million in 2019, primarily reflecting higher TC for zinc concentrate sales and higher copper concentrate sales.

Statutory revenue increased by \$71.1 million, or 17.7%, to \$473.4 million in FY2019, as compared to \$402.4 million in FY2018, primarily driven by an increase in payable sales of copper, gold and zinc, partly offset by a decrease in lead revenue and an increase in TC/RCS, as described above.

5.8.2.2 EBITDA

Pro forma EBITDA increased by \$74.2 million, or 41.0%, to \$255.0 million in FY2019, as compared to \$180.8 million in FY2018. The increase in EBITDA was primarily driven by the revenue growth described above, partly offset by an increase in the cost of sales (excluding D&A), reflecting:

- an increase in mining costs of \$42.8 million, or 29.5%, to \$188.1 million in FY2019, primarily related to increased mining volumes;
- an increase in processing costs of \$13.7 million, or 14.4%, to \$109.2 million in FY2019, primarily related to increased processing volumes;
- an increase in royalties of \$4.9 million, or 21.1%, to \$28.3 million in FY2019 associated with higher sales volumes and higher Average Realised Prices; and
- an increase in other production and selling costs of \$4.4 million, or 22.4%, to \$24.2 million in FY2019, primarily associated with higher concentrate sales volumes;

partly offset by a decrease in charges for inventory movement of \$11.6 million, to a \$4.5 million credit in FY2019, as compared to a \$7.1 million charge in FY2018, primarily reflecting timing differences between production and sales.

Statutory EBITDA increased by \$54.8 million, or 29.3%, to \$242.3 million in FY2019, as compared to \$187.4 million in FY2018. The increase was primarily driven by increased revenue, partly offset by an increase in cost of sales (excluding D&A), as described above.

5.8.2.3 D&A

Pro forma D&A increased by \$14.8 million, or 14.8%, to \$115.0 million in FY2019, as compared to \$100.2 million in 2018, primarily reflecting the impact of higher production rates at both Golden Grove and Capricorn Copper in FY2019 relative to FY2018 resulting in increased depreciation for fixed units.

Statutory D&A increased by \$14.4 million, or 40.1%, to \$50.1 million in FY2019, as compared to \$35.8 million in FY2018, primarily reflecting the impact of higher production rates at Golden Grove.

5.8.2.4 Other income

Pro forma other income increased by \$2.3 million, or 41.9%, to \$7.8 million in FY2019, as compared to \$5.5 million in FY2018, primarily reflecting income in relation to a third party arrangement to mine oxide ore which was accrued for a part year in FY2018 and a full year in FY2019.

Statutory other income increased by \$2.4 million, or 47.7%, to \$7.5 million in FY2019, as compared to \$5.1 million in FY2018, reflecting the third-party arrangement to mine oxide ore referred to above.

5.8.2.5 Other expenses

Pro forma other expenses increased by \$1.7 million, or 53.1%, to \$4.9 million in FY2019, as compared to \$3.2 million in FY2018, reflecting increased rehabilitation expenses at Capricorn Copper incurred in FY2019, partly offset by a reduction in Golden Grove other expenses following a write-off of PPE in FY2018.

Statutory other expenses decreased by \$3.3 million, to \$0 million in FY2019, as compared to \$3.3 million in FY2018, reflecting a one-off write-off of PPE in FY2018.

5.8.2.6 Finance costs

Pro forma finance costs decreased by \$4.7 million, or 23.4%, to \$15.5 million in FY2019, as compared to \$20.2 million in FY2018, primarily due to a decrease in debt at Capricorn Copper.

Statutory finance costs decreased by \$0.3 million, or 2.7%, to \$11.5 million in FY2019, as compared to \$11.8 million in FY2018, with finance costs relatively consistent year-on-year.

5.8.2.7 Finance income

Pro forma finance income increased by \$0.7 million, or 71.8%, to \$1.8 million in FY2019, as compared to \$1.0 million in FY2018, primarily due to increased cash at bank.

Statutory finance income increased by \$0.6 million, or 58.9%, to \$1.6 million in FY2019, as compared to \$1.0 million in FY2018, primarily due to increased cash at bank.

5.8.2.8 Income tax expense

Pro forma income tax expense increased by \$20.4 million, or 140.2%, to \$35.0 million in FY2019, as compared to \$14.6 million in FY2018, due to higher net income before tax. The effective tax rate represented 30.0% of net income before tax in FY2019 on a pro forma basis.

Statutory income tax expense increased by \$9.4 million, or 21.3%, to \$53.7 million in FY2019, as compared to \$44.3 million in FY2018. The effective tax rate represented 29.9% of net income before tax in FY2019 on a statutory basis.

5.8.2.9 Net profit after tax

Pro forma net profit after tax increased by \$63.6 million, or 351.6%, to \$81.7 million in FY2019, as compared to \$18.1 million in FY2018.

Statutory net profit after tax increased by \$38.0 million, or 43.1%, to \$126.2 million in FY2019, as compared to \$88.2 million in FY2018.

5.8.3 Pro forma and statutory segment information for FY2019 compared with FY2018

Table 5.18 and Table 5.19 set out the Pro forma and statutory historical operating and sales metrics for FY2019 and FY2018 by segment.

Table 5.18: Summary of pro forma and statutory revenue and EBITDA for FY2019 compared to FY2018

\$000	Unit	Pro Forma Historical				Statutory Historical			
		FY2018	FY2019	Change	%	FY2018	FY2019	Change	%
Revenue by segment									
Golden Grove	\$000	402,363	473,418	71,055	17.7%	402,363	473,418	71,055	17.7%
Capricorn Copper	\$000	122,543	183,752	61,209	49.9%	-	-	-	-
Reportable segment	\$000	524,906	657,170	132,264	25.2%	402,363	473,418	71,055	17.7%
Total revenue	\$000	524,906	657,170	132,264	25.2%	402,363	473,418	71,055	17.7%
EBITDA by segment									
Golden Grove	\$000	205,617	246,296	40,679	19.8%	187,421	242,260	54,839	29.3%
Capricorn Copper	\$000	(6,000)	28,046	34,046	(567.4%)	-	-	-	-
Reportable segment	\$000	199,617	274,342	74,725	37.4%	187,421	242,260	54,839	29.3%
Exploration	\$000	(734)	(742)	(8)	1.1%	-	-	-	-
Corporate and other	\$000	(18,053)	(18,553)	(500)	2.8%	-	-	-	-
Total EBITDA	\$000	180,830	255,047	74,217	41.0%	187,421	242,260	54,839	29.3%

Notes:

1. Statutory reporting incorporates the operating results of Golden Grove only.
2. Revenue represents copper, gold, zinc and silver revenues, including shipping service revenue and realised and unrealised fair value movements on receivables subject to mineral concentrate shipment commodity price QP.

Table 5.19: Summary of pro forma and statutory production and sales metrics for FY2019 compared to FY2018 for 29Metals

	Unit	Pro Forma Historical				Statutory Historical			
		FY2018	FY2019	Change	%	FY2018	FY2019	Change	%
Operating Information									
Ore mined	kt	2,516	2,955	439	17.4%	1,215	1,373	158	13.0%
Ore milled	kt	2,575	2,897	322	12.5%	1,248	1,291	43	3.4%
Metal production									
Copper	kt	34	44	10.5	31.2%	16.0	20.8	4.8	29.9%
Gold	koz	51.9	70.2	18.3	35.4%	51.9	70.2	18.3	35.4%
Zinc	kt	64.9	57.5	(7.4)	(11.4%)	64.9	57.5	(7.4)	(11.4%)
Silver	koz	2,023	1,939	(84.1)	(4.2%)	1,915	1,704	(210.6)	(11.0%)
Lead	kt	7.2	4.5	(2.7)	(37.7%)	7.2	4.5	(2.7)	(37.7%)
Payable metal sold									
Copper	kt	31.1	41.4	10.3	33.1%	15.9	19.4	3.5	21.8%
Gold	koz	41.4	59.7	18.3	44.1%	41.4	59.7	18.3	44.1%
Zinc	kt	48.9	53.1	4.2	8.6%	48.9	53.1	4.2	8.6%
Silver	koz	1,634	1,595	(38.5)	(2.4%)	1,458	1,380	(78.4)	(5.4%)
Lead	kt	6.6	2.9	(3.7)	(56.2%)	6.6	2.9	(3.7)	(56.2%)
Average Realised Price									
Copper	A\$/lb	3.75	3.80	0.04	1.2%	3.70	3.66	(0.04)	(1.1%)
Gold	A\$/oz	1,720	2,032	312	18.1%	1,720	2,032	312	18.1%
Zinc	A\$/lb	1.65	1.63	(0.01)	(0.7%)	1.65	1.63	(0.01)	(0.7%)
Silver	A\$/oz	20.7	27.3	6.6	31.7%	20.2	26.9	6.6	32.9%
Lead	A\$/lb	1.28	1.29	0.01	1.2%	1.28	1.29	0.01	1.2%
Revenue Information									
Copper	\$000	257,532	346,825	89,293	34.7%	129,563	156,166	26,603	20.5%
Gold	\$000	71,289	121,297	50,008	70.1%	71,289	121,297	50,008	70.1%
Zinc	\$000	177,391	191,222	13,832	7.8%	177,390	191,223	13,833	7.8%
Silver	\$000	33,875	43,575	9,700	28.6%	29,503	37,089	7,586	25.7%
Lead	\$000	18,600	8,240	(10,359)	(55.7%)	18,599	8,240	(10,359)	(55.7%)
Un-realised QP gain/ (loss)	\$000	(2,521)	1,356	3,878	(153.8%)	(2,521)	27	2,548	(101.1%)
Gross revenue	\$000	556,164	712,516	156,351	28.1%	423,823	514,042	90,219	21.3%
TC/RCS	\$000	(31,259)	(55,346)	(24,087)	77.1%	(21,460)	(40,624)	(19,164)	89.3%
Net revenue	\$000	524,906	657,170	132,264	25.2%	402,363	473,418	71,055	17.7%

5.8.3.1. Pro forma and statutory segment information for FY2019 compared to FY2018 for the Golden Grove segment

Table 5.20 sets out the pro forma and statutory historical production and sales metrics for FY2019 and FY2018 for the Golden Grove segment.

Table 5.20: Summary of pro forma and statutory production and sales metrics for FY2019 compared to FY2018 for the Golden Grove segment

	Unit	Pro Forma Historical				Statutory Historical			
		FY2018	FY2019	Change	%	FY2018	FY2019	Change	%
Operating Information									
Ore mined	kt	1,215	1,373	158	13.0%	1,215	1,373	158	13.0%
Ore milled	kt	1,248	1,291	43	3.4%	1,248	1,291	43	3.4%
Metal production									
Copper	kt	16	21	4.8	29.9%	16.0	20.8	4.8	29.9%
Gold	koz	51.9	70.2	18.3	35.4%	51.9	70.2	18.3	35.4%
Zinc	kt	64.9	57.5	(7.4)	(11.4%)	64.9	57.5	(7.4)	(11.4%)
Silver	koz	1,915	1,704	(210.6)	(11.0%)	1,915	1,704	(210.6)	(11.0%)
Lead	kt	7.2	4.5	(2.7)	(37.7%)	7.2	4.5	(2.7)	(37.7%)
Payable metal sold									
Copper	kt	15.9	19.4	3.5	21.8%	15.9	19.4	3.5	21.8%
Gold	koz	41.4	59.7	18.3	44.1%	41.4	59.7	18.3	44.1%
Zinc	kt	48.9	53.1	4.2	8.6%	48.9	53.1	4.2	8.6%
Silver	koz	1,458	1,380	(78.4)	(5.4%)	1,458	1,380	(78.4)	(5.4%)
Lead	kt	6.6	2.9	(3.7)	(56.2%)	6.6	2.9	(3.7)	(56.2%)
Average Realised Price									
Copper	A\$/lb	3.70	3.66	(0.04)	(1.1%)	3.70	3.66	(0.04)	(1.1%)
Gold	A\$/oz	1,720	2,032	312	18.1%	1,720	2,032	312	18.1%
Zinc	A\$/lb	1.65	1.63	(0.01)	(0.7%)	1.65	1.63	(0.01)	(0.7%)
Silver	A\$/oz	20.2	26.9	6.6	32.9%	20.2	26.9	6.6	32.9%
Lead	A\$/lb	1.28	1.29	0.01	1.2%	1.28	1.29	0.01	1.2%
Revenue Information									
Copper	\$000	129,563	156,166	26,603	20.5%	129,563	156,166	26,603	20.5%
Gold	\$000	71,289	121,297	50,008	70.1%	71,289	121,297	50,008	70.1%
Zinc	\$000	177,391	191,222	13,832	7.8%	177,390	191,223	13,833	7.8%
Silver	\$000	29,503	37,089	7,586	25.7%	29,503	37,089	7,586	25.7%
Lead	\$000	18,600	8,240	(10,359)	(55.7%)	18,599	8,240	(10,359)	(55.7%)
Unrealised QP gain/ (loss)	\$000	(2,521)	27	2,549	(101.1%)	(2,521)	27	2,548	(101.1%)
Gross revenue	\$000	423,823	514,042	90,219	21.3%	423,823	514,042	90,219	21.3%
TC/RCS	\$000	(21,460)	(40,624)	(19,164)	89.3%	(21,460)	(40,624)	(19,164)	89.3%
Net revenue	\$000	402,363	473,418	71,055	17.7%	402,363	473,418	71,055	17.7%
KPIs									
EBITDA	\$000	205,617	246,296	40,679	19.8%	187,421	242,260	54,839	29.3%
C1 Costs	A\$m	(74.22)	(85.03)	(10.81)	14.6%	(74.22)	(85.03)	(10.81)	14.6%
C1 Costs	A\$/lb	(2.12)	(1.99)	0.13	(6.0%)	(2.12)	(1.99)	0.13	(6.0%)
C1 Costs	US\$/lb	(1.58)	(1.38)	0.20	(12.6%)	(1.58)	(1.38)	0.20	(12.6%)
AISC	A\$m	(24.13)	(14.93)	9.19	(38.1%)	(22.09)	(12.00)	10.09	(45.7%)
AISC	A\$/lb	(0.69)	(0.35)	0.34	(49.2%)	(0.63)	(0.28)	0.35	(55.4%)
AISC	US\$/lb	(0.51)	(0.24)	0.27	(52.8%)	(0.47)	(0.20)	0.28	(58.5%)
AUD:USD average exchange rate	rate	0.75	0.70	(0.05)	(7.0%)	0.75	0.70	(0.05)	(7.0%)

Note: Metal production is contained metal in concentrate. Payable metal sold is production sold to market after applying a payability factor and grade adjustment per the relevant contractual terms.

5.8.3.1.1 Revenue

Pro forma and statutory net revenue for Golden Grove, which comprises sales for copper, gold, zinc, silver and lead in-concentrate, net of TC/RCS, increased by \$71.1 million, or 17.7%, to \$473.4 million in FY2019, as compared to \$402.4 million in FY2018, reflecting:

- an increase in copper revenue of \$26.6 million, or 20.5%, to \$156.2 million in FY2019, primarily due to an increase in payable copper sold;
- an increase in gold revenue of \$50.0 million, or 70.1%, to \$121.3 million in FY2019, reflecting a 44.1% increase in payable gold sold and an 18.1% increase in Average Realised Price for gold;
- an increase in zinc revenue of \$13.8 million, or 7.8%, to \$191.2 million in FY2019, primarily reflecting an 8.6% increase in payable zinc sold; and
- an increase in silver revenue of \$7.6 million, or 25.7%, to \$37.1 million in FY2019, reflecting a 32.9% increase in the Average Realised Price for silver, partly offset by a 5.4% decrease in silver sales volume,

partly offset by an increase in TC/RCS of \$19.2 million, or 89.3%, to \$40.6 million in FY2019, primarily reflecting an increase in TC for zinc concentrates.

5.8.3.1.2 EBITDA

Pro forma EBITDA increased by \$40.7 million, or 19.8%, to \$246.3 million in FY2019, as compared to \$205.6 million in FY2018, primarily driven by an increase in total revenue (as discussed above). Increases in revenue were partly offset by increases in operating costs, as described below. Revenue growth significantly outweighed the increase in operating costs, resulting in an increase in the profitability of the operations.

Statutory EBITDA increased by \$54.8 million, or 29.3%, to \$242.3 million in FY2019, as compared to \$187.4 million in FY2018, primarily driven by an increase in total revenue (as discussed above).

5.8.3.1.3 C1 Costs and AISC ⁶

Pro forma C1 Costs decreased by \$0.13/lb (USD0.20/lb) payable copper sold, to negative⁷ \$1.99/lb (USD1.38/lb) in FY2019, as compared to negative \$2.12/lb (USD1.58/lb) payable copper sold in FY2018, reflecting:

- a decrease in C1 Costs in \$ million terms of \$10.8 million to negative⁶ \$85.0 million in FY2019, as compared to negative \$74.2 million in FY2018, reflecting a \$61.2 million increase in by-product sales partly offset by a \$50.4 million increase in costs; and
- an increase in payable copper sold of 3.5kt to 19.4kt in FY2019, as compared to 15.9kt in FY2018.

The \$50.4 million increase in costs was primarily driven by higher mining and processing costs reflecting an increase in mining and processing volumes, and higher TC/RCS primarily driven by higher TCs for zinc concentrate.

Pro forma AISC increased by \$0.34/lb (USD0.27/lb) payable copper sold to negative \$0.35/lb (USD0.24/lb) in FY2019, as compared to negative \$0.69/lb (USD0.51/lb) in FY2018, reflecting:

- an increase in AISC in \$ million terms of \$9.2 million to negative \$14.9 million in FY2019, as compared to negative \$24.1 million in FY2018, reflecting the change in C1 Costs described above and an increase of \$20.0 million relating to royalties, corporate costs, sustaining capital and mine development capital; and
- the increase in payable copper sold described above.

⁶ C1 Costs and AISC are non-IFRS financial information. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information.

⁷ C1 Costs and AISC are reported as negative when the revenue from non-copper by-product credits exceed costs.

5.8.3.2 Pro forma and statutory segment information for FY2019 compared to FY2018 for the Capricorn Copper

Table 5.21 sets out a summary of the pro forma and statutory historical production and sales metrics for FY2019 and FY2018 for the Capricorn Copper segment. As the Golden Grove Group is the acquiring entity for accounting purposes, Capricorn Copper's financial information is not included in statutory historical information.

Table 5.21: Summary of pro forma and statutory production and sales metrics for FY2019 compared to FY2018 for the Capricorn Copper segment

	Unit	Pro Forma Historical				Statutory Historical			
		FY2018	FY2019	Change	%	FY2018	FY2019	Change	%
Operating Information									
Ore mined	kt	1,301	1,583	281	21.6%	-	-	-	-
Ore milled	kt	1,326	1,605	279	21.0%	-	-	-	-
Metal production									
Copper	kt	17.6	23.3	5.7	32.4%	-	-	-	-
Silver	koz	108.5	235.0	126.5	116.6%	-	-	-	-
Payable metal sold									
Copper	kt	15.2	22.1	6.8	44.8%	-	-	-	-
Silver	koz	175.1	215.0	39.9	22.8%	-	-	-	-
Average Realised Price									
Copper	A\$/lb	3.81	3.92	0.11	2.9%	-	-	-	-
Silver	A\$/oz	24.97	30.17	5.20	20.8%	-	-	-	-
Revenue Information									
Gross copper revenue	\$000	127,969	190,659	62,690	49.0%	-	-	-	-
Gross silver revenue	\$000	4,372	6,486	2,114	48.3%	-	-	-	-
Un-realised QP gain/ (loss)	\$000	-	1,329	1,329	-	-	-	-	-
Gross revenue	\$000	132,341	198,474	66,133	50.0%	-	-	-	-
TC/RCS	\$000	(9,798)	(14,722)	(4,924)	50.2%	-	-	-	-
Net revenue	\$000	122,543	183,752	61,209	49.9%	-	-	-	-
KPIs									
EBITDA	\$000	(6,000)	28,046	34,046	(567.4%)	-	-	-	-
C1 Costs	A\$m	142.94	161.01	18.07	12.6%	-	-	-	-
C1 Costs	A\$/lb	4.26	3.31	(0.95)	(22.2%)	-	-	-	-
C1 Costs	US\$/lb	3.18	2.30	(0.88)	(27.7%)	-	-	-	-
AISC	A\$m	187.05	199.07	12.02	6.4%	-	-	-	-
AISC	A\$/lb	5.57	4.09	(1.48)	(26.5%)	-	-	-	-
AISC	US\$/lb	4.16	2.84	(1.32)	(31.7%)	-	-	-	-
AUD:USD average exchange rate	rate	0.75	0.70	(0.05)	(7.0%)	-	-	-	-

Revenue

Pro forma net revenue for Capricorn Copper, which comprises sales of copper and silver in-concentrate, net of TC/RCS, increased by \$61.2 million, or 49.9%, to \$183.8 million in FY2019, as compared to \$122.5 million in FY2018, reflecting:

- an increase in copper revenue of \$62.7 million, or 49.0%, to \$190.7 million in FY2019 primarily reflecting a 44.8% increase in payable copper sold; and
- an increase in silver revenue of \$2.1 million, or 48.3%, to \$6.5 million in FY2019; reflecting a 22.8% increase in payable silver sold volume, and an 20.8% increase in Average Realised Price for silver,

partly offset by an increase in TC/RCS of \$4.9 million, or 50.2%, to \$14.7 million in FY2019.

Increased production of copper in 2019 reflected a 21.0% increase in mill throughput and higher copper grade being treated.

5.8.3.2.1 EBITDA

Pro forma EBITDA increased by \$34.0 million to \$28.0 million in FY2019, as compared to negative \$6.0 million in FY2018, primarily driven by increases in total revenues (as discussed above). Increases in revenue were partly offset by increases in costs, as described under C1 Costs and AISC below.

5.8.3.2.2 C1 Costs and AISC

C1 Costs decreased by \$0.95/lb (USD0.88/lb) payable copper sold to \$3.31/lb (USD2.30/lb) in FY2019, as compared to \$4.26/lb (USD3.18/lb) in FY2018, reflecting an increase in payable copper sold of 6.8kt, or 44.8%, to 22.1kt in FY2019, as compared to 15.2kt in FY2018, partly offset by an increase in C1 Costs in \$ million terms of \$18.1 million to \$161.0 million in FY2019, as compared to \$142.9 million in FY2018, primarily reflecting an increase in ore mined and ore milled.

AISC decreased by \$1.48/lb (USD1.32/lb) payable copper sold to \$4.09/lb (USD2.84/lb) in FY2019, as compared to \$5.57/lb (USD4.16/lb) in FY2018, reflecting the increase in payable copper sold described above, partly offset by an increase in AISC in \$ million terms of \$12.0 million to \$199.1 million in FY2019, as compared to \$187.1 million in FY2018, reflecting the change in C1 Costs described above and a \$6.0 million decrease relating to sustaining capital, mine development capital and royalties.

5.8.4 Pro Forma and Statutory Historical Cash Flows Information for FY2019 compared to FY2018

Table 5.22 sets out the Pro Forma Historical Cash Flows Information and Statutory Historical Cash Flows Information for FY2019 compared to FY2018.

Table 5.22: Summary of Pro Forma and Statutory Historical Cash Flows Information for FY2019 compared to FY2018

\$000	Pro Forma Historical				Statutory Historical			
	FY2018	FY2019	Change	%	FY2018	FY2019	Change	%
Net profit for the year attributable to members	18,101	81,744	63,643	351.6%	88,175	126,152	37,977	43.1%
Interest and other finance costs	18,435	14,265	(4,170)	(22.6%)	11,841	10,421	(1,420)	(12.0%)
Depreciation and amortisation	100,175	114,954	14,779	14.8%	35,789	50,139	14,350	40.1%
Other items	25,990	4,146	(21,844)	(84.0%)	10,919	4,922	(5,997)	(54.9%)
Changes in working capital	32,626	(27,270)	(59,896)	(183.6%)	25,239	(3,147)	(28,386)	(112.5%)
Net cash flows from operating activities	195,327	187,839	(7,488)	(3.8%)	171,963	188,487	16,524	9.6%
Payments for property, plant and equipment	(23,367)	(30,114)	(6,747)	28.9%	(11,060)	(25,952)	(14,892)	134.6%
Proceeds from the sale of property, plant and equipment	1,386	47	(1,339)	(96.6%)	1,386	47	(1,339)	(96.6%)
Payments for development activities	(39,803)	(57,112)	(17,309)	43.5%	(25,172)	(39,930)	(14,758)	58.6%
Exploration expenditure	(16,241)	(6,661)	9,580	(59.0%)	(7,589)	(3,712)	3,877	(51.1%)
Net cash flows used in investing activities	(78,025)	(93,840)	(15,815)	20.3%	(42,435)	(69,547)	(27,112)	63.9%
Proceeds from share issue	36,176	33,169	(3,007)	(8.3%)	-	-	-	-
Loans from related parties	-	-	-	-	-	1,123	1,123	-
Proceeds from external borrowings	115,841	-	(115,841)	(100.0%)	115,841	-	(115,841)	(100.0%)
Repayment of borrowings	(71,117)	(57,278)	13,839	(19.5%)	(71,117)	(57,278)	13,839	(19.5%)
Repayment of lease liabilities	(21,498)	(24,803)	(3,305)	15.4%	-	(15,491)	(15,491)	-
Share buy back	(185,817)	-	185,817	(100.0%)	(185,817)	-	185,817	(100.0%)
Interest and borrowing costs paid	(16,425)	(11,867)	4,558	(27.8%)	(11,324)	(9,520)	1,804	(15.9%)
Net cash flows used in financing activities	(142,840)	(60,779)	82,061	(57.4%)	(152,417)	(81,166)	71,251	(46.7%)
Net increase/(decrease) in cash and cash equivalents	(25,538)	33,220	58,758	(230.1%)	(22,889)	37,774	60,663	(265.0%)
Reconciliation of Operating Free Cash Flows								
Net cash flows from operating activities	195,327	187,839	(7,488)	(3.8%)	171,963	188,487	16,524	9.6%
Less: Payments for property, plant and equipment	(23,367)	(30,114)	(6,747)	28.9%	(11,060)	(25,952)	(14,892)	134.6%
Less: Payments for development activities	(39,803)	(57,112)	(17,309)	43.5%	(25,172)	(39,930)	(14,758)	58.6%
Less: Exploration expenditure	(16,241)	(6,661)	9,580	(59.0%)	(7,589)	(3,712)	3,877	(51.1%)
Add: Net payout of derivative financial instruments	7,049	8,682	1,633	23.2%	-	-	-	-
Operating Free Cash Flows	122,965	102,634	(20,331)	(16.5%)	128,142	118,893	(9,249)	(7.2%)

5.8.4.1 Pro forma and statutory operating cash flows for FY2019 compared to FY2018

Pro forma operating cash flows decreased by \$7.5 million, or 3.8%, to \$187.8 million in FY2019, as compared to \$195.3 million in FY2018, driven primarily by:

- an increase in net profit after tax of \$63.6 million, primarily reflecting an increase in sales revenue partly offset by higher operating costs for Golden Grove and Capricorn Copper;
- a reduction in other items of \$21.8 million primarily relating to a reversal of non-cash unrealised loss in CC Hedges of \$11.2 million and non-cash foreign exchange loss for Golden Grove, which were included in FY2018 profit after tax; and
- a reduction in working capital of \$59.9 million reflecting unfavourable working capital movements at both Golden Grove and Capricorn Copper primarily relating to movements in trade creditor and trade receivable balances.

Statutory operating cash flows increased by \$16.5 million, or 9.6%, to \$188.5 million in FY2019, as compared to \$172.0 million, driven primarily by:

- an increase in net profit after tax of \$38.0 million, or 43.1%, primarily reflecting an increase in sales revenue partly offset by higher operating costs; and
- changes in working capital reduced by \$28.4 million in FY2019, primarily driven by movements in trade payables and trade receivables balances at Golden Grove.

5.8.4.2 Pro forma and statutory investing cash flows for FY2019 compared to FY2018

Pro forma investing cash outflows increased by \$15.8 million, or 20.3%, to \$93.8 million in FY2019, as compared to \$78.0 million in FY2018. The cash outflow for the period was driven by:

- an increase in payments for PPE of \$6.7 million in FY2019, driven by higher spend at Golden Grove partly offset by lower spend at Capricorn Copper; and
- an increase in payments for development activities of \$17.3 million in FY2019, driven by increased mining rates at both Golden Grove and Capricorn Copper requiring more mining areas to be developed,

partly offset by a reduction of exploration expenditure of \$9.6 million in FY2019.

Statutory investing cash outflows increased by \$27.1 million, or 63.9%, to \$69.5 million in FY2019, as compared to \$42.4 million in FY2018, primarily driven by:

- an increase in payments for PPE of \$14.9 million in FY2019, driven by increased ventilation and cooling capacity, power infrastructure upgrades and installation of a secondary crusher; and
- an increase in payments for development activities of \$14.8 million, driven by increased mining rates at both Golden Grove and Capricorn Copper requiring more mining areas to be developed,

partly offset by a decrease in exploration expenditure of \$3.9 million in FY2019.

5.8.4.3 Pro forma and statutory financing cash flows for FY2019 compared to FY2018

Pro forma financing cash outflows decreased by \$82.1 million, or 57.4%, to \$60.8 million in FY2019, as compared to negative \$142.8 million in FY2018, primarily driven by:

- a decrease in net proceeds from borrowings of \$115.8 million to \$0 million in FY2019, and share buyback was \$185.8 million in FY2018 compared to \$0 million in FY2019, reflecting the use of proceeds from borrowings at Golden Grove to fund a share buyback in FY2018; and
- a decrease in repayment of borrowings of \$13.8 million to \$57.3 million in FY2019, as compared to \$71.1 million in FY2018 reflecting the refinance of the Golden Grove Group facilities in FY2018 in connection with the share buyback described above,

partly offset by an increase in repayment of lease liabilities of \$3.3 million to \$24.8 million in FY2019, as compared to \$21.5 million in FY2018.

Statutory financing cash outflows decreased by \$71.3 million, or 46.7%, to \$81.2 million in FY2019, as compared to \$152.4 million in FY2018, primarily driven by:

- a decrease in net proceeds from borrowings of \$115.8 million to \$0 million in FY2019, and share buyback decreased by \$185.8 million to \$0 million in FY2019, driven by the factors described above; and
- a decrease in repayment of borrowings of \$13.8 million to \$57.3 million in FY2019, as compared to \$71.1 million in FY2018,

partly offset by an increase in repayment of lease liabilities to \$15.5 million in FY2019, as compared to nil repayments in FY2018, due to the application of AASB 16 with effect from 1 January 2019.⁸

⁸ Refer to sections 5.2.3.1 and 5.4.4 for further information regarding the application of AASB 16.

5.8.5 Pro Forma and Statutory Historical Results for FY2020 compared with FY2019

Table 5.23 sets out a summary of the Pro Forma and Statutory Historical Results for FY2020 compared with FY2019.

Table 5.23: Summary of Pro Forma and Statutory Historical Results for FY2020 compared to FY2019

\$000	Pro Forma Historical				Statutory Historical			
	FY2019	FY2020	Change	%	FY2019	FY2020	Change	%
Revenue	657,170	625,114	(32,056)	(4.9%)	473,418	434,451	(38,967)	(8.2%)
Cost of sales								
Mining costs	(188,085)	(211,099)	(23,014)	12.2%	(127,162)	(144,030)	(16,868)	13.3%
Processing costs	(109,179)	(113,433)	(4,254)	3.9%	(62,909)	(69,384)	(6,475)	10.3%
Site services costs	(39,176)	(44,288)	(5,112)	13.0%	(22,020)	(23,894)	(1,874)	8.5%
Depreciation and amortisation	(114,954)	(131,791)	(16,837)	14.6%	(50,139)	(56,148)	(6,009)	12.0%
Stockpile movements	4,507	(6,208)	(10,715)	(237.7%)	7,973	(5,615)	(13,588)	(170.4%)
Government royalties	(28,300)	(24,239)	4,061	(14.3%)	(19,995)	(15,312)	4,683	(23.4%)
Other production and selling costs	(24,236)	(26,680)	(2,444)	10.1%	(10,357)	(11,456)	(1,099)	10.6%
Cost of sales	(499,423)	(557,738)	(58,315)	11.7%	(284,609)	(325,839)	(41,230)	14.5%
Gross profit	157,747	67,376	(90,371)	(57.3%)	188,809	108,612	(80,197)	(42.5%)
Other income	7,766	442	(7,324)	(94.3%)	7,476	73	(7,403)	(99.0%)
Net gain/(loss) on derivative financial instruments	(6,022)	(5,515)	507	(8.4%)	-	8,359	8,359	-
Net foreign exchange gain/(loss)	(4,956)	28,783	33,739	(680.8%)	(2,418)	26,807	29,225	(1,208.6%)
Administration expenses	(19,162)	(19,458)	(296)	1.5%	(4,036)	(3,710)	326	(8.1%)
Other expenses	(4,872)	(3,988)	884	(18.1%)	-	(3,988)	(3,988)	-
Profit before net finance costs and income tax expense	130,501	67,640	(62,861)	(48.2%)	189,831	136,153	(53,678)	(28.3%)
Finance income	1,763	314	(1,449)	(82.2%)	1,579	287	(1,292)	(81.8%)
Finance costs	(15,498)	(21,715)	(6,217)	40.1%	(11,526)	(18,232)	(6,706)	58.2%
Profit before income tax expense	116,766	46,239	(70,527)	(60.4%)	179,884	118,208	(61,676)	(34.3%)
Income tax expense	(35,022)	(13,045)	21,977	(62.8%)	(53,732)	(34,514)	19,218	(35.8%)
Net profit for the year attributable to members	81,744	33,194	(48,550)	(59.4%)	126,152	83,694	(42,458)	(33.7%)
Reconciliation to EBITDA:								
Net profit for the year attributable to members	81,744	33,194	(48,550)	(59.4%)	126,152	83,694	(42,458)	(33.7%)
Add: Income tax expense	35,022	13,045	(21,977)	(62.8%)	53,732	34,514	(19,218)	(35.8%)
Less: Finance income	(1,763)	(314)	1,449	(82.2%)	(1,579)	(287)	1,292	(81.8%)
Add: Finance costs	15,498	21,715	6,217	40.1%	11,526	18,232	6,706	58.2%
Profit before net finance costs and income tax expense	130,501	67,640	(62,861)	(48.2%)	189,831	136,153	(53,678)	(28.3%)
Add: Depreciation and amortisation	114,954	131,791	16,837	14.6%	50,139	56,148	6,009	12.0%
Add: Unrealised net foreign exchange (gain)/loss	3,570	(28,840)	(32,410)	(907.8%)	2,290	(27,437)	(29,727)	(1,298.1%)
Add: Net (gain)/loss on derivative financial instruments	6,022	5,515	(507)	(8.4%)	-	(8,359)	(8,359)	-
EBITDA¹	255,047	176,106	(78,941)	(31.0%)	242,260	156,505	(85,755)	(35.4%)

Notes:

1. EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.8.5.1 Revenue

Pro forma revenue decreased by \$32.1 million, or 4.9%, to \$625.1 million in FY2020, as compared to \$657.2 million in FY2019. The decrease was primarily driven by reduced revenue from zinc sales at Golden Grove, partly offset by higher revenue for copper and gold. Key movements in revenue comprised:

- an increase in copper revenue of \$6.3 million, or 1.8%, to \$353.2 million in FY2020, primarily reflecting an increase in Average Realised Price;
- an increase in gold revenue of \$32.5 million, or 26.8%, to \$153.8 million in FY2020, reflecting increased Average Realised Price; and
- an increase in silver revenue of \$3.5 million, or 8.0%, to \$47.1 million in FY2020, primarily reflecting an increase in Average Realised Price;

partly offset by:

- a decrease in zinc revenue of \$50.1 million, or 26.2%, to \$141.2 million in FY2020, reflecting a decrease in payable zinc sold and a decrease in Average Realised Price;
- a decrease in lead revenue of \$4.7 million, or 57.6%, to \$3.5 million in FY2020 reflecting a decrease in payable lead sold; and
- an increase in TC/RCs of \$22.3 million, or 40.4%, to \$77.7 million in FY2020 primarily reflecting higher TCs for zinc concentrate, partly offset by the reduction in payable zinc sold described above.

Statutory revenue decreased by \$39.0 million, or 8.2%, to \$434.5 million in FY2020, as compared to \$473.4 million in FY2019, driven by the factors described above.

5.8.5.2 EBITDA

Pro forma EBITDA decreased by \$78.9 million, or 31.0%, to \$176.1 million in FY2020, as compared to \$255.0 million in FY2019. The decrease in EBITDA was driven by the reduction in revenue described above and an increase in the cost of sales (excluding D&A), primarily reflecting increased mining expenses and inventory movements. Key movements comprised:

- an increase in mining costs of \$23.0 million, or 12.2%, to \$211.1 million in FY2020 driven by a combination of increased mining volumes and unit costs;
- an increase in processing costs of \$4.3 million, or 3.9%, to \$113.4 million in FY2019, primarily related to increased volumes processed;
- an increase in inventory movement costs of \$10.7 million, from \$(4.5) million in FY2019 to \$6.2 million in FY2020, primarily related to timing of sales; and
- an increase in site service costs of \$5.1 million, or 13.0%, to \$44.3 million in FY2020, as compared to \$39.2 million in FY2019, primarily reflecting higher G&A at Capricorn Copper,

partly offset by a decrease in royalties of \$4.1 million, or 14.3%, to \$24.2 million in FY2020 associated with lower revenue.

Statutory EBITDA decreased by \$85.8 million, or 35.4%, to \$156.5 million in FY2020, as compared to \$242.3 million in FY2019. The decrease was primarily driven by the lower revenue and increase in cost of sales (excluding D&A) described above.

5.8.5.3 D&A

Pro forma D&A increased by \$16.8 million, or 14.6%, to \$131.8 million in FY2020, as compared to \$115.0 million in FY2019, reflecting increased production rate and a higher capital base in FY2020.

Statutory D&A increased by \$6.0 million, or 12.0%, to \$56.1 million in FY2020, as compared to \$50.1 million in FY2019, primarily reflecting the factors described above.

5.8.5.4 Other income

Pro forma other income decreased by \$7.3 million, or 94.3%, to \$0.4 million in FY2020, as compared to \$7.8 million in FY2019, primarily reflecting income accrued for a third party arrangement for mining oxide ore at Golden Grove in FY2019, which ceased in FY2020.

Statutory other income decreased by \$7.4 million, or 99.0%, to \$0.1 million in FY2020, as compared to \$7.5 million in FY2019 for the reasons described above.

5.8.5.5 Other expenses

Pro forma other expenses decreased by \$0.9 million, or 18.1%, to \$4.0 million in FY2020, as compared to \$4.9 million in FY2019, reflecting additional rehabilitation costs at Capricorn Copper and the write off of a receivable at Golden Grove FY2020.

Statutory other expenses increased by \$4.0 million in FY2020, compared to nil in FY2019, reflecting a reversal of income accrued for the third-party arrangement to mine oxide ore in FY2019.

5.8.5.6 Finance costs

Pro forma finance costs increased by \$6.2 million, or 40.1%, to \$21.7 million in FY2020, as compared to \$15.5 million in FY2019, primarily driven by refinancing costs at Golden Grove in FY2020.

Statutory finance costs increased by \$6.7 million, or 58.2%, to \$18.2 million in FY2020, as compared to \$11.5 million in FY2019, for the reasons described above.

5.8.5.7 Finance income

Pro forma finance income decreased by \$1.4 million, or 82.2%, to \$0.3 million in FY2020, as compared to finance income of \$1.8 million in FY2019, primarily reflecting a decrease in average cash at bank for Golden Grove and lower interest rates.

Statutory finance income decreased by \$1.3 million, or 81.8%, to \$0.3 million in FY2020, as compared to \$1.6 million in FY2019, for the reasons described above.

5.8.5.8 Income tax expense

Pro forma income tax expense decreased by \$22.0 million, or 62.8%, to \$13.0 million in FY2020, as compared to \$35.0 million in FY2019, reflecting lower net income before tax associated with decreased revenue from sales described above. The effective tax rate represented 28.2% of net income before tax in FY2020.

Statutory income tax expense decreased by \$19.2 million, or 35.8%, to \$34.5 million in FY2020, as compared to \$53.7 million in FY2019. The effective tax rate represented 29.2% of net income before tax in FY2020.

5.8.5.9 Net profit after tax

Pro forma net profit after tax decreased by \$48.6 million, or 59.4%, to \$33.2 million in FY2020, as compared to \$81.7 million in FY2019, reflecting the factors described above and partly offset by the decrease of \$22.0 million in income tax expense described above.

Statutory net profit after tax decreased by \$42.5 million, or 33.7%, to \$83.7 million in FY2020, as compared to \$126.2 million in FY2019, primarily reflecting the matters described above.

5.8.6 Pro forma and statutory segments information for FY2020 compared with FY2019

Table 5.24 and Table 5.25 set out the pro forma and statutory historical production and sales metrics for FY2020 compared with FY2019 by segment.

Table 5.24: Summary of pro forma and statutory historical production and sales metrics for FY2020 compared to FY2019

\$000	Unit	Pro Forma Historical				Statutory Historical			
		FY2019	FY2020	Change	%	FY2019	FY2020	Change	%
Revenue by segment									
Golden Grove	\$000	473,418	434,451	(38,967)	(8.2%)	473,418	434,451	(38,967)	(8.2%)
Capricorn Copper	\$000	183,752	190,663	6,911	3.8%	-	-	-	-
Reportable segment	\$000	657,170	625,114	(32,056)	(4.9%)	473,418	434,451	(38,967)	(8.2%)
Total revenue	\$000	657,170	625,114	(32,056)	(4.9%)	473,418	434,451	(38,967)	(8.2%)
EBITDA by segment									
Golden Grove	\$000	246,296	160,215	(86,081)	(35.0%)	242,260	156,505	(85,755)	(35.4%)
Capricorn Copper	\$000	28,046	35,349	7,303	26.0%	-	-	-	-
Reportable segment	\$000	274,342	195,564	(78,778)	(28.7%)	242,260	156,505	(85,755)	(35.4%)
Exploration	\$000	(742)	(405)	337	(45.4%)	-	-	-	-
Corporate and other	\$000	(18,553)	(19,053)	(500)	2.7%	-	-	-	-
Total EBITDA	\$000	255,047	176,106	(78,941)	(31.0%)	242,260	156,505	(85,755)	(35.4%)

Notes:

1. Statutory reporting incorporates the operating results of Golden Grove only.
2. Revenue represents Copper, Gold, Zinc and Silver revenues and including shipping service revenue and realised and unrealised fair value movements on receivables subject to QP adjustments, net of TC/RCS.
3. EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

Table 5.25: Summary of pro forma and statutory historical production and sales metrics for FY2020 compared to FY2019

	Unit	Pro Forma Historical				Statutory Historical			
		FY2019	FY2020	Change	%	FY2019	FY2020	Change	%
Operating Information									
Ore mined	kt	2,955	3,289	334	11.3%	1,373	1,442	69	5.1%
Ore milled	kt	2,897	3,186	289	10.0%	1,291	1,377	86	6.7%
Metal production									
Copper	kt	44	41	(2.6)	(6.0%)	20.8	19.0	(1.8)	(8.5%)
Gold	koz	70	63	(7.6)	(10.8%)	70.2	62.7	(7.6)	(10.8%)
Zinc	kt	57.5	54.5	(3.0)	(5.3%)	57.5	54.5	(3.0)	(5.3%)
Silver	koz	1,938.9	1,928.3	(10.6)	(0.5%)	1,703.9	1,678.8	(25.1)	(1.5%)
Lead	kt	4.5	2.6	(1.9)	(41.9%)	4.5	2.6	(1.9)	(41.9%)
Payable metal sold									
Copper	kt	41.4	38.6	(2.9)	(6.9%)	19.4	17.8	(1.6)	(8.1%)
Gold	koz	59.7	58.0	(1.7)	(2.9%)	59.7	58.0	(1.7)	(2.9%)
Zinc	kt	53.1	45.6	(7.5)	(14.2%)	53.1	45.6	(7.5)	(14.2%)
Silver	koz	1,595.1	1,488.6	(106.5)	(6.7%)	1,380.1	1,251.2	(128.9)	(9.3%)
Lead	kt	2.9	1.4	(1.5)	(53.0%)	2.9	1.4	(1.5)	(53.0%)
Average Realised Price									
Copper	A\$/lb	3.80	4.15	0.36	9.4%	3.66	4.10	0.44	12.0%
Gold	A\$/oz	2,032	2,654	621.69	30.6%	2,032	2,654	621.69	30.6%
Zinc	A\$/lb	1.63	1.40	(0.23)	(14.0%)	1.63	1.40	(0.23)	(14.0%)
Silver	A\$/oz	27.32	31.63	4.31	15.8%	26.87	31.92	5.05	18.8%
Lead	A\$/lb	1.29	1.17	(0.12)	(9.7%)	1.29	1.17	(0.12)	(9.7%)
Revenue Information									
Copper	\$000	346,825	353,160	6,335	1.8%	156,166	160,720	4,554	2.9%
Gold	\$000	121,297	153,779	32,481	26.8%	121,297	153,779	32,482	26.8%
Zinc	\$000	191,222	141,162	(50,061)	(26.2%)	191,223	141,162	(50,061)	(26.2%)
Silver	\$000	43,575	47,082	3,507	8.0%	37,089	39,943	2,854	7.7%
Lead	\$000	8,240	3,498	(4,743)	(57.6%)	8,240	3,497	(4,743)	(57.6%)
Un-realised QP gain/ (loss)	\$000	1,356	4,126	2,769	204.2%	27	(267)	(294)	(1,088.9%)
Gross revenue	\$000	712,516	702,805	(9,711)	(1.4%)	514,042	498,834	(15,208)	(3.0%)
TC/RCs	\$000	(55,346)	(77,691)	(22,345)	40.4%	(40,624)	(64,383)	(23,759)	58.5%
Net revenue	\$000	657,170	625,114	(32,056)	(4.9%)	473,418	434,451	(38,967)	(8.2%)

5.8.6.1 Pro forma and statutory segment information for FY2020 compared with FY2019 for the Golden Grove segment

Table 5.26 sets out a summary of the pro forma and statutory historical sales and operating metrics for FY2020 compared with FY2019 for the Golden Grove segment.

Table 5.26: Summary of pro forma and statutory production and sales metrics for FY2020 compared to FY2019 for the Golden Grove segment

	Unit	Pro Forma Historical				Statutory Historical			
		FY2019	FY2020	Change	%	FY2019	FY2020	Change	%
Operating Information									
Ore mined	kt	1,373	1,442	69	5.1%	1,373	1,442	69	5.1%
Ore milled	kt	1,291	1,377	86	6.7%	1,291	1,377	86	6.7%
Metal production									
Copper	kt	21	19	(1.8)	(8.5%)	20.8	19.0	(1.8)	(8.5%)
Gold	koz	70	63	(7.6)	(10.8%)	70.2	62.7	(7.6)	(10.8%)
Zinc	kt	57.5	54.5	(3.0)	(5.3%)	57.5	54.5	(3.0)	(5.3%)
Silver	koz	1,703.9	1,678.8	(25.1)	(1.5%)	1,703.9	1,678.8	(25.1)	(1.5%)
Lead	kt	4.5	2.6	(1.9)	(41.9%)	4.5	2.6	(1.9)	(41.9%)
Payable metal sold									
Copper	kt	19.4	17.8	(1.6)	(8.1%)	19.4	17.8	(1.6)	(8.1%)
Gold	koz	59.7	58.0	(1.7)	(2.9%)	59.7	58.0	(1.7)	(2.9%)
Zinc	kt	53.1	45.6	(7.5)	(14.2%)	53.1	45.6	(7.5)	(14.2%)
Silver	koz	1,380.1	1,251.2	(128.9)	(9.3%)	1,380.1	1,251.2	(128.9)	(9.3%)
Lead	kt	2.9	1.4	(1.5)	(53.0%)	2.9	1.4	(1.5)	(53.0%)
Average Realised Price									
Copper	A\$/lb	3.66	4.10	0.44	12.0%	3.66	4.10	0.44	12.0%
Gold	A\$/oz	2,032	2,654	621.69	30.6%	2,032	2,654	621.69	30.6%
Zinc	A\$/lb	1.63	1.40	(0.23)	(14.0%)	1.63	1.40	(0.23)	(14.0%)
Silver	A\$/oz	26.87	31.92	5.05	18.8%	26.87	31.92	5.05	18.8%
Lead	A\$/lb	1.29	1.17	(0.12)	(9.7%)	1.29	1.17	(0.12)	(9.7%)
Revenue Information									
Copper	\$000	156,166	160,720	4,555	2.9%	156,166	160,720	4,554	2.9%
Gold	\$000	121,297	153,779	32,481	26.8%	121,297	153,779	32,482	26.8%
Zinc	\$000	191,222	141,162	(50,061)	(26.2%)	191,223	141,162	(50,061)	(26.2%)
Silver	\$000	37,089	39,943	2,854	7.7%	37,089	39,943	2,854	7.7%
Lead	\$000	8,240	3,498	(4,743)	(57.6%)	8,240	3,497	(4,743)	(57.6%)
Un-realised QP gain/ (loss)	\$000	27	(267)	(295)	(1,078.2%)	27	(267)	(294)	(1,088.9%)
Gross revenue	\$000	514,042	498,834	(15,208)	(3.0%)	514,042	498,834	(15,208)	(3.0%)
TC/RCS	\$000	(40,624)	(64,383)	(23,759)	58.5%	(40,624)	(64,383)	(23,759)	58.5%
Net revenue	\$000	473,418	434,451	(38,967)	(8.2%)	473,418	434,451	(38,967)	(8.2%)
KPIs									
EBITDA	\$000	246,296	160,215	(86,081)	(35.0%)	242,260	156,505	(85,755)	(35.4%)
C1 Costs	A\$m	(85.03)	(0.36)	84.67	(99.6%)	(85.03)	(0.36)	84.67	(99.6%)
C1 Costs	A\$/lb	(1.99)	(0.01)	1.98	(99.5%)	(1.99)	(0.01)	1.98	(99.5%)
C1 Costs	US\$/lb	(1.38)	(0.01)	1.38	(99.5%)	(1.38)	(0.01)	1.38	(99.5%)
AISC	A\$m	(14.93)	77.60	92.53	(619.6%)	(12.00)	81.42	93.41	(778.6%)
AISC	A\$/lb	(0.35)	1.98	2.33	(665.3%)	(0.28)	2.07	2.36	(838.2%)
AISC	US\$/lb	(0.24)	1.37	1.61	(661.7%)	(0.20)	1.43	1.63	(833.5%)
AUD:USD average exchange rate	rate	0.70	0.69	(0.00)	(0.6%)	0.70	0.69	(0.00)	(0.6%)

1 EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.8.6.1.1 Revenue

Pro forma and statutory net revenue for Golden Grove decreased by \$39.0 million, or 8.2%, to \$434.5 million in FY2020, as compared to \$473.4 million in FY2019, reflecting:

- an increase in copper revenue of \$4.6 million, or 2.9%, to \$160.7 million in FY2020, reflecting a 12.0% increase in the Average Realised Price for copper, offset by an 8.1% decline in payable copper sold;
- an increase in gold revenue of \$32.5 million, or 26.8%, to \$153.8 million in FY2020, primarily reflecting a 30.6% increase in the Average Realised Price; and
- an increase in silver revenue of \$2.9 million, or 7.7%, to \$39.9 million in FY2020, reflecting a 18.8% increase in the Average Realised Price, partly offset by a 9.3% reduction in payable silver sold,

more than offset by;

- a decrease in zinc revenue of \$50.1 million, or 26.2%, to \$141.2 million in FY2020, reflecting a 14.2% decrease in payable zinc sold and a 14.0% decrease in the Average Realised Price for zinc;
- a decrease in lead revenue of \$4.7 million, or 57.6%, to \$3.5 million in FY2020 primarily reflecting a 53.0% decrease in payable lead sold as a result of lower lead content in ore processed; and
- an increase in TC/RCs of \$23.8 million, or 58.5%, to \$64.4 million FY2020, primarily reflecting an increase in TCs for zinc concentrate.

5.8.6.1.2 EBITDA

Pro forma EBITDA decreased by \$86.1 million, or 35.0%, to \$160.2 million in FY2020, as compared to \$246.3 million in FY2019, driven by a combination of lower revenues (as discussed above) and increases in C1 Costs and AISC (as described below).

Statutory EBITDA decreased by \$85.8 million, or 35.4%, to \$156.5 million FY2020 for the reasons described above.

5.8.6.1.3 C1 Costs and AISC

Pro forma C1 Costs increased by \$1.98/lb (USD1.38/lb) payable copper sold, to negative \$0.01/lb (USD0.01/lb) payable copper sold in FY2020, as compared to negative \$1.99/lb (USD1.38/lb) payable copper sold in FY2019, reflecting:

- an increase in C1 Costs in \$ million terms of \$84.7 million, to negative \$0.4 million in FY2020, as compared to negative \$85.0 million in FY2019, reflecting a \$63.8 million increase in operating expenses and a \$20.9 million decrease in by-product credits; and
- a decrease in payable copper sold of 1.6kt, to 17.8kt in FY2020, as compared to 19.4kt in FY2019.

The \$63.8 million increase in operating costs was driven by a combination of higher mining costs, increased TC/RC's and adjustments for ore inventory movements.

Pro forma AISC increased by \$2.33/lb (USD1.61/lb) payable copper sold, to \$1.98/lb (USD1.37/lb) in FY2020 payable copper sold, as compared to negative \$0.35/lb (USD0.24/lb) in FY2019, reflecting:

- an increase in AISC in \$ million terms of \$92.5 million, to \$77.6 million in FY2020, as compared to negative \$14.9 million in FY2019, reflecting the increase in C1 Costs in \$ million terms described above, and an increase of \$7.9 million primarily relating to sustaining capital and mine development; and
- a decrease in payable copper sold of 1.6kt for the reasons described above.

5.8.6.2 Pro forma and statutory segment information for FY2020 compared with FY2019 for the Capricorn Copper segment

Table 5.27 sets out a summary of the pro forma historical production and sales metrics for FY2020 compared with FY2019 for the Capricorn Copper segment.⁹

⁹ As the Golden Grove Group is the acquiring entity for accounting purposes (refer to section 5.2.2), Capricorn Copper's financial information is not included in the statutory historical information.

Table 5.27: Summary of pro forma and statutory production and sales metrics for FY2020 compared with FY2019 for Capricorn Copper segment

	Unit	Pro Forma Historical				Statutory Historical			
		FY2019	FY2020	Change	%	FY2019	FY2020	Change	%
Operating Information									
Ore mined	kt	1,583	1,847	264	16.7%	-	-	-	-
Ore milled	kt	1,605	1,808	203	12.7%	-	-	-	-
Metal production									
Copper	kt	23.3	22.5	(0.9)	(3.7%)	-	-	-	-
Silver	koz	235.0	249.5	14.5	6.2%	-	-	-	-
Payable metal sold									
Copper	kt	22.1	20.8	(1.3)	(5.9%)	-	-	-	-
Silver	koz	215.0	237.4	22.4	10.4%	-	-	-	-
Average Realised Price									
Copper	A\$/lb	3.92	4.20	0.28	7.2%	-	-	-	-
Silver	A\$/oz	30.17	30.07	(0.09)	(0.3%)	-	-	-	-
Revenue Information									
Gross copper revenue	\$000	190,659	192,440	1,781	0.9%	-	-	-	-
Gross silver revenue	\$000	6,486	7,139	653	10.1%	-	-	-	-
Un-realised QP gain/ (loss)	\$000	1,329	4,393	3,064	230.5%	-	-	-	-
Gross revenue	\$000	198,474	203,972	5,498	2.8%	-	-	-	-
TC/RCS	\$000	(14,722)	(13,309)	1,413	(9.6%)	-	-	-	-
Net revenue	\$000	183,752	190,663	6,911	3.8%	-	-	-	-
KPIs									
EBITDA	\$000	28,046	35,349	7,303	26.0%	-	-	-	-
C1 Costs	A\$m	161.01	165.05	4.04	2.5%	-	-	-	-
C1 Costs	A\$/lb	3.31	3.60	0.30	8.9%	-	-	-	-
C1 Costs	US\$/lb	2.30	2.49	0.19	8.2%	-	-	-	-
AISC	A\$m	199.07	204.82	5.75	2.9%	-	-	-	-
AISC	A\$/lb	4.09	4.47	0.38	9.3%	-	-	-	-
AISC	US\$/lb	2.84	3.09	0.25	8.6%	-	-	-	-
AUD:USD average exchange rate	rate	0.70	0.69	(0.00)	(0.6%)	-	-	-	-

1 EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.8.6.2.1 Revenue

Pro forma net revenue for Capricorn Copper, which comprises sales for copper and silver, increased by \$6.9 million, or 3.8%, to \$190.7 million in FY2020, as compared to \$183.8 million in FY2019, reflecting:

- an increase in copper revenue of \$1.8 million, or 0.9%, to \$192.4 million in FY2020, reflecting a 7.2% increase in Average Realised Price, partly offset by a 5.9% decrease in payable copper sold; and
- an increase in silver revenue of \$0.7 million, or 10.1%, to \$7.1 million in FY2020, primarily reflecting a 10.4% increase in payable silver sold.

Lower copper sales in FY2020, as compared to FY2019, reflected the impact of an increase in ore milled, offset by processing of lower grade ores in FY2020.

5.8.6.2.2 EBITDA

Pro forma EBITDA increased by \$7.3 million, or 26.0%, to \$35.3 million in FY2020, as compared to \$28.0 million in FY2019, driven by increased revenues as described above, partly offset by higher operating costs. Increased operating costs were primarily driven by the increases in ore mined and ore milled, and their corresponding impact on total mining and processing costs.

5.8.6.2.3 C1 Costs and AISC

Pro forma C1 Costs increased by \$0.30/lb (USD0.19/lb) payable copper sold to \$3.60/lb (USD2.49/lb) in FY2020, as compared to \$3.31/lb (USD2.30/lb) in FY2019, reflecting:

- an increase in C1 Costs in \$ million terms of \$4.0, to \$165.1 million in FY2020, as compared to \$161.0 million in FY2019, primarily reflecting the increase in ore mined and ore milled; and
- a decrease in payable copper sold of 1.3kt, to 20.8kt in FY2020, as compared to 22.1kt in FY2019 as described above.

Pro forma AISC increased by \$0.38/lb (USD0.25/lb) payable copper sold to \$4.47/lb (USD3.09/lb) in FY2020, as compared to \$4.09/lb (USD2.84/lb) FY2019, reflecting an increase in AISC in \$ million terms of \$5.7 million to \$204.8 million in FY2020, as compared to \$199.1 million in FY2019, reflecting the change in C1 Costs in \$ million terms described above and a \$1.7 million increase in sustaining capital and mine development capital and royalties in FY2020, and the decrease in payable copper sold described above.

5.8.7 Pro Forma and Statutory Historical Cash Flows Information for FY2020 compared to FY2019

Table 5.28 sets out the Pro Forma Historical Cash Flows Information and Statutory Historical Cash Flows Information for FY2020 compared to FY2019.

Table 5.28: Summary of Pro Forma and Statutory Historical Cash Flows Information for FY2020 compared to FY2019

S000	Pro Forma Historical				Statutory Historical			
	FY2019	FY2020	Change	%	FY2019	FY2020	Change	%
Net profit for the year attributable to members	81,744	33,194	(48,550)	(59.4%)	126,152	83,694	(42,458)	(33.7%)
Interest and other finance costs	14,265	16,234	1,969	13.8%	10,421	12,800	2,379	22.8%
Depreciation and amortisation	114,954	131,791	16,837	14.6%	50,139	56,148	6,009	12.0%
Other items	4,146	(23,906)	(28,052)	(676.6%)	4,922	(29,125)	(34,047)	(691.7%)
Changes in working capital	(27,270)	(4,982)	22,288	(81.7%)	(3,147)	7,085	10,232	(325.1%)
Net cash flows from operating activities	187,839	152,331	(35,508)	(18.9%)	188,487	130,602	(57,885)	(30.7%)
Payments for property, plant and equipment	(30,114)	(37,673)	(7,559)	25.1%	(25,952)	(31,294)	(5,342)	20.6%
Proceeds from the sale of property, plant and equipment	47	96	49	104.3%	47	96	49	104.3%
Payments for development activities	(57,112)	(57,874)	(762)	1.3%	(39,930)	(37,950)	1,980	(5.0%)
Exploration expenditure	(6,661)	(11,839)	(5,178)	77.7%	(3,712)	(9,740)	(6,028)	162.4%
Net cash flows used in investing activities	(93,840)	(107,290)	(13,450)	14.3%	(69,547)	(78,888)	(9,341)	13.4%
Proceeds from share issue	33,169	-	(33,169)	(100.0%)	-	-	-	-
Loans from/(to) related parties	-	-	-	-	1,123	(1)	(1,124)	(100.1%)
Proceeds from external borrowings	-	146,946	146,946	-	-	146,946	146,946	-
Repayment of borrowings	(57,278)	(3,252)	54,026	(94.3%)	(57,278)	(3,252)	54,026	(94.3%)
Repayment of lease liabilities	(24,803)	(22,971)	1,832	(7.4%)	(15,491)	(13,374)	2,117	(13.7%)
Share buy back	-	(176,030)	(176,030)	-	-	(176,030)	(176,030)	-
Interest and borrowing costs paid	(11,867)	(12,667)	(800)	6.7%	(9,520)	(11,631)	(2,111)	22.2%
Net cash flows used in financing activities	(60,779)	(67,974)	(7,195)	11.8%	(81,166)	(57,342)	23,824	(29.4%)
Net increase/(decrease) in cash and cash equivalents	33,220	(22,933)	(56,153)	(169.0%)	37,774	(5,628)	(43,402)	(114.9%)
Reconciliation of Operating Free Cash Flows								
Net cash flows from operating activities	187,839	152,331	(35,508)	(18.9%)	188,487	130,602	(57,885)	(30.7%)
Less: Payments for property, plant and equipment	(30,114)	(37,673)	(7,559)	25.1%	(25,952)	(31,294)	(5,342)	20.6%
Less: Payments for development activities	(57,112)	(57,874)	(762)	1.3%	(39,930)	(37,950)	1,980	(5.0%)
Less: Exploration expenditure	(6,661)	(11,839)	(5,178)	77.7%	(3,712)	(9,740)	(6,028)	162.4%
Add: Net payout of derivative financial instruments	8,682	7,755	(927)	(10.7%)	-	502	502	-
Operating Free Cash Flows	102,634	52,700	(49,934)	(48.7%)	118,893	52,120	(66,773)	(56.2%)

5.8.7.1 Pro forma and statutory operating cash flows for FY2020 compared to FY2019

Pro forma operating cash flows decreased by \$35.5 million, or 18.9%, to \$152.3 million in FY2020, compared to \$187.8 million in FY2019, driven primarily by the following movements:

- net profit after tax decreased by \$48.6 million, primarily reflecting decreased sales revenue and increased operating costs for Golden Grove and Capricorn Copper;
- D&A increased by \$16.8 million primarily reflecting increased ore mined;
- other items decreased by \$28.1 million primarily relates to a reversal of non-cash foreign exchange gains for Golden Grove which is included in FY2020 profit after tax; and
- changes in working capital increased by \$22.3 million, primarily driven by higher closing trade payables balances at Capricorn Copper in FY2020 relative to FY2019.

Statutory operating cash flows decreased by \$57.9 million, or 30.7%, in FY2020 to \$130.6 million, compared to \$188.5 million in FY2019, driven by the following movements:

- net profit after tax decreased by \$42.5 million, primarily reflecting decreased sales revenue and increased operating costs;
- D&A increased by \$6.0 million, primarily reflecting increased ore mined;
- other items decreased by \$34.0 million, as described above; and
- changes in working capital increased by \$10.2 million, primarily driven by higher closing trade payables balances at Golden Grove in FY2020 relative to FY2019.

5.8.7.2 Pro forma and statutory investing cash flows for FY2020 compared to FY2019

Pro forma investing cash outflows increased by \$13.5 million, or 14.3%, to \$107.3 million in FY2020, compared to \$93.8 million in FY2019, driven primarily by the following movements:

- payments for PP&E increased by \$7.6 million in FY2020 related to specific projects undertaken in FY2020, including increasing tailings storage capacity and installing sequential flotation processing infrastructure at Golden Grove; and
- exploration expenditure increased by \$5.2 million in FY2020.

Statutory investing cash outflows increased by \$9.3 million, or 13.4%, to \$78.9 million in FY2020, compared to \$69.5 million in FY2019, driven primarily by the following movements:

- payments for PP&E increased by \$5.3 million, per the factors described above; and
- an increase in exploration expenditure of \$6.0 million.

5.8.7.3 Pro forma and statutory financing cash flows for FY2020 compared to FY2019

Pro forma financing cash outflows increased by \$7.2 million, or 11.8%, to \$68.0 million in FY2020, from \$60.8 million in FY2019, driven primarily by the following movements:

- an increase in borrowings at Golden Grove of \$146.9 million used to fund a share buyback of \$176.0 million in FY2020;
- a reduction in proceeds from share issues at Capricorn Copper of \$33.2 million; and
- repayment of borrowings decreasing by \$54.0 million.

Statutory financing cash outflows decreased by \$23.8 million, or 29.4%, to \$57.3 million in FY2020, compared to \$81.2 million in FY2019, driven primarily by the following movements:

- an increase in borrowings of \$146.9 million used to fund a share buyback of \$176.0 million in FY2020; and
- repayment of borrowings decreasing by \$54.0 million.

5.9 Forecast Financial Information

This section sets out the Forecast Financial Information for 29Metals, including the assumptions applied in the preparation of the Forecast Financial Information. These assumptions are, by their nature, subject to significant uncertainties and contingencies, many of which are outside the control of 29Metals and are not reliably predictable. Accordingly, no assurance can be given that the Forecast Financial Information or any prospective statement contained in this Prospectus will be achieved. Events and outcomes might differ in amount and timing from the assumptions with a material consequential impact on the Forecast Financial Information.

The general and specific assumptions applied in the preparation of the Forecast Financial Information are set out in sections 5.9.1 and 5.9.2, respectively. These assumptions should be read in conjunction with the Prospectus as a whole, including the basis of preparation of the Forecast Financial Information set out in section 5.2, the risks set out in section 6 (Risks) and the Investigating Accountant's in section 9 (Investigating Accountant's Report).

To assist investors in assessing the impact of key assumptions on the Forecast Financial Information, section 5.10 provides an analysis of the sensitivity of certain Forecast Financial Information to changes in a number of key assumptions.

Forecast Financial Information for the year ending 31 December 2021 is presented in nominal terms.

5.9.1 General assumptions

The following general assumptions have been applied in the preparation of the Forecast Financial Information:

- there is no material change in the competitive and operating environments in which 29Metals operates;
- there are no material losses of customers or contracts beyond those incorporated in the forecasts;
- there are no significant disruptions to the continuity of operations of 29Metals beyond what has been factored into the Forecast Financial Information, and there are no changes in 29Metals' business, including any adverse disruptions caused by COVID-19;
- there are no major weather events that materially impact on the operation of 29Metals, or its key customers and suppliers;
- 29Metals maintains, or obtains in a timely manner, all key licenses, permits or approvals necessary for 29Metals to continue its operations in the ordinary course;¹⁰
- there is no change in applicable AAS and IFRS that would have a material impact on 29Metals' financial performance or cash flows, financial position, accounting policies, financial reporting or disclosure requirements;

- there are no material changes in government regulation, policy, legislation, or tax legislation that will have a material impact of 29Metals' financial performance or cash flows, financial position, accounting policies, financial reporting or disclosure requirements;
- there is no significant deviation from current market expectations of the broader economic conditions (including exchange rates) relevant to the Australian, Chilean and international sectors in which 29Metals and its key customers operate;
- there is no material amendment to any material agreement relating to 29Metals' business other than as discussed in this Prospectus;¹¹
- there are no material acquisitions or divestments;
- there are no material changes to 29Metals' corporate funding structure other than as set out in, or contemplated by, this Prospectus;
- there is no loss of key management personnel and 29Metals will maintain the ongoing ability to recruit and retain required personnel;
- there is no material litigation that will arise or be settled to the benefit or detriment of 29Metals;
- there are no material contingent liabilities that will arise or be realised to the detriment of 29Metals;
- there is no material increase to the Capricorn Copper surety bond from the pending ERC decision described in section 10.7.1.4, subject to 29Metals' rights of appeal which require a provision for an increased surety amount to be lodged equal to 75% of the amount of the ERC decision, pending any appeal;
- the Offer proceeds are received by 29Metals in accordance with the key dates set out in this Prospectus; and
- none of the risks set out in section 6 (Risks) occur, or if they do, none of them has a material adverse impact on 29Metals' operations or financial performance.

5.9.2 Specific assumptions

The Forecast Financial Information is based on a number of specific assumptions. The key specific assumptions for the Forecast Financial Information are set out below. The assumptions set out below are a summary only and do not represent all factors that may affect 29Metals' financial performance during the forecast period.

This information is intended to assist investors in assessing the reasonableness and likelihood of the assumptions occurring and is not intended to be a representation that the assumptions will occur.

¹⁰ Refer to section 5.9.2.2 for specific assumptions applied in the preparation of the Forecast Financial Information regarding approvals associated with tailings storage at Capricorn Copper. Refer also to section 6.2.1.2 for information regarding risks associated with obtaining and maintaining certain approvals, permits and licenses.

¹¹ Section 3.6.1 refers to 29Metals' intention to refinance the SFA following IPO. The proposed refinance has not been included for the purposes of the Forecast Financial Information.

5.9.2.1 Group assumptions

The Forecast Financial Information is based on the following Group assumptions:

- Commodity Prices:** Actual Realised Prices have been applied for the period from 1 January to 31 March 2021 (inclusive), and forward prices have been applied for the remainder of 2021. The forward prices have been determined by the Directors with reference to LME forward prices and take into account recent and continuing volatility in commodity prices ('**Forward Prices**'). In each case the Directors have determined a best estimate for the remainder of 2021 at a Forward Price lower than the LME forward prices as at 28 May 2021, as set out below:

Commodity		Forward Prices ¹	LME forward prices at 28 May 2021
Copper	USD/lb	4.28	4.65
Gold	USD/oz	1,776	1,906
Zinc	USD/lb	1.31	1.39
Silver	USD/oz	26.3	28.0
Lead	USD/lb	0.94	1.00

Notes:

- Average of the LME forward prices over a 3-month period up to 28 May 2021.

The LME spot copper price of US\$4.65/lb, as at 28 May 2021 has been applied to the settlement of the 2021 CC Hedges.

- Gold swap contracts and copper forward contracts:** Gold swap contracts of 21,000 ounces will be settled in FY2021. 2021 CC Hedges will be cash settled at Completion and all the 2022 CC Hedges will remain at the end of FY2021.
- Currency:** Actual realised foreign AUD exchange rates have been applied for the period from January to March 2021, and the forward AUD rate has been applied for the remainder of FY2021. The forward AUD rate has been determined by the Directors on a basis consistent with Commodity Prices ('**Forward AUD Rate**'). On this basis, the Directors have determined a Forward AUD Rate higher than the Bloomberg forward AUD rate as at 28 May 2021, as set out below:

Currency	Forward AUD Rate	Bloomberg forward AUD rate at 28 May 2021
AUD:USD	0.772	0.771

- Tax:**
 - 29Metals is a tax resident of Australia and will form a tax consolidated Group with its wholly owned Australian resident subsidiaries;
 - 29Metals will be subject to Australian company tax at the rate of 30%; and
 - Offer costs are tax deductible over five years on a straight-line basis pursuant to section 40-880 of the Income Tax Assessment Act 1997 (Cth);
- Stamp duty:**
 - No Queensland duty is payable in relation to Capricorn Copper on the basis that the Queensland Office of State Revenue has issued a ruling confirming the availability of an exemption from landholder duty; and
 - Duty is payable in relation to Golden Grove at the rate of 5.15% on the consideration paid so far as it relates to the dutiable property of Golden Grove. Stamp duty costs will be amortised for tax deductibility purposes.
- Dividends:** there are no dividends paid in FY2021;
- Interest:**
 - interest income of 0.5% on cash at bank balances; and
 - interest margin of 3.5% applies to the drawn balance of the SFA for FY2021.¹²

¹² The drawn balance of the SFA is described in section 5.7.2.

5.9.2.2 Operating assumptions

Table 5.29 sets out the key production physicals assumptions included in the Forecast Financial Information. Actual production physicals for the period 1 January to 31 March 2021 (inclusive) (the 'March 2021 Quarter') are also included in the table.¹³

Table 5.29: Summary of key production physicals assumptions

	Unit	FY2021 ¹	Q12021
Golden Grove			
Operating Information			
Ore mined	kt	1,522	358
Waste mined	kt	666	174
Total mined	kt	2,188	531
Ore milled	kt	1,483	278
Grade of ore milled			
Copper	%	1.25%	1.17%
Gold	g/t	1.19	0.90
Zinc	%	4.31%	3.31%
Silver	g/t	42.1	28.9
Lead	%	0.48%	0.35%
Recovery			
Copper	%	88.8%	85.7%
Gold	%	71.8%	63.4%
Zinc	%	85.1%	83.8%
Silver	%	82.9%	72.8%
Lead	%	61.8%	21.8%
Metal production			
Copper	kt	16.5	2.8
Gold	koz	40.9	5.1
Zinc	kt	54.5	7.7
Silver	koz	1,664	188
Lead	kt	4.4	0.2
Capricorn Copper			
Operating Information			
Ore mined	kt	1,765	415
Waste mined	kt	738	327
Total mined	kt	2,502	742
Ore milled	kt	1,624	412
Grade of ore milled			
Copper	%	1.51%	1.34%
Silver	g/t	6.9	5.1
Recovery			
Copper	%	82.8%	80.0%
Silver	%	69.8%	71.6%
Metal production			
Copper	kt	20.3	4.4
Silver	koz	250	49

1. Grade assumptions for Golden Grove are average grade across multiple ore sources.

¹³ FY2021 production physicals assumptions are inclusive of March 2021 Quarter production physicals.

Assumptions regarding Capricorn Copper transition to tailings storage in ETSF

An updated tailings management strategy has been developed for Capricorn Copper, reflecting the increased tailings storage capacity required to support the extended mine life. That updated long term tailings management strategy involves the staged transition between the EPit (the facility used for tailings storage currently) and the ETSF over the coming years, commencing with the proposed transition to the ETSF later this year. Refer to section 3.11.7.2 for further information regarding the updated long term tailings management strategy at Capricorn Copper.

The production physicals set out in table 5.29 assume that 29Metals obtains necessary approvals from the DES in July, and completion of construction of the lift of the ETSF and commencement of deposition of tailings in the ETSF occurs by no later than mid-November 2021.

If the commencement of deposition of tailings in the ETSF is delayed, for example, because of delays in receiving relevant approvals or delays in the construction works, 29Metals would need to implement contingencies to further reduce the rate of deposition of tailings in the EPit to extend the period before the ETSF is required for tailings deposition. Such action would have an adverse impact on 29Metals' operating and financial performance relative to the assumptions applied in the Forecast Financial Information.

5.9.2.3 Net revenue key assumptions

The forecast financial information is based on the following key net revenue assumptions:

- forecast payable metal sold by Golden Grove and Capricorn Copper are 29Metals best estimates, determined with reference to site operating plans and after consideration of known risks;
- payability of metal sold is based on existing Offtake Contracts at Golden Grove and Capricorn Copper;
- Forward Prices and Forward AUD Rate applied are:
 - Copper: USD4.28/lb
 - Gold: USD1,776/oz
 - Zinc: USD1.31/lb
 - Silver: USD26.3/oz
 - Lead: USD0.94/lb
 - AUD: USD: 0.772
- TC/RCS applied are as per existing Offtake Contracts for copper and zinc concentrates for FY2021:
 - Copper TC: USD 52.50/dmt for Golden Grove and USD 56.30/dmt for Capricorn Copper¹⁴
 - Copper RC: USD 0.0525/lb for Golden Grove and 0.0563/lb for Capricorn Copper
 - Zinc TC (Golden Grove only): USD 150–159/dmt, plus applicable escalator¹⁵
 - HPM TC (Golden Grove only): USD 120/dmt¹⁶

5.9.2.4 Cost assumptions

The Forecast Financial Information includes the following key cost and expenses assumptions:

- Forecast mining costs are based on ore mined tonnes and mining unit costs per the mine plan. Mining costs are shown net of capitalised development costs and exclude adjustments for the impact of AASB 16. FY2021 forecast unit mining costs are:
 - Golden Grove: A\$114.7/t ore mined (FY2020: A\$108.6/t ore mined)
 - Capricorn Copper: A\$48.9/t ore mined (FY2020: A\$40.4/t ore mined)
- Processing costs are based on milled tonnes and processing unit costs and include plant maintenance. FY2021 forecast unit processing costs are:
 - Golden Grove: A\$40.2/t ore milled (FY2020: A\$43.5/t ore milled)
 - Capricorn Copper: A\$27.9/t ore milled (FY2020: A\$24.4/t ore milled)
- Site general and administrative expenses consist of camp and travel costs, insurance, site administration employee salary costs, health and safety costs, and IT and other site related administrative costs. FY2021 forecast general and administration costs are:
 - Golden Grove: A\$25.0 million (FY2020: A\$25.2 million)
 - Capricorn Copper: A\$21.4 million (FY2020: A\$23.8 million)
- Administration costs in FY2021 include directors' fees, head office salaries and wages, Group insurances, and administrative expenses for the head office and support offices;
- Royalty expenses:
 - at Golden Grove, the WA royalty rate of 5% of base metal net revenues (gross revenue with deductions for freight and TC/RCS), and 2.5% of precious metal net revenues has been applied; and
 - at Capricorn Copper, the QLD royalty rate varies between 2.50% and 5.00% of net revenue (varying in 0.02% increments) depending on average metal price received.
- D&A rates are applied based on a units of production basis, or on a straight-line basis over the useful live of the asset as applicable.

¹⁴ Based on benchmark TC in FY2021 of USD59.50/dmt in FY2021 less applicable discounts.

¹⁵ The 2021 forecast for Golden Grove zinc TC includes 20Kt zinc concentrate sales at USD150/dmt TC, and all remaining zinc concentrate at USD159/dmt TC plus 12.5% of zinc price exceeding USD2,050/dmt for the amount. The FY2021 forecast has a weighted average TC of approximately USD230/dmt.

¹⁶ HPM TC/RCS are agreed on a shipment by shipment basis and rates based on management forecast. Approximately 7.5% (USD2.7 million) of Golden Grove's FY2021 total TC/RC cost relates to HPM.

5.9.2.5 Capital expenditure

Forecast capital expenditure of \$107.5 million for FY2021 is based on the following key assumptions:

- Golden Grove: forecast capital expenditure consists of \$16.2 million sustaining capital, \$34.2 million capitalised mine development costs and \$9.9 million for expansionary projects.
- Capricorn Copper: forecast capital expenditure consists of \$8.8 million to sustaining capital, \$25.6 million capitalised mine development costs, and \$2.3 million for expansionary projects.
- Exploration: forecast exploration expenditure of \$10.5 million includes cost associated with 29Metals's exploration and Resource extension activities not related to near term production, including \$0.3 million at Redhill, \$7.4 million at Golden Grove and \$2.8 million at Capricorn Copper.

5.9.2.6 Working capital

Working capital is based on the forecast movement in trade and other receivables, inventories, trade and other payable, and royalties. Working capital is based on the following key assumptions:

- Sales are recorded once title of concentrate passes to the customer, which typically occurs at a point when the concentrate is loaded on a ship or physically delivered to a location under the customer's control;¹⁷
- Trade receivables are based on 90% of contained metal payable being received during the month of shipment and 10% settled 3 months after the month of shipment;
- Inventory movements reflect management's best estimate of timing differences between production and sales;
- FY2021 closing accruals and trade payables balances are based on an average 45 days at Golden Grove and 75 days at Capricorn Copper; and
- Royalties are paid monthly based on prior month sales.

5.9.2.7 Actual operating and financial outcomes for the period 1 January – 31 March 2021

In addition to the specific assumptions outlined above, investors should be aware that the Forecast Financial Information takes into account the actual operating and financial performance for the March 2021 Quarter. Commentary regarding performance during the March 2021 Quarter is set out below.

The March 2021 Quarter experienced a number of events outlined below which resulted in production rates at both Golden Grove and Capricorn Copper materially below, and unit costs materially above, rates forecast for the remainder of FY2021.

- **Golden Grove:**
 - During the March 2021 Quarter, Golden Grove achieved higher than planned mining tonnes, however an interim change in the mining sequence reduced the planned number of higher grade copper-zinc ore stopes available to be mined, with production coming from predominantly lower grade copper ore stopes.

- Metal production in the first quarter was impacted by low ROM stockpiles at the start of the year, reducing metal production as a result.
- During the quarter an extensive twelve-day planned maintenance shutdown was completed on the mill, and the sequential flotation project was commissioned.
- Key outcomes for the period were:
 - Production physicals: ore mined of 358kt and ore milled of 278kt;
 - Copper: production of 2.8kt and payable copper sold of 2.5kt;
 - Gold: production of 5.1koz and payable gold sold of 3.7koz;
 - Zinc: production of 7.7kt and payable zinc sold of 6.5kt;
 - Silver: production of 188koz and payable silver of 157koz;
 - C1 Costs & AISC¹⁸: C1 Costs of \$4.97/lb and AISC \$7.50/lb of payable copper sold, (compared to an average daily closing cash price for copper on the LME in the March 2021 Quarter, converted to Australian dollars, of \$4.99/lb).

- **Capricorn Copper:**

- Mining operations during the March 2021 Quarter included production from the Mammoth, Greenstone and Esperanza South orebodies. On 14 March 2021, a pillar adjacent to a Mammoth production stope failed, which resulted in a temporary suspension of operations at Mammoth and Greenstone (the latter is accessed via the Mammoth decline) while an investigation was completed and safeguards were put in place to enable re-entry. There was no exposure to personnel and no damage to equipment. Mining recommenced in Mammoth and Greenstone on 18 April 2021.
- Mining continued in Esperanza South throughout the period.
- Due to the restricted access to Mammoth and Greenstone during the quarter, processing relied more heavily on lower grade material from Esperanza South and low grade stockpiles.
- Metal production in March was impacted by a gearbox failure which reduced operating capacity for a two week period.
- Key outcomes for the period were:
 - Production physicals: ore mined of 415kt and ore milled of 412kt;
 - Copper: production of 4.4kt and payable copper sold of 4.4kt; Silver: production of 49koz and payable silver of 41koz;
 - C1 Costs & AISC¹⁸: C1 Costs of \$4.69/lb and AISC \$5.50/lb of payable copper sold (compared to an average daily closing cash price for copper on the LME in the March 2021 Quarter, converted to Australian dollars, of \$4.99/lb).

As noted above, the Forecast Financial Information for the year ending 31 December 2021 has taken into account the impact of the matters described above.

Having regard to actual performance for the March 2021 Quarter, production for the period January to June 2021 is forecast to contribute approximately 45% of total FY2021 production in Cu-eq terms¹⁹. It is also expected that pro forma EBITDA for FY2021 will be heavily weighted towards the second half.

¹⁷ Refer to section 2.2 for information regarding Offtake Contracts, including payment terms.

¹⁸ Q1 FY2021 C1 Costs & AISC are shown on a pro forma basis. Refer to section 5.3 for further information regarding what is included in the calculation of C1 Costs and AISC.

¹⁹ Cu-eq is "copper equivalent contained metal". Refer to Important Information at the beginning of this Prospectus regarding the Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.

5.9.3 Pro Forma and Statutory Results for Forecast FY2021 compared to Pro Forma and Statutory Historical Results for FY2020

Table 5.30 sets out the Pro Forma and Statutory Forecast Results for FY2021 compared to the Pro Forma and Historical Results for FY2020. Statutory Financial information includes Capricorn Copper and Redhill from completion of the Offer, which substantially contributes to variances in Statutory Financial outcomes between FY2020 and FY2021.

Table 5.30: Pro Forma and Statutory Forecast Results for FY2021 compared to Pro Forma and Statutory Historical Results for FY2020

\$000	Pro Forma				Statutory			
	FY2020	FY2021	Change	%	FY2020	FY2021	Change	%
Revenue	625,114	665,330	40,216	6.4%	434,451	557,160	122,709	28.2%
Cost of sales								
Mining costs	(211,099)	(229,776)	(18,677)	8.8%	(144,030)	(193,115)	(49,085)	34.1%
Processing costs	(113,433)	(116,255)	(2,822)	2.5%	(69,384)	(92,216)	(22,832)	32.9%
Site services costs	(44,288)	(44,842)	(554)	1.3%	(23,894)	(36,095)	(12,201)	51.1%
Depreciation and amortisation	(131,791)	(126,102)	5,689	(4.3%)	(56,148)	(94,456)	(38,308)	68.2%
Stockpile movements	(6,208)	16,928	23,136	(372.7%)	(5,615)	18,528	24,143	(430.0%)
Government royalties	(24,239)	(29,785)	(5,546)	22.9%	(15,312)	(24,543)	(9,231)	60.3%
Other production and selling costs	(26,680)	(20,379)	6,301	(23.6%)	(11,456)	(16,138)	(4,682)	40.9%
Cost of sales	(557,738)	(550,211)	7,527	(1.3%)	(325,839)	(438,035)	(112,196)	34.4%
Gross profit	67,376	115,119	47,743	70.9%	108,612	119,125	10,513	9.7%
Other income	442	73	(369)	(83.5%)	73	22	(51)	(69.9%)
Net gain/(loss) on derivative financial instruments	(5,515)	(32,524)	(27,009)	489.7%	8,359	16,477	8,118	97.1%
Net foreign exchange gain/(loss)	28,783	(2,308)	(31,091)	(108.0%)	26,807	(2,308)	(29,115)	(108.6%)
Administration expenses	(19,458)	(19,701)	(243)	1.2%	(3,710)	(66,477)	(62,767)	1,691.8%
Other expenses	(3,988)	-	3,988	(100.0%)	(3,988)	-	3,988	(100.0%)
Profit before net finance costs and income tax expense	67,640	60,659	(6,981)	(10.3%)	136,153	66,839	(69,314)	(50.9%)
Finance income	314	429	115	36.6%	287	407	120	41.8%
Finance costs	(21,715)	(12,003)	9,712	(44.7%)	(18,232)	(10,581)	7,651	(42.0%)
Profit before income tax expense	46,239	49,085	2,846	6.2%	118,208	56,665	(61,543)	(52.1%)
Income tax (expense)/benefit	(13,045)	(12,561)	484	(3.7%)	(34,514)	117,773	152,287	(441.2%)
Net profit for the year attributable to members	33,194	36,524	3,330	10.0%	83,694	174,438	90,744	108.4%
Reconciliation to EBITDA:								
Net profit for the year attributable to members	33,194	36,524	3,330	10.0%	83,694	174,438	90,744	108.4%
Add: Income tax (benefit)/expense	13,045	12,561	(484)	(3.7%)	34,514	(117,773)	(152,287)	(441.2%)
Less: Finance income	(314)	(429)	(115)	36.6%	(287)	(407)	(120)	41.8%
Add: Finance costs	21,715	12,003	(9,712)	(44.7%)	18,232	10,581	(7,651)	(42.0%)
Profit before net finance costs and income tax expense	67,640	60,659	(6,981)	(10.3%)	136,153	66,839	(69,314)	(50.9%)
Add: Depreciation and amortisation	131,791	126,102	(5,689)	(4.3%)	56,148	94,456	38,308	68.2%
Add: Unrealised net foreign exchange (gain)/loss	(28,840)	1,703	30,543	(105.9%)	(27,437)	1,703	29,140	(106.2%)
Add: Net (gain)/loss on derivative financial instruments	5,515	32,524	27,009	489.7%	(8,359)	(16,477)	(8,118)	97.1%
EBITDA	176,106	220,988	44,882	25.5%	156,505	146,521	(9,984)	(6.4%)

1. EBITDA is a non-IFRS financial information measure. Refer to the Important Information at the beginning of this Prospectus regarding the use of non-IFRS financial information and section 5.3 for further information regarding non-IFRS financial measures used in this section 5 (Financial Information).

5.9.3.1 Revenue

Pro forma revenue is forecast to increase by \$40.2 million, or 6.4%, to \$665.3 million in FY2021, as compared to \$625.1 million in FY2020, forecast to be primarily reflected in:

- a forecast increase in copper revenue of \$70.0 million, or 19.8%, to \$423.2 million in FY2021, primarily reflecting a forecast increase in Average Realised Price partly offset by lower payable copper sold;
- a forecast increase in zinc revenue of \$27.9 million, or 19.7%, to \$169.0 million in FY2021, primarily reflecting a forecast increase in Average Realised Price;
- a forecast increase in lead revenue of \$5.3 million, or 150.9%, to \$8.8 million in FY2021, primarily reflecting a forecast increase in payable lead sold; and
- a forecast decrease in TC/RCs of \$19.7 million, or 25.4%, to \$58.0 million in FY2021, primarily reflecting a combination of lower TC for zinc concentrates and lower concentrate volumes sold,

partly offset by a forecast decrease in gold revenue of \$77.4 million, or 50.3%, to \$76.4 million in FY2021 as a result of a forecast decrease in payable gold sold and a forecast decrease in Average Realised Price.

Statutory revenue is forecast to increase by \$122.7 million, or 28.2%, to \$557.2 million in FY2021, as compared to \$434.5 million in FY2020, primarily reflecting the inclusion of a part year of revenue from Capricorn Copper in the FY2021 period.

5.9.3.2 EBITDA

Pro forma EBITDA is forecast to increase by \$44.9 million, or 25.5%, to \$221.0 million in FY2021, as compared to \$176.1 million in FY2020. The forecast increase in EBITDA is to be primarily driven by the forecast increase in revenue described above, partly offset by an increase in the cost of sales (excluding D&A) primarily due to a forecast increase in mining and processing activity. Key movements in forecast costs comprise:

- a forecast increase in mining costs of \$18.7 million, or 8.8%, to \$229.8 million in FY2021, as compared to \$211.1 million in FY2020, primarily as a result of a forecast increase in ground support costs at Golden Grove, the implementation of paste fill at Golden Grove and the recommissioning of paste fill at Capricorn Copper;
- a forecast increase in processing costs of \$2.8 million, or 2.5%, to \$116.3 million in FY2021, as compared to \$113.4 million in FY2020, related to the forecast increase in processing volumes and unit costs;
- a forecast increase in royalties of \$5.5 million, or 22.9%, to \$29.8 million in FY2021, as compared to \$24.2 million in FY2020, associated with higher revenue;

- a forecast decrease in other production and selling costs of \$6.3 million, or 23.6%, to \$20.4 million in FY2021, as compared to \$26.7 million in FY2020, primarily associated with forecast lower sales volumes in FY2021; and
- a forecast decrease in charges for inventory movement of \$23.1 million, to \$16.9 million credit in FY2021, as compared to \$6.2 million charge in FY2020, primarily reflecting timing differences between production and sales.

Statutory EBITDA is forecast to decrease by \$10.0 million, or 6.4%, to \$146.5 million in FY2021, as compared to \$156.5 million in FY2020. The forecast decrease is primarily driven by the forecast increase in costs of sales (excluding D&A), as described above, and the inclusion of a part year of revenue from Capricorn Copper included in the FY2021 period.

5.9.3.3 D&A

Pro forma D&A is forecast to decrease by \$5.7 million, or 4.3%, to \$126.1 million in FY2021, as compared to \$131.8 million in FY2020, primarily as a result of lower forecast milled tonnes at Capricorn Copper in FY2021.

Statutory D&A is forecast to increase by \$38.3 million, or 68.2%, to \$94.5 million in FY2021, as compared to \$56.1 million in FY2020, primarily due to the inclusion of a part year of depreciation from Capricorn Copper in the FY2021 period.

5.9.3.4 Other expenses

Pro forma other expenses are forecast to decrease from \$4.0 million in FY2020 to \$0.0 million in FY2021, primarily reflecting a one-off write-off of a receivable at Golden Grove in FY2020.

Statutory other expenses are forecast to decrease by \$4.0 million, from \$4.0 million in FY2020 to \$0.0 million in FY2021 per the explanation above.

5.9.3.5 Administration expenses

Pro forma administration expenses of \$19.7 million in FY2021 reflect the corporate head office costs for 29Metals, partly offset by the removal of duplication of costs previously recorded at the asset level but included in corporate head office costs from completion of the Offer.

Statutory admin expenses in FY2020 includes Golden Grove's Perth office costs, and in FY2021 include Offer costs, and corporate head office costs (from completion of the Offer).

5.9.3.6 Finance costs

Pro forma finance costs are forecast to reduce by \$9.7 million, or 44.7%, to \$12.0 million in FY2021, as compared to \$21.7 million in FY2020, primarily reflecting the assumed repayment of debt Capricorn Copper in FY2021, and the forecast partial pay down of debt at Golden Grove during FY2021.

Statutory finance costs are forecast to decrease by \$7.7 million, or 42.0%, to \$10.6 million in FY2021, as compared to \$18.2 million in FY2020, based on the forecast partial pay down of debt at Golden Grove during FY2021.

5.9.3.7 Income tax expense

Pro forma income tax expense is forecast to decrease by \$0.5 million, or 3.7%, to \$12.6 million in FY2021, as compared to \$13.0 million in FY2020, mainly as a result of a lower effective tax rate on a pro forma basis of 25.6% of net income before tax in FY2021, as compared to 28.2% in FY2020. The lower effective tax rate arises from partial utilisation of some Capricorn Copper tax losses.

Statutory income tax expense is forecast to increase by \$152.3 million, or 441.2%, to a credit of \$117.8 million in FY2021, as compared to negative \$34.5 million in FY2020, primarily as a result of a one-off non-cash income tax benefit of \$134.8 million in relation to Golden Grove joining the Australian tax consolidated Group of 29Metals and a part year of income tax for Capricorn Copper included in the FY2021 period.

5.9.3.8 Net profit after tax

Pro forma net profit after tax is forecast to increase by \$3.3 million, or 10.0%, to \$36.5 million in FY2021, as compared to \$33.2 million in FY2020, reflecting a forecast \$2.8 million increase in profit before income tax due to the factors described above, and a forecast decrease of \$0.5 million in income tax expense as described above.

Statutory net profit after tax is forecast to increase by \$90.7 million, or 108.4%, to \$174.4 million in FY2021, as compared to \$83.7 million in FY2020, primarily reflecting similar drivers as described above.

5.9.4 Pro forma and statutory segment information for Forecast FY2021 compared to Historical FY2020

Table 5.31 and Table 5.32 sets out the pro forma and statutory production and sales metrics for forecast FY2021 compared to historical FY2020 by segment.

Table 5.31: Pro forma and statutory segment information for Forecast FY2021 compared to Historical FY2020

	Unit	Pro Forma				Statutory			
		FY2020	FY2021	Change	%	FY2020	FY2021	Change	%
Revenue by segment									
Golden Grove	\$000	434,451	433,390	(1,061)	(0.2%)	434,451	433,390	(1,061)	(0.2%)
Capricorn Copper	\$000	190,663	231,940	41,277	21.6%	-	123,770	123,770	-
Reportable segment	\$000	625,114	665,330	40,216	6.4%	434,451	557,160	122,709	28.2%
Total revenue	\$000	625,114	665,330	40,216	6.4%	434,451	557,160	122,709	28.2%
EBITDA by segment									
Golden Grove	\$000	160,215	170,431	10,216	6.4%	156,505	168,351	11,846	7.6%
Capricorn Copper	\$000	35,349	70,384	35,035	99.1%	-	44,697	44,697	-
Reportable segment	\$000	195,564	240,815	45,251	23.1%	156,505	213,048	56,543	36.1%
Exploration	\$000	(405)	(331)	74	(18.3%)	-	(142)	(142)	-
Corporate and other	\$000	(19,053)	(19,496)	(443)	2.3%	-	(66,385)	(66,385)	-
Total EBITDA	\$000	176,106	220,988	44,882	25.5%	156,505	146,521	(9,984)	(6.4%)

Notes:

1. Statutory reporting incorporates the operating results of Golden Grove only.
2. Revenue represents Copper, Gold, Zinc and Silver revenues and including shipping service revenue and realised and unrealised fair value movements on receivables subject to QP adjustment.

Table 5.32: Summary of pro forma and statutory production and sales metrics for Forecast FY2021 compared to Historical FY2020 for 29Metals

	Unit	Pro Forma				Statutory			
		FY2020	FY2021	Change	%	FY2020	FY2021	Change	%
Operating Information									
Ore mined	kt	3,289	3,287	(3)	(0.1%)	1,442	2,458	1,016	70.5%
Ore milled	kt	3,186	3,108	(78)	(2.4%)	1,377	2,274	896	65.1%
Metal production									
Copper	kt	41.5	36.8	(4.7)	(11.3%)	19.0	27.1	8.1	42.6%
Gold	koz	62.7	40.9	(21.8)	(34.8%)	62.7	40.9	(21.8)	(34.8%)
Zinc	kt	54.5	54.5	(0.0)	(0.0%)	54.5	54.5	(0.0)	(0.0%)
Silver	koz	1,928.3	1,914.2	(14.1)	(0.7%)	1,678.8	1,794.7	115.8	6.9%
Lead	kt	2.6	4.4	1.8	69.2%	2.6	4.4	1.8	69.2%
Payable metal sold									
Copper	kt	38.6	34.7	(3.9)	(10.1%)	17.8	25.2	7.4	41.6%
Gold	koz	58.0	34.1	(23.8)	(41.0%)	58.0	34.1	(23.8)	(41.0%)
Zinc	kt	45.6	45.2	(0.4)	(0.9%)	45.6	45.2	(0.4)	(0.9%)
Silver	koz	1,488.6	1,409.3	(79.4)	(5.3%)	1,251.2	1,304.2	53.0	4.2%
Lead	kt	1.4	3.3	1.9	135.7%	1.4	3.3	1.9	135.7%
Average Realised Price									
Copper	A\$/lb	4.15	5.54	1.38	33.3%	4.10	5.62	1.52	37.1%
Gold	A\$/oz	2,653	2,236	(417)	(15.7%)	2,653	2,236	(417)	(15.7%)
Zinc	A\$/lb	1.40	1.70	0.29	20.7%	1.40	1.70	0.29	20.7%
Silver	A\$/oz	31.63	33.82	2.19	6.9%	31.92	33.92	2.00	6.3%
Lead	A\$/lb	1.17	1.21	0.04	3.4%	1.17	1.21	0.04	3.4%
Revenue Information									
Copper	\$000	353,160	423,159	69,999	19.8%	160,720	311,744	151,024	94.0%
Gold	\$000	153,779	76,376	(77,402)	(50.3%)	153,779	76,376	(77,402)	(50.3%)
Zinc	\$000	141,162	169,032	27,871	19.7%	141,162	169,032	27,871	19.7%
Silver	\$000	47,082	47,657	576	1.2%	39,943	44,235	4,292	10.7%
Lead	\$000	3,498	8,776	5,279	150.9%	3,497	8,776	5,279	151.0%
Un-realised QP gain/ (loss)	\$000	4,126	(1,684)	(5,810)	(140.8%)	(267)	(1,684)	(1,417)	530.7%
Gross revenue	\$000	702,805	723,317	20,512	2.9%	498,834	608,480	109,646	22.0%
TC/RCs	\$000	(77,691)	(57,987)	19,704	(25.4%)	(64,383)	(51,320)	13,063	(20.3%)
Net revenue	\$000	625,114	665,330	40,216	6.4%	434,451	557,160	122,709	28.2%

5.9.4.1 Pro forma and statutory segment information for Forecast FY2021 compared to Historical FY2020 for the Golden Grove segment

Table 5.33 sets out a summary of the pro forma and statutory production and sales metrics for forecast FY2021 and the pro forma and statutory production and sales metrics for historical FY2020 for the Golden Grove segment.

Table 5.33: Summary of pro forma and statutory production and sales metrics for Forecast FY2021 compared to Historical FY2020 for the Golden Grove segment

	Unit	Pro Forma				Statutory			
		FY2020	FY2021	Change	%	FY2020	FY2021	Change	%
Operating Information									
Ore mined	kt	1,442	1,522	80	5.5%	1,442	1,522	80	5.5%
Ore milled	kt	1,377	1,483	106	7.7%	1,377	1,483	106	7.7%
Metal production									
Copper	kt	19.0	16.5	(2.5)	(13.2%)	19.0	16.5	(2.5)	(13.2%)
Gold	koz	62.7	40.9	(21.8)	(34.8%)	62.7	40.9	(21.8)	(34.8%)
Zinc	kt	54.5	54.5	(0.0)	(0.0%)	54.5	54.5	(0.0)	(0.0%)
Silver	koz	1,678.8	1,664.1	(14.7)	(0.9%)	1,678.8	1,664.1	(14.7)	(0.9%)
Lead	kt	2.6	4.4	1.8	69.2%	2.6	4.4	1.8	69.2%
Payable metal sold									
Copper	kt	17.8	15.0	(2.8)	(15.7%)	17.8	15.0	(2.8)	(15.7%)
Gold	koz	58.0	34.1	(23.8)	(41.0%)	58.0	34.1	(23.8)	(41.0%)
Zinc	kt	45.6	45.2	(0.4)	(0.9%)	45.6	45.2	(0.4)	(0.9%)
Silver	koz	1,251.2	1,186.7	(64.5)	(5.2%)	1,251.2	1,186.7	(64.5)	(5.2%)
Lead	kt	1.4	3.3	1.9	135.7%	1.4	3.3	1.9	135.7%
Average Realised Price									
Copper	A\$/lb	4.10	5.67	1.57	38.3%	4.10	5.67	1.57	38.3%
Gold	A\$/oz	2,653	2,236	(417)	(15.7%)	2,653	2,236	(417)	(15.7%)
Zinc	A\$/lb	1.40	1.70	0.29	20.7%	1.40	1.70	0.29	20.7%
Silver	A\$/oz	31.92	33.90	1.98	6.2%	31.92	33.90	1.98	6.2%
Lead	A\$/lb	1.17	1.21	0.04	3.4%	1.17	1.21	0.04	3.4%
Revenue Information									
Copper	\$000	160,720	187,236	26,516	16.5%	160,720	187,236	26,516	16.5%
Gold	\$000	153,779	76,376	(77,402)	(50.3%)	153,779	76,376	(77,402)	(50.3%)
Zinc	\$000	141,162	169,032	27,871	19.7%	141,162	169,032	27,871	19.7%
Silver	\$000	39,943	40,234	291	0.7%	39,943	40,234	291	0.7%
Lead	\$000	3,498	8,776	5,279	150.9%	3,497	8,776	5,279	151.0%
Un-realised QP gain/ (loss)	\$000	(267)	(1,684)	(1,417)	530.7%	(267)	(1,684)	(1,417)	530.7%
Gross revenue	\$000	498,834	479,971	(18,863)	(3.8%)	498,834	479,971	(18,863)	(3.8%)
TC/RCS	\$000	(64,383)	(46,580)	17,802	(27.7%)	(64,383)	(46,580)	17,802	(27.7%)
Net revenue	\$000	434,451	433,390	(1,061)	(0.2%)	434,451	433,390	(1,061)	(0.2%)
KPIs									
EBITDA	\$000	160,215	170,431	10,216	6.4%	156,505	168,351	11,846	7.6%
C1 Costs	A\$m	(0.36)	17.80	18.16	(5,044.4%)	(0.36)	17.86	18.22	(5,061.1%)
C1 Costs	A\$/lb	(0.01)	0.54	0.55	(5,500.0%)	(0.01)	0.54	0.55	(5,500.0%)
C1 Costs	US\$/lb	(0.01)	0.42	0.42	(4,200.0%)	(0.01)	0.42	0.42	(4,200.0%)
AISC	A\$m	77.60	88.78	11.18	14.4%	81.42	90.88	9.46	11.6%
AISC	A\$/lb	1.98	2.69	0.71	35.9%	2.07	2.75	0.68	32.9%
AISC	US\$/lb	1.37	2.08	0.71	51.8%	1.43	2.12	0.69	48.3%
AUD:USD average exchange rate	rate	0.69	0.77	0.08	11.6%	0.69	0.77	0.08	11.6%

5.9.4.1.1 Revenue

Pro forma and statutory net revenue for Golden Grove, is forecast to decrease by \$1.1 million, or 0.2%, to \$433.4 million in FY2021, as compared to \$434.5 million in FY2020, reflecting:

- a forecast increase in copper revenue of \$26.5 million, or 16.5%, to \$187.2 million in FY2021, reflecting a combination of increase in forecast Average Realised Price, partly offset by a forecast decrease in payable copper sold;
- a forecast increase in zinc revenue of \$27.9 million, or 19.7%, to \$169.0 million in FY2021, primarily reflecting a forecast 20.7% increase Average Realised Price for zinc; and
- a forecast decrease in TC/RCs of \$17.8 million, or 27.7%, to \$46.6 million in FY2021, primarily reflecting a forecast decrease in TCs for zinc concentrates in FY2021, and lower forecast concentrate volumes,

partly offset by a forecast decrease in gold revenue of \$77.4 million, or 50.3%, to \$76.4 million in FY2021, reflecting a combination of forecast decrease in payable gold sold, and a forecast decrease in Average Realised Price.

5.9.4.1.2 EBITDA

Pro forma EBITDA is forecast to increase by \$10.2 million, or 6.4%, to \$170.4 million in FY2021, as compared to \$160.2 million in FY2020, forecast to be primarily driven by a forecast increase in total revenues (as discussed above). Total expenses are forecast to remain relatively consistent as a forecast increase in mining costs is largely offset by a forecast reduction in TC/RCs.

5.9.4.1.3 C1 Costs and AISC

Pro forma C1 Costs are forecast to increase by \$0.55/lb (USD0.42/lb) payable copper sold to \$0.54/lb (USD0.42/lb) FY2021, as compared to negative \$0.01/lb (USD0.01/lb) in FY2020, reflecting:

- a forecast increase in C1 Costs in \$ million terms of \$18.2 million to \$17.8 million in FY2021, as compared to negative \$0.4 million in FY2020, reflecting the combination of higher forecast mining costs associated with ground support, including to the introduction of paste fill mining at Golden Grove during FY2021 and lower forecast by-product credits, partly offset by lower forecast TC/RCs; and
- a forecast decrease in payable copper sold of 2.8kt, or 15.7%, to 15.0kt in FY2021, as compared to 17.8kt in FY2020.

Pro forma AISC is forecast to increase by \$0.71/lb (USD0.71/lb) payable copper sold to \$2.69/lb (USD2.08/lb) in FY2021, as compared to \$1.98/lb (USD1.37/lb) payable copper sold in FY2020, reflecting:

- a forecast increase in AISC in \$ million terms of \$11.2 million to \$88.8 million in FY2021, as compared to \$77.6 million in FY2020, reflecting the change in C1 Costs described above, and a \$9.5 million forecast decrease in sustaining capital and mine development capital; and
- a forecast decrease in payable copper sold, described above.

5.9.4.2 Pro forma and statutory segment information for Forecast FY2021 compared to Historical FY2020 for the Capricorn Copper segment

Table 5.34 sets out a summary of the pro forma and statutory production and sales metrics for forecast FY2021 and the pro forma and statutory production and sales metrics for historical FY2020 for the Capricorn Copper segment.

Table 5.34: Summary of pro forma and statutory production and sales metrics for Forecast FY2021 compared to Historical FY2020 for the Capricorn Copper segment

	Unit	Pro Forma				Statutory			
		FY2020	FY2021	Change	%	FY2020	FY2021	Change	%
Operating Information									
Ore mined	kt	1,847	1,765	(82)	(4.4%)	-	936	936	-
Ore milled	kt	1,808	1,624	(184)	(10.2%)	-	790	790	-
Metal production									
Copper	kt	22.5	20.3	(2.2)	(9.8%)	-	10.6	10.6	-
Silver	koz	249.5	250.0	0.6	0.2%	-	130.5	130.5	-
Payable metal sold									
Copper	kt	20.8	19.7	(1.1)	(5.3%)	-	10.2	10.2	-
Silver	koz	237.4	222.6	(14.8)	(6.2%)	-	117.5	117.5	-
Average Realised Price									
Copper	A\$/lb	4.20	5.44	1.23	29.3%	-	5.33	5.33	-
Silver	A\$/oz	30.07	33.35	3.28	10.9%	-	30.65	30.65	-
Revenue Information									
Gross copper revenue	\$000	192,440	235,923	43,483	22.6%	-	124,508	124,508	-
Gross silver revenue	\$000	7,139	7,423	285	4.0%	-	4,001	4,001	-
Un-realised QP gain/ (loss)	\$000	4,393	-	(4,393)	(100.0%)	-	-	-	-
Gross revenue	\$000	203,972	243,346	39,375	19.3%	-	128,509	128,509	-
TC/RCS	\$000	(13,309)	(11,407)	1,902	(14.3%)	-	(4,739)	(4,739)	-
Net revenue		190,663	231,940	41,277	21.6%	-	123,770	123,770	-
KPIs									
EBITDA	\$000	35,349	70,384	35,035	99.1%	-	44,697	44,697	-
C1 Costs	A\$m	165.05	165.81	0.76	0.5%	-	78.52	78.52	-
C1 Costs	A\$/lb	3.60	3.82	0.22	6.1%	-	3.50	3.50	-
C1 Costs	US\$/lb	2.49	2.95	0.46	18.5%	-	2.70	2.70	-
AISC	A\$m	204.82	212.80	7.99	3.9%	-	102.43	102.43	-
AISC	A\$/lb	4.47	4.90	0.43	9.6%	-	4.56	4.56	-
AISC	US\$/lb	3.09	3.79	0.70	22.7%	-	3.52	3.52	-
AUD:USD average exchange rate	rate	0.69	0.77	0.08	11.6%	-	0.77	0.08	-

5.9.4.2.1 Revenue

Pro forma net revenue for Capricorn Copper is forecast to increase by \$41.3 million, or 21.6%, in FY2021 to \$231.9 million, as compared to \$190.7 million in FY2020, primarily reflecting a forecast increase in copper revenue of \$43.5 million, or 22.6% in FY2021, primarily reflecting a forecast increase in Average Realised Price.

Statutory EBITDA for Capricorn Copper in FY2021 forecast reflects the period from completion of the Offer to December 2021.

5.9.4.2.2 EBITDA

Pro forma EBITDA is forecast to increase by \$35.0 million, or 99.1% in FY2021, to \$70.4 million, as compared to \$35.3 million in FY2020. This increase is driven by a forecast increase in total revenue as discussed above, partly offset by a forecast increase in expenses.

Statutory EBITDA for Capricorn Copper in FY2021 forecast reflects the period from completion of the Offer to December 2021.

5.9.4.2.3 C1 Costs and AISC

Pro forma C1 Costs is forecast to increase by \$0.22/lb (USD0.46/lb) payable copper sold in FY2021 to \$3.82/lb (USD2.95/lb) payable copper sold, as compared to \$3.60/lb (USD2.49/lb) FY2020, reflecting:

- a forecast increase in C1 Costs in \$ million terms of \$0.8 million to \$165.8 million in FY2021, as compared to \$165.1 million in FY2020, primarily reflecting a forecast increase in mining costs; and
- a forecast decrease in payable copper sold of 1.1kt, or 5.3%, to 19.7kt in FY2021, as compared to 20.8kt in FY2020.

Pro forma AISC is forecast to increase by \$0.43/lb (USD0.70/lb) payable copper sold in FY2021 to \$4.90/lb (USD3.79/lb) payable copper sold, as compared to \$4.47/lb (USD3.09/lb) payable copper sold FY2020, reflecting:

- a forecast increase in AISC in \$ million terms of \$8.0 million to \$212.8 million in FY2021, as compared to \$204.8 million in FY2020, reflecting the change in forecast C1 Costs described above, and a forecast \$5.0 million increase in sustaining capital and mine development capital; and
- the forecast decrease in payable copper sold described above.

Statutory C1 Costs and AISC for Capricorn Copper in FY2021 reflects the period from completion of the Offer to December 2021.

5.9.5 Pro Forma and Statutory Cash Flows Information for Forecast FY2021 compared to Historical FY2020

Table 5.35 sets out a summary of the Pro Forma and Statutory Cash Flows Information for Forecast FY2021 compared to Historical FY2020.

Table 5.35: Summary of Pro Forma and Statutory Cash Flows Information for Forecast FY2021 compared to Historical FY2020

	Pro Forma				Statutory			
	FY2020	FY2021	Change	%	FY2020	FY2021	Change	%
Net profit for the year attributable to members	33,194	36,524	3,330	10.0%	83,694	174,438	90,744	108.4%
Interest and other finance costs	16,234	12,003	(4,231)	(26.1%)	12,800	10,581	(2,219)	(17.3%)
Depreciation and amortisation	131,791	126,102	(5,689)	(4.3%)	56,148	94,456	38,308	68.2%
Other items	(23,906)	7,971	31,877	(133.3%)	(29,125)	(42,477)	(13,352)	45.8%
Changes in working capital	(4,982)	(36,404)	(31,422)	630.7%	7,085	(204,160)	(211,245)	(2,981.6%)
Net cash flows from operating activities	152,331	146,196	(6,135)	(4.0%)	130,602	32,838	(97,764)	(74.9%)
Payments for property, plant and equipment	(37,673)	(41,176)	(3,503)	9.3%	(31,294)	(35,503)	(4,209)	13.4%
Proceeds from the sale of property, plant and equipment	96	-	(96)	(100.0%)	96	-	(96)	(100.0%)
Payments for development activities	(57,874)	(60,431)	(2,557)	4.4%	(37,950)	(47,987)	(10,037)	26.4%
Exploration expenditure	(11,839)	(11,895)	(56)	0.5%	(9,740)	(5,684)	4,056	(41.6%)
Net cash flows used in investing activities	(107,290)	(113,502)	(6,212)	5.8%	(78,888)	(89,174)	(10,286)	13.0%
Proceeds from share issue	-	-	-	-	-	218,340	218,340	-
Loans from/(to) related parties	-	-	-	-	(1)	-	1	(100.0%)
Proceeds from external borrowings	146,946	-	(146,946)	(100.0%)	146,946	-	(146,946)	(100.0%)
Repayment of borrowings	(3,252)	(26,060)	(22,808)	701.4%	(3,252)	(78,729)	(75,477)	2,320.9%
Repayment of lease liabilities	(22,971)	(31,749)	(8,778)	38.2%	(13,374)	(26,343)	(12,969)	97.0%
Share buy back	(176,030)	-	176,030	(100.0%)	(176,030)	-	176,030	(100.0%)
Interest and borrowing costs paid	(12,667)	(14,171)	(1,504)	11.9%	(11,631)	(12,860)	(1,229)	10.6%
Net cash flows from/(used in) financing activities	(67,974)	(71,980)	(4,006)	5.9%	(57,342)	100,408	157,750	(275.1%)
Net increase/(decrease) in cash and cash equivalents	(22,933)	(39,286)	(16,353)	71.3%	(5,628)	44,072	49,700	(883.1%)
Reconciliation of Operating Free Cash Flows								
Net cash flows from operating activities	152,331	146,196	(6,135)	(4.0%)	130,602	32,838	(97,764)	(74.9%)
Less: Payments for property, plant and equipment	(37,673)	(41,176)	(3,503)	9.3%	(31,294)	(35,503)	(4,209)	13.4%
Less: Payments for development activities	(57,874)	(60,431)	(2,557)	4.4%	(37,950)	(47,987)	(10,037)	26.4%
Less: Exploration expenditure	(11,839)	(11,895)	(56)	0.5%	(9,740)	(5,684)	4,056	(41.6%)
Add: Net payout of derivative financial instruments	7,755	27,983	20,228	260.8%	502	27,983	27,481	5,474.3%
Operating Free Cash Flows	52,700	60,677	7,977	15.1%	52,120	(28,353)	(80,473)	(154.4%)

5.9.5.1 Net cash flows from operating activities

Pro forma operating cash flows are forecast to decrease by \$6.1 million, or 4.0%, to \$146.2 million in FY2021, as compared to \$152.3 million in FY2020, driven primarily by the following movements:

- Net profit after tax is forecast to increase by \$3.3 million, to \$36.5 million in FY2021, as compared to \$33.2 million in FY2020, primarily reflecting a forecast increase in revenue (driven by higher forecast Averaged Realised Prices), partly offset by the impact of a forecast increase in operating costs for both Golden Grove and Capricorn Copper;
- Other items are forecast to increase by \$31.9 million to \$8.0 million in FY2021, as compared to negative \$23.9 million in FY2020. FY2021 primarily reflects the cash settlement of the 2021 CC Hedges of \$32.7 million net of a non-cash \$41.5 million loss on derivative financial instruments from the CC Hedges, as well as reversing the non-cash unrealised loss on foreign exchange of \$3.1 million and non-cash unrealised gain on gold swap contracts of \$3.9 million. FY2020 included non-cash foreign exchange gains for Golden Grove which were included in FY2020 profit after tax; and
- Changes in working capital is forecast to decrease by \$31.4 million to negative \$36.4 million in FY2021, as compared to negative \$5.0 million in FY2020, primarily driven by a forecast reduction in closing trade payables balance in FY2021.

Statutory operating cash flows are forecast to decrease by \$97.8 million, or 74.9%, to \$32.8 million in FY2021, as compared to \$130.6 million in FY2020, forecast to be driven by the following movements:

- Net profit after tax is forecast to increase by \$90.7 million to \$174.4 million in FY2021, as compared to \$83.7 million in FY2020, including a one-off forecast income tax benefit in relation to Golden Grove becoming part of the 29Metals Australian tax consolidated Group, as well as Offer costs;
- Depreciation and amortisation are forecast to increase by \$38.3 million to \$94.5 million in FY2021, as compared to \$56.1 million in FY2020, primarily reflecting the forecast part year of D&A at Capricorn Copper in FY2021;
- Other items are forecast to decrease by \$13.4 million to negative \$42.5 million in FY2021, as compared to negative \$29.1 million in FY2020; and
- Changes in working capital are forecast to decrease by \$211.2 million to negative \$204.2 million in FY2021, as compared to positive \$7.1 million in FY2020, and include the reversal of a forecast one-off non-cash income tax benefit of \$134.8 million in relation to Golden Grove joining the Australian tax consolidated Group of 29Metals, a forecast reduction in the closing trade payable balances, and a forecast increase in closing inventory and receivables balances arising from the acquired businesses.

5.9.5.2 Net cash flows from investing activities

Pro forma investing cash outflows are forecast to decrease by \$6.2 million, or 5.8%, to \$113.5 million in FY2021, as compared to \$107.3 million in FY2020. The cash outflow for the period is driven by:

- payments for PPE is forecast to increase by \$3.5 million to \$41.2 million in FY2021, as compared to \$37.7 million in FY2020, including forecast investments in tailings storage capacity at Golden Grove in FY2021;
- payments for development activities is forecast to increase by \$2.6 million to \$60.4 million in FY2021, as compared to \$57.9 million in FY2020, and include the ongoing development at both Golden Grove and Capricorn Copper to open up more mining areas; and
- exploration expenditure is forecast to decrease by \$0.1 million to \$11.9 million in FY2021, as compared to \$11.8 million in FY2020.

Statutory investing cash outflows are forecast to increase by \$10.3 million, or 13.0%, from \$78.9 million in FY2020 to \$89.2 million in FY2021, primarily driven by forecast inclusion of a part year of Capricorn Copper in FY2021.

5.9.5.3 Net cash flows from financing activities

Pro forma financing cash outflows are forecast to increase by \$4.0 million, or 5.9%, to \$72.0 million in FY2021 from \$68.0 million in FY2020, primarily driven by:

- net proceeds from borrowings of \$146.9 million in FY2020 which were used to fund a share buyback of \$176.0 million in FY2020 and not forecast to recur in FY2021;
- repayment of borrowings forecast to increase by \$22.8 million in FY2021 to \$26.1 million, as compared to \$3.3 million in FY2020; and
- repayment of lease liabilities forecast to increase by \$8.8 million in FY2021 to \$31.7 million, as compared to \$23.0 million in FY2020.

Statutory financing cash flows are forecast to increase by \$157.8 million, to \$100.4 million in FY2021, as compared to negative \$57.3 million in FY2020, primarily driven by:

- forecast net proceeds from share issues \$218.3 million in FY2021 relating to the receipt of primary proceeds from the Offer net of Offer costs; and
- net proceeds from borrowings of \$146.9 million in FY2020 which were used to fund a share buyback of \$176.0 million in FY2020 and not forecast to recur in FY2021.

5.10 Sensitivity Analysis

As noted in section 5.9, the Forecast Financial Information is based on a number of estimates and assumptions that are subject to business, economic and competitive uncertainties and contingencies, many of which are beyond the control of 29Metals. The Forecast Financial Information is also dependent on assumptions with respect to future business developments, which may be subject to change. Key general and specific assumptions adopted for the purposes of the Forecast Financial Information are set out in sections 5.9.1 and 5.9.2.

Set out below is a summary of the key sensitivities of the forecast pro forma profit after tax and EBITDA for FY2021. The changes in key assumptions set out in the sensitivity analysis are intended as a guide only and are not intended to be indicative of the complete range of variations that may arise. Variations in actual performance could exceed the ranges shown, and actual performance may change as a result of other events or circumstances. For the purposes of this analysis, each sensitivity is presented in terms of its impact on forecast FY2021 pro forma profit after tax and forecast EBITDA.

Table 5.36: Sensitivity analysis on FY2021 pro forma forecast profit after tax and EBITDA

\$000	Increase/ Decrease	FY2021	FY2021
		Pro forma profit after tax impact	Pro Forma EBITDA impact
Change in USD copper price	+/- 10%	9.5 / (9.5)	32.3 / (32.3)
Change in USD non copper metal prices	+/- 10%	6.3 / (6.3)	22.2 / (22.2)
USD/AUD exchange rate	+/- 5%	(15.6) / 17.3	(25.0) / 27.6
Production volumes	+/- 10%	35.6 / (35.5)	54.4 / (54.4)
Cost of sales	+/- 10%	(23.3) / 23.3	(33.2) / 33.2

5.10.1 Important note regarding sensitivities

Care should be taken in interpreting each sensitivity. The estimated impact of changes in the relevant assumptions has been calculated in isolation from changes in other assumptions, in order to illustrate the likely impact on the forecast pro forma profit after tax and EBITDA in FY2021. Investors should be aware that the effects of movements in the specific variables included in the sensitivities analysis may be offset or compounded by movements in other variables. Furthermore, in the normal course of business, 29Metals would be expected to respond to any adverse changes in these key variables to minimise the net effect on performance during the forecast period. Also, note that the effect of movements in some variables may be non-linear, such that the effect of a movement of 10% in a variable may not be simply ten times the effect of a movement of 1% in the variable.

In each case, for the forecast FY2021 profit after tax and forecast EBITDA, sensitivities are calculated based on the application of the sensitivity over the remaining nine months of FY2021 from 1 April 2021 to 31 December 2021.

5.10.2 Change in USD copper price

Sales of copper are estimated to account for approximately 60% of 29Metals' estimated gross revenue in FY2021 and have historically contributed approximately 50% of gross revenue from FY2018 to FY2020. Therefore 29Metals' gross revenue is particularly sensitive to movements in the USD benchmark copper price.

Copper concentrate sales are subject to contracts which apply payability and deductions against prices determined by the major commodity exchanges, which include the London Metal Exchange.

The global traded copper price has varied significantly, as indicated in the annual average spot prices over the historical period from FY2018 to FY2020²⁰, and the FY2021 Forward Prices.²¹ The variation in the historical period as compared to the FY2021 forecast period is illustrated in the following table:

Table 5.37: Comparison of historical and forecast benchmark copper prices

Pro forma	Historical			Forecast	Historical period low vs FY2021 forecast	Historical period high vs FY2021 forecast
	FY2018	FY2019	FY2020	FY2021		
Copper Spot Price (US\$/lb)	2.96	2.72	2.80	4.28	(36.4%)	(30.9%)

The reference to historical period low vs. FY2021 forecast and historical period high vs. FY2021 forecast in the above sensitivity table is intended to compare FY2021 forecast average prices to the lowest and the highest average benchmark prices in the historical period between FY2018 and FY2020. This illustrates the variance between the forecast FY2021 average price applied in the Forecast Financial Information and the highest and the lowest average prices in the historical period.

²⁰ Historical metal prices represent the annual average of daily benchmark metal prices published by FactSet.

²¹ The FY2021 Forward Prices have been determined by the Directors with reference to LME forward prices and take into account recent and continuing volatility in commodity prices. Refer to section 5.9.2.1 for further information regarding forecast prices.

The pro forma EBITDA sensitivity is applied to 29Metals' copper sales prices which are linked to benchmark copper prices, across all segments. Pro forma net profit after tax is less sensitive to changes in copper prices, as the impact of unrealised gain/(loss) on the 2022 CC Hedges which are forecast to remain at the end of FY2021, is partly offset by the impact of higher/lower copper prices.

5.10.3 Change in USD prices for non copper metals being gold, zinc, silver and lead

29Metals' revenue from the sale of gold, zinc, silver and lead by-products is sensitive to movements in the USD benchmark prices.

The gold, zinc, silver and lead benchmark prices have varied significantly, as indicated in the annual average spot prices over the historical period from FY2018 to FY2020²² and Forward Prices in FY2021. This variation in the historical period as compared to the FY2021 forecast is illustrated in the following table:

Table 5.38: Comparison of historical and forecast benchmark prices

Pro forma	Historical			Forecast	Historical period low vs FY2021 forecast	Historical period high vs FY2021 forecast
	FY2018	FY2019	FY2020	FY2021		
Gold Spot Price (US\$/oz)	1,268	1,393	1,773	1,776	(28.6%)	(0.2%)
Zinc Spot Price (US\$/lb)	1.32	1.16	1.03	1.31	(21.3%)	1.4%
Silver Spot Price (US\$/oz)	15.7	16.2	20.5	26.3	(40.3%)	(21.9%)
Lead Spot Price (US\$/lb)	1.02	0.91	0.83	0.94	(11.6%)	8.6%

Pro forma EBITDA is particularly sensitive to changes in gold prices, which impact net profit through gold revenue. Pro forma net profit after tax is less sensitive to changes in gold prices, as the impact through gold revenue is net of the gains/(losses) from gold swap contracts at Golden Grove.

5.10.4 AUD/USD exchange rate

The majority of 29Metals' cost base (>~85%) is in AUD, with some selling costs (including TC/RCS) in USD.²³ 29Metals' borrowing costs are denominated in USD as well as 29Metals' revenue, which provides a partial natural hedge against foreign exchange movements on these transactions. Appreciation of the AUD against USD will decrease Golden Grove and Capricorn Copper's AUD reported net income and EBITDA but decrease its borrowings and borrowing costs in AUD terms.

5.10.5 Production volumes

As a producer of copper, other base and precious metals, in the form of mineral concentrates, 29Metals' revenues are significantly impacted by the volume of payable metal sold. Sales volumes, in turn, are dependent on the volume of metal-in-concentrate produced. Reduced production and sales volumes will reduce the forecast net income and EBITDA. 29Metals' sensitivity is applied to the volume of ore mined and ore milled, which effects the volume of metal produced and later sold in concentrate.

5.10.6 Cost of Sales

Cost of sales principally relate to the costs incurred in extracting and processing copper and by-product metal concentrates. Accordingly, an increase in production costs will reduce forecast net income and EBITDA. The sensitivity is applied to all cost of sales items incurred in the Golden Grove and Capricorn Copper segments and to Exploration. Cost of sales items incurred include site costs (such as mining, processing, and G&A), selling costs and other costs (such as transport and stockpiling).

Royalties, while accounted within cost of sales, are not sensitised through this sensitivity as they represent a cost linked to sales volumes and are adjusted through the sensitivity applied to sales volumes.

²² Historical metal prices represent the annual average of daily benchmark metal prices published by FactSet.

²³ Refer to section 5.8.1.3 for further information regarding 29Metals' selling costs denominated in USD.

5.11 Financial Risk Management

Section 6 (Risks) sets out important information regarding risks that apply to 29Metals and its business. This section 5.11 provides additional information regarding key financial risks that 29Metals may be exposed to. Investors should review these risks, and the Prospectus as a whole, before deciding whether to apply for Shares under the Offer.

29Metals' activities expose it to a variety of financial risks, including market risks such as commodity price risk, interest rate risk, foreign currency risk, liquidity risk and credit risk. 29Metals' overall financial risk management objective is to minimise potential adverse effects on the financial performance of 29Metals from those risks which are not commodity-price related.

29Metals manages financial risk through Board-approved policies and procedures. These specify the responsibility of the Board and Management with regard to the management of financial risk. Financial risks are managed centrally by 29Metals' finance team under the direction of the Chief Financial Officer, and under the supervision of the Audit, Governance & Risk Committee. The finance team manages risk exposures primarily through delegated authority limits approved by the Board. The finance team regularly monitors 29Metals' exposure to financial risks and reports to management and the Board on a regular basis. Policies are reviewed at least annually and amended where appropriate.

29Metals may in the future use derivative financial instruments such as foreign exchange and metal commodity forward contracts to reduce the risk associated with currency and commodity price volatility. 29Metals uses different methods to measure the extent to which it is exposed to various financial risks. These methods include sensitivity analysis in the case of interest rate, foreign exchange and commodity price risks and aging analysis for credit risk.

5.11.1 Commodity price risk

29Metals is exposed to domestic and global base and precious metal prices. 29Metals' policy is, where possible, not to hedge its exposure to commodity prices. However, as part of the Group's risk management practices, 29Metals may engage in certain hedging activity (that is, the use of foreign exchange and metal commodity forward contracts) in order to reduce the risk associated with commodity price and exchange rate volatility. For instance, 29Metals may be required to undertake hedging activity pursuant to the terms of the Group's financing facilities.

This hedging could cause 29Metals to lose the benefit of an increase in commodity prices if the increase is above the price level of 29Metals' hedge positions, or the benefit of any decrease in currency prices. Any unsuccessful hedging activity could have a material adverse effect on 29Metals' financial condition.

29Metals may be exposed to price risk in relation to other commodities from time to time arising from raw materials used in its operations (such as gas or diesel). These commodities may be hedged through financial instruments if the exposure is considered material and where the exposure cannot be mitigated through fixed price supply agreements.

5.11.2 Interest rate risk

Interest rate risk is the risk that a change in interest rates on 29Metals' borrowing facilities will have an adverse impact on financial performance, investment decisions and shareholder returns. 29Metals' objectives in managing its exposure to interest rates include minimising interest costs in the long term, providing a reliable estimate of interest costs for the annual work program and budget and ensuring that changes in interest rates will not have a material impact on its financial performance.

5.11.3 Foreign exchange risk

29Metals' revenue and its borrowing facilities and borrowing costs are denominated in USD. Foreign exchange risk is the risk that 29Metals' earnings or cash flows are adversely impacted by movements in exchange rates of currencies that are not AUD.

Under normal market conditions 29Metals would not deem hedging this currency exposure as necessary. However, there may be specific commercial circumstances, such as hedging of capital expenditure, acquisitions, disposals and other financial transactions, where 29Metals may deem foreign exchange hedging as appropriate and where an AUD contract cannot be negotiated directly with suppliers and other third parties.

Foreign exchange risk also arises from the movement in the fair value of its assets and liabilities that are denominated in a currency other than the AUD. This may include USD borrowings and cash assets.

5.11.4 Liquidity risk

Liquidity risk is the risk that 29Metals will not have sufficient liquid funds to meet its financial commitments as and when they fall due. Liquidity risk is managed centrally through short term cash forecasting and longer-term strategic planning. 29Metals' objective is to ensure that it has sufficient liquid assets and funding to meet both its anticipated and unexpected financial obligations.

Access to capital is also an important feature of liquidity risk management. 29Metals manages this risk through proactive management of its funding profile by ensuring that it has access to diverse sources of funds and that it does not have material refinancing risk in any single reporting period.

5.11.5 Credit risk

Credit risk is the risk of sustaining a financial loss as a result of a counterparty not meeting its obligations under a financial instrument or customer contract.

29Metals is exposed to credit risk when it has financial derivatives, cash deposits, lines of credit, letters of credit or bank guarantees in place with financial institutions. To mitigate against credit risk from financial counterparties, 29Metals has minimum credit rating requirements with financial institutions it transacts with.

29Metals is also exposed to counterparty credit risk arising from its operating activities, primarily from trade receivables. Customers who wish to trade on credit terms are subject to credit verification procedures, including an assessment of their independent credit rating, financial position, past experience and industry reputation. 29Metals monitors the financial performance of counterparties on a routine basis to ensure credit thresholds are achieved. Where required 29Metals will request additional credit support, such as letters of credit, to mitigate against credit risk.

5.12 Capital Management and Dividend Policy

The payment of dividends by 29Metals is at the discretion of the Directors. The decision as to whether or not a dividend will be paid will be subject to a number of considerations including 29Metals' near term growth objectives, the general business environment, its operating results, cash flows, future capital requirements, regulatory restrictions and any other factors the Directors may consider relevant.

29Metals is focused on delivering its near term growth potential, and will consider paying dividends where appropriate having regard to sustaining its operations, achieving its growth objectives and preserving a strong balance sheet position.

The Directors do not anticipate that a dividend to Shareholders will be determined in respect of the period from Settlement to the period ending 31 December 2021.

Dividends paid by 29Metals may be subject to withholding tax. Investors should consult with their own tax advisers regarding the particular tax consequences of acquiring, owning and disposing of shares in 29Metals.

Under the terms of the SFA, distributions from Golden Grove Holdings to 29Metals are subject to various conditions including compliance with the distribution financial covenants and ensuring a minimum prescribed cash balance of USD10.0 million (\$13.0 million). In addition, Golden Grove as borrower must on any date which a distribution is made apply an amount equal to 65% of the distribution to the prepayment of the term loan component of the SFA. Pro forma cash at Golden Grove was \$107.2 million at 31 December 2020.

5.13 Critical Accounting Estimates and Judgement

The preparation of consolidated financial statements in conformity with AAS requires management to make estimates, judgements and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant items subject to such estimates and assumptions include asset retirement obligations; useful lives for D&A; purchase price allocation associated with business combinations; and other contingencies. See Annexure B for a discussion of these items subject to such estimates and assumptions.

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29
Metals

6.0

Risks



Team training

6.1 Introduction

This section sets out a number of risk factors that prospective investors in 29Metals should consider (in addition to the other information set out in this Prospectus) before deciding whether to apply for Shares under the Offer.

This section is not intended to be an exhaustive list of the relevant considerations for prospective investors in deciding whether to apply for Shares under the Offer, nor of all risk factors to which 29Metals is exposed.

The risks below are those that 29Metals considers to be material as at the Prospectus Date based on an assessment of the probability of the risk occurring, the ability to mitigate the risk and the impact of the risk if it did occur. However, additional risks and uncertainties not presently known to 29Metals, or risks that 29Metals currently considers to be immaterial, may also adversely affect the business, results of operations, financial condition and/or prospects of 29Metals.

If one or more of these risks eventuate the future performance of 29Metals and the value of your investment in Shares may be adversely affected. While some of these risks may be mitigated by appropriate controls, systems and other actions, others are outside the control of 29Metals and may not be able to be mitigated.

6.2 Risks Related to 29Metals' Business

6.2.1 Operational risks

29Metals' mining operations may be impacted by operational difficulties which could in turn affect 29Metals' production levels at its mines, create unforeseen delays, or otherwise increase its operating costs in the short or long-term. 29Metals' revenue and broader financial performance depends on its ability to sustain or increase production levels and maintain or decrease operating costs. Given that both production levels and operating costs are prone to disruption from external events and circumstances beyond the control of 29Metals and the Directors, no assurance can be given that adverse operating conditions will not eventuate and negatively impact 29Metals' financial performance and condition.

6.2.1.1 Increase in production and capital costs

29Metals' business, operating and financial performance may vary with fluctuations in the cost of key production inputs and consumables (such as chemical reagents for processing and fuel) and capital costs. These fluctuations could occur as a result of broader changes in international markets (including commodity prices, exchange rate movements and capital markets conditions) and domestic markets (including wage increases and general cost escalation), which are outside of the Company's control and exceed the Company's future estimates. Historically, commodity price increases tend to increase production levels in the relevant sector which, in turn, may result in increased demand for production inputs. As such, it is possible that 29Metals could face higher operating and capital costs in the future, which could impact its profitability.

6.2.1.2 29Metals' business depends on obtaining and maintaining certain approvals, permits and licences

29Metals' business depends on its ability to obtain, on a timely basis, and maintain all required regulatory approvals for its existing operations and its expansion plans. This includes approvals under mining laws (for example, mining tenure) and environmental regulations (for example, environmental approvals, including amendments to existing approvals). While the requirement to obtain and maintain approvals is common for mining companies, no assurance can be given that 29Metals will be able to obtain all permits, approvals and licences that are required to operate its business as planned.

In addition, the relevant regulatory frameworks are complex and are regularly reviewed and amended in response to changes in stakeholder and community expectations. The application process preceding the grant and renewal of regulatory approvals is often protracted due to internal government decision-making processes (which involve the exercise of discretion and can be unpredictable) and statutory and other rights of stakeholders, including the public, non-government organisations and anti-mining groups, to be consulted with respect to, comment upon and submit objections (as the case may be) to proposed approvals. These stakeholders may also bring lawsuits to challenge the issuance of certain approvals, permits and licences, the validity of environmental impact statements or the performance of mining activities.

Delays or difficulties in obtaining relevant approvals may interfere with 29Metals' current or planned mining operations which could impact on profitability and overall business performance.

A number of 29Metals' existing permits are due to be renewed in the nearer term in the ordinary course of business.¹ A failure or delay in obtaining the renewal of the required permits, or the granting of such renewal on unfavourable terms, could adversely impact the economic viability of 29Metals' projects, operating performance and financial condition.

¹ Refer to section 3.10.15 and 3.11.15 for information regarding 29Metals mining tenements, including current expiry dates.

In addition, as set out in section 3.11.7.2, an updated tailings management strategy has been developed to support the extended mine life at Capricorn Copper, the implementation of which will require separate regulatory approvals for each stage of the strategy over a number of years. The regulatory approvals for stage 1 of the updated tailings management strategy (as described in section 3.11.7.2) has been assessed by the DES as a "major amendment" of the Capricorn Copper environmental authority, which assessment sets in train of process for Capricorn Copper to provide additional information to DES in relation to any matters of concern. There can be no guarantee that the approvals required for stage 1 of the updated tailings management strategy, or other relevant approvals in the future, will be provided or provided on a timely basis.² In an extreme case, it may be necessary for 29Metals to develop an alternative tailings management strategy which may require 29Metals to curtail operations at Capricorn Copper.³

A failure to obtain, or delay in obtaining, any one or more of the required approvals could adversely impact the economic viability of 29Metals' prospects, operating performance and financial condition. For example, in the absence of alternative strategies, a delay in obtaining the first required approval (referred to above), may result in an interruption to normal operations which, in turn, may result in an adverse impact on operating and financial performance.

6.2.1.3 Geotechnical events may impact on 29Metals' mining operations

Underground mining at 29Metals' producing assets is subject to geotechnical risks that arise from changes in the stresses, seismicity and/or stability of the rock formations that surround ore and waste material once that material has been extracted by mining. Geotechnical conditions can be unpredictable and failures in current or historic mined areas may occur without warning. Failures, in the form of the material collapsing into stope or development voids may result in risks to the safety of mining personnel underground, damage to mining equipment, a temporary or extended loss of access to mining areas directly or indirectly affected by the failure, and additional costs to rehabilitate effected areas, any of which may have an adverse impact on the operating performance and financial condition of 29Metals.

For example, in March 2021 there was a failure of a crown pillar⁴ at Capricorn Copper in a historically mined area in the Mammoth orebody (known as 'Mammoth Remnants'). Potential geotechnical risks in the relevant area were identified by 29Metals and precautions were in place to mitigate the risk of harm to personnel or damage to Company property. Following the failure, mining in the Mammoth and adjacent Greenstone orebodies was suspended for a period of approximately four weeks while an investigation was conducted and to satisfy the mines safety regulator that it was safe to re-commence mining operations. In addition to production time lost, further geotechnical evaluation will be required to determine whether it is viable to mine material currently included in 29Metals' Ore Reserves estimates for the Mammoth Remnants area in the future.

In addition, there are also geotechnical risks associated with the ongoing development of the Esperanza South SLC. Should the orebody not propagate as predicted it could potentially result in production time lost and/or require further geotechnical evaluation.

More generally, 29Metals' underground mining operations are subject to general seismicity risks, which may result in sudden movement of underground workings that may result in damage to 29Metals underground workings and equipment and the temporary suspension of access to affected areas. While 29Metals has monitoring systems and procedures in place to mitigate the risks posed by such events, there can be no assurance that these systems and procedures will be effective or that seismic events will not result in material damage to 29Metals' property or interruption to mining operations which, in turn, may have a material adverse impact on 29Metals current and future operating performance and financial condition.

6.2.1.4 Extreme weather conditions could impact 29Metals' operations

29Metals' operations may be impacted by extreme weather conditions or natural environmental disasters such as heavy rainfall, flooding, tropical cyclones and earthquakes, which could damage its mining and production facilities, and otherwise have a material impact on mining operations. For example, access to and from Capricorn Copper is via an unsealed road which can be susceptible to flooding during significant rainfall events during the Queensland wet season (November to March). In circumstances where safe access via road is prevented by flooding, transportation of mineral concentrates produced at Capricorn Copper is delayed, along with delivery of critical materials, parts and consumables required to maintain normal mining operations.

While 29Metals has insurance covering damage caused by natural disasters, extensive damage to facilities and employee death or serious injury could lead to disruption in production and increased costs, thereby potentially reducing 29Metals' future operating results.

6.2.1.5 Equipment failure

As with all mining projects, 29Metals' mines, as well as their associated processing plant and equipment, are at risk of incidents such as critical mechanical failures, fire, damage via corrosion of aged infrastructure, and loss of power supply. The occurrence of any such incidents could interrupt 29Metals' operations or impact 29Metals' ability to continue operating and cause harm to its assets or equipment. For example, in February 2021 at Capricorn Copper the ball mill gearbox failed, which resulted in downtime of approximately ten days while spare parts were freighted from overseas. Similarly, in late 2020 at Golden Grove the Scuddles shaft hoist was placed under a prohibition notice, as a result of an unplanned movement of the skip, and government approval to recommence use of the shaft is not expected until July 2021.

² Refer to section 5.9.2.2 for information regarding the specific assumptions applied to the Forecast Financial Information regarding the timing of approvals related to stage 1 of the Capricorn Copper updated tailings management strategy.

³ Refer also to section 6.2.4 for information regarding environmental risk.

⁴ A 'crown pillar' is a term given to an existing rock structure that is intentionally not mined and remains as a support structure.

6.2.1.6 Access to transport and infrastructure

29Metals' mining, processing and development activities depend heavily on adequate infrastructure. The regions where certain of 29Metals' operations are based are sparsely populated and difficult to access. As 29Metals' products are transported to customers by a range of methods, including road, rail and sea, 29Metals requires reliable roads, bridges, power sources and water supplies to access and conduct its operations.

A number of factors could disrupt the availability and reliability of essential infrastructure and transport services, including weather-related issues, key equipment or infrastructure failures, rail or port capacity, congestion, industrial action, commercial disputes, terrorist attacks or other events. The occurrence of any such disruptions could limit 29Metals' ability to deliver its product to customers, which could in turn impact its revenue, productivity and reputation. Further, if the cost of accessing such infrastructure increases, 29Metals is unlikely to be able to pass through such cost increases to customers, which would adversely impact its profitability.

29Metals relies on contractual arrangements for the transportation and handling logistics of its mineral concentrate products, and the loading of those products onto vessels. If 29Metals' contractual counterparties fail to perform their respective obligations, or 29Metals is unable to extend or renew relevant arrangements, it may be challenging, expensive and time-consuming for 29Metals to find a replacement service provider and any interim arrangements would likely incur significant cost. Any delays in securing a replacement service provider could impede 29Metals' ability to comply with its shipping and Offtake Contracts (including minimum tonnage requirements).

6.2.1.7 Reliance on key third party contractors

29Metals uses contractors and suppliers for labour hire, the provision of specialist services and the leasing of certain equipment. For example, Byrnegut, one of 29Metals' mining contractors, is engaged under mining services contracts to perform mining services at each of Golden Grove and Capricorn Copper, and Byrnegut's personnel account for a significant percentage of 29Metals' on-site workforce at those sites.

29Metals is dependent on these third party providers for the day-to-day functioning of its mining operations and is exposed to fluctuations in contractor costs. The timing and quality of 29Metals' operations are also directly impacted by the availability and skill of these third parties, as well as contingencies affecting them, including labour and raw material shortages. Further, in periods of high commodity prices, demand for third party contractors may exceed supply resulting in increased costs or lack of availability of key contractors. If 29Metals were to lose any of its key contractors or suppliers unexpectedly, it may not be able to promptly replace them with a suitably qualified and cost-effective alternative provider.

Further, 29Metals has limited contractual recourse for under-performance by key contractors, as well as limits on the substitutability of key contractors and suppliers.

If any such risks were to eventuate, 29Metals' operations may face disruption and its business and financial performance could be materially adversely impacted as a result.

6.2.1.8 Ore Reserves estimates may differ from mineral quantities and grades actually realised

The Ore Reserves estimates set out in section 4 (Ore Reserves and Mineral Resources) represent estimated tonnages and grades which 29Metals has determined are technically feasible and economically viable to mine and process under present and assumed future conditions.

However, there is considerable uncertainty involved in the process of estimating Ore Reserves. These estimates are expressions of judgement based on knowledge, experience and industry practice. However, until actually mined and processed, no assurance can be given that the estimated tonnage, grades and recovery levels will be realised or that the Ore Reserves will be mined and processed economically. Assessments as to profitability of mining operations are based on a number of factors, including statistical inferences, variables and assumptions, including assumptions regarding future productivity rates and unit costs, many of which are beyond 29Metals' control, cannot be ascertained despite investigation and may prove unreliable or incorrect.

29Metals may also be required to revise its Ore Reserves estimates based on actual production experience, updated exploration drilling data and other factors.

Material inaccuracies in, or changes to, Ore Reserves estimates may impact on 29Metals' life-of-mine plans and other projections as to the future economic viability of 29Metals' business operations. For example, at Capricorn Copper, the realised grade from mining operations in 2020 was lower than those estimated in the corresponding Ore Reserves estimates resulting in lower mineral quantities being produced relative to the Ore Reserves estimate.

If 29Metals' actual realisation of mineral quantities and grades are less than current estimates, or the rate at which they are recovered is less than estimated, 29Metals' business, results of operations and financial condition may be materially adversely affected.

6.2.1.9 Access to economic supplies

29Metals relies on being able to access power and water. 29Metals' mining activities use a significant quantity of power and water for mining and extraction activities, processing, and related support facilities. Water usage requires appropriate permits, which are granted by government authorities where 29Metals operates. These permits are typically subject to conditions, which may stipulate permitted extraction quantities, sources, and uses.

Factors such as climate (including drought), increased global demand for energy, limited growth in new energy sources, changes in allocations, or changes in government policy may all impact on 29Metals' ability to meet its power and water supply needs (including meeting those needs on commercially acceptable terms). This could increase 29Metals' operating costs or interrupt its operations and adversely impact its overall performance.

In addition to adversely impacting 29Metals' ability to run its businesses in the ordinary course, difficulties in accessing cost-effective power and water supplies may also interfere with any expansion plans. A failure to procure supplies of power and water on economically acceptable terms could limit the ability of 29Metals to pursue growth in production or develop new operations, which could materially adversely impact 29Metals' business and prospects.

6.2.1.10 Other operational risks

Other operational risks which may affect 29Metals' production levels at its mines, create unforeseen delays, or otherwise increase its operating costs in the short or long-term, include:

- industrial and environmental accidents (such as a tailings storage facilities failure or mine explosion);
- shortage of appropriately skilled labour, labour disputes;
- conflicts with local communities;
- workplace safety incidents (such as contact with moving vehicles, rock falls and fires);
- unexpected shortages, or increases in the costs, of consumables, spare parts, the implementation of technology, plant and equipment; and
- cyber-attacks, security breaches or terrorist acts.

The occurrence of one or more of these events could have an adverse impact on 29Metals' production levels and overall financial performance and condition due to loss of revenue, higher operating and maintenance costs, damage to assets and ongoing unplanned capital expenditure.

Further, depending on circumstances (including duration of the adverse event and whether 29Metals is able to rely on force majeure clauses in its offtake agreements), 29Metals' resulting failure to deliver its mineral concentrate products to its customers could result in penalties, suspension of deliveries, or termination for breach.

6.2.2 Commodity price fluctuations could adversely impact 29Metals' results of operations and financial condition, including cash flows and asset values

29Metals' business and financial performance is significantly affected by the market prices and treatment and refining charges for mineral concentrates of copper and zinc, which can be subject to dramatic fluctuations due to factors outside 29Metals' control. Refer to sections 2.4.4, 2.4.5, 2.5.3, 2.5.4 and 5.8.1 of this Prospectus for more detail.

Such factors include changes (or perceived changes) in supply and demand for the materials (or the end-products in which they are commonly used), the availability and cost of substitute products, currency exchange rates, inventory levels maintained by users, the cyclical nature of consumption, actions of other participants in the commodities markets, adverse weather incidents which affect supply, national tariffs, general global, regional and local economic activity or other international macroeconomic and geopolitical events. Refer to sections 2.4 and 2.5 of this Prospectus for more detail.

Future declines in international commodity prices could adversely impact 29Metals' financial performance and condition by reducing its revenue, cash flows and asset values and undermining business certainty, which could require 29Metals to consider modifying or scaling back certain of its operations.

Additionally, 29Metals may be unable to adjust its production volumes in a timely or cost-efficient manner in response to changes in pricing and demand. In periods of low prices, 29Metals may have limited ability to reduce or curtail operating activities to reduce costs, as many of its operating overheads (such as plant and equipment) are fixed in the short-term. This may lead to higher production costs on a unit cost basis. Conversely, during periods of high prices, 29Metals' ability to rapidly increase production may be practically constrained by the availability of additional plant, equipment and other infrastructure, and labour (particularly given demand for these inputs typically increases on an industry-wide basis when commodity prices are high). Further, it may be that expansion projects which are planned and commenced during peak periods cannot be completed in time to take advantage of elevated prices, which could render such expansions less profitable than expected.

As noted in section 3.6.2.2, 29Metals' strategy is to be unhedged in relation to copper.⁵ However, circumstances may arise where 29Metals is required to put hedging in place, for example, as a requirement under debt financing arrangements.

Absent offsetting factors, significant and sustained adverse movements in commodity prices (specifically, the market price for copper, gold, zinc and silver) may have a material adverse impact on 29Metals' business, results of operations and financial condition and prospects.

6.2.3 Development risks

6.2.3.1 Mineral exploration activities are highly speculative and may be unsuccessful

Mineral exploration is highly speculative in nature, involves many uncertainties and risks and is frequently unsuccessful.

Even where valuable mineral deposits are discovered, there is no certainty that the discovery will result in actual production or profit. It can take several years from the initial discovery before production commences, during which period substantial expenditure is required to determine the characteristics of the mineral deposits and estimate Mineral Resources and Ore Reserves. For example, Redhill is a 29Metals exploration asset and will require significant expenditure on (among other things) further drilling programs, geophysical surveys, and technical studies before 29Metals will be in a position to make an investment decision to proceed with the development and construction of a new mining operation. There can be no assurance that the exploration activities at Redhill, or at any other current or future exploration sites, will result in the discovery of a deposit that 29Metals is satisfied warrants further investment to develop and commence mining operations, and that can ultimately be produced profitably.

⁵ Refer to section 3.6.3 for information regarding 29Metals' intention to cash settle the CC Hedges.

6.2.3.2 29Metals' growth objectives are reliant on exploration which may be unsuccessful and development activities that may be delayed or more capital intensive than anticipated

29Metals' existing Ore Reserves will be depleted over time by production from its operations. Because 29Metals' profits are derived from its mining operations, its ability to replenish Ore Reserves is essential to its long-term success, and its growth objectives require continued exploration success. While 29Metals' *in-mine* and *near-mine* growth opportunities⁶ relate to identified mineralisation that 29Metals considers highly prospective and open for resource extension, given the speculative nature of exploration activities (noted above) there can be no assurance that 29Metals' exploration will result in the discovery of further economically viable mineralisation, or that mineralisation discovered will be successfully developed and mined.

In addition, future development activities (to exploit discoveries from exploration success) may be delayed as a result of a number of factors, including availability of critical resources, required regulatory approvals and unforeseen geotechnical conditions, which may result in an adverse impact on 29Metals' operating plans and higher capital expenditure to complete relevant development activities.

6.2.4 Environmental risks

6.2.4.1 29Metals' operations could cause environmental damage

The nature of 29Metals' mining operations carries the potential for environmental disturbance and harm, with implications for surrounding ecosystems, water supply and land use. This could be due to physical disruption from land clearing and excavation and use of groundwater supplies in mining operations, or the uncontrolled release of contaminants into soil and waterways.

29Metals is required to have comprehensive environmental management plans and mine closure plans in place for each of its mine sites, which include the proposed methods to rehabilitate disturbed land, remediation requirements for contaminated land and end uses for land and infrastructure. These are developed in accordance with regulatory requirements and in consultation with regulatory bodies, and are regularly reviewed for ongoing suitability. However, as scientific understanding of the extent and long-term impacts of environmental disturbances caused by the mining industry continues to evolve, regulatory responses and stakeholder attitudes may shift.

This could result in more stringent regulation of environmental management plans and more onerous mine closure and rehabilitation obligations which may prevent or delay project approvals and result in increased costs for mitigation, offsets or compensatory actions. It could also complicate the process of obtaining future approvals for mine extensions or exploration permits. Any such developments would likely have an adverse impact on 29Metals' business, results of operations and financial condition and prospects.

In addition, 29Metals is exposed to the risk of historical non-compliance with environmental regulations during periods when its mines were under the control of previous owners. For example, there have been environmental non-compliance issues at 29Metals' Capricorn Copper mine, including in relation to a failure to adequately rehabilitate a decommissioned waste rock storage facility and leach pad, and the unauthorised release of untreated mine wastewater. In 2007 and 2011, court orders were issued against Capricorn Copper in relation to non-compliant water discharges and poor water quality in the receiving environment.

In September 2020 the DES issued an Environmental Protection Order (E-100023426) ('EPO') to Capricorn Copper requiring Capricorn Copper to undertake a range of targeted steps to manage the risk of uncontrolled release of untreated mine wastewater from Capricorn Copper water storage infrastructure. Capricorn Copper is required to (among other things) have in place sufficient plant equipment and infrastructure to ensure the competent management of the site water inventory. The EPO further requires Capricorn Copper to reduce the volume of water stored in regulated structures (the EPit, ETSF and MCD) to below prescribed levels by no later than 1 November 2022.

While 29Metals seeks to ensure its operations conform to the requirements of the relevant regulatory frameworks, including the EPO, there remains a risk that past, present or future operations have not met or will not meet environmental or related regulatory requirements and could expose 29Metals to significant penalties or require 29Metals to cease operations or be subject to increased compliance costs or costs for environmental remediation, rehabilitation or rectification works at one or more of its sites. For example, as set out in section 10.7.1.4 Capricorn Copper received from DES an email indicating potential non-compliances and 29Metals is taking steps to address that matter. Even if this is addressed, there is a risk of penalty infringement notices, prosecution and suspension or cancellation of the EA, although suspension or cancellation of the EA is highly unlikely given the steps 29Metals has already taken to address this and the existing surety to the manager of the Scheme in the amount of \$36 million provided by NAB bank remains in place.

6.2.4.2 29Metals' tailings storage facilities incidents could adversely impact 29Metals' business and reputation

A tailings storage facility is a structure used to contain and store metals, mine waste materials and contaminated water, which is extracted during the mining process but not used in production. Such tailings waste must be contained, treated and disposed of responsibly, as incidents involving leakage or collapse of a tailings storage facility can be catastrophic, causing loss of life, community displacement, and long-term property and environmental damage.

29Metals has tailings management processes in place at each of its mine sites, utilising risk minimisation and monitoring systems, and third-party assurance. However, there is no guarantee that an unexpected tailings storage facility incident will not occur at a 29Metals mine.

⁶ Refer to section 3.7.2 for further information regarding 29Metals' identified *in-mine* and *near-mine* growth opportunities.

The failure of a tailings storage facility at one of 29Metals' mines could have a significant impact on 29Metals' business and reputation. Based on the impact such incidents have had on other mining companies, a dam failure could result in immediate and prolonged cessation of operations at the relevant site, increased expenses, decrease in Ore Reserves, damage to assets, legal liabilities, government investigations, increased insurance costs or inability to obtain insurance or necessary certifications, and significant remediation (and potentially compensation) costs, as well as long-term reputational damage and other impacts.

If 29Metals were to suffer any or all of these potential consequences, it could materially adversely impact 29Metals' business, reputation, results of operations and financial condition.

6.2.4.3 Future rehabilitation and closure cost estimates could be inaccurate or increase

29Metals is required to include provisions in its financial statements for rehabilitation and remediation costs. Estimating the likely quantum of such costs involves making assumptions as to mine life (which, in turn, is influenced by estimates regarding future commodity prices), the extent of disturbance and contamination, and future rehabilitation and closure costs. As such, no assurance can be given as to the accuracy of 29Metals' current provisions for future rehabilitation and closure costs, and actual costs may be substantially greater.

In addition, in certain jurisdictions where 29Metals conducts mining operations now or in the future, such as Queensland where Capricorn Copper is located, 29Metals may be required to provide a surety against future rehabilitation and closure liability, in the form of performance bonds or bank guarantees. The quantum of the surety is determined by the relevant regulatory authority having regard to an assessment of disturbance and contamination, and other criteria determined by the regulatory authority (from time to time).

The assessment undertaken by relevant authorities may result in an increase in the quantum of the surety which, subject to 29Metals' rights of appeal which require a provision for an increased surety amount to be lodged equal to 75% of the amount of the ERC decision, pending any appeal, will increase the liability recognised by 29Metals in its statement of financial position and increased costs incurred by 29Metals to put the surety in place.

6.2.4.4 Impact of climate change on 29Metals' operations and financial position

29Metals cannot predict with any certainty the potential direct consequences of climate change on its operations. While any direct impacts are likely to be geographically specific, they could include one or more of changes in rainfall patterns, drought-induced water shortages, increases in the occurrence and intensity of extreme weather events (including bushfires, storms and floods), and rising temperatures. The occurrence of such events, or an increase in the frequency and severity of such events, could result in damage to 29Metals' mine sites and equipment, interruptions to critical infrastructure such as transport, water and power supply, or loss of workforce productivity, and increase competition for, and the regulation of, limited resources (such as power and water), which could in turn adversely affect 29Metals' business, results of operations and financial position.

6.2.5 Ore Reserves and Mineral Resources

6.2.5.1 Ore Reserves and Mineral Resources estimates are based on a number of material assumptions that may prove to be incorrect

29Metals reports Ore Reserves and Mineral Resources estimates in accordance with the JORC Code.⁷ Ore Reserves and Mineral Resources estimates are not precise calculations. These estimates are determined by applying a number of material assumptions, including future commodity prices and foreign exchange, cut-off grades, future operating and capital costs, along with a technical assessment of exploration and operating data (among other things). However, until mineral deposits are actually mined and processed, any Ore Reserves and Mineral Resources estimates are merely estimates. Estimates can be imprecise and depend upon geological interpretation and statistical inferences drawn from drilling and sampling analysis, which may prove to be unreliable. In addition, the grade and/or quantity of the metals ultimately recovered may differ from that interpreted from drilling results. There can be no assurance that metals recovered in small-scale tests will be duplicated in large-scale tests under on-site conditions or in production scale.

As set out in section 4 (Ore Reserves and Mineral Resources), part of 29Metals' Mineral Resources estimates are classified as either "Measured Resources", "Indicated Resources" or "Inferred Resources", with the different classifications reflecting different levels of confidence. There can be no guarantee that 29Metals' continuing exploration activities will provide the necessary confidence required to convert Inferred Resources material to Indicated Resources, or convert Indicated Resources material to Measured Resources, nor to bring material that is currently not classified as Mineral Resources into Mineral Resources.

In addition, material classified as Mineral Resources may not conform to its expected geological characteristics and the volume eventually recovered may be below the estimated levels.

Any material reduction in tonnage and/or grade could adversely affect 29Metals' business, results of operations, financial condition and prospects and lead to changes to its life-of-mine plans and other forecasts as to future performance.

6.2.5.2 Depletion of Ore Reserves

29Metals' Ore Reserves will reduce as they are depleted through mining operations, and 29Metals' continuing operations and financial performance depend on its ability to replace and increase its current level of Ore Reserves. 29Metals' strategies for Ore Reserves replacement include exploration activities, investing in technology to lower processing costs to render profitable the mining of lower-grade materials previously considered uneconomic, the use of established technology such as paste fill to increase the proportion of material that may be safely mined and increasing production volumes to lower the cut-off grade. 29Metals may also acquire Ore Reserves through corporate transactions.

⁷ Refer to the beginning of this Prospectus for important information regarding Ore Reserves and Mineral Resources estimates. Refer also to section 4 (Ore Reserves and Mineral Resources) for further information regarding 29Metals' Ore Reserves and Mineral Resources estimates, including Competent Persons statements, and section 2.3 for an overview of the JORC Code.

If 29Metals is unable to replace or increase its Ore Reserves to maintain or grow its current level of Ore Reserves, this would adversely impact the long-term economic viability of 29Metals' business and operations by reducing its primary source of revenue.

As part of its Ore Reserves replacement strategy, 29Metals may add assets to or divest assets from its portfolio. Potential changes to 29Metals' asset portfolio through such acquisitions and divestments may have an adverse impact on its future results, including due to:

- expected synergies, cost savings or other commercial objectives not being achieved as expected;
- adverse market reaction to relevant transactions;
- imposition of adverse regulatory conditions; or
- unforeseen liabilities arising from portfolio changes.
- The occurrence of one or more of these risk factors could materially adversely affect 29Metals' business and financial condition.

6.2.6 Changes in and compliance with government policy, regulation or legislation and potential impact of political events on 29Metals

As a participant in the mining sector, 29Metals is subject to extensive legislation, regulation and supervision by a number of federal, state and regulatory bodies. This includes regulations regarding:

- mining permits, leases and licences;
- occupational health and safety;
- workers' compensation;
- native title; and
- environmental matters (including emissions monitoring, air and water quality, waste management, ecosystem management, and remediation of contaminated soil and groundwater).

There may be unforeseen changes in government policy, including additional compliance requirements, the introduction of new controls on imports, exports and/or prices and the introduction of additional requirements relating to regulatory and environmental approvals.

Compliance with these requirements could become more costly, and cause interruptions to existing operations or delays in implementing planned expansion activities, which could adversely impact 29Metals' business and prospects. Adherence to applicable federal, state and local laws and regulations may become increasingly burdensome in respect of time commitment and cost of compliance. This could divert the attention and resources of 29Metals management and cause delays and/or interruptions to existing operations and future planned expansions. The costs and operating restrictions necessary for compliance with safety and environmental laws and regulations and, to the extent not ultimately reflected in commodity prices, may have an adverse effect on 29Metals' competitive position relative to foreign producers which may operate in less stringent regulatory environments.

29Metals' business is also susceptible to disruption from political and other acts such as terrorism, civil unrest, nationalisation, renegotiation of terms of key government contracts or permits, and changes in law and policy. These risks are heightened in 29Metals' operations in Chile, as an emerging market. While Chile is considered one of South America's most politically stable and prosperous nations, and hosts a highly developed mining industry, it may nevertheless be subject to political, social and economic uncertainties.

Civil and political unrest and outbreaks of hostilities in Chile could affect 29Metals' access to its projects and subsequent exploration and development. Adverse changes in government policies or legislation in Chile affecting foreign ownership of mineral interests, taxation, profit repatriation, royalties, land access, labour relations, and mining and exploration activities may affect the operations of 29Metals.

While 29Metals seeks to ensure it conforms to the requirements of the relevant regulatory frameworks at each of its operating sites, there remains a risk that past, present or future operations have not met or will not meet environmental or related regulatory requirements and could expose 29Metals to penalties or require 29Metals to cease or suspend operations or be subject to increased compliance costs at one or more of its sites. For example, as set out in section 10.7.1.4 Capricorn Copper received from DES an email indicating potential non-compliances. 29Metals is taking steps to address that matter. That potential non-compliance may result in penalty infringement notices or prosecution and suspension or cancellation of the EA, although suspension or cancellation of the EA is highly unlikely given the steps 29Metals has already taken to address this and the existing \$36 million surety for Capricorn Copper remains in place.

6.2.7 Workplace health and safety risks

29Metals is subject to extensive regulation in respect of workplace health and safety in each of the jurisdictions in which it operates. Given the inherent dangers associated with mining, many of 29Metals' workforce (including its contracted labourers) may be exposed to substantial risk of serious injury or death from hazards including motor vehicle incidents on- or off-site, electrical incidents, falls from height, being struck by suspended loads, seismicity-induced and other rock falls underground, fire and confined space incidents. Workers may also be subject to longer-term health risks including due to exposure to noise and hazardous substances (such as dust and other particulate matter).

While 29Metals regularly and actively reviews its workplace health and safety systems and monitors its compliance with workplace health and safety regulations, no assurance can be made that 29Metals has been or will be at all times in full compliance with all applicable laws and regulations, or that workplace accidents will not occur in the future.

In addition, the occurrence of workplace accidents or serious breaches of workplace health and safety laws may lead to civil claims, criminal prosecutions or statutory penalties against 29Metals. This could have immediate adverse financial implications for 29Metals, as well as causing long-term reputational damage.

6.2.8 Changes in demand for mineral products could adversely affect 29Metals' revenue

29Metals' revenues depend on the volume of mineral products it sells, which in turn depends on the level of industrial and consumer demand for those mineral products. For example, demand for copper is driven mainly by global population and economic growth and urbanisation, electrification and de-carbonisation, and rises in consumption associated with rising wealth. Refer to sections 2.4.1, 2.5.1, 2.6.1 and 2.7.1 for information regarding the drivers of demand for 29Metals mineral products.

A slowdown of economic activity and growth or changes in technology, industrial processes or consumer habits (including increased demand for substitute materials) may decrease the demand for copper and zinc. Any material decrease in demand could negatively impact 29Metals' revenues and financial condition. 29Metals may be unable to adjust production volumes in a timely or cost-efficient manner in response to changes in pricing, which may lead to lower profitability or otherwise adversely impact 29Metals' financial condition.

6.2.9 Financial indebtedness and access to capital

6.2.9.1 Failure to meet operating and financial performance targets may result in a failure to meet covenants under 29Metals' debt facilities

Debt facilities typically include certain covenants linked to the operating and financial performance of the borrower (or borrower group). A failure by 29Metals to achieve its operating and financial performance objectives may result in 29Metals failing to comply with applicable debt facility covenants and, in the absence of a waiver from the lenders under such facilities, may give rise to an event of default under the relevant debt facility which, in turn, may trigger accelerated payment of drawn amounts under the debt facility. There can be no assurance that 29Metals would be able to procure a waiver from the lenders, nor that 29Metals will be able to procure alternative debt funding arrangements to cover the costs of early prepayment.

6.2.9.2 Access to capital

29Metals' level of indebtedness and other financial commitments could have important consequences to its business, including limiting flexibility in planning for, or reacting to, changes in the industry in which it operates, increasing its vulnerability to general adverse economic, industry and regulatory conditions, limiting its ability to fund future working capital, capital expenditure, general corporate requirements and/or material contingencies, to engage in future development activities, or place 29Metals at a competitive disadvantage compared to its competitors that have less debt and/or fewer financial commitments.

Depending on the liquidity of global credit markets, the ability of 29Metals to obtain new funding or refinance in the future may be significantly reduced. If 29Metals is unable to obtain sufficient funding, including due to banking and capital market conditions generally, or due to factors specific to its business, the Company may not have sufficient cash to meet its ongoing capital requirements, which in turn could require it to issue additional securities or materially and adversely affect its financial condition. Failure to obtain sufficient financing could cause delays or abandonment of expansion plans or delays or cessation in production which could have a material adverse effect on 29Metals' business, operations and financial condition or may result in it being unable to repay its debt and to insolvency.

6.2.10 Competitive pressures may impact 29Metals' results of operations and financial condition

29Metals faces competition from other copper and zinc mining and processing companies in Australia and elsewhere around the world, including from companies which have greater production capacities, greater financial, marketing, distribution and other resources. Key drivers of competition in the markets for mineral concentrates include commodity and sale prices, the terms and conditions of Offtake Contracts, production volumes and grade, transportation capacity and the ability to secure key inputs (such as labour, plant and equipment) at favourable prices.

If 29Metals' competitors gain a competitive advantage over 29Metals, they may be better positioned to manage future volatility through commodity price cycles, influencing the supply.

Possible changes to international trade regulations and other political and economic arrangements may benefit 29Metals' competitors who operate in different jurisdictions to 29Metals and adversely affect 29Metals. For example, 29Metals' products may be subject to tariffs which do not apply to its competitors in neighbouring countries.

29Metals' competitive position may also be impacted by consolidation among market participants. As 29Metals is a relatively small participant in the market, it may have limited leverage when negotiating terms with major customers and suppliers as compared to competitors with greater market share.

Increased competition or a failure by 29Metals to compete effectively may adversely affect 29Metals' business and financial performance.

6.2.11 Exchange rate fluctuations could impact 29Metals' results of operations and financial condition

As 29Metals' operations involve transacting across multiple currencies, there is a degree of risk associated with possible adverse fluctuations in exchange rates. For example, while substantially all of 29Metals' revenue is referable to commodity prices denominated in USD and the majority of 29Metals' debt is USD-denominated, many of its costs (for example, local labour costs) are denominated in local currencies (predominantly the Australian Dollar). If the relative value of 29Metals' USD-denominated revenues decline and its AUD-denominated expenses increase, it may have an adverse impact on 29Metals' results and financial performance. Refer to section 5.8.1 for more detail.

6.2.12 29Metals engages in hedging which may result in losses

29Metals engages in certain hedging activity (that is, the use of foreign exchange and metal commodity forward contracts) in order to reduce the risk associated with currency and commodity price volatility. This hedging could cause 29Metals to lose the benefit of an increase in commodity prices if the increase is above the price level of 29Metals' hedge positions, or the benefit of an increase in currency prices. 29Metals' production hedges can be affected by factors such as exchange rate and commodity price volatility, which are outside 29Metals' control. Any unsuccessful hedging activity could have a material adverse effect on 29Metals' financial condition. Refer to section 5.8.1 for more detail.

6.2.13 Tenements

29Metals' operations are carried out on land that it leases (either from governments or private landowners). A defect in title or the loss of or failure to renew a lease could adversely affect 29Metals' operations by removing its access to its mine sites and the reserves and resources located there. Similarly, any challenge to 29Metals' title or a dispute over boundaries could adversely impact extraction, production, processing, exploration and expansion activities.

In Queensland and Western Australia, it is illegal to carry out mining activities without a tenement granted by the applicable state government. The grant and renewal of tenements is governed by state-based regulatory frameworks, and the individual tenements are themselves subject to specific conditions.

29Metals currently holds tenements relating to its Australian operations (as summarised in sections 3.10.15 and 3.11.15) and tenements relating to its Chilean operations (as summarised in section 3.12.4). These tenements permit 29Metals to undertake mining and/or exploration activities (as applicable) at its designated sites, subject to their specified terms and conditions.

The regulatory regime governing the grant and renewal of tenements is complex and is subject to change over time. As such, there can be no assurance that future tenement grants or renewals of existing tenements will be made within expected timeframes or on terms and conditions acceptable to 29Metals, having regard to cost, practical considerations and overall compliance burden. If 29Metals' existing leases were not renewed or were renewed on terms less favourable, this could impact the financial viability of accessing and extracting its reserves, which may in turn adversely affect 29Metals' results of operations and financial condition.

6.2.14 Cultural heritage

29Metals must ensure that its operations do not interfere with or impact upon designated Aboriginal cultural heritage sites, which may constrain 29Metals' development plans. Recent events at Juukan Gorge in Western Australia and the proposed amendments to the Aboriginal cultural heritage legislation in Western Australia has increased the risk to projects associated with Aboriginal heritage and cultural values. New processes and approvals that require significant engagement and preferably agreement with the traditional owner groups will be required under the new proposed cultural heritage legislation, which will increase the timeframe and cost of project development, and potentially impact ongoing project activities where there is further surface disturbance.

29Metals does not have any heritage agreements with traditional owners, which means there is no agreed heritage management process for identifying and addressing potential impacts on Aboriginal heritage and managing the impacts of activities on Aboriginal heritage values. Heritage management plans in place that were prepared in consultation with traditional owner groups reduce the risks in relation to activities and heritage sites specifically contemplated by those management plans only. Refer to sections 3.10.12.2 and 3.11.12.2 for more detail.

6.2.15 Reliance on key customers and access to export markets

In the period 2021-2025 (inclusive) the majority of 29Metals' mineral concentrate products are committed to Trafigura under existing Offtake Contracts which are described in sections 10.6.5 and 10.6.6 of this Prospectus. Given 29Metals' reliance on Trafigura, any renewal on unfavourable terms or any failure to renew or other early termination of one of these key sales contracts could have an appreciable adverse impact on 29Metals' overall revenue and financial performance.

Even if the key contracts remain on foot, Trafigura may be entitled to suspend or cancel delivery in certain circumstances, such as due to the occurrence of a force majeure event (which typically includes natural disasters, wars, disease, terrorism and industrial action). Any suspension or cancellation of customer orders which are not replaced with orders from other customers would reduce 29Metals' cash flow and revenue.

Further, 29Metals is exposed to credit risk in relation to Trafigura. If amounts due to 29Metals under its sales contracts are not paid in a timely manner or at all, it may have consequences for 29Metals' cash flow and broader financial position.

In addition, 29Metals' is often required to deliver concentrate to ports in China, which presents further risks given the current geopolitical tension between Australia and China. For example, in October 2020, it was reported that certain Chinese state-owned utilities and steel mills had been verbally instructed by China's General Administration of Customs ('CGAC') to stop importing thermal and metallurgical coal from Australia with immediate effect. The impact, scope and duration of the CGAC restrictions remains unclear.

While the "buyer" may elect for one or more shipments of 29Metals' mineral concentrates to be delivered to ports outside of China (such as South Korea), under the relevant offtake agreements 29Metals assumes the risk and the costs for changes in shipment locations. The costs associated with such an occurrence are high and have the potential to adversely affect 29Metals' financial performance.

6.2.16 29Metals may be impacted by ESG-driven investment policies

Climate change and fossil fuel consumption are key drivers of ESG investment criteria, and their perceived importance continues to grow. Being a mining company, 29Metals' carbon footprint, sustainability practices, and approach to environmental management (including in respect of tailings storage facilities) are likely to be scrutinised by stakeholders and prospective investors. It is possible that prospective investors may determine not to invest in (or to divest) Shares based on its performance against ESG criteria, which could have a material adverse impact on the liquidity and price of Shares.

Globally, fund managers are increasingly focused on companies' performance against ESG criteria when making investment decisions. In the context of a mining company like 29Metals, in addition to environmental factors noted above, there is a focus on ensuring that companies have robust governance and ethical business practices. While 29Metals considers it has a robust framework, including key governance policies such as whistle-blower, anti-bribery and corruption and modern slavery policies (refer to section 3.9 for information regarding 29Metals' approach to ESG matters including key policies) in place, "best-practice" is constantly evolving and the focus on ESG may change over time. When making investment decisions, prospective investors are likely to compare 29Metals business practices against those of other companies. If 29Metals does not meet the evolving expectations of its stakeholders and potential investors, its reputation, access to and cost of capital, and the Share price could be negatively impacted.

6.2.17 29Metals may be impacted if it does not acquire or maintain a "social licence to operate" on its mineral properties

29Metals' relationships with the community and other stakeholders (including regulatory authorities), through the acceptance of its plans and activities related to exploration, developments and operations at a mine, are critical to the long-term success of its existing operations and the development of any future projects. Fostering and maintaining a social licence to operate in respect of a mining project is a key tenet of corporate social responsibility, without which it can be very difficult to, among other things, secure necessary permits or arrange financing. Although 29Metals prioritises the establishment of strong relationships with the communities near its mines, it may engage in activities that have or are perceived to have adverse impacts on local communities and their relevant stakeholders, society as a whole, cultural heritage, human rights and the environment. In addition, 29Metals' assets are generally long-lived and perceptions and expectations from stakeholders can change over the life of the mine. Changes in the aspirations and expectations of local communities where 29Metals operates with respect to its contributions to employee health and safety, infrastructure, community development, environmental management and other factors could affect its social licence to operate and reputation and lead to increased costs and reduced future earnings if expansions or new projects are blocked either temporarily or for extended periods. 29Metals also aims to foster strong relationships with regulatory authorities. However, were these relationships to deteriorate and 29Metals to lose the support of its surrounding communities or regulatory authorities, it could have an adverse impact on 29Metals' operations, reputation and financial condition.

6.2.18 Reliance on key personnel

29Metals has certain key management personnel whose institutional knowledge, expertise, relationships and experience are considered important to the continued success of its business (refer to section 7 (Key People, Interests and Benefits) for more information on these key personnel). The loss of such key personnel prior to or following expiration of their employment contracts could adversely impact 29Metals' business and future performance.

In addition to its reliance on certain key people at a management level, 29Metals depends on attracting, hiring, training and retaining a large pool of skilled labour for its day-to-day operations, with a workforce of over 800 employees and contractors deployed across its projects. Any future labour shortages or loss of key contractors could result in 29Metals having insufficient workers to service its operations. Labour shortages can be particularly prevalent in times of high commodity prices, where activity levels among miners and resulting demand for contractors typically increase. Any labour shortages could result in business disruption and adverse financial implications for 29Metals.

6.2.19 Premature mine closure or placement into care and maintenance

29Metals could be required to cease operations at particular mines prior to the end of their mine life due to health, safety, environmental, geotechnical, geological, commercial, financial or other concerns. An unexpected early closure could cause 29Metals to incur significant costs, including in connection with site rehabilitation, employee redundancy, contractor demobilisation costs, early contract termination and loss of revenue.

The placement of one or more of its mines into care and maintenance (a temporary shutdown in circumstances where production is not financially viable in the short-term) could have similarly detrimental effects on 29Metals' financial position.

6.2.20 Impairment

29Metals' pro forma balance sheet includes a number of non-financial assets that may be subject to impairment risk, including plant and equipment, mine properties, mineral rights, exploration and evaluation and other intangible assets.

Impairment assessments require the use of estimates and assumptions such as long-term commodity prices (considering current and historical prices, price trends and related factors), discount rates, operating costs, future capital requirements, closure and rehabilitation costs, exploration potential, reserves and operating performance (which includes production and sales volumes). These estimates and assumptions are subject to risk and uncertainty. Therefore, there is a possibility that changes in circumstances will impact these projections, which may impact the recoverable amount of assets and/or cash generating units. In such circumstances, some or all of the carrying amount of the assets/cash generating units may be further impaired or the impairment charge reduced with the impact recognised in the statement of profit or loss.

6.2.21 Changes in accounting standards

29Metals prepares its financial statements in accordance with AAS, which may be amended or replaced with new standards. Any such amendment or replacement is beyond the control of 29Metals and its Directors and may have an adverse effect on the reported financial performance of 29Metals. In addition, AAS requires 29Metals to exercise judgment and make estimates when preparing its financial statements, and it is possible that ASIC, ASX or the ATO may not agree with those judgments or estimates. See section 5.13 for information regarding the judgements and estimates included in the Financial Information.

6.2.22 29Metals' insurance policies may not provide full coverage for significant incidents

While 29Metals believes it has industry-standard insurance policies in place, it is possible that 29Metals could suffer liability above the limit of its insurance, or that certain risks could materialise which are not insurable (for example, coverage for liability to third parties arising from environmental contamination, which is generally unavailable or uneconomical). No assurance can be given that such insurance will continue to be available, or that it will be available at commercially acceptable terms, or that 29Metals will be able to obtain or maintain such insurance. Further, 29Metals may elect to not purchase insurance for certain risks due to the high premium costs associated with insuring such risk or for various other reasons. The lack of, or insufficiency of, insurance coverage could adversely affect 29Metals' cash flow and overall profitability.

6.2.23 Increase in tariffs, royalties or taxes could impact 29Metals' financial position

29Metals is subject to regulatory regimes in each jurisdiction within which it operates. These regimes dictate the tariffs, royalties and taxes payable by 29Metals. 29Metals may be subject to periodic information requests, taxation audits or investigations by the ATO and tax authorities in other jurisdictions in which it operates which may result in 29Metals having to pay additional tax and associated penalties. Any increases in royalties, tariffs and taxes (and any associated penalties) payable by 29Metals could adversely impact the financial viability of its projects and hinder its ability to effectively plan for future production and expansion.

6.2.24 Exposure to litigation

The nature of 29Metals' business and industry involves exposure to litigation, including civil liability claims, criminal claims, environmental and native title matters, health and safety matters, workers' compensation claims, regulatory and administrative proceedings, government investigations, tort claims, contract claims, tax investigations and labour disputes. Although 29Metals may defend any such matters and make insurance claims when possible, litigation and other regulatory investigations and proceedings are costly (even if 29Metals were to prevail on the merits of the dispute), unpredictable and time-consuming. While it is difficult for 29Metals to accurately predict the outcome or impact of existing or future litigation, future litigation costs, settlements or judgments could materially and adversely affect 29Metals' business, financial condition and reputation.

Litigation may also have an adverse impact on 29Metals' reputation, even in circumstances where 29Metals does not suffer or incur a material liability. For example, as set out in section 10.6.12.3, EMR Capital Investment (No.6B) Pte. Ltd. and 29Metals are taking steps to secure the release of a mortgage over 10% of the shares in Capricorn Copper Holdings in favour of the vendors from whom EMR Capital Investment (No.6B) Pte. Ltd. initially acquired Lighthouse Minerals. EMR Capital Investment (No.6B) Pte. Ltd. and 29Metals have referred the unresolved matters in the dispute to the Court for determination.

6.2.25 Legal compliance and fraud, bribery and misconduct

Any fraud, bribery, corruption, money-laundering, violations of trade sanctions, misrepresentations, anti-competitive behaviour or other misconduct by 29Metals' directors, employees, contractors, customers, suppliers, business partners and other third parties could result in violations of relevant laws and regulations by 29Metals and subject 29Metals to corresponding regulatory sanctions or other claims. These illegal activities may not be known to, and may be outside the control of, 29Metals, and may result in serious civil and criminal liability in addition to reputational harm. While 29Metals has implemented group-level policies and monitoring procedures to limit the likelihood of bribery and corruption occurring, no assurances can be made as to the effectiveness of such policies in preventing these illegal activities.

6.2.26 Information technology security breaches could harm 29Metals' business activities and reputation

29Metals uses certain information, communications and technology ('ICT') systems and automated machinery to manage its production processes and operate its business. However, even advanced technology systems are subject to defects, interruptions and breakdowns, which could cause business disruption and operational errors.

In addition, 29Metals' ICT systems and automated machinery may be vulnerable to security breaches (for example, from cyber criminals), resulting in unauthorised access to confidential financial, operational or customer data, damage to automated machinery, or production interruptions as well as incidents arising from 29Metals employees' or contractors' human error. Any such damage or interruption could adversely affect 29Metals' business results, including due to facing significant fines, customer notice obligations, litigation, reputational harm, and expenses incurred in repairing and upgrading systems.

6.2.27 Reputational harm

29Metals' business performance relies in part on building and maintaining successful relationships with key stakeholders, including government representatives, technical and advisory parties, customers and suppliers, and local communities.

If key stakeholders were to develop a negative perception of 29Metals' operations, whether due to a specific incident, change in circumstances or broader shift in community sentiment, this could harm 29Metals' reputation and impact on its ability to grow its business.

6.2.28 COVID-19 Risks

The novel coronavirus pandemic ('COVID-19') has and continues to impact global economic markets. Given the continued evolving nature of COVID-19, the nature and extent of the effect of the ongoing COVID-19 and the related impact on commodity prices, the global economy and 29Metals' performance long term remains unknown. 29Metals' business and share price may be adversely affected in the short to medium term by future economic uncertainty caused by COVID-19. Further State and Federal Governments in Australia have previously placed restrictions on travel within and between States. Another outbreak of COVID-19 in Australia may lead to the State and Federal Governments re-imposing mobility restrictions, which in turn may have an effect on the ability of some of 29Metals' employees, contractors and suppliers to travel and access the 29Metals assets, which could have an adverse impact on 29Metals' production levels and overall financial performance. Such government measures, as well as actions taken by third parties, including the distribution, effectiveness and acceptance of vaccines, to contain the spread of COVID-19 and mitigate its public health effects, are beyond the control of 29Metals and difficult to predict.

6.3 General Risks Relating to an Investment in 29Metals Shares

6.3.1 29Metals' share price may fluctuate with broader share market movements

Potential investors should be aware of risks associated with investing in shares which are listed on a stock exchange. The value of quoted securities is subject to fluctuations in response to market forces, which cannot be controlled or accurately predicted, and there is no guarantee that the Share price will be equal to or higher than the Offer Price following completion of the Offer.

Sudden and dramatic movements in stock markets can occur due to changes in or occurrences of:

- global macroeconomic conditions;
- industry cycles and trends;
- interest and exchange rate levels;
- geopolitical events;
- force majeure events, including an outbreak of war, disease or act of terrorism;
- law and policy;
- commodity prices; and
- natural disasters or pandemics.

Investors should be aware that these fluctuations could result in a loss of all or part of their investment in Shares.

6.3.2 Significant retained shareholding by Escrowed Shareholders and related party transactions

The Escrowed Shareholders have entered into voluntary escrow deeds in relation to their Escrowed Shares as described in section 8.11. Immediately after Completion of the Offer, assuming that the Escrowed Shareholders do not subscribe for any Shares under the Offer, collectively the Escrowed Shareholders will beneficially own or control 45% of 29Metals' issued Shares.

The absence of any sale of Escrowed Shares during the Escrow Period may create limited liquidity in the market for the Shares, which could affect the market price for Shares. Following the end of the Escrow Period, a significant sale of Shares by one or more Escrowed Shareholders could adversely affect the market price for Shares.

The Escrowed Shareholders and/or their affiliates have entered into the Relationship Deed and Sub-Lease. For so long as they hold a large stake in 29Metals, the Escrowed Shareholders may be able to influence key shareholder decisions, including whether a takeover bid or other control transaction is successful. The interests of the Escrowed Shareholders may differ from both the interests of 29Metals and the interests of other Shareholders.

6.3.3 No assurance as to liquidity of market for 29Metals Shares

While 29Metals Shares will be listed on ASX, no assurance can be given that there will be an active market for 29Metals Shares. If an active market for 29Metals Shares does not develop, investors may not be able to sell their Shares and achieve liquidity. Further, stocks with low trading volumes tend to be more susceptible to dramatic price fluctuations from relatively minor buying and selling activity.

6.3.4 Negative publicity may adversely affect the Share price

Several of the risks in this section 6 (Risks) could result in significant reputational harm to 29Metals. Investors should be aware that any negative publicity or announcement relating to 29Metals or any of its substantial shareholders, key personnel or operations may adversely affect the stock performance of 29Metals.

6.3.5 29Metals investors may suffer dilution

29Metals may issue more Shares in the future to reduce its debt or fund acquisitions or other investments. While 29Metals is subject to the constraints of the ASX Listing Rules and Corporations Act regarding the percentage of its capital that it is able to issue within a 12-month period, any such equity raising may dilute the interests of existing investors.

6.3.6 29Metals' dividend policy is subject to change

While 29Metals has developed a dividend policy, no assurance can be given with respect to 29Metals' ability to pay dividends. 29Metals is a holding company without any direct operations.⁸ Its ability to pay dividends depends on the ability of its subsidiaries to make cash available to it, and its ability to satisfy the requirements of the Corporations Act with respect to dividends as set out in section 10.4.4. If 29Metals lacks sufficient cash and does not receive payments from its subsidiaries sufficient to pay dividends, 29Metals will need to obtain additional funds from other sources.

6.3.7 Speculative nature of investment

The risk factors in this section 6 (Risks) are not an exhaustive list of all risks facing 29Metals or its potential investors. Any combination of these risks may materially adversely affect the business, assets, operations and/or financial performance of 29Metals and the value of its Shares. As such, investors should be aware that any investment in 29Metals is subject to significant risk and uncertainty with respect to return or preservation of capital.

⁸ Refer to section 10.6.2 which describes the restriction on Golden Grove making distributions under the terms of the SFA.

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Metals

7.0

Key People, Interests and Benefits



This section sets out information regarding:

- 29Metals' Board and Executive Leadership Team;
- 29Metals' governance framework and remuneration arrangements; and
- the interests of, and benefits payable to, 29Metals' Board and Executive Leadership Team, and 29Metals advisers in relation to the Offer.

7.1 Board of Directors

The Directors bring to the Board relevant experience and skills, including industry and business knowledge, financial management, risk management, leadership and corporate governance experience. Profiles of each member of the Board are set out below.

Board of Directors

Experience & Background

Owen Hegarty OAM



Chair, Non-executive Director
(EMR Nominee)

BEC (Hons)
FAusIMM FAICD

Member:

- Health, Safety, Environment & Community Committee
- Remuneration & Nominations Committee

Owen has more than 40 years' experience in the global mining industry and is a co-founder of EMR Capital. Owen's career spans executive roles and directorships across multiple mineral commodities and assets in Australia, Asia, Africa, Europe and the Americas.

Owen was formerly the Managing Director and Chief Executive Officer of ASX-listed Oxiana Limited (1995 -2008), leading the company to its merger with Zinifex Limited in 2008 to form ASX-listed Oz Minerals Limited (ASX: OZL). Prior to Oxiana, Owen's career included 25 years with the Rio Tinto Group, including as Managing Director of Rio Tinto Asia and Rio Tinto's Australian copper and gold business.

Owen is a current non-executive director of Tigers Realm Coal Limited (ASX: TIG) (since 2009).

Owen was previously a non-executive director of ASX-listed Fortescue Metals Group Limited (ASX: FMG) (2008 – 2016), including serving as vice-chairman from 2014 to 2016, and executive vice-chairman of Hong Kong-listed G-Resources Limited (2009 – 2015) and executive vice-chairman of Hong Kong-listed CST Mining (2010-2012).

Owen holds a Bachelor of Economics (Hons) from Monash University, is a fellow and former Director of the Australasian Institute of Mining and Metallurgy, and a fellow of the Australian Institute of Company Directors (AICD).

Owen has served and continues to serve on a number of government and industry mining advisory bodies, and is the recipient of a number of awards and citations for his achievements and service to the mining industry.

Peter Albert



Managing Director & Chief Executive Officer

BSc (Minerals Engineering) (Hons)
EMBA
MAICD FAusIMM
MIOM3, Chartered Engineer

Peter is an experienced mining executive, with more than 35 years' experience in the mining industry across multiple commodities and spanning Australia, Asia, Africa and Europe, including 25 years in CEO and executive roles for listed mining companies in Australia and Asia.

Peter joined EMR Capital in 2020 as the CEO of EMR Capital's copper portfolio in preparation for the Offer.

Prior to joining EMR Capital, Peter was CEO of ASX-listed Highfield Resources Limited (ASX: HFR) (2016-2020), Jinchuan International (2015-2016) and G-Resources Limited (2009-2015), and Executive General Manager – Asia for ASX-listed Oxiana Limited (later, OZ Minerals Limited) (2000-2009).

Earlier, Peter's career included roles with Fluor Australia, Shell-Billiton Australia, Davy John Brown and Johannesburg Consolidated Investments.

Peter holds a Bachelor of Minerals Engineering (Hons) from the University of Birmingham in the United Kingdom and an Executive MBA from the Monash-Mount Eliza Business School in Melbourne, Australia.

Peter is a member of the Australian Institute of Company Directors, a member of the UK Institute of Materials, Minerals and Mining (MIMO3), a Chartered Engineer (UK) and a fellow of the Australasian Institute of Mining and Metallurgy.

Board of Directors**Experience & Background****Fiona Robertson****Independent
Non-executive Director**

MA (Oxon) Geology
FAICD MAusIMM

Chair:

- Audit, Governance & Risk Committee

Member:

- Health, Safety, Environment & Community Committee

Fiona is an experienced finance executive and non-executive director with more than 30 years' experience in the resources sector (and 40 years' experience overall), including more than ten years as an independent non-executive director of ASX-listed resources companies.

Fiona held senior and executive finance roles, including the role of chief financial officer, with ASX-listed companies Petsec Energy Limited (2002-2012), Climax Mining Limited (2002-2006) and Delta Gold Limited (1991-1999).

Fiona's earlier career included credit risk management, corporate banking and resource financing roles with Chase AMP and Chase Manhattan Bank in Australia, New York and London.

Fiona is currently an independent non-executive director of ASX-listed Bellevue Gold Limited (ASX: BGL) and Whitehaven Coal Limited (ASX: WHC). Fiona is also chair of the Audit & Risk Committee for both companies.

Fiona was previously a director of ASX-listed Drillsearch Energy Limited (ASX:DLS) and Heron Resources Limited (ASX: HRR).

In 2020 Fiona was named as one of "100 Global Inspirational Women in Mining" by Women in Mining UK.

Fiona holds a Master of Arts (Geology) from Oxford University in the United Kingdom.

Fiona is a fellow of the Australian Institute of Company Directors and a member of the Australasian Institute of Mining and Metallurgy.

Jacqueline 'Jacqui' McGill AO**Independent
Non-executive Director**

BSc MBA
GAICD FAusIMM

Chair:

- Health, Safety, Environment & Community Committee

Member:

- Audit, Governance & Risk Committee
- Remuneration and Nominations Committee

Jacqui is an experienced mining executive with more than 30 years' experience in the mining sector, including executive and senior leadership roles spanning operations, business development, technology and project management across copper, iron ore and energy.

Jacqui's career includes 16 years with BHP, including as President Olympic Dam (2015-2018), President BHP-Mitsui Coal (2013-2015) and other senior roles in BHP's copper, uranium and iron ore divisions.

Jacqui's earlier career included roles with Heathgate Resources, ERA, Pegasus Mining Company and WMC.

Jacqui commenced her non-executive career as an independent non-executive director of ASX-listed New Hope Corporation Limited (ASX: NHC) in 2020. Jacqui is a member of the Audit and Risk Committee and chair of the Human Resources and Remuneration Committee at New Hope.

Jacqui was included in the Australia Day honours list in 2020 for services to the resources sector, and diversity and inclusion.

Jacqui holds a Bachelor of Science (Extractive Metallurgy) from Murdoch University in Western Australia, an MBA from Latrobe University in Melbourne and completed the Wharton Business School Executive Leadership Program.

Jacqui is a graduate of the Australian Institute of Company Directors and a fellow of the Australasian Institute of Mining and Metallurgy.

Board of Directors

Experience & Background

Martin Alciaturi



Independent Non-executive Director

BSc (Eng) (Hons)
Grad Dip (Applied Finance)
FCA MAICD

Chair:

- Remuneration & Nominations Committee

Member:

- Audit, Governance & Risk Committee

Martin is commencing his career as a non-executive director following a successful career as an executive and finance professional with combined experience of more than 40 years across investment banking, corporate finance and as a mining executive.

Martin was previously CFO and executive director of once ASX-listed Aquila Resources Limited (2010-2021) where Martin's responsibilities included strategy, business development, investor relations, finance and administration.

Prior to joining Aquila, Martin's career included 30 years in investment banking and corporate finance, including Head of Corporate Finance at Macquarie Capital in Perth (2006-2010), Partner in charge of Corporate Finance at EY in Perth (1996-2006), including head of the EY natural resources team, and as an executive director with Poynton Corporate (1993-1996).

Martin was also a member of the Australian Government's Takeovers Panel (2006-2015).

Martin holds a Bachelor of Science in mechanical engineering from University College London in the United Kingdom and a Graduate Diploma in Applied Finance and Investment from the Financial Services Institute of Australia. Martin is a fellow of Chartered Accountants Australia and New Zealand, and a member of the Australian Institute of Company Directors.

Each Director has confirmed to the Company and the Board that they are available to perform their duties as Non-executive Directors, or as an Executive Director (in the case of the Managing Director & Chief Executive Officer) and are free from any business or other relationship that could materially interfere with, or reasonably be perceived to materially interfere with, the independent exercise of that Director's judgement on issues before the Board.

The composition of 29Metals' Board Committees and information regarding 29Metals' key corporate governance charters and policies are set out in section 7.6.

The Board intends to appoint an additional independent Director and, following completion of the Offer, will commence a process to identify suitable candidates for that role. In addition, EMR Capital intends to nominate a second EMR Nominee Director in accordance with the Relationship Deed. It is the intention of the Board and EMR Capital that these future appointments will be made contemporaneously to ensure that the Board remains majority independent.

7.2 Executive Leadership Team

29Metals has a highly experienced Executive Leadership team to effectively implement 29Metals' strategy. Profiles of each member of the Company's Executive Leadership team are set out below.

Executive

Experience & Background

Peter Albert

Managing Director &
Chief Executive Officer

Refer to section 7.1

Ed Cooney



Chief Operating Officer

BEng (Mining)
MBA

MAusIMM

Ed is a mining engineer with more than 20 years' experience in base and precious metals mining operations and development projects spanning Australia and Indonesia, including ten years in senior operational leadership roles.

Ed joined EMR Capital in 2019 as Operations Director. His role with EMR Capital has included operational leadership and oversight to EMR Capital's portfolio companies with a particular emphasis on the 29Metals assets.

Ed's prior roles include a series of senior operations leadership roles at the privately-owned Martabe Gold Mine in Indonesia (2013–2019), including General Manager Operations (2015–2019) and Director Operations (2016–2019), and with BHP as Manager Mining (2010–2012) and Manager Resource Planning and Development (2009–2010) at the Cannington Mine in Australia.

Earlier, Ed's career included roles with Xstrata, PT Petrosea, Barrick Gold and Mount Isa Mines, in Australia and Indonesia.

Ed holds a Bachelor of Engineering (Mining) from the University of New South Wales and an MBA from the University of California, Los Angeles, and the National University of Singapore.

Ed is a member of the Australasian Institute of Mining and Metallurgy.

At 29Metals, Ed has functional accountability for site safety and sustainability, operations, operational risk management, project studies and development, Group planning, Group geology and exploration, and Ore Reserves and Minerals Resources.

Peter Herbert



Chief Financial Officer

BComm
Grad Dip (Applied Finance)

Peter is a corporate finance executive with 18 years' experience across private equity, investment banking and professional services with a Big Four firm.

Peter joined EMR Capital in 2018 as an investment director responsible for corporate finance and strategic initiatives. Peter has accepted a permanent role with 29Metals and will leave EMR Capital from completion of the Offer.

Peter's prior roles include Executive Director Energy and Natural Resources Group (Mining and Metals) with Standard Chartered Bank (2011–2018), Associate Director Mining and Metals M&A with Gryphon Partners (2009–2011), Executive-General Industrials with Macquarie Capital Advisers (2007–2009) and various roles with KPMG Corporate Finance (2003–2007).

Peter holds a Bachelor of Commerce (Accounting and Corporate Finance) from the University of Western Australia and a Graduate Diploma in Applied Finance and Investment from the Financial Services Institute of Australia. Peter also completed the Chartered Accountant requirements from the Institute of Chartered Accountants.

At 29Metals, Peter has functional accountability for Group accounting and financial reporting, management reporting, treasury, concentrate marketing and logistics, Group commercial, ICT and business development.

Executive**Experience & Background****Clifford Tuck****General Counsel & Company Secretary**

LLB (Hons)
BScApp (Hons)

Clifford is a legal and governance professional with more than 20 years' experience, principally in the resources sector, including more than 15 years in in-house legal and governance roles.

Clifford was engaged to assist with the establishment of 29Metals as a standalone company and preparation for the Offer.

Prior roles include General Counsel & Company Secretary (consultant) for Lattice Energy Limited (proposed IPO vehicle for the upstream oil & gas assets of ASX-listed Origin Energy Limited) (2017), General Counsel & Company Secretary of ASX-listed Drillsearch Energy Limited (2014–2016) and various in-house roles with ASX-listed Newcrest Mining Limited (2005–2014), including Acting General Counsel (2013–2014) and Deputy General Counsel (2011–2013, 2014). Clifford's early legal career was with Allens (2001–2005).

Since 2017, Clifford has worked as an independent adviser to ASX-listed and private equity clients in the resources sector in relation to corporate transactions and governance matters.

Clifford was also formerly a non-executive director and member of the audit committee of ASX-listed Aurelia Metals Limited (ASX: AMI) (2018).

Clifford holds a Bachelor of Laws (hons) from the Queensland University of Technology and a Bachelor of Applied Science (hons) from the University of Queensland.

At 29Metals, Clifford has functional accountability for Group legal and governance, Group company secretariat (including subsidiary administration), Group risk and insurance, external affairs and share registry.

Each member of the executive team has executed an Executive Services Agreement ('**ESA**') with 29Metals. The ESAs take effect on and from completion of the Offer. A summary of the key terms of the ESAs is set out in section 7.3.3.6 for the Managing Director & Chief Executive Officer and section 7.3.3.7 for other executives.

7.3 Interest and Benefits

This section 7.3 sets out the nature and extent of the interests and fees of certain persons involved in the Offer.

Other than as set out below, or elsewhere in this Prospectus, no:

- Director or proposed director of 29Metals;
- person named in this Prospectus who has performed a function in a professional, advisory or other capacity in connection with the preparation or distribution of this Prospectus;
- promoter of 29Metals; or
- underwriter to the Offer or financial services licensee named in this Prospectus as a financial services licensee involved in the Offer,

holds as at the time of lodgement of this Prospectus with ASIC, or has held in the two years before lodgement of this Prospectus with ASIC, an interest in:

- the formation or promotion of 29Metals;
- property acquired or proposed to be acquired by 29Metals in connection with its formation or promotion of the Offer; or
- the Offer,

and no amount (whether in cash, Shares or otherwise) has been paid or agreed to be paid, nor has any benefit been given or been agreed to be given, to any such person for services in connection with the formation or promotion of 29Metals or the Offer, or to any Director or proposed director of 29Metals to induce them to become, or qualify as, a Director of 29Metals.

7.3.1 Interests of advisers

The following professional advisers have been engaged in relation to the Offer:

- Macquarie Capital (Australia) Limited have acted as Sole Global Coordinator and Joint Lead Manager in relation to the offer. Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited, have acted as Joint Lead Managers in relation to the Offer. 29Metals and SaleCo have agreed to pay the Sole Global Coordinator and Joint Lead Managers the fees described in section 10.6.1 for these services;
- Canaccord Genuity (Australia) Limited has acted as Co-Lead Manager (Institutional and Retail) in relation to the Offer. 29Metals has agreed to pay Canaccord Genuity (Australia) Limited a transaction success fee of US\$500,000 and may pay a transaction incentive fee of up to US\$500,000. Canaccord Genuity (Australia) Limited will also receive a selling fee equal to 1.50% of the total dollar amount allocated to Canaccord Genuity (Australia) Limited's retail wealth network. These fees exclude any disbursements and GST;
- King & Wood Mallesons has acted as Australian legal adviser to 29Metals in relation to the Offer. 29Metals has agreed to pay approximately \$4.3 million in fees (excluding disbursements and GST) (in the aggregate) for these services up until the Prospectus Date. Further amounts may be paid to King & Wood Mallesons in accordance with its normal time-based charges;
- Sidley Austin has acted as US legal adviser to 29Metals in relation to the Offer. 29Metals has agreed to pay approximately US\$525,000 in fees (excluding disbursements and GST) for these services up until the Prospectus Date. Further amounts may be paid to Sidley Austin in accordance with its normal time-based charges;
- KPMG Transaction Services has acted as the Investigating Accountant, and performed work to provide its Investigating Accountant's Report in section 9. 29Metals has agreed to pay approximately \$1.6 million in fees (excluding disbursements and GST) for these services up until Prospectus Date. Further amounts may be paid to the Investigating Accountant for other work in accordance with its normal time-based charges;
- KPMG has acted as tax adviser to 29Metals in relation to the Offer. 29Metals has agreed to pay approximately \$230,000 in fees (excluding disbursements and GST) (in the aggregate) for these services up until the Prospectus Date;
- Behre Dolbear Australia Pty Ltd was engaged by 29Metals in relation to the preparation of a Technical Assessment Reports for Golden Grove and Capricorn Copper. 29Metals has agreed to pay approximately \$272,308.40 in fees (excluding disbursements and GST) (in the aggregate) for the preparation of these reports;
- AMC Consultants Pty Ltd was engaged by 29Metals in relation to the preparation of a Technical Assessment Report for Redhill. 29Metals has agreed to pay approximately \$38,377.88 in fees (excluding disbursements and GST) (in the aggregate) for the preparation of this report; and
- AME has prepared a report, information from which is quoted in this Prospectus. 29Metals has paid, or agreed to pay, \$89,000 in fees (excluding disbursements and GST) to AME up until the Prospectus Date.

29Metals' share of these amounts, and other expenses of the Offer, will be paid by 29Metals out of funds raised under the Offer or available cash (unless otherwise indicated). Further information on the use of proceeds and payment of expenses of the Offer is set out in section 8.1.2.

7.3.2 Interests of Directors

7.3.2.1 Managing Director & Chief Executive Officer

See to sections 7.3.3.6 and 7.3.5 for information regarding the remuneration, interests and other benefits of the Managing Director & Chief Executive Officer in connection with the Offer.

7.3.2.2 Non-executive Director remuneration

Board and Committee fees

Under the Constitution, the Board determines the total amount paid to each Director as remuneration for his or her services as a Director of 29Metals. However, the Constitution also provides that, consistent with the Listing Rules, the aggregate amount or value of remuneration paid or provided to all Non-executive Directors in any year may not exceed the amount last approved by 29Metals in general meeting. As at the date of this Prospectus, this amount has been fixed at \$1.4 million per annum.

Annual Directors' fees (inclusive of superannuation but before income tax) as at the date of this Prospectus are set out below.

Role	Annual fee (cash value ¹)
Chair of the Board ²	\$250,000
Non-executive Director (base fee)	\$140,000
Committee fee – Audit, Governance & Risk Committee Chair	\$50,000
Committee fee – Remuneration & Nominations Committee Chair	\$35,000
Committee fee – Health, Safety, Environment & Community Committee Chair	\$35,000
Committee fee – Committee member	\$20,000

Notes:

- Cash value of fees for Directors shown. Refer below regarding structure of Non-executive Directors fees.
- The Chair of the Board does not receive additional fees for any Committee roles held.

Non-executive Director equity participation

Under their engagement letter with the Company, the Non-executive Directors, other than the EMR Nominee, will receive approximately \$20,000 of their respective annual Directors' fees for 2021 in the form of 10,000 Shares on completion of the Offer.

For future years, eligible Directors' will receive \$40,000 of their respective annual Directors' fees in the form of Shares, which the Company will acquire on-market on their behalf, to encourage equity participation by those Directors.

Expenses and special fees

Directors may also be paid or reimbursed for travel and other expenses properly incurred by the Director in attending and returning from any meeting of the Board, a Committee, a general meeting of the Company or otherwise in connection with the business of the Company and the Director's role (including any special responsibilities, from time to time).

A Director may also be paid special or additional fees, as may be determined by the Board, to compensate the Director for special or additional exertions for the benefit of the Company.

The payment or reimbursement of expenses, and any special exertion fees, are not included in the aggregate limit on Director's fees referred to above.

Pre-IPO consulting fees

Each of the Non-executive Directors (other than the EMR Nominee Directors) was progressively retained by or on behalf of 29Metals as an independent consultant as a pre-cursor to being appointed as an Independent Director of 29Metals, and to assist in the establishment of 29Metals' governance framework in preparation for the Offer. The benefits paid or payable to Directors under those arrangements are set out below.

Director	Period of engagement as independent consultant	Independent consulting fees (ex-GST)
Fiona Robertson	March – June 2021	\$25,000
Jacqueline 'Jacqui' McGill	March – June 2021	\$25,000
Martin Alciaturi	April – June 2021	\$25,000

7.3.2.3 Indemnity, insurance and access agreements

29Metals has entered into a deed of indemnity, insurance and access with each Director.

The deed:

- confirms a Director's right of access to Board papers and other Company records and requires the Company to indemnify the Director, to the maximum extent permitted by law, against all liability incurred by the Director in the performance of their role as a Director of the Company (and any subsidiary of the Company), on the terms set out in the deed; and
- requires the Company, to the extent permitted by law, to use its reasonable endeavours to ensure that the Director is insured under a directors and officers insurance policy throughout the duration of the Director's appointment and after the Director ceases to hold office for the later of a period of seven years or until the date that any claim against the Director that commenced during the seven-year period is finally resolved.

7.3.2.4 Director's interests in Shares

EMR Nominees

Owen Hegarty OAM is the Executive Chairman of EMR Capital. EMR Capital and its affiliates manage or advise certain funds and investors comprising the EMR Capital Investors will hold 45% of the Shares on issue on completion of the Offer.

Other Non-executive Directors

As described in section 7.3.2.2 (above), the Non-executive Directors, other than the EMR Nominee, will be issued 10,000 Shares on completion of the Offer with a cash value of approximately \$20,000 at the Offer Price (per Director) as part of their respective base Director's fee for 2021.

Managing Director & Chief Executive Officer

See sections 7.3.3.6 and 7.3.5 for a description of the interests in Shares that will be held by Mr Albert on completion of the Offer.

Other interests in Shares

Other than the interests outlined above, no Directors held or will receive an interest in Shares in connection with the Offer.

Each of the Directors, other than the EMR Nominee Directors and the Managing Director & Chief Executive Officer, may apply for Shares under the Priority Offer.

Directors may hold interests in 29Metals Shares directly, or through entities associated with the Director (for example, through companies, trusts, self-managed superannuation funds or other nominees).

Director's interests in 29Metals Shares will be notified to ASX following completion of the Offer.

It is the intention of the Board to adopt a policy whereby all Directors will be required to acquire and maintain a target minimum shareholding in 29Metals at least equal to the aggregate annual amount of fees paid or payable to the Director (excluding any special or additional fees) within a period of four years after their initial appointment as a Director.

7.3.2.5 Retirement benefits

There are no retirement benefits payable to any Non-executive Directors in connection with cessation of office, other than statutory entitlements.

7.3.3 Executive remuneration

7.3.3.1 Overview of remuneration framework

The key objectives of 29Metals' remuneration strategy are to:

- attract and retain talented, high performing personnel, including executives;
- ensure that remuneration outcomes encourage high performance and reward performance that is consistent with 29Metals' values and culture; and
- ensure that remuneration outcomes are aligned to shareholder value.

To achieve these objectives, 29Metals applies the following remuneration principles:

- fixed remuneration (base salary inclusive of super and fixed allowances), referred to as Total Fixed Remuneration (or, **TFR**), is generally targeted at the 55-65th percentile of benchmark, taking account of role, special responsibilities and location;
- all Executives and certain other employees have a performance-based (or "at risk") remuneration component, via the Company's short term incentive scheme ('**STI**') and long-term incentive scheme ('**LTI**');
- the proportion of performance-based remuneration increases with seniority, reflecting increasing capacity to influence Company performance with seniority;
- for more senior roles, performance-based remuneration includes cash and non-cash rewards, in the form of equity-based remuneration, to align remuneration outcomes for more senior roles to shareholder value;
- to promote an "owner's mindset", over time it is intended that all 29Metals staff will have access to equity-based remuneration components; and
- all performance-based remuneration (i.e., STI and LTI) is subject to clawback mechanisms and malus provisions.

Awards under the STI are at the Board's discretion and based on assessment of performance against a combination of Company, asset-specific and personal performance metrics. For executive roles, only Company performance metrics are applied to the STI.

For 2021 all STI awards will be settled in cash. In future years, the Board will consider delivering STI awards to executive roles through a combination of cash and Performance Rights awarded under the Plan Rules.

Awards under the LTI are at the Board's discretion. Unless the Board determines otherwise, awards are conferred as Performance Rights under the Plan Rules and are subject to a three-year vesting period and vesting performance conditions determined by the Board at the time of award.

Non-executive Directors will not participate in the Company's performance-based and at-risk remuneration components.

A description of the Plan Rules is set out in section 7.3.3.2.

For Executives, the target remuneration composition¹ is that greater than 50% of total remuneration for 'at target' performance is linked to performance, with:

- 40-55% in the form of cash payments; and
- 45-60% in the form of equity-based remuneration (e.g., Performance Rights),

varying with the role.

A summary of remuneration and other key terms for each executive is set out in section 7.3.3.6 (for the Managing Director & Chief Executive Officer) and section 7.3.3.7 (for Other Executives).

7.3.3.2 Plan Rules

The Company has adopted the Equity Incentive Plan ('**Plan**') as a framework within which the Company may award employees equity-based remuneration components intended to:

- assist with motivating and retaining selected employees and prospective employees of the Group (**Eligible Incentive Plan Employees**); and
- align the interests of Eligible Incentive Plan Employees more closely with the interests of the Company by providing an opportunity for Eligible Incentive Plan Employees to receive an equity interest in the Company.

Under the Plan, and subject to the discretion of the Board, Eligible Incentive Plan Employees may be offered awards of Performance Rights, Restricted Shares, Shares or options which may be subject to vesting conditions set by the Board.

The Plan was adopted by the Board on 7 June 2021.

¹ Target remuneration composition shown reflects 29Metals' remuneration framework objectives. In 2021, remuneration outcomes for executives will vary from this objective as a result of the 'stub period' from Listing Date to 31 December 2021 and the decision by the Board to not make an award under the LTI (which is equity based) and to remit any STI award wholly in cash for the stub period. Subject to performance outcomes, and the discretion of the Board regarding variable remuneration awards, the remuneration composition for executives for 2021 for 'at target' level of performance is expected to be 65-70% in the form of cash payment and 30-35% in the form of equity

A summary of the key terms of the Plan are set out below:

Key Terms	Description
Eligibility	An employee of the Group, Director, contractor or prospective employee of the Group, or other person the Board in its discretion determines to be eligible to participate in the Plan.
Award	The Plan permits the Board to grant one or more types of award, including: <ul style="list-style-type: none"> ▪ Performance Rights; ▪ Restricted Shares; and ▪ Shares; ▪ Options.
Vesting	A Performance Right or Option which has not lapsed shall vest if and when any conditions applicable to the Performance Right or Option have been satisfied or waived by the Board at its discretion. A Share which has not been forfeited shall vest if and when any conditions applicable to the Share have been satisfied, or waived by the Board at its discretion, although a vested Share may remain subject to dealing restrictions.
Exercise	A vested Performance Right or Option may only be exercised by a participant once the Board has notified the participant that the conditions have been satisfied or waived.
Restrictions on dealing	The Board may determine at its discretion whether dealing restrictions or restriction periods will apply to any Shares, or, for Performance Rights or Options, that Shares allocated or transferred on exercise are Restricted Shares or subject to restriction periods.
Cessation of employment	Under the Plan Rules, the Board has discretion to determine, subject to compliance with applicable law, the treatment of an award if a participant ceases to be employed within the Group prior to the vesting or exercise of an award.
Change of control	If there is a change of control prior to the vesting and exercise of an award, the Board may determine in its absolute discretion, whether some or all of the awards vest, lapse or are forfeited, remain on foot subject to the applicable, substitute or varied conditions or dealing restrictions, or can only be exercised within a specific period, and the Board will have regard to any matter the Board considers relevant. Where the Board does not exercise its discretion and a change of control occurs then, unless the Board determines otherwise: <ul style="list-style-type: none"> ▪ any unvested award with a remaining vesting period of 12 months or less will vest; ▪ any unvested award with a remaining vesting period of more than 12 months will vest pro rata based on the proportion of the performance period that has passed; ▪ an award subject to dealing restrictions will no longer be subject to dealing restrictions; and ▪ where the change of control occurs during the period an award is exercisable, the award may only be exercised during the period specified by the Board.
Rights of Shares granted under the Plan	Unless the Board determines otherwise, all Shares allotted and issued or transferred under the Plan will rank equally in all respects with other Shares already on issue
Clawback	Where the Board is of the opinion that a participant under the Plan has acted fraudulently or dishonestly, is in breach of any of that participant's duties or obligations or has acted in a way that could reasonably be regarded to have contributed to material reputational damage to a member of the Group, or any other events specified in the Plan Rules have occurred, the Board may, at its discretion, determine any treatment in relation an award (including by reducing or extinguishing a participant's entitlement to an award).
Lapse of Performance Rights, Restricted Shares or Options	Unless the Board determines otherwise, a Share, Performance Right or Option will be forfeited or lapse on the earliest of: <ul style="list-style-type: none"> ▪ the date that the Board determines that any condition in respect of the Share, Option or Performance Right cannot be satisfied; ▪ the Share, Option or Performance Right being forfeited or lapsing in accordance with the cessation of employment provision; ▪ the Share, Option or Performance Right being forfeited or lapsing in accordance with the clawback provisions; ▪ the Share, Option or Performance Right being forfeited or lapsing in accordance with change of control provisions; or ▪ the participant purporting to deal or enter into any arrangement in respect of the Option or Performance Right in breach of the provisions under the Plan relating to rights and restrictions attached to Options or Performance Rights; or ▪ in the case of Options or Performance Rights, the date falling 15 years from the date on which they were granted.

7.3.3.3 STI

The Company's remuneration framework includes the STI as a form of performance-based and 'at risk' remuneration intended to align total remuneration outcomes to performance. The STI applies to all 29Metals employees.

Each executive, including the Managing Director & Chief Executive Officer, is eligible to participate in the STI. Non-executive Directors are not eligible for the STI. Awards under the STI are at the discretion of the Board and based on an assessment of performance against specific performance metrics set at the beginning of the relevant STI period.

Performance metrics for executives, including the Managing Director & Chief Executive Officer are Company performance metrics determined by the Board. Company performance metrics are set by the Board.

STI awards for 2021 will be paid 100% in cash. In future years, subject to the discretion of the Board and applicable shareholder approvals, STI awards for the Managing Director & Chief Executive Officer and Other Executives may be provided partly in cash and partly in the form of Performance Rights.

All STI awards are subject to a claw back mechanism and malus provisions.

7.3.3.4 LTI

The Company's remuneration framework includes the LTI as a form of performance-based and 'at risk' remuneration intended to align total remuneration outcomes to performance. Subject to the discretion of the Board, the LTI applies to executives, including the Managing Director & Chief Executive Officer, and certain other leadership, management and supervisory roles.

Non-executive Directors are not eligible for the LTI.

LTI awards are at the discretion of the Board and involve the award of Performance Rights to eligible participants. Unless the Board determines otherwise, Performance Rights awarded under the LTI are subject to a three-year vesting period and performance testing at the end of the vesting period against performance metrics determined by the Board at the time of award.

Awards of Performance Rights to the Managing Director & Chief Executive Officer under the LTI will also be subject to applicable shareholder approvals.

The first awards under the LTI will occur in 2022 (subject to the Board's discretion).

All LTI awards are subject to a claw back mechanism and malus provisions.

7.3.3.5 Staff Offer Incentive

The Board has resolved to make a one-off award of Performance Rights under the Plan to all of the Group's employees as of the date of this Prospectus, including the Managing Director & Chief Executive Officer, in connection with the Offer (the 'Staff Offer Incentive').

Non-executive Directors are not eligible for the Staff Offer Incentive.

The Staff Offer Incentive is intended as a reward to each eligible employee for their role in the successful completion of the Offer and incentivise employee retention in the near term.

Eligible employees will receive Performance Rights with a cash value at the Offer Price equal to 10% of each eligible recipient's TFR as at the date of this Prospectus (rounded to the nearest whole Performance Right).

Performance Rights awarded to eligible employees as part of the Staff Offer Incentive will:

- be awarded for nil consideration;
- automatically convert into a Share (on a one-to-one basis) upon vesting.
- be subject to a continuing service vesting condition and have the following vesting schedule:
 - 50% of an eligible employee's Performance Rights will vest on the second trading day after release of the Company's 2021 full year results to ASX; and
 - the remaining 50% of an eligible employee's Performance Rights vest on the second trading day after release of the Company's 2022 full year results to ASX.
 - Vesting of Performance Rights under the Staff Offer Incentive is subject to the relevant individual continuing to be employed by 29Metals on the applicable vesting date unless the Board determines otherwise.

7.3.3.6 Managing Director & Chief Executive Officer

The remuneration terms, along with notice periods, post-employment restraints and other benefits, for the Managing Director & Chief Executive Officer are summarised in the table below.

Key Terms	Description
Term:	Open term, subject to termination by the Company or the executive (refer to notice periods, below).
Total Fixed Remuneration ('TFR')	Under the terms of the Managing Director & Chief Executive Officer's Executive Services Agreement, the Managing Director & Chief Executive Officer is entitled to annual TFR of \$900,000 which includes base salary, statutory superannuation contributions and director's fees in relation to any directorship of 29Metals.
Performance-based Remuneration:	
Short Term Incentive ('STI')	<p>The Managing Director & Chief Executive Officer is eligible to participate in the STI plan described in section 7.3.3.3.</p> <p>Under the STI, the Managing Director & Chief Executive Officer is subject to the following target incentives:</p> <ul style="list-style-type: none"> ▪ 'Threshold' performance: 80% of TFR; ▪ 'At Target' performance: 100% of TFR; and ▪ 'Max' performance: 120% of TFR. <p>Below the 'Threshold' performance level the Managing Director & Chief Executive Officer will receive no STI award.</p> <p>STI award outcomes for the Managing Director & Chief Executive Officer are assessed against company performance metrics set by the Board.</p>
Long Term Incentive ('LTI')	<p>The Managing Director & Chief Executive Officer is eligible to participate in the LTI plan described in section 7.3.3.4.</p> <p>Under the LTI, the Managing Director & Chief Executive Officer is entitled to 100% of TFR in the form of Performance Rights². These Performance Rights have a three-year vesting period and are subject to continuing service of the Managing Director & Chief Executive Officer and vesting performance conditions determined by the Board at the time of the LTI award.</p>
Notice periods:	<p>The Managing Director & Chief Executive Officer's employment may be terminated by the Managing Director & Chief Executive Officer on six months' notice or by the Company on 12 months' notice.</p> <p>The Managing Director & Chief Executive Officer's employment may be terminated by the Company without notice in circumstances including material breach and serious misconduct.</p>
Post-employment Restraint:	On termination of employment, the Managing Director & Chief Executive Officer will be subject to a noncompete and non-solicit restraint for a period of up to six months.
Other benefits in connection with the Offer:	
Staff Offer Incentive (refer section 7.3.3.5)	The Managing Director & Chief Executive Officer will receive a grant of 45,000 Performance Rights under the Staff Offer Incentive with a cash value of \$90,000 at the Offer Price (being equal to 10% of the Managing Director & Chief Executive Officer's TFR as at the date of this Prospectus). Further information regarding the Staff Offer Incentive, including conditions applying to the Performance Rights granted is set out in section 7.3.3.5.
Transaction Fee (refer section 7.3.6)	The Managing Director & Chief Executive Officer will receive a Transaction Fee in connection with the Offer to be provided in the form of \$300,000 in cash and 200,000 Restricted Shares (with a value of \$400,000 at the Offer Price). Refer to section 7.3.5 for further Information.

² Subject to shareholder approval.

7.3.3.7 Other executives

The remuneration terms, along with notice periods, post-employment restraints and other benefits, for the Group's Chief Financial Officer, Chief Operating Officer and General Counsel & Company Secretary (together, the '**Other Executive Roles**') are summarised in the table below.

Key Terms	Description
Term:	Open term, subject to termination by the Company or the executive (refer to notice periods, below)
Total Fixed Remuneration ('TFR')	Annual TFR for Other Executives is \$521,000. This includes base salary and statutory superannuation contributions.
Performance-based Remuneration:	
Short Term Incentive ('STI')	<p>The Other Executives are eligible to participate in the STI plan described in section 7.3.3.3.</p> <p>Under the STI, the Other Executives are subject to the following target incentives:</p> <ul style="list-style-type: none"> ▪ 'Threshold' performance: 60% of TFR ▪ 'At Target' performance: 75% of TFR; and ▪ 'Max' performance: 90% of TFR. <p>Below the 'Threshold' performance level, the Other Executives receive no STI award.</p> <p>STI award outcomes for the Other Executives are assessed against company performance metrics set by the Board.</p>
Long Term Incentive ('LTI')	<p>The Other Executives are eligible to participate in the LTI plan described in section 7.3.3.4.</p> <p>Under the LTI, the Other Executives are entitled to 80% of TFR in the form of Performance Rights. These Performance Rights have a three-year vesting period and are subject to continuing service of the relevant Other Executive and vesting performance conditions determined by the Board.</p>
Notice periods:	<p>During the 12 months after the Listing Date, the employment of the Other Executives may be terminated by the relevant Other Executive on six months' notice or by the Company on 12 months' notice.</p> <p>After the anniversary of the Listing Date, the employment of the Other Executives may be terminated by the relevant Other Executive on three months' notice or by the Company on six months' notice.</p> <p>Other Executives' employment may be terminated by the Company without notice in circumstances including material breach and serious misconduct.</p>
Post-employment Restraint:	On termination of employment, the Other Executives will be subject to a non-compete and non-solicit restraint for a period of up to six months.
Other benefits in connection with the Offer:	
Staff Offer Incentive (refer section 7.3.3.5)	Each of the Other Executives will receive a grant of Performance Rights under the Staff Offer Incentive with a cash value equal to 10% of their TFR (rounded to the nearest whole Performance Right). Further information regarding the Staff Offer Incentive, including conditions applying to the Performance Rights granted is set out in section 7.3.3.5.
Transaction Fee (refer section 7.3.6)	Certain Other Executives will receive a Transaction Fee in connection with the Offer to be provided party in cash and partly in Restricted Shares. Refer to section 7.3.5 for further information.

7.3.4 Officer's indemnity, insurance and access agreements

29Metals has entered into a deed of indemnity, insurance and access with each of the Other Executives on equivalent terms to the deed entered into with Directors summarised in section 7.3.2.3 above.

7.3.5 Transaction Fee

Certain executives, including the Managing Director & Chief Executive Officer, were engaged by EMR Capital as independent consultants in preparation for, and execution of, the Offer. Under those arrangements, 29Metals agreed to pay a fee to those executives in the event of successful completion of the Offer ('**Transaction Fee**') that would be received partly in cash and partly in the form of Restricted Shares under the Plan.

Restricted Shares issued to eligible executives, including the Managing Director & Chief Executive Officer, will be subject to a two-year holding lock and the rules of the Plan.

Transaction Fees payable to eligible executives, including the Managing Director & Chief Executive Officer, are set out below.

Name	Transaction Fee
Peter Albert	\$300,000 in cash 200,000 Restricted Shares with a value of \$400,000 at the Offer Price (rounded to the nearest whole share)
Clifford Tuck	\$100,000 in cash 125,000 Restricted Shares with a value of \$250,000 at the Offer Price (rounded to the nearest whole share)

7.4 Relationship with EMR Capital

On completion of the Offer, EMR Capital will hold approximately 45.0% of the Shares on issue.

The Independent Non-executive Directors have approved the Company entering into a Relationship Deed on arms' length terms with EMR Capital that regulates aspects of their relationship while EMR Capital retains an interest in the Group, including:

- EMR Capital's right to nominate up to two Directors;³
- certain rights regarding access to information
- assistance the Company may provide to EMR Capital in connection with a sell-down of its Shares; and
- a protocol setting out how the Company and EMR Capital will manage instances where actual or potential conflicts of interests may arise.

Further information regarding the Relationship Deed is set out in section 10.6.9.

7.5 Related Party Transactions

Other than as set out below or elsewhere in this Prospectus, the Company is not party to any material related party arrangements.

As set out in section 7.1, certain Directors hold directorships or employment with other entities. Those entities may transact with the Company from time to time. Any such transactions ordinarily occur in the normal course of business, and the terms and conditions of the transactions are generally no more favourable than those available, or which might reasonably be expected to be available, for similar transactions with unrelated entities on an arm's length basis.

In addition, the Company has entered into the Relationship Deed and Sub-Lease with EMR Capital, each on an arm's length basis (and so member approval has not been sought). Further information regarding the Relationship Deed and the Sub-Lease is set out in 10.6.9 and 10.6.11, respectively.

³ As noted in section 7.1, EMR Capital intends to nominate a second EMR Nominee following Completion of the Offer.

7.6 Corporate Governance

The Board of 29Metals has ultimate responsibility for the management of 29Metals' business, including ensuring that appropriate governance arrangements are in place.

The Board has created a framework for managing the Company, including adopting corporate governance policies and practices, relevant internal controls and risk management processes that the Board considers appropriate for the Company's business and that are designed to promote the responsible management and conduct of the Company.

This section 7.6 describes how the Board will oversee the management of the Company's business and the governance arrangements, including a number of important policies and practices that will take effect from Listing.

Copies of the charters for the Board and each of its Committees, and the Company's key policies, will be available from Listing on the Company's website at www.29metals.com.

7.6.1 ASX Corporate Governance Council's Corporate Governance Principles and Recommendations

The Company is seeking a listing on the ASX. The ASX Corporate Governance Council has developed the fourth edition of the Corporate Governance Principles and Recommendations, which set out recommended corporate governance practices for entities listed on the ASX.

The ASX Recommendations are not prescriptive, but guidelines. Under the ASX Listing Rules, the Company must prepare a corporate governance statement annually disclosing the extent to which it has followed the ASX Recommendations during each reporting period. Where the Company does not follow an ASX Recommendation, it must identify the recommendation that has not been followed and state the reasons for not following the recommendation and what (if any) alternative governance practices it adopted in lieu of the recommendation during that period.

The Company intends to comply with all of the ASX Recommendations from the time of its Listing other than as set out below.

ASX Recommendation 29Metals

2.5 The Chair of the Board should be an independent director

The Chair of 29Metals is Owen Hegarty OAM, a Non-executive Director and EMR Nominee.

Notwithstanding that Mr Hegarty is not an independent director, the Board considers Mr Hegarty the most appropriate person to act as the Chair of 29Metals.

As noted above, Mr Hegarty is the co-founder and Executive Chair of EMR Capital. With over 40 years' experience in the global mining industry, Mr Hegarty's exposure to and knowledge of the industry is considered to be of significant value to the Board. In addition, as noted in section 3 (Company Overview), Mr Hegarty has extensive experience with the 29Metals assets (including, for example, knowledge of Golden Grove dating back to its ownership by Oxiana Limited at a time when Mr Hegarty was CEO of the company). For these reasons, the Board considers that it is in the best interests of Shareholders that Mr Hegarty, with his extensive background and experience, be the Chair of 29Metals.

7.6.2 Board and Committees

7.6.2.1 Composition of the Board

The Board is currently comprised of five Directors:

- 3 Independent Non-executive Directors;
- 1 EMR Nominee – a Non-executive Director; and
- the Managing Director & Chief Executive Officer.

As noted in section 7.1, The Board intends to appoint an additional independent Director and, following completion of the Offer, will commence a process to identify suitable candidates for that role. In addition, EMR Capital intends to nominate a second EMR Nominee Director in accordance with the Relationship Deed⁴. It is the intention of the Board and EMR Capital that these future appointments will be made contemporaneously to ensure that the Board remains majority independent.

The Board will regularly assess the independence of each Director. For this purpose, the Board Charter includes an "Independence Guideline" to be applied by the Board when assessing the matter of independence.

The EMR Nominee Director, Owen Hegarty OAM, and Peter Albert are not currently considered by the Board to be Independent Directors, as:

- Mr Hegarty (the Non-executive Chair) is the co-founder and Executive Chair of EMR Capital and an EMR Nominee; and
- Mr Albert, as the Managing Director & Chief Executive Officer of the Company, is an executive Director.

The Board considers that each of Fiona Robertson, Jacqui McGill and Martin Alciaturi are Independent Directors and that each is able to fulfil the role of an independent Director.

The Board may from time to time establish committees to assist in the discharge of its responsibilities. The Board has established three standing committees – the Audit, Governance & Risk Committee, the Remuneration & Nominations Committee and the Health, Safety, Environment and Community Committee – each of which operates under a Committee Charter.

Each of the Committees has the responsibilities described in its charter which have been prepared having regard to the ASX Listing Rules, the Corporations Act and the ASX Recommendations.

7.6.2.2 EMR Nominee Directors

As noted above, the Board includes one EMR Nominee Director – Mr Owen Hegarty OAM. The EMR Nominee Director has been nominated by EMR Capital pursuant to the Relationship Deed and represents the EMR Capital Investors. As further noted above, EMR Capital intends to nominate a second EMR Nominee Director at a future time in accordance with the terms of the Relationship Deed.

7.6.2.3 Board Charter

The Board has adopted a written charter to provide a framework for the effective operation of the Board, which sets out:

- the role and responsibilities of the Board;
- the role and responsibilities delegated to the Company's senior management team; and
- the rules and processes that the Board will apply to the discharge of its responsibilities.

The role of the Board includes:

- providing leadership;
- approving the Company's strategic framework, vision and values;
- ensuring that an appropriate governance framework is in place, including systems, controls and processes to safeguard against misconduct and identify, evaluate and manage risk;
- setting the tone for the Company's commitment to ethical and responsible business practices and behaviours;
- overseeing and monitoring the Company's business performance and financial condition, and the performance of the Company's senior management team;
- critically reviewing business performance and information provided by the Company's senior management team;
- monitoring compliance with legal and regulatory requirements, community and stakeholder expectations, external commitments, and safeguarding the reputation of the Company;
- whenever required, challenging and holding the Company's senior management team to account; and
- ensuring that Shareholders and market participants receive timely, accurate and balanced information regarding the Company's performance, prospects and financial position.

With the prior approval of the Chair (or, in the case of the Chair, the prior approval of the Chair of the Audit, Governance & Risk Committee), Directors may seek and obtain independent professional advice at the Company's cost relating to the discharge of their responsibilities.

The Board Charter will be reviewed by the Board, at least annually, to assess its relevance and effectiveness in the context of the Company and its activities, the corporate governance expectations of the Shareholders and other stakeholders, the ASX Recommendations, and community expectations.

⁴ Refer to section 7.4 and section 10.6.9 for further information regarding the Relationship Deed, including EMR Capital's rights to nominate the EMR Nominee Directors.

7.6.2.4 Audit, Governance & Risk Committee Charter

The members of the Audit, Governance & Risk Committee are Fiona Robertson, Jacqui McGill and Martin Alciaturi. The members have been appointed by the Board and all are Independent Directors. The committee is chaired by an independent Director, Ms Robertson.

The role of the Audit, Governance & Risk Committee is to provide advice and recommendations to the Board, and to assist the Board to discharge its responsibilities in relation to the:

- integrity and quality of the Group's statutory and other public financial reporting;
- Group's financial reporting systems and processes, including financial controls;
- Group's external and internal audit programs;
- Group's systems and processes for the management of risk;
- Group's systems and processes for monitoring and maintaining compliance with the Group's legal and regulatory obligations; and
- Group's governance framework, including core governance principles.

29Metals will comply with the ASX Recommendations in relation to the composition and operation of the Audit, Governance & Risk Committee.

7.6.2.5 Remuneration & Nominations Committee Charter

The members of the Remuneration & Nominations Committee are Martin Alciaturi, Jacqui McGill and Owen Hegarty OAM. The members have been appointed by the Board and all are Non-executive Directors. The committee is chaired by an independent Director, Mr Alciaturi.

The role of the Remuneration & Nominations Committee is to provide advice and recommendations to the Board, and to assist the Board to discharge its responsibilities in relation to the Group's:

- remuneration strategy and framework;
- systems and processes for assessing people performance, and for attracting and retaining a diverse and highly skilled workforce;
- policies and strategies for developing the workforce and promoting a culture which reflects the Company's values; and
- succession planning and nominations to the Board.

7.6.2.6 Health, Safety, Environment and Community Committee Charter

The members of the Health, Safety, Environment and Community Committee are Jacqui McGill, Fiona Robertson and Owen Hegarty OAM. The members have been appointed by the Board and all are Non-executive Directors. The committee is chaired by an independent Non-executive Director, Ms McGill.

The role of the Health, Safety, Environment and Community Committee is to assist the Board to discharge its responsibilities in relation to the Group's performance and management of risks in relation to:

- health and wellbeing;
- safety;
- environment (including climate change and the management of tailings);
- community and social engagement; and
- human rights and security.

7.6.3 Key governance policies

The Board has adopted the following governance policies, each of which has been prepared having regard to the ASX Recommendations and will be available from Listing on the Company's website.

Information regarding key 29Metals ESG policies is included in section 3.9.

7.6.3.1 Disclosure and Communications Policy

Once listed, the Company will be required to comply with the continuous disclosure requirements in the Listing Rules and the Corporations Act. 29Metals is committed to observing its disclosure obligations under the Listing Rules and the Corporations Act.

Subject to the exceptions contained in the Listing Rules, the Company will be required to disclose to the ASX any information concerning 29Metals which is not generally available and which a reasonable person would expect to have a material effect on the price or value of the Shares.

The Company has adopted a Disclosure and Communications Policy to take effect from Listing which establishes procedures and processes aimed at ensuring that all 29Metals personnel who have access to sensitive information understand how to identify and escalate information to enable it to be assessed for the purposes of the Company's disclosure obligations, and also to understand the nature and importance of the Company's disclosure obligations.

Personnel in nominated roles under the policy are required to actively monitor business performance and developments, within their respective areas of management or functional accountability, to identify information that may be sensitive information warranting disclosure under the Company's continuous disclosure obligations. The Executive Leadership team has the responsibility for assessing information to determine if disclosure is required or desirable.

The policy also sets out which persons are authorised to speak on behalf of the Company and specific requirements for engaging with investors and other market participants.

7.6.3.2 Securities Dealings Policy

The Company has adopted a Securities Dealings Policy that outlines prohibited conduct in relation to dealings in securities. It sets out the systems and processes applied by the Company to safeguard against breaches of the policy and is intended to assist its Directors, officers, employees and contractors to understand and comply with applicable securities trading laws.

The Securities Dealings Policy applies to all Group personnel, including contractors and consultants, and extends to persons with whom those personnel have a close relationship or connection.

7.6.3.3 Code of Conduct

29Metals is committed to conducting business in an ethical and responsible way. The Board has adopted a Code of Conduct, which enshrines 29Metals' values, outlines the way 29Metals works, and confirms 29Metals' expectations of its employees. The standards of conduct set out in the policy apply both within the workplace and in any 29Metals business-related situation, including outside working hours or at locations other than 29Metals workplaces.

The Remuneration & Nominations Committee is responsible for overseeing the implementation of the Code of Conduct.

7.6.3.4 Inclusion & Diversity Policy

29Metals is committed to promoting an inclusive workplace, where all people feel respected and valued, and embracing the benefits of diversity. The Board has adopted an Inclusion & Diversity Policy, which sets out the principles that will guide 29Metals' commitment to inclusion and diversity, and how 29Metals will translate its commitment to action.

The Remuneration & Nominations Committee is responsible for overseeing the policy and monitoring 29Metals' progress against inclusion and diversity objectives adopted by the Board.

7.6.3.5 Anti-Bribery and Corruption Policy

The Company is committed to conducting its business and activities with integrity, and prohibits bribery and corruption, in any form, whether direct or indirect, whether in the private or public sector, anywhere in the world.

The policy prohibits offering, paying, soliciting, or accepting a bribe in any form, and all forms of corrupt business practice. Detailed guidelines are provided in respect of gifts and entertainment, and political and charitable donations. The policy also sets out specific requirements in relation to dealing with government officials, noting that a high degree of caution needs to be exercised when exchanging gifts or entertainment with government officials.

The Anti-Bribery and Corruption Policy applies to all Company personnel, including its contractors.

7.6.3.6 Whistleblower Policy

The Company is committed to the highest standards of conduct and ethical behaviour. The purpose of the Whistleblower Policy is to promote and reinforce that commitment.

The Whistleblower Policy sets out the processes adopted by the Company to encourage concerns to be raised about misconduct, malpractice, irregularities or any other behaviour which is corrupt, illegal or inconsistent with any of the Company's values or policies (including its code of conduct), without the person raising the concern being subject to detrimental treatment. It outlines the process for individuals to raise concerns about conduct which should be reported and the protections that are available for individuals who make such reports.

The policy applies to all current and former employees, officers and suppliers to the Group (including individuals who are or were previously employed by such a supplier), and any spouses or dependants of those individuals.

The Audit, Governance & Risk Committee is responsible for overseeing this policy.

7.6.3.7 Modern Slavery Policy

The Company is committed to ensuring it has effective systems and controls for detecting and eliminating modern slavery within its business operations and supply chains. The Company prohibits the use of all forms of modern slavery in its operations and requires each person working for the Group to respect and work to uphold human rights.

The Modern Slavery Policy requires all Group personnel to:

- comply with all applicable modern slavery laws and regulations, including but not limited to the *Modern Slavery Act 2018* (Cth) and any other applicable modern slavery laws in any jurisdiction where 29Metals conducts its business;
- assist the Company to proactively identify, assess, mitigate and remediate modern slavery risks and impacts in the Company's business operations and supply chains; and
- communicate obligations under the Modern Slavery Policy, the *Modern Slavery Act 2018* (Cth), and any related legislation and documents to all employees, business partners, contractors, suppliers and other associates as relevant.

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Metals

8.0
Details of the Offer



Golden Grove core yard

8.1 The Offer

The Offer comprises an initial public offering of 263,895,250 New Shares and the transfer of Shares by SaleCo at the Offer Price of \$2.00 per Share. The Offer is expected to raise approximately \$527.8 million. The Shares being offered under the Offer will represent 54.9% of the Shares on issue at Completion.

The total number of Shares on issue at Completion will be 480,455,000 and all Shares on issue will rank equally with each other.

A summary of the rights attaching to the Shares is set out in section 10.4.

In addition, 2,114,872 Performance Rights will be granted under the Staff Offer Incentive and 325,000 Restricted Shares will be issued as part of the Transaction Fee payable to certain members of Management, as described in section 7 (Key People, Interests and Benefits). Those Performance Rights and Restricted Shares will be issued under this Prospectus.

The Offer is made on the terms, and is subject to the conditions, set out in this Prospectus.

8.1.1 Structure of the Offer

The Offer comprises:

- the Retail Offer, consisting of the:
 - Broker Firm Offer – which is open to Australian and New Zealand resident retail clients of participating Brokers, who receive an invitation from a Broker to acquire Shares under this Prospectus;
 - Priority Offer – which is open to selected investors nominated by 29Metals in eligible jurisdictions, who have received a Priority Offer invitation to acquire Shares under this Prospectus; and
 - The Employee Offer, which is only open to Eligible Employees; and
- the Institutional Offer – which consists of an offer to Institutional Investors in Australia and certain other jurisdictions around the world (other than the United States), made under this Prospectus and to Institutional Investors in the United States under the U.S. Institutional Offering Memorandum.

No general public offer of Shares will be made under the Offer.

The allocation of Shares between the Retail Offer and the Institutional Offer was determined by agreement between the Joint Lead Managers, SaleCo and 29Metals, having regard to the allocation policies outlined in sections 8.5.4, 8.6.4 and 8.8.2.

The Offer is managed by the Joint Lead Managers. A summary of the Underwriting Agreement, including the events which would entitle the Joint Lead Managers to terminate the Underwriting Agreement are set out in section 10.6.1.

8.1.2 Purpose of the Offer

The Offer, and resulting admission to the Official List, is being conducted to:

- provide 29Metals with access to capital markets to give added financial flexibility to pursue further growth opportunities;
- provide 29Metals with funds to repay part of the Group's existing debt;
- provide a liquid market for Shares; and
- allow the EMR Capital Investors to realise part of their investment in 29Metals.

Table 8.1: Sources and Uses of Offer Proceeds

Sources	\$m	Uses	\$m
Cash proceeds from New Shares issued under the Offer	245.0	Derivative Payout, Debt and Working Capital Reduction ¹	135.5
Cash proceeds received from sale of Shares	282.8	Payment to SaleCo of proceeds of sale of Shares	269.8
		Working capital	28.0
		Payment of Offer costs ²	72.8
		Payments to employees and consultants triggered by the Offer	8.7
		Cash held by 29Metals from EMR Capital Investment (No.6B) Pte. Ltd ³	13.0
Total sources	527.8	Total uses	527.8

Notes:

1 See section 5.2.5.1 for further details.

2 Including adviser fees described in section 7.3.1, stamp duty, public offering of securities insurance ('POSI') and other costs, such as registry fees and ASX listing fees.

3 Cash Backed Indemnity Amount held by 29Metals, as summarised in section 10.6.12.3.

8.1.3 Potential effect of the fundraising on the future of 29Metals

The Directors believe that on Completion, 29Metals will have sufficient funds available from the proceeds of the Offer and its operations to fulfil the purposes of the Offer and meet its stated business objectives.

8.2 Shareholding Structure

The details of the ownership of Shares immediately prior to and on Completion are set out below:

Table 8.2: Shares held pre-Completion and on Completion

	Shares held pre-Completion		Shares held on Completion	
	m	%	m	%
EMR Capital Investors	357,600,000	100.0	216,204,750	45.0
Management and Directors	-	-	355,000	<0.1
New Shareholders	-	-	263,895,250	54.9
Total	357,600,000	100.0	480,455,000	100.0

At Completion, 45.0% of the Shares will be subject to voluntary escrow arrangements. See section 8.11 for further information.

8.3 Control Implications of the Offer

The Directors do not expect any Shareholder will control (as defined by section 50AA of the Corporations Act) 29Metals on Completion. However, investors should be aware that the EMR Capital Investors will hold a combined shareholding in the Company of approximately 45% on Completion.

8.4 Terms and Conditions of the Offer

Topic	Summary
What is the type of security being offered?	Shares (being fully paid ordinary shares in 29Metals).
What are the rights and liabilities attached to the securities?	A description of the Shares, including the rights and liabilities attaching to them, is set out in section 10.4.
What is the consideration payable for each security being offered?	The Offer Price is \$2.00 per Share.
What is the Offer Period?	<p>The key dates, including details of the Offer Period, are set out on page 7.</p> <p>The key dates are indicative only and may change. Unless otherwise indicated, all times are stated in Melbourne time.</p> <p>29Metals and the Joint Lead Managers reserve the right to vary any and all of the times and dates without notice (including, subject to the ASX Listing Rules and the Corporations Act, to close the Offer early, to extend the Offer Period relating to any component of the Offer, or to accept late Applications, either generally or in particular cases, or to cancel or withdraw the Offer before Settlement, in each case without notifying any recipient of this Prospectus or any Applicants).</p> <p>If the Offer is cancelled or withdrawn before the allocation of Shares, then all Application Monies will be refunded in full (without interest) as soon as possible in accordance with the requirements of the Corporations Act.</p> <p>No Shares will be issued on the basis of this Prospectus later than the Expiry Date of 13 months after the Prospectus Date.</p>
What are the cash proceeds to be raised?	Approximately \$527.8 million is expected to be raised under the Offer based on the Offer Price if the Offer proceeds.
Is the Offer underwritten?	Yes. The Offer, including the Priority Offer and the Employee Offer, will be fully underwritten by the Joint Lead Managers. More detail on the underwriting arrangements is set out in section 10.6.1.
Who is the Sole Global Co-ordinator?	The Sole Global Co-ordinator is Macquarie Capital (Australia) Limited.
Who are the Joint Lead Managers to the Offer?	The Joint Lead Managers are Macquarie Capital (Australia) Limited, Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited.
What is the minimum and maximum Application size under the Offer?	<p>The minimum Application under the Broker Firm Offer is \$2,000 of Shares in aggregate. There is no maximum Application under the Broker Firm Offer.</p> <p>The minimum Application under the Priority Offer and Employee Offer is \$2,000 of Shares in aggregate. Priority Offer Applicants may apply for the value of shares indicated in their Priority Offer invitation. There is no maximum Application under the Priority Offer or the Employee Offer. The Priority Offer and Employee Offer will be capped at an aggregate amount of \$7 million.</p> <p>29Metals and the Joint Lead Managers reserve the right to reject any Application or to allocate a lesser number of Shares than applied for, in their absolute discretion provided each Employee Offer Applicant will be guaranteed a minimum allocation of \$15,000 worth of Shares. In addition, 29Metals and the Joint Lead Managers reserve the right to aggregate any Applications that they believe may be multiple Applications from the same person or reject or scale back any Applications (or aggregation of Applications) in the Broker Firm Offer which are for more than \$250,000 of Shares.</p>
What is the allocation policy?	The allocation of Shares between the Institutional Offer, Broker Firm Offer, Priority Offer and Employee Offer was determined by 29Metals and the Joint Lead Managers having regard to the policies outlined in section 8.5.4, 8.6.4, 8.7.4 and 8.9.2.
When will I receive confirmation that my Application has been successful?	<p>It is expected that initial holding statements will be dispatched to successful applicants by standard post on or about Thursday, 8 July 2021.</p> <p>Refunds (without interest) to Applicants who make an Application and receive an allocation of Shares, the value of which is smaller than the amount of the Application Monies, will be made as soon as practicable after Completion of the Offer.</p>

Topic	Summary
Will the Shares be quoted on ASX?	<p>29Metals will apply to ASX within seven days of the Prospectus Date for its admission to the Official List and quotation of Shares (under the code "29M"). It is anticipated that quotation will initially be on a conditional and deferred settlement basis.</p> <p>The issue and allotment of Shares is conditional on ASX approving 29Metals' application for admission. If approval is not given within three months after such application is made (or any longer period permitted by law), the Offer will be withdrawn and all Application Monies received will be refunded (without interest), as soon as practicable in accordance with the requirements of the Corporations Act.</p>
When are the Shares expected to commence trading?	<p>It is expected that trading of the Shares on ASX will commence on or about Friday, 2 July 2021 on a conditional and deferred settlement basis.</p> <p>Conditional trading will continue until 29Metals has advised ASX that the Restructure has been completed and 29Metals and SaleCo have issued and transferred Shares to successful Applicants under the Offer, which is expected to be on or about Tuesday, 6 July 2021.</p> <p>From the date conditional trading ends, trading will be on an unconditional but deferred settlement basis until 29Metals has advised ASX that holding statements have been dispatched to Shareholders.</p> <p>Normal settlement basis trading is expected to commence on or about Wednesday, 7 July 2021. If Settlement has not occurred within 14 days (or such longer period as ASX allows) after the day Shares are first quoted on ASX, the Offer and all contracts arising on acceptance of the Offer and confirmations of allocations will be cancelled and of no further effect and all Application Monies will be refunded (without interest). In these circumstances, all purchases and sales made through ASX participating organisations during the conditional trading period will be cancelled and of no effect.</p> <p>It is the responsibility of each Applicant to confirm their holding before trading in Shares. Applicants who sell Shares before they receive an initial statement of holding do so at their own risk.</p> <p>29Metals, SaleCo, the Share Registry and the Joint Lead Managers disclaim all liability, whether in negligence or otherwise, to persons who sell Shares before receiving a holding statement, even if such person received confirmation of allocation from the 29Metals IPO Offer Information Line or confirmed their firm allocation through a Broker.</p>
Are there any escrow arrangements?	Yes. Details are provided in section 8.11.
Has any ASIC relief or ASX waiver or confirmation been sought, obtained or been relied on?	Details are provided in section 10.8.
Are there any tax considerations?	Yes. Details are provided in section 10.13.
Are there any brokerage, commission or stamp duty considerations?	No brokerage, commission or stamp duty is payable by Applicants on acquisition of Shares under the Offer.
Will the Offer be extended into New Zealand?	Shares offered to investors in New Zealand under the Offer are being offered under the New Zealand Mutual Recognition Regime.
What should you do with any enquiries?	<p>All enquiries in relation to this Prospectus should be directed to the 29Metals IPO Offer Information Line on 1800 500 095 (within Australia) or +61 1800 500 095 (outside Australia) from 8.30am to 5.30pm (Melbourne time), Monday to Friday.</p> <p>All enquiries in relation to the Broker Firm Offer should be directed to your Broker.</p> <p>If you have any questions about whether to invest in 29Metals, you should seek professional advice from your accountant, financial adviser, stockbroker, lawyer or other professional adviser before deciding whether to invest.</p>

8.5 Broker Firm Offer

8.5.1 Who Can Apply?

The Broker Firm Offer is open to Australian resident retail clients and New Zealand resident retail clients of participating Brokers who have a registered address in Australia or New Zealand respectively and who received an invitation from a Broker to acquire Shares under this Prospectus and are not in the United States. You should contact your Broker to determine whether you can receive an allocation of Shares under the Broker Firm Offer.

8.5.2 How to Apply?

If you have received an invitation to apply for Shares from your Broker and wish to apply for those Shares under the Broker Firm Offer, you should contact your Broker for information about how to submit your Broker Firm Offer Application Form and for payment instructions. Applicants under the Broker Firm Offer must not send their Application Forms or payment to the Share Registry.

Applicants under the Broker Firm Offer should contact their Broker to request a Prospectus and Application Form, or download a copy at <https://events.miraqle.com/29metals-ipo/>. Your Broker will act as your agent and it is your Broker's responsibility to ensure that your Application Form and Application Monies are received before 5.00pm (Melbourne time) on the Closing Date or any earlier closing date as determined by your Broker.

Broker clients should complete and lodge their Broker Firm Offer Application Form with the Broker from whom they received their invitation to participate in the Broker Firm Offer. Broker Firm Offer Application Forms must be completed in accordance with the instructions given to you by your Broker and the instructions set out on the back of the Application Form.

By making an Application, you declare that you were given access to the Prospectus, together with an Application Form. The Corporations Act prohibits any person from passing an Application Form to another person unless it is attached to, or accompanied by, a hard copy of this Prospectus or the complete and unaltered electronic version of this Prospectus.

The minimum Application size under the Broker Firm Offer is \$2,000 of Shares in aggregate. There is no maximum Application size under the Broker Firm Offer, however 29Metals, SaleCo and the Joint Lead Managers reserve the right not to accept Applications in the Broker Firm Offer that are from persons they believe may be Institutional Investors or reject or scale back any Applications (or aggregation of Applications) in the Broker Firm Offer which are for more than \$250,000 Shares.

29Metals may determine a person to be eligible to participate in the Broker Firm Offer, and may amend or waive the Broker Firm Offer application procedures or requirements, in its discretion in compliance with applicable laws.

The 29Metals, the Joint Lead Managers and the Share Registry take no responsibility for any acts or omissions committed by your Broker in connection with your Application.

The Broker Firm Offer opens at 9.00am (Melbourne time) on Tuesday, 22 June 2021 and is expected to close at 5.00pm (Melbourne time) on Wednesday, 30 June 2021. 29Metals and the Joint Lead Managers may elect to close the Broker Firm Offer or any part of it early, extend the Broker Firm Offer or any part of it, or accept late Applications either generally or in particular cases. The Broker Firm Offer or any part of it may be closed at any earlier time and date, without further notice. Your Broker may also impose an earlier closing date. Applicants are therefore encouraged to submit their Applications as early as possible. Contact your Broker for instructions.

8.5.3 How to Pay?

Applicants under the Broker Firm Offer must pay their Application Monies to their Broker in accordance with instructions provided by that Broker.

8.5.4 Broker Firm Offer Allocation Policy

The allocation of Shares to Brokers will be determined by the Joint Lead Manager, SaleCo and 29Metals. Shares which are allocated to Brokers for allocation to their retail clients will be issued to the Applicants nominated by those Brokers (subject to the right of the Joint Lead Manager and 29Metals to reject, aggregate or scale back Applications). It will be a matter for each Broker as to how they allocate Shares among their retail clients, and they (and not the Joint Lead Manager, SaleCo or 29Metals) will be responsible for ensuring that retail clients who have received an allocation from them receive the relevant Shares.

Applicants in the Broker Firm Offer will be able to call the 29Metals IPO Offer Information Line on 1800 500 095 (within Australia) or +61 1800 500 095 (outside Australia) from 8.30am to 5.30pm (Melbourne time), Monday to Friday to confirm their allocation. Applicants under the Broker Firm Offer will also be able to confirm their allocation through the Broker from whom they received their allocation.

However, if you sell Shares before receiving a holding statement, you do so at your own risk, even if you obtained details of your holding from the 29Metals IPO Offer Information Line or confirmed your allocation through the Broker from whom you received your allocation.

8.6 Priority Offer

8.6.1 Who can Apply?

- The Priority Offer is open to selected investors nominated by 29Metals in eligible jurisdictions who have received a Priority Offer invitation. If you are an Applicant under the Priority Offer, you should have received a personalised invitation to apply for Shares in the Priority Offer. The Priority Offer is not open to persons who are in the United States or a US Person (as defined in Regulation S under the US Securities Act).
- Your personalised invitation will indicate an amount of Shares that you may apply for.

8.6.2 How to Apply?

If you have received a personalised invitation to apply for Shares under the Priority Offer and you wish to apply for all or some of those Shares, you must apply in accordance with the instructions provided in your personalised invitation to apply.

By making an Application, you declare that you were given access to the Prospectus, together with an Application Form.

8.7 Employee Offer

8.7.1 Who can apply?

The Employee Offer is open to Australian resident permanent full time or part time employees of the Golden Grove Group or the Capricorn Copper Group as at 5.00pm (Melbourne time) on Wednesday, 30 June 2021 and the Directors provided that in each case such person is not in the United States ('Eligible Employees').

8.7.2 How to apply?

Eligible Employees may apply for Shares online and must complete the instructions on the website, <https://events.miraqle.com/29metals-ipo/>.

8.7.3 How to pay?

For Eligible Employees, payment may be made by BPAY® only. Application Monies must be received by the Share Registry by 5.00pm (Melbourne time) on Wednesday, 30 June 2021.

The Corporations Act prohibits any person from passing an Application Form to another person unless it is attached to, or accompanied by, a hard copy of this Prospectus or the complete and unaltered electronic version of this Prospectus.

8.6.3 How to Pay?

If you are an Applicant under the Priority Offer, you must pay for Shares applied for following the instructions on your personalised invitation.

8.6.4 Priority Offer Allocation Policy

The Allocation of Shares among Applicants in the Priority Offer will be determined by 29Metals in its absolute discretion, in consultation with the Joint Lead Managers. There is no assurance that any Applicant will be allocated any Shares, or the number of Shares for which the Applicant applied.

To make a payment via BPAY®, Applicants will need to apply online at <https://events.miraqle.com/29metals-ipo/> and must comply with the instructions on the website. It is the Applicant's responsibility to ensure that his or her BPAY® payment is received by the Share Registry no later than 5.00pm (Melbourne time) on Wednesday, 30 June 2021. Financial institutions may implement earlier cut-off times with regards to electronic payment, and Applicants should therefore take this into consideration when making payment.

8.7.4 Employee Offer allocation policy

Each Eligible Employee will be offered a guaranteed minimum allocation of \$15,000 worth of Shares at the Offer Price (rounded to the nearest whole Share). Subject to the guaranteed minimum allocation, the final allocation of Shares to Applicants in the Employee Offer will be at 29Metals' absolute discretion and 29Metals may reject an Application, or allocate fewer Shares than the amount applied for at the Offer Price.

8.8 Application Monies

29Metals and SaleCo reserve the right to decline any Application in whole or in part, without giving any reason. Application Monies received under the Broker Firm Offer, the Priority Offer or the Employee Offer will be held in a special purpose account until Shares are issued to successful Applicants. Applicants under the Broker Firm Offer, the Priority Offer or the Employee Offer whose Applications are not accepted, or who are allocated a lesser number of Shares than the amount applied for, will receive a refund of all or part of their Application Monies, as applicable. Interest will not be paid on any monies refunded.

Applicants whose Applications are accepted in full will receive the whole number of Shares calculated by dividing the Application Monies by the Offer Price. Where the Offer Price does not divide

evenly into the Application Monies, the number of Shares to be allocated will be rounded down. No refunds pursuant solely to rounding will be provided.

Interest will not be paid on any monies refunded and any interest earned on Application Monies pending the allocation or refund will be retained by 29Metals.

You should ensure that sufficient funds are held in the relevant account(s) to cover the amount of your BPAY® payment. If the amount of your BPAY® payment for Application Monies is less than the amount specified on the Application Form, you may be taken to have applied for such lower dollar amount of Shares or your Application may be rejected.

8.9 Institutional Offer

8.9.1 Invitations to Bid

Under the Institutional Offer, Institutional Investors in Australia and certain other eligible jurisdictions outside the United States were invited to bid for an allocation of Shares under this Prospectus. The Joint Lead Managers separately advised the Institutional Investors of the Application procedures for the Institutional Offer.

8.9.2 Institutional Offer Allocation Policy

The allocation of Shares among Applicants in the Institutional Offer was determined by agreement between the Joint Lead Managers, SaleCo and 29Metals.

Participants in the Institutional Offer have been advised of their allocation of Shares, if any, by the Joint Lead Managers.

The allocation policy was influenced by, but not constrained, by the following factors:

- number of Shares bid for by particular Applicants;
- the timeliness of the bid by particular Applicants;
- 29Metals' desire for an informed and active trading market following Completion;
- 29Metals' desire to establish a wide spread of institutional Shareholders;
- overall anticipated level of demand under the Broker Firm Offer, Priority Offer, Employee Offer and Institutional Offer;
- the size and type of funds under management of particular Applicants;
- the likelihood that particular Applicants will be long term Shareholders; and
- any other factors that 29Metals, SaleCo and the Joint Lead Managers consider appropriate.

8.10 Acknowledgements

Each Applicant under the Offer will be deemed to have:

- agreed to become a member of 29Metals and to be bound by the terms of the Constitution and the terms and conditions of the Offer;
- acknowledged having personally received a printed or electronic copy of the Prospectus (and any supplementary or replacement prospectus) including or accompanied by the Application Form and having read them all in full;
- declared that all details and statements in their Application Form are complete and accurate;
- declared that the Applicant(s), if a natural person, is/are over 18 years of age;
- acknowledged that, once 29Metals or a Broker receives an Application Form, it may not be withdrawn;
- applied for the number of Shares at the Australian dollar amount shown on the front of the Application Form;
- agreed to being allocated and issued the number of Shares applied for (or a lower number allocated in a way described in this Prospectus), or no Shares at all;
- authorised 29Metals, the Joint Lead Managers, the Co-Managers, and their respective officers or agents, to do anything on behalf of the Applicant(s) necessary for Shares to be allocated to the Applicant(s), including to act on instructions received by the Share Registry upon using the contact details in the Application Form;
- acknowledged that, in some circumstances, 29Metals may not pay dividends, or that any dividends paid may not be franked;
- acknowledged that the information contained in this Prospectus (or any supplementary or replacement prospectus) is not financial product advice or a recommendation that Shares are suitable for the Applicant(s), given the investment objectives, financial situation and particular needs (including financial and taxation issues) of the Applicant(s);
- declared that the Applicant(s) is/are a resident of Australia or New Zealand (except as applicable to the Institutional Offer);
- acknowledged and agreed that the Offer may be withdrawn by 29Metals or may otherwise not proceed in the circumstances described in this Prospectus; and
- acknowledged and agreed that if Listing does not occur for any reason, the Offer will not proceed.

Each Applicant in the Broker Firm Offer, Priority Offer and Employee Offer will be taken to have represented, warranted and agreed as follows:

- it understands that the Shares have not been, and will not be, registered under the US Securities Act or the securities laws of any state of the United States and may not be offered, sold or resold in the United States, except in a transaction exempt from, or not subject to, the registration requirements under the US Securities Act and any other applicable state securities laws;
- it is not in the United States;
- it has not sent and will not send the Prospectus or any other material relating to the Offer to any person in the United States; and
- it will not offer or sell the Shares in the United States or in any other jurisdiction outside Australia except in transactions exempt from, or not subject to, the registration requirements of the US Securities Act and in compliance with all applicable laws in the jurisdiction in which Shares are offered and sold.

8.11 Voluntary Escrow Arrangements

At Completion, 45.0% of the Shares will be subject to voluntary escrow arrangements.

Table 8.3: Voluntary Escrowed Shareholders

	Number of Escrowed Shares (on Completion of the Offer) (m)	Escrowed Shares (as a % of Shares on issue on Completion of the Offer) (%)
EMR Capital Investors	216,204,750	45.0
Total	216,204,750	45.0

Under the terms of the voluntary escrow arrangements, subject to certain customary exceptions, Shares held by the Escrowed Shareholders on Completion will be subject to escrow restrictions for the period from Completion and ending at 4.15pm on the second Trading Day (as defined in the Listing Rules) following the day on which the Company's full year results for the financial year ending 31 December 2021.

8.11.1 Terms of Voluntary Escrow Arrangements

Each Escrowed Shareholder has agreed to enter into an escrow deed in respect of their escrowed shareholding retained following Completion, which prevents them from dealing with their Escrowed Shares for the escrow period described above.

Under the terms of those escrow arrangements, the Escrowed Shareholders have agreed to not 'deal' in the Escrowed Shares during the period commencing on the date of Completion and ending at 4.15pm on the second Trading Day (as defined in the Listing Rules) following the day on which the Company's full year results for the financial year ending 31 December 2021 are released to ASX, subject to the following exceptions:

- acceptance of an offer under a takeover offer, provided that the holders of at least 50% of the Shares that are not subject to any escrow arrangements, and to which the offers under the takeover offer relate, have accepted the takeover offer; or
- the Escrowed Shareholder to tender any of its Escrowed Shares into a bid acceptance facility established in connection with a takeover offer, provided that holders of at least 50% of the Shares that are not subject to escrow arrangements and to which the offers under the takeover offer relate have either accepted the takeover offer or tendered (and not withdrawn) their Shares into the bid acceptance facility; or
- the Escrowed Shares are to be transferred or cancelled as part of a merger by scheme of arrangement under Part 5.1 of the Corporations Act; or

- the granting of a security interest over any or all of the Escrowed Shares to a third party as security for a loan, hedge or other financial accommodation, provided that the security interest does not in any way constitute a direct or indirect disposal of the economic interests, or decrease an economic interest, that the holder has in any of the Escrowed Shares, and provided further that no Escrowed Shares are to be transferred or delivered to the third party in connection with the security interest and any agreement with the third party must provide that the third party agrees in writing to take or acquire the security interest subject to the terms of the original escrow conditions; or
- notification to ASX under Listing Rule 3.10A; or
- a dealing pursuant to any applicable laws (including an order of a court of competent jurisdiction); or
- the transfer of Escrowed Shares to a transferee when the transfer does not result in a change in the beneficial ownership of the Escrowed Shares.

The restriction on 'dealing' is broadly defined and includes, among other things, selling, assigning, transferring or otherwise disposing of any interest (including any legal, beneficial or economic interest) in the Escrowed Shares, creating or agreeing to create a security interest in the Escrowed Shares (except to the extent outlined in this section 8.11), doing, or omitting to do, any act if the act or omission would have the effect of, among other things, selling, assigning, transferring or otherwise disposing of any interest in any of the Escrowed Shares.

The escrow arrangements described in this section 8.11 are voluntary and contractual in nature.

8.12 Restrictions on Distribution

No action has been taken to register or qualify this Prospectus, the Shares or the Offer or otherwise to permit a public offering of the Shares in any jurisdiction outside Australia or New Zealand.

This Prospectus does not constitute an offer or invitation to apply for Shares in any jurisdiction in which, or to any person to whom, it would not be lawful to make such an offer or invitation or issue under this Prospectus.

This Prospectus may not be released or distributed in the United States, and may only be distributed to persons outside the United States to whom the Offer may lawfully be made in accordance with the laws of any applicable jurisdiction.

In particular, the Shares have not been, and will not be, registered under the US Securities Act or the securities laws of any state or other jurisdiction of the United States and may not be offered or sold, directly or indirectly, in the United States, except in transactions exempt from, or not subject to, the registration requirements of the US Securities Act and applicable US state securities laws.

Each Applicant under the Institutional Offer has been required to make certain representations, warranties and covenants set out in the confirmation of allocation letter distributed to it.

8.13 Discretion Regarding the Offer

29Metals and SaleCo may withdraw the Offer at any time before the issue of New Shares or transfer of Shares to successful Applicants under the Offer. If the Offer, or any part of it, does not proceed, all relevant Application Monies will be refunded (without interest).

29Metals, SaleCo and the Joint Lead Managers also reserve the right to close the Offer or any part of it early, extend the Offer or any part of it, accept late Applications either generally or in particular cases, reject any Application, or allocate to any Applicant fewer Shares than those applied for.

8.14 ASX Listing, Registers and Holding Statements, and Conditional and Deferred Settlement Trading

8.14.1 Application to ASX for Listing of 29Metals and Quotation of Shares

29Metals will apply to ASX within seven days of the Prospectus Date, for its admission to the Official List and quotation of Shares (which is expected to be under the code "29M").

ASX takes no responsibility for this Prospectus or the investment to which it relates. The fact that ASX may admit 29Metals to the Official List is not to be taken as an indication of the merits of 29Metals or the Shares offered for subscription.

If permission is not granted for the official quotation of the Shares on ASX within three months after the Prospectus Date (or any later date permitted by law), the Offer may be withdrawn and all Application Monies received by 29Metals will be refunded (without interest) as soon as practicable in accordance with the requirements of the Corporations Act.

Subject to certain conditions (including any waivers obtained by 29Metals from time to time), 29Metals will be required to comply with the ASX Listing Rules.

8.14.2 CHESS and Issuer Sponsored Holdings

29Metals has applied to participate in the ASX's Clearing House Electronic Subregister System (**CHESS**) and will comply with the ASX Listing Rules and the ASX Settlement Operating Rules. CHESS is an electronic transfer and settlement system for transactions in securities quoted on the ASX under which transfers are effected in an electronic form.

When the Shares become approved financial products (as defined in the ASX Settlement Operating Rules), holdings will be registered in one of two subregisters, being an electronic CHESS subregister or an issuer sponsored subregister. For all successful applicants, the Shares of a Shareholder who is a participant in CHESS or a Shareholder sponsored by a participant in CHESS will be registered on the CHESS subregister. All other Shares will be registered on the issuer sponsored subregister.

Following Completion, Shareholders will be sent a holding statement that sets out the number of Shares that have been issued to them. This statement will also provide details of a Shareholder's Holder Identification Number (HIN) for CHESS holders or, where applicable, the Securityholder Reference Number (**SRN**) of issuer sponsored holders.

Shareholders will subsequently receive statements showing any changes to their shareholding. Share certificates will not be issued.

Shareholders will receive subsequent statements during the first week of the following month if there has been a change to their holding on the register and as otherwise required under the ASX Listing Rules and the Corporations Act. Additional statements may be requested at any other time either directly through the Shareholder's sponsoring broker in the case of a holding on the CHESS subregister or through the Share Registry in the case of a holding on the issuer sponsored subregister. 29Metals and the Share Registry may charge a fee for these additional issuer sponsored statements.

8.14.3 Conditional and Deferred Settlement Trading and Selling Shares on Market

It is expected that the Shares will commence trading on ASX on or about Friday, 2 July 2021, initially on a conditional and deferred settlement basis.

If the Offer is withdrawn before Shares have commenced trading on an unconditional basis, all contracts for the sale of the Shares on ASX will be cancelled and any Application Monies received will be refunded as soon as possible.

Conditional and deferred settlement trading will continue until 29Metals has advised ASX that the Restructure has been completed and 29Metals and SaleCo have issued and transferred Shares to successful Applicants under the Offer, which is expected to be on or about Tuesday, 6 July 2021. If the completion of the Restructure and the issue and transfer of Shares to successful Applicants has not been satisfied by the end of the conditional and deferred settlement trading period, the Offer will not complete and all trades conducted during the conditional and deferred settlement trading period will be invalid and will not settle. All Application Monies received will be refunded to Applicants. No interest will be paid on any Application Monies refunded as a result of the Offer not completing.

Trading on ASX will be on an unconditional but deferred settlement basis until 29Metals has advised ASX that initial holding statements have been dispatched to Shareholders. Trading on the ASX is expected to commence on a normal settlement basis (that is on a T+2 basis) on or about Wednesday, 7 July 2021.

Following the issue of Shares, successful Applicants will receive a holding statement setting out the number of Shares issued to them under the Offer. It is expected that holding statements will be dispatched by standard post on or about Thursday, 8 July 2021.

It is the responsibility of each Applicant to confirm their holding before trading in Shares by contacting their broker, the 29Metals IPO Offer Information Line or by reviewing their holding statement. Applicants who sell Shares before they receive an initial statement of holding do so at their own risk. 29Metals, SaleCo, the Share Registry and the Joint Lead Managers disclaim all liability, whether in negligence or otherwise, to persons who sell Shares before receiving a holding statement, even if such person received confirmation of allocation from the 29Metals IPO Offer Information Line or confirmed their firm allocation through a Broker.

29

Metals

9.0

Investigating Accountant's Report



Golden Grove stockpile and shaft



KPMG Transaction Services

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The Directors
29Metals Limited
Level 2, 150 Collins Street
Melbourne VIC 3000

The Directors
29Metals SaleCo Limited
Level 2, 150 Collins Street
Melbourne VIC 3000

7 June 2021

Dear Directors

Limited Assurance Investigating Accountant's Report and Financial Services Guide – Pro Forma Historical Financial Information

Investigating Accountant's Report

Introduction

KPMG Financial Advisory Services (Australia) Pty Ltd (of which KPMG Transaction Services is a division) ("KPMG Transaction Services") has been engaged by 29Metals Limited ("29Metals"), 29Metals SaleCo Limited and by EMR Capital Management Limited on behalf of:

- The limited partners and sellers of EMR Capital RF II Golden Grove, LP ("Golden Grove LP") and its subsidiary EMR Capital Golden Grove Pty Ltd ("Golden Grove Holdings");
- EMR Capital Resources Fund, I LP, as the seller of Capricorn Copper Holdings Pty Ltd ("Capricorn Copper Holdings") and Lighthouse Minerals Pty Ltd; and

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- EMR Capital Resources Fund, I LP, as the seller of Redhill Mining Hong Kong Ltd (“Redhill Mining”);

(collectively known as the “Seller/s”),

to prepare this report for inclusion in the prospectus to be dated on or about 7 June 2021 (“Prospectus”), and to be issued by 29Metals and the Sellers, in respect of the proposed initial public offering (“IPO”) and listing on the Australian Securities Exchange (“ASX”) of 29Metals (“Transaction”).

Expressions defined in the Prospectus have the same meaning in this report.

This Investigating Accountant's Report should be read in conjunction with the KPMG Transaction Services Financial Services Guide included in pages 233 to 236 of the Prospectus.

Scope

You have requested KPMG Transaction Services to perform a limited assurance engagement in relation to the pro forma historical financial information described below and disclosed in the Prospectus.

The pro forma historical financial information is presented in the Prospectus in an abbreviated form, insofar as it does not include all of the presentation and disclosures required by Australian Accounting Standards and other mandatory professional reporting requirements applicable to general purpose financial reports prepared in accordance with the *Corporations Act 2001*.

Our limited assurance engagement has not been carried out in accordance with auditing or other standards and practices generally accepted in jurisdictions outside of Australia and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

Pro Forma Historical Financial Information

You have requested KPMG Transaction Services to perform limited assurance procedures in relation to the pro forma historical financial information of 29Metals (the responsible party) included in the Prospectus.

The pro forma historical financial information has been derived from the historical financial information of Golden Grove Holdings, after adjusting for the effects of pro forma adjustments described in section 5.2.5 of the Prospectus. The pro forma financial information consists of 29Metals:

- pro forma historical Statement of Financial Position as at 31 December 2020;
- pro forma historical Statements of Comprehensive Income for the years ended 31 December 2018, 31 December 2019 and 31 December 2020; and
- pro forma historical Cash Flow Information for the years ended 31 December 2018, 31 December 2019 and 31 December 2020,



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as set out in sections 5.7.1, 5.4.1 and 5.6.1 respectively of the Prospectus issued by 29Metals (collectively the “Pro Forma Historical Financial Information”).

The stated basis of preparation of the Pro Forma Historical Financial Information is the recognition and measurement principles contained in Australian Accounting Standards applied to the historical financial information and the event(s) or transaction(s) to which the pro forma adjustments relate, as described in sections 5.2.5 of the Prospectus. Due to its nature, the Pro Forma Historical Financial Information does not represent the company's actual or prospective financial position, financial performance, and/or cash flows.

The Pro Forma Historical Financial Information has been compiled by 29Metals to illustrate the impact of the event(s) or transaction(s) described in section 5.2.5 of the Prospectus on 29 Metals' financial position as at 31 December 2020, 29 Metals' financial performance and cash flows for the years ended 31 December 2018, 31 December 2019 and 31 December 2020. As part of this process, information about 29Metals's financial position, financial performance and cash flows has been derived by 29Metals from Golden Grove Holdings' financial statements for the year ended 31 December 2018, 31 December 2019 and 31 December 2020.

In addition, information about Capricorn Copper Holdings' and Redhill Mining's financial position, financial performance and cash flows has been derived by 29Metals from Capricorn Copper Holdings' and Redhill Mining's financial statements for the years ended 31 December 2018, 31 December 2019 and 31 December 2020.

The financial statements of Golden Grove Holdings for the years ended 31 December 2018, 31 December 2019 and 31 December 2020 were audited by Golden Grove Holdings' external auditor in accordance with Australian Auditing Standards. The financial statements of Golden Grove LP for the years ended 31 December 2018, 31 December 2019 and 31 December 2020 were audited by Golden Grove LP's external auditor, in accordance with International Standards on Auditing. The audit opinions issued to the members of Golden Grove Holdings and the members of Golden Grove LP relating to those financial statements were unqualified.

The financial statements of Capricorn Copper Holdings for the years ended 31 December 2018, 31 December 2019 and 31 December 2020 were audited by Capricorn Copper Holdings' external auditor in accordance with Australian Auditing Standards. The audit opinion issued to the members of Capricorn Copper Holdings relating to the years ended 2019 and 2020 included an emphasis of matter over the material uncertainty related to going concern and the year ended 2019 also included an emphasis of matter over subsequent events – impact of the Coronavirus (COVID-19) Outbreak.

The financial statements of Redhill Mining for the years ended 31 December 2018, 31 December 2019 and 31 December 2020 were audited by Redhill Mining's external auditor in accordance with Hong Kong Standards on Auditing. The audit opinion issued to the members of Redhill Mining relating to the year ended 2020 included an emphasis of matter over the material uncertainty related to going concern.



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For the purposes of preparing this report we have performed limited assurance procedures in relation to Pro Forma Historical Financial Information in order to state whether, on the basis of the procedures described, anything comes to our attention that would cause us to believe that the Pro Forma Historical Financial Information is not prepared or presented fairly, in all material respects, by the directors in accordance with the stated basis of preparation as set out in section 5.2.5 of the Prospectus.

We have conducted our engagement in accordance with the Standard on Assurance Engagements ASAE 3450 *Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information*.

The procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, an audit. As a result, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed an audit. Accordingly, we do not express an audit opinion about whether the Pro Forma Historical Financial Information is prepared, in all material respects, by the directors in accordance with the stated basis of preparation.

Directors' responsibilities

The directors of 29Metals and the Sellers are responsible for the preparation of:

- the Historical Financial Information of 29Metals; and
- the Pro Forma Historical Financial Information, including the selection and determination of the pro forma transactions and/or adjustments made to the historical financial information and included in the Pro Forma Historical Financial Information

The directors' responsibility includes establishing and maintaining such internal controls as the directors determine are necessary to enable the preparation of financial information that is free from material misstatement, whether due to fraud or error.

Conclusions

Review statement on the Pro Forma Historical Financial Information

Based on our procedures, which are not an audit, nothing has come to our attention that causes us to believe that the Pro Forma Historical Financial Information, as set out in sections 5.4.1, 5.6.1 and 5.7.1 of the Prospectus, comprising:

- the pro forma historical Statements of Comprehensive Income of 29Metals for the years ended 31 December 2018, 31 December 2019 and 31 December 2020;
- the pro forma historical Cash Flow Information of 29Metals for the years ended 31 December 2018, 31 December 2019 and 31 December 2020; and
- the pro forma historical Statement of Financial Position of 29Metals as at 31 December 2020,



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is not prepared or presented fairly, in all material respects, on the basis of the pro forma transactions and/or adjustments described in sections 5.2.5 of the Prospectus, and in accordance with the recognition and measurement principles prescribed in Australian Accounting Standards, and 29 Metals' accounting policies.

Independence

KPMG Transaction Services does not have any interest in the outcome of the proposed Transaction, other than in connection with the preparation of this report and participation in due diligence procedures for which normal professional fees will be received.

General advice warning

This report has been prepared, and included in the Prospectus, to provide investors with general information only and does not take into account the objectives, financial situation or needs of any specific investor. It is not intended to take the place of professional advice and investors should not make specific investment decisions in reliance on the information contained in this report. Before acting or relying on any information, an investor should consider whether it is appropriate for their circumstances having regard to their objectives, financial situation or needs.

Restriction on use

Without modifying our conclusions, we draw attention to section 5.2.5.6 of the Prospectus, which describes the purpose of the pro forma historical financial information, being for inclusion in the Prospectus. As a result, the pro forma historical financial information may not be suitable for use for another purpose. We disclaim any assumption of responsibility for any reliance on this report, or on the financial information to which it relates, for any purpose other than that for which it was prepared.

KPMG Transaction Services has consented to the inclusion of this Investigating Accountant's Report in the Prospectus in the form and context in which it is so included, but has not authorised the issue of the Prospectus. Accordingly, KPMG Transaction Services makes no representation regarding, and takes no responsibility for, any other statements, or material in, or omissions from, the Prospectus.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Nick Harridge', written in a cursive style.

Nick Harridge
Authorised Representative



KPMG Financial Advisory Services (Australia) Pty Ltd

ABN 43 007 363 215

Australian Financial Services Licence No. 246901

Financial Services Guide

Dated October 2020

What is a Financial Services Guide (FSG)?

This FSG is designed to help you to decide whether to use any of the general financial product advice provided by **KPMG Financial Advisory Services (Australia) Pty Ltd ABN 43 007 363 215**, Australian Financial Services Licence Number 246901 (of which KPMG Transaction Services is a division) ('**KPMG Transaction Services**'), and Nick Harridge as an authorised representative of KPMG Transaction Services, authorised representative number 000405346 (**Authorised Representative**).

This FSG includes information about:

- KPMG Transaction Services and its Authorised Representative and how they can be contacted;
- The services KPMG Transaction Services and its Authorised Representative are authorised to provide;
- How KPMG Transaction Services and its Authorised Representative are paid;
- Any relevant associations or relationships of KPMG Transaction Services and its Authorised Representative;
- How complaints are dealt with as well as information about internal and external dispute resolution systems and how you can access them; and
- The compensation arrangements that KPMG Transaction Services have in place.

The distribution of this FSG by the Authorised Representative has been authorised by KPMG Transaction Services.

This FSG forms part of an Investigating Accountant's Report (Report) which has been prepared for inclusion in a disclosure document or, if you are offered a financial product for issue or sale, a Product Disclosure Statement (PDS). The purpose of the disclosure document or PDS is to help you make an informed decision in relation to a financial product. The contents of the disclosure document or PDS, as relevant, will include details such as the risks, benefits and costs of acquiring the particular financial product.

Financial services that KPMG Transaction Services and the Authorised Representative are authorised to provide

KPMG Transaction Services holds an Australian Financial Services Licence, which authorises it to provide, amongst other services, financial product advice for the following classes of financial products:

- Deposit and non-cash payment products;
- Derivatives;
- Foreign exchange contracts;
- Government debentures, stocks or bonds;
- Interests in managed investments schemes including investor directed portfolio services;
- Securities;
- Superannuation;

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- Carbon units;
- Australian carbon credit units; and
- Eligible international emissions units,
to retail and wholesale clients.

We provide financial product advice when engaged to prepare a report in relation to a transaction relating to one of these types of financial products. The Authorised Representative is authorised by KPMG Transaction Services to provide financial product advice on KPMG Transaction Services' behalf.

KPMG Transaction Services and the Authorised Representative's responsibility to you

KPMG Transaction Services has been engaged by 29Metals ("the Company") to provide general financial product advice in the form of a Report to be included in the Prospectus (Document) prepared by 29Metals in relation to the offer of New Shares for issue by the Company (the "Offer").

You have not engaged KPMG Transaction Services or the Authorised Representative directly but have received a copy of the Report because you have been provided with a copy of the Document. Neither KPMG Transaction Services nor the Authorised Representative are acting for any person other than the Client.

KPMG Transaction Services and the Authorised Representative are responsible and accountable to you for ensuring that there is a reasonable basis for the conclusions in the Report.

General advice

As KPMG Transaction Services has been engaged by the Client, the Report only contains general advice as it has been prepared without taking into account your personal objectives, financial situation or needs.

You should consider the appropriateness of the general advice in the Report having regard to your circumstances before you act on the general advice contained in the Report.

You should also consider the other parts of the Document before making any decision in relation to the Transaction.

Fees KPMG Transaction Services may receive, and remuneration or other benefits received by our representatives

KPMG Transaction Services charges fees for preparing reports. These fees will usually be agreed with, and paid by, the Client. Fees are agreed on either a fixed fee or a time cost basis. In this instance, the Client has agreed to pay KPMG Transaction Services approximately A\$1,600,000 for preparing the Report. KPMG Transaction Services and its officers, representatives, related entities and associates will not receive any other fee or benefit in connection with the provision of the Report.

KPMG Transaction Services officers and representatives (including the Authorised Representative) receive a salary or a partnership distribution from KPMG's Australian professional advisory and accounting practice (the KPMG Partnership). KPMG Transaction Services' representatives (including the Authorised Representative) are eligible for bonuses based on

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overall productivity. Bonuses and other remuneration and benefits are not provided directly in connection with any engagement for the provision of general financial product advice in the Report.

Further details may be provided on request.

Referrals

Neither KPMG Transaction Services nor the Authorised Representative pay commissions or provide any other benefits to any person for referring customers to them in connection with a Report.

Associations and relationships

Through a variety of corporate and trust structures KPMG Transaction Services is controlled by and operates as part of the KPMG Partnership. KPMG Transaction Services' directors and Authorised Representatives may be partners in the KPMG Partnership. The Authorised Representative is a partner in the KPMG Partnership. The financial product advice in the Report is provided by KPMG Transaction Services and the Authorised Representative and not by the KPMG Partnership.

From time to time KPMG Transaction Services, the KPMG Partnership and related entities (KPMG entities) may provide professional services, including audit, tax and financial advisory services, to companies and issuers of financial products in the ordinary course of their businesses.

No individual involved in the preparation of this Report holds a substantial interest in, or is a substantial creditor of, the Client or has other material financial interests in the transaction.

Complaints resolution

Internal complaints resolution process

If you have a complaint, please let either KPMG Transaction Services or the Authorised Representative know. Formal complaints should be sent in writing to The AFSL Complaints Officer, KPMG, PO Box H67, Australia Square, Sydney NSW 1213. If you have difficulty in putting your complaint in writing, please telephone the Complaints Officer on 02 9335 7000 and they will assist you in documenting your complaint.

Written complaints are recorded, acknowledged within 5 days and investigated. As soon as practical, and not more than **45 days** after receiving the written complaint, the response to your complaint will be advised in writing.

External complaints resolution process

If KPMG Transaction Services or the Authorised Representative cannot resolve your complaint to your satisfaction within 45 days, you can refer the matter to the Australian Financial Complaints Authority (AFCA). AFCA is an independent

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company that has been established to provide free advice and assistance to consumers to help in resolving complaints relating to the financial services industry.

Further details about AFCA are available at the AFCA website www.afca.org.au or by contacting them directly at:

Address: Australian Financial Complaints Authority Limited, GPO Box 3, Melbourne Victoria 3001

Telephone: 1300 56 55 62

Facsimile: (03) 9613 6399

Email: info@afca.org.au.

The Australian Securities and Investments Commission also has a freecall infoline on 1800 931 678 which you may use to obtain information about your rights.

Compensation arrangements

KPMG Transaction Services has professional indemnity insurance cover in accordance with section 912B of the *Corporations Act 2001 (Cth)*.

Contact details

You may contact KPMG Transaction Services or the Authorised Representative using the contact details:

KPMG Transaction Services
A division of KPMG Financial Advisory
Services (Australia) Pty Ltd
Level 38, Tower Three
300 Barangaroo Avenue
Sydney NSW 2000
PO Box H67
Australia Square
NSW 1213
Telephone: (02) 9335 7000
Facsimile: (02) 9335 7200

Nick Harridge

C/O KPMG
PO Box H67
Australia Square
NSW 1213

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KPMG Transaction Services

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The Directors
29Metals Limited
Level 2, 150 Collins Street
Melbourne VIC 3000

The Directors
29Metals SaleCo Limited
Level 2, 150 Collins Street
Melbourne VIC 3000

7 June 2021

Dear Directors

Limited Assurance Investigating Accountant's Report and Financial Services Guide – Forecast Financial Information

Investigating Accountant's Report

Introduction

KPMG Financial Advisory Services (Australia) Pty Ltd (of which KPMG Transaction Services is a division) ("KPMG Transaction Services") has been engaged by 29Metals Limited ("29Metals"), 29Metals SaleCo Limited and by EMR Capital Management Limited on behalf of:

- The limited partners and sellers of EMR Capital RF II Golden Grove, LP ("Golden Grove LP") and its subsidiary EMR Capital Golden Grove Pty Ltd ("Golden Grove Holdings");
- EMR Capital Resources Fund, I LP, as the seller of Capricorn Copper Holdings Pty Ltd ("Capricorn Copper Holdings") and Lighthouse Minerals Pty Ltd; and

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- EMR Capital Resources Fund, I LP, as the seller of Redhill Mining Hong Kong Ltd (“Redhill Mining”);

(collectively known as the “Seller/s”),

to prepare this report for inclusion in the prospectus to be dated on or about 7 June 2021 (“Prospectus”), and to be issued by 29Metals and the Sellers, in respect of the proposed initial public offering (“IPO”) and listing on the Australian Securities Exchange (“ASX”) of 29Metals (“Transaction”).

Expressions defined in the Prospectus have the same meaning in this report.

This Investigating Accountant’s Report should be read in conjunction with the KPMG Transaction Services Financial Services Guide included in pages 233 to 236 of the Prospectus.

Scope

You have requested KPMG Transaction Services to perform a limited assurance engagement in relation to the forecast financial information described below and disclosed in the Prospectus.

The pro forma statutory forecast financial information is presented in the Prospectus in an abbreviated form, insofar as it does not include all of the presentation and disclosures required by Australian Accounting Standards and other mandatory professional reporting requirements applicable to general purpose financial reports prepared in accordance with the *Corporations Act 2001*.

Our limited assurance engagement has not been carried out in accordance with auditing or other standards and practices generally accepted in jurisdictions outside of Australia and accordingly should not be relied upon as if it had been carried out in accordance with those standards and practices.

Forecast Financial Information and directors’ best-estimate assumptions

You have requested KPMG Transaction Services to perform limited assurance procedures in relation to:

- the pro forma forecast Statement of Comprehensive Income of 29Metals (the responsible party) for the period ending 31 December 2021 and the pro forma forecast Cash Flow Information for the year ending 31 December 2021 (the “Pro forma Forecast Financial Information”); and
- the statutory forecast Statement of Comprehensive Income for the year ending 31 December 2021 and the statutory forecast Cash Flow Information for the year ending 31 December 2021 (the “Statutory Forecast Financial Information”);

as set out in sections 5.4.1 and 5.6.1 of the Prospectus (the “Forecast Financial Information”).

The directors’ best-estimate assumptions underlying the Forecast Financial Information are described in sections 5.9.1 and 5.9.2 of the Prospectus. As stated in section 5.2.6



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of the Prospectus, the basis of preparation of the Forecast Financial Information is the recognition and measurement principles contained in Australian Accounting Standards and 29 Metals' accounting policies.

We have performed limited assurance procedures in relation to the Forecast Financial Information, set out in sections 5.4.1 and 5.6.1 of the Prospectus, and the directors' best-estimate assumptions underlying it in order to state whether, on the basis of the procedures described, anything has come to our attention that causes us to believe that:

- the directors' best-estimate assumptions do not provide reasonable grounds for the Forecast Financial Information;
- in all material respects the Forecast Financial Information is not:
 - prepared on the basis of the directors' best-estimate assumptions as described in the Prospectus; and
 - presented fairly in accordance with the recognition and measurement principles contained in Australian Accounting Standards and 29Metals' accounting policies;
- the Forecast Financial Information itself is unreasonable.

We have conducted our engagement in accordance with the Standard on Assurance Engagements ASAE 3450 *Assurance Engagements involving Corporate Fundraisings and/or Prospective Financial Information*.

The procedures performed in a limited assurance engagement vary in nature from, and are less in extent than for, an audit. As a result, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had we performed an audit. Accordingly, we do not express an audit opinion.

Directors' responsibilities

The directors of 29Metals and the Sellers are responsible for the preparation of the Forecast Financial Information, including the directors' best-estimate assumptions on which the Forecast Financial Information is based and the sensitivity of the Forecast Financial Information to changes in key assumptions.

The directors' responsibility includes establishing and maintaining such internal controls as the directors determine are necessary to enable the preparation of financial information that is free from material misstatement, whether due to fraud or error.

Conclusions

Forecast Financial Information and the directors' best-estimate assumptions

Based on our procedures, which are not an audit, nothing has come to our attention which causes us to believe that:



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- the directors' best-estimate assumptions used in the preparation of the Forecast Financial Information for the year ending 31 December 2021 do not provide reasonable grounds for the Forecast Financial Information; and
- in all material respects, the Forecast Financial Information:
 - is not prepared on the basis of the directors' best-estimate assumptions as described in sections 5.9.1 and 5.9.2 of the Prospectus; and
 - is not presented fairly in accordance with the recognition and measurement principles contained in Australian Accounting Standards, and 29 Metals' accounting policies; and
- the Forecast Financial Information itself is unreasonable.

The Forecast Financial Information has been prepared by 29Metals management and adopted and disclosed by the directors in order to provide prospective investors with a guide to the potential financial performance of 29Metals for the year ending 31 December 2021.

There is a considerable degree of subjective judgement involved in preparing forecasts since they relate to event(s) and transaction(s) that have not yet occurred and may not occur. Actual results are likely to be different from the Forecast Financial Information since anticipated event(s) or transaction(s) frequently do not occur as expected and the variation may be material. The directors' best-estimate assumptions on which the Forecast Financial Information is based relate to future event(s) and/or transaction(s) that management expect to occur and actions that management expect to take and are also subject to uncertainties and contingencies, which are often outside the control of 29Metals. Evidence may be available to support the directors' best-estimate assumptions on which the Forecast Financial Information is based however such evidence is generally future-oriented and therefore speculative in nature. We are therefore not in a position to express a reasonable assurance conclusion on those best-estimate assumptions, and accordingly, provide a lesser level of assurance on the reasonableness of the directors' best-estimate assumptions. The limited assurance conclusion expressed in this report has been formed on the above basis.

Prospective investors should be aware of the material risks and uncertainties in relation to an investment in 29Metals, which are detailed in the Prospectus, and the inherent uncertainty relating to the Forecast Financial Information. Accordingly, prospective investors should have regard to the investment risks and sensitivities as described in sections 6 and 5.10 respectively of the Prospectus. The sensitivity analysis described in section 5.10 of the Prospectus demonstrates the impact on the Forecast Financial Information of changes in key best-estimate assumptions. We express no opinion as to whether the Forecast Financial Information will be achieved.

We have assumed, and relied on representations from certain members of management of 29Metals, that all material information concerning the prospects and proposed operations of 29Metals has been disclosed to us and that the information



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provided to us for the purpose of our work is true, complete and accurate in all respects. We have no reason to believe that those representations are false.

Independence

KPMG Transaction Services does not have any interest in the outcome of the proposed Transaction, other than in connection with the preparation of this report and participation in due diligence procedures for which normal professional fees will be received.

General advice warning

This report has been prepared, and included in the Prospectus, to provide investors with general information only and does not take into account the objectives, financial situation or needs of any specific investor. It is not intended to take the place of professional advice and investors should not make specific investment decisions in reliance on the information contained in this report. Before acting or relying on any information, an investor should consider whether it is appropriate for their circumstances having regard to their objectives, financial situation or needs.

Restriction on use

Without modifying our conclusions, we draw attention to section 5.2.6 of the Prospectus, which describes the purpose of the financial information, being for inclusion in the Prospectus. As a result, the financial information may not be suitable for use for another purpose. We disclaim any assumption of responsibility for any reliance on this report, or on the financial information to which it relates, for any purpose other than that for which it was prepared.

KPMG Transaction Services has consented to the inclusion of this Investigating Accountant's Report in the Prospectus in the form and context in which it is so included, but has not authorised the issue of the Prospectus. Accordingly, KPMG Transaction Services makes no representation regarding, and takes no responsibility for, any other statements, or material in, or omissions from, the Prospectus.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Nick Harridge', written in a cursive style.

Nick Harridge
Authorised Representative

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29

Metals

10.0

Additional
Information



Monitoring water quality

10.1 Registration

29Metals was registered in Victoria, Australia on 27 May 2021.

10.2 29Metals Tax Status

29Metals is and will be subject to tax at the Australian corporate tax rate on its taxable income.

10.3 Corporate Structure of 29Metals Post-Completion

10.3.1 Details of Restructure

In connection with the Offer, the 29Metals Group will undertake a restructure under which a number of steps will occur which will result in 29Metals becoming the parent company of the 29Metals Group.

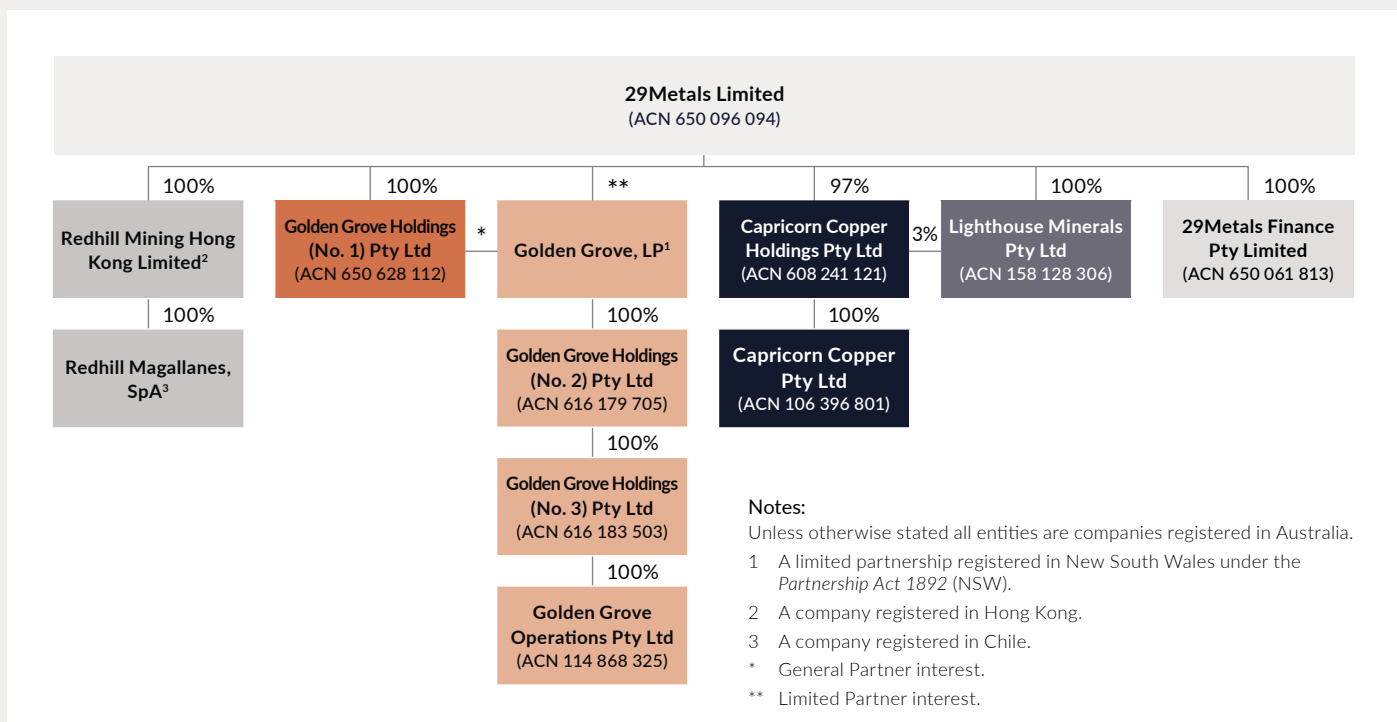
29Metals is the ultimate Australian holding company of the Capricorn Copper Entities¹ and is 100% owned by EMR Fund I, which holds Shares through EMR Capital Investment (No.6B) Pte. Ltd. 29Metals has entered into conditional agreements to acquire (either directly or indirectly) the limited partnership interests or shares (as applicable) in the Golden Grove Group and the Redhill Group, which are subject to the successful completion of the IPO.

In exchange for their interests in the Golden Grove Group and Redhill Group, EMR Fund 0, EMR Fund I and the EMR Fund II Investors will acquire Shares in 29Metals². The legal interest in the Shares in 29Metals issued to the EMR Fund II Investors and EMR Fund 0 will be held through NomineeCo, as nominee.

Completion of the final steps of the Restructure is proposed to take place immediately prior to the issue and transfer of Shares to investors under the Offer.

A post-Offer structure diagram is included below.

Figure 10.1 – 29Metals corporate structure post-Offer



1 As a result of the Initial Restructure – refer to section 5.1.

2 These transactions are referred to as the IPO Acquisitions – refer to section 5.1.

10.4 Summary of Rights and Liabilities Attaching to Shares and Other Material Provisions of the Constitution

10.4.1 Introduction

The rights and liabilities attaching to ownership of Shares are detailed in the Constitution and, in certain circumstances, regulated by the Corporations Act, the ASX Listing Rules, the ASX Settlement Operating Rules and general law in Australia.

A summary of the significant rights, liabilities and obligations attaching to Shares and a description of other material provisions of the Constitution are set out below. This summary is not exhaustive and is qualified by the full terms of the Constitution. This summary does not constitute a definitive statement of the rights and liabilities of Shareholders. The summary assumes that 29Metals is admitted to the Official List.

10.4.2 Voting at a general meeting

At a general meeting of 29Metals, subject to the Corporations Act, the Constitution and any rights or restrictions attached to Shares, every Shareholder present in person or by proxy, representative or attorney has one vote on a show of hands and, on a poll, one vote for each Share held (with adjusted voting rights for partly paid shares). The chair of the meeting is not entitled to a casting vote.

In addition, the Directors may determine that at any general meeting or class meeting a Shareholder who is entitled to attend or vote on a resolution at that meeting is entitled to a "direct vote" in respect of that resolution. A "direct vote" includes a vote delivered to 29Metals by post, fax or other electronic means approved by the Directors.

10.4.3 Meetings of Shareholders

Each Shareholder is entitled to receive notice of and attend general meetings of 29Metals, and to receive all notices, accounts and other documents required to be sent to Shareholders under the Constitution, the Corporations Act and the ASX Listing Rules.

29Metals must give Shareholders at least 28 days' written notice of a general meeting.

10.4.4 Dividends

Subject to the Corporations Act, the Constitution and the terms of issue or rights of any shares with special rights to dividends, the Board may from time to time determine that a dividend is payable, fix the amount of the dividend and the form of the dividend, the timing of payment of the dividend and method of payment of the dividend. A dividend may only be paid in accordance with the Corporations Act and the Constitution.

10.4.5 Transfer of Shares

Subject to the Constitution and the ASX Listing Rules, Shares may be transferred by:

- a proper transfer effected in accordance with the ASX Settlement Operating Rules; or
- any other method required or permitted by the Corporations Act and ASX.

The Board:

- may, if the ASX Listing Rules permit 29Metals to do so; and
- must, if the ASX Listing Rules require 29Metals to do so (or if the transfer is in breach of the ASX Listing Rules or any "Restriction Agreement"),

request that the relevant clearing and settlement facility operator apply a holding lock to prevent a transfer of Shares through CHESSE or the relevant subregister, or otherwise refuse to register a transfer of Shares.

10.4.6 Issue of further Shares

Subject to the Corporations Act, the ASX Listing Rules and any rights and restrictions attached to Shares, the Board has full discretion to issue, allot and cancel or otherwise dispose of Shares, grant options over unissued Shares and settle the manner in which fractions of a Share are to be dealt with.

10.4.7 Winding up

If 29Metals is wound up, the liquidator may, with the sanction of a special resolution of Shareholders, divide among Shareholders in kind the whole or any part of 29Metals' property, set the value of that property that the liquidator considers fair and determine how the division is to be carried out between Shareholders or different classes of Shareholders.

10.4.8 Unmarketable parcels

Subject to the Corporations Act, the ASX Listing Rules and the ASX Settlement Operating Rules, the Board may sell the Shares of a Shareholder who holds less than a marketable parcel by following the procedures set out in the Constitution.

10.4.9 Share buy-backs

Subject to the Corporations Act and the ASX Listing Rules, 29Metals may buy back Shares in itself on terms and at times determined by the Board.

10.4.10 Variation of class rights

On Completion of the Offer, 29Metals' only class of shares on issue will be the Shares.

Subject to the Corporations Act and the terms of issue of a class of shares, wherever the capital of 29Metals is divided into different classes of shares, the rights attaching to any class of shares may only be varied or cancelled by a special resolution of Shareholders and:

- with the consent in writing of the holders of three quarters of the issued shares included in that class; or
- by a special resolution passed at a separate meeting of the holders of those shares.

In either case, if members in a class do not all agree to the variation or cancellation of their rights (or a modification of 29Metals' constitution to allow their rights to be varied and cancelled), members with at least 10% of the votes in that class of shares may apply to a court of competent jurisdiction to exercise its discretion to set aside such variation, cancellation or modification.

10.4.11 Conversion or reduction of share capital

Under the Corporations Act, 29Metals may convert all or any of its Shares into a larger or smaller number of shares by resolution passed at a general meeting.

29Metals may reduce its share capital in any way permissible by the Corporations Act.

10.4.12 Preference shares

Subject to the Corporations Act and the ASX Listing Rules, 29Metals may issue preference shares including preference shares which are, or at the option of 29Metals or holder may be, liable to be redeemed or convertible to Shares. The rights attaching to preference shares are those set out in the Constitution, unless other rights have been approved by special resolution of 29Metals in general meeting.

10.4.13 Dividend reinvestment plans

Subject to the ASX Listing Rules, the Constitution authorises the Directors, on any terms and conditions they think fit, to establish a dividend reinvestment plan under which any Shareholder or any class of shareholders may elect that the dividends payable by 29Metals be reinvested by a subscription for Shares in 29Metals.

10.4.14 Directors – appointment and removal

Unless otherwise determined by 29Metals in general meeting, under the Constitution, 29Metals must have at least three Directors, and a maximum of either eight directors or a lesser number fixed by the Directors (unless the Shareholders pass a

resolution varying that number). Directors are elected at annual general meetings of 29Metals. Retirement will occur on a rotational basis so that any Director (excluding the Managing Director) who has held office for more than three years or past the third annual general meeting following their appointment or last election (whichever is longer) must not hold office without re-election. The Directors may also appoint a Director to fill a casual vacancy on the Board or as an addition to the existing Directors. Such a Director (other than the Managing Director) will then hold office until the next annual general meeting of 29Metals and is then eligible for election at that meeting.

10.4.15 Directors – voting

Questions arising at a meeting of the Board are decided by a majority of votes of the Directors present at the meeting and entitled to vote on the matter.

10.4.16 Indemnities

29Metals will indemnify any current or former Director, and may indemnify any current or former company secretary or officer, of 29Metals or its subsidiaries from and against any liability incurred by that person in that capacity, including certain legal costs, to the maximum extent permitted by law.

29Metals may enter into and pay premiums on a contract insuring any current or former Director (including alternative directors), company secretary or officer, of 29Metals or its subsidiaries against any liability incurred by that person in that capacity, including legal costs, unless prohibited by law.

Under the Constitution, 29Metals may obtain insurance for each Director, company secretary or officer, of 29Metals or its subsidiaries during their period of office and for a certain period after the person ceases to be a Director or officer of 29Metals or its subsidiaries.

29Metals has entered into deeds of indemnity and insurance and access with each of the Directors and the members of 29Metals' Executive Leadership team. The terms of these deeds are summarised in sections 7.3.2.3 and 7.3.4.

10.4.17 Powers and duties of Directors

The Board is responsible for overseeing the proper management of the business of 29Metals and may exercise all powers and do all things that are not required by law or by the Constitution to be exercised by 29Metals in general meeting.

10.4.18 Amendments

The Constitution can only be amended by special resolution passed by at least 75% of the votes cast by Shareholders entitled to vote on the resolution.

10.5 Sale of Shares by SaleCo

SaleCo is a special purpose vehicle that has been established to enable the Escrowed Shareholders to sell certain Shares to successful applicants under the Offer.

The Escrowed Shareholders have executed a deed in favour of SaleCo under which they irrevocably offer to sell Shares to SaleCo free from encumbrances and third-party rights, conditional upon the commencement of conditional and deferred settlement trading of Shares on the ASX.

The Shares that SaleCo obtains from the Escrowed Shareholders will be transferred to successful applicants at the Offer Price.

The price payable by SaleCo to the Escrowed Shareholders for Shares is the Offer Price minus the fees paid by SaleCo to the Joint Lead Managers on a per Share basis.

SaleCo has no material assets, liabilities or operations other than its interests in and obligations under the deed described above and the Underwriting Agreement. The sole shareholder of SaleCo is Clifford Tuck. The directors of SaleCo are Fiona Robertson, Jacqueline McGill and Martin Alciaturi. 29Metals has indemnified SaleCo and its directors, for any loss which SaleCo or an indemnified party may incur as a consequence of the Offer.

10.6 Material Contracts

29Metals considers that there are a number of contracts which are material to 29Metals or of such a nature that an investor may wish to have details of them when making an assessment of whether to apply for Shares. The material terms of these contracts are summarised below. These summaries do not purport to be complete and are qualified by the text of the contracts themselves.

10.6.1 Underwriting Agreement

The Offer is managed and underwritten by the Joint Lead Managers pursuant to the Underwriting Agreement. Under the Underwriting Agreement, the Joint Lead Managers have agreed to arrange, manage and underwrite the Offer.

Fees and expenses

Macquarie Capital (Australia) Limited

29Metals has agreed to pay Macquarie Capital (Australia) Limited a global co-ordinator, underwriting and management fee equal to 1.55% of the funds raised from the sale of New Shares under the Offer.

SaleCo has agreed to pay Macquarie Capital (Australia) Limited an underwriting and management fee equal to 1.20% of the funds raised from the sale of Shares on behalf of SaleCo under the Offer.

29Metals and SaleCo may also pay an incentive fee to Macquarie Capital (Australia) Limited of up to 0.20% of the funds raised under the Offer.

Credit Suisse (Australia) Limited

29Metals has agreed to pay Credit Suisse (Australia) Limited an underwriting and management fee equal to 0.75% of the funds raised from the sale of New Shares under the Offer.

SaleCo has agreed to pay Credit Suisse (Australia) Limited an underwriting and management fee equal to 0.75% of the funds raised from the sale of Shares on behalf of SaleCo under the Offer.

29Metals and SaleCo may also pay an incentive fee to Credit Suisse (Australia) Limited of up to 0.20% of the funds raised under the Offer.

Morgan Stanley Australia Securities Limited

29Metals has agreed to pay Morgan Stanley Australia Securities Limited US\$1,000,000 as well as an underwriting and management fee equal to 0.50% of the funds raised from the sale of New Shares under the Offer.

SaleCo has agreed to pay Morgan Stanley Australia Securities Limited an underwriting and management fee equal to 0.50% of the funds raised from the sale of Shares on behalf of SaleCo under the Offer.

29Metals and SaleCo may also pay an incentive fee to Morgan Stanley Australia Securities Limited of up to 0.15% of the funds raised under the Offer.

The global co-ordinator, underwriting and management fees noted above will become payable by 29Metals and SaleCo, as applicable, on the date of the settlement of the Offer.

Payment of the incentive fees noted above are at the absolute discretion of 29Metals and, if paid, will be paid to relevant Joint Lead Managers on the date of settlement of the Offer.

In addition to the fees described above, 29Metals has agreed to pay, or reimburse the Joint Lead Managers, for certain reasonable costs and expenses, including legal expenses, incurred by the Joint Lead Managers in relation to the Offer.

Termination events

The Underwriting Agreement is subject to customary termination events. Any Joint Lead Managers may, at any time after the date of the Underwriting Agreement before 5pm on the date of Settlement, terminate the Underwriting Agreement without cost or liability, by notice to 29Metals, SaleCo and the other Joint Lead Managers if any of the following events occurred:

- a statement contained in the Offer Documents is or becomes misleading or deceptive or is likely to mislead or deceive, or there is an omission from the Offer Documents of material required by sections 710, 711, 715A or 716 of the Corporations Act;
- the U.S. Institutional Offering Memorandum or the pricing disclosure package includes an untrue statement of a material fact or omits to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading;
- any time the S&P/ASX 200 Index falls to a level that is 87.5% or less of the level as at the close of trading on the date of the Underwriting Agreement and is at or below that level at the close of trading for two consecutive Business Days during any time after the date of the Underwriting Agreement; or on the Business Day immediately prior to the date of Settlement;
- there are not, or there ceases to be, reasonable grounds in the reasonable opinion of the terminating Joint Lead Manager for any statement or estimate in the Offer Documents, which relates to a future matter;

- 29Metals or SaleCo issues, or in the reasonable opinion of the terminating Joint Lead Manager becomes required to issue, a supplementary prospectus because of a circumstance set out in section 719(1) of the Corporations Act or to amend or supplement, in any material respect, the U.S. Institutional Offering Memorandum or the pricing disclosure package, or 29Metals or SaleCo lodges a supplementary prospectus in a form that has not been approved by the Joint Lead Managers;
- an escrow deed is withdrawn, varied, terminated, rescinded, altered, amended or breached or likely to be breached or found to be void or voidable or are unable to, or likely to be unable to, be performed;
- the SaleCo deed poll is withdrawn, varied, terminated, rescinded, altered, amended or breached or likely to be breached or found to be void or voidable or are unable to, or likely to be unable to, be performed;
- any of the Restructure documents are withdrawn, varied, terminated, rescinded, breached in any material respect, altered or amended in any material respect, or likely to be breached or found to be void or voidable or are unable to, or likely to be unable to, be performed or the Restructure Deed is withdrawn, varied, terminated, rescinded, breached, altered or amended, or likely to be breached or found to be void or voidable or are unable to, or likely to be unable to, be performed in a manner which would allow the Restructure to occur as described in sections 10.3.1 and 10.6.12;
- 29Metals is prevented from allotting and issuing and/or SaleCo is prevented from transferring the Shares offered under the Prospectus within the time required by the Offer timetable, the Offer Documents, the ASX Listing Rules, applicable laws, an order of a court of competent jurisdiction or any government agency;
- other than as disclosed in the Prospectus, the pricing disclosure package and the U.S. Institutional Offering Memorandum, or otherwise permitted by the Underwriting Agreement or required in connection with the Restructure, 29Metals (i) alters its issued capital or the issued capital of any other Group member; or (ii) disposes or attempts to dispose of a substantial part of the business or property of a member of the 29Metals Group, without the prior written consent of the Joint Lead Managers;
- a change in the Group's Managing Director and CEO, Chief Financial Officer or Chair is announced or occurs or the board of directors of 29Metals does not comprise a majority of independent directors;
- any of the following occur: (i) a Director or proposed Director or officer of 29Metals or any member of the Group, engages or has engaged in any fraudulent conduct or activity or is charged with an indictable offence relating to any financial or corporate matter, whether or not in connection with the Offer; (ii) any Director or proposed Director is disqualified from managing a corporation under Part 2D.6 of the Corporations Act;
- any member of the 29Metals Group becomes insolvent, or there is an act or omission which is likely to result in a member of the 29Metals Group becoming insolvent;
- if any of the obligations of the relevant parties under any of the material contracts of the Group are not capable of being performed materially in accordance with their terms (in the reasonable opinion of a Joint Lead Manager) or if all or any part of a material contract of the Group is withdrawn, terminated or rescinded, breached, altered or amended other than in an immaterial respect, likely to be breached other than in an immaterial respect or found to be void or voidable or are unable to, or likely to be unable to, be performed;
- any event specified in the Offer timetable is delayed by more than two Business Days without the prior written approval of the Joint Lead Managers;
- a regulatory body does not grant or withdraws, revokes or amends in an adverse manner any regulatory approvals required for 29Metals or SaleCo to perform its obligations under the Underwriting Agreement or to carry out the Restructure or the transactions contemplated by the Offer Documents;
- unconditional approval (or conditional approval subject only to customary pre-quotation listing conditions or other conditions acceptable to the Joint Lead Managers (acting reasonably and without delay)) is refused or not granted for 29Metals' admission to the official list of ASX or the official quotation of all of the 29Metals' Shares, on ASX on or before the listing approval date, or if granted, the approval is subsequently withdrawn (without immediate replacement), qualified (other than by customary pre-quotation listing conditions or other conditions acceptable to the Joint Lead Managers, acting reasonably and without delay) or withheld, or ASX indicates to 29Metals that approval is likely to be withdrawn, qualified (other than by customary pre-quotation listing conditions or other conditions acceptable to the Joint Lead Managers, acting reasonably and without delay) or withheld;
- any of the following notifications are made in respect of the Offer or the Offer Documents:
 - (i) ASIC issues an order (including an interim order) under sections 739 or 1324B of the Corporations Act;
 - (ii) ASIC gives notice of a hearing (or an intention to hold a hearing) under section 739(2) of the Corporations Act;
 - (iii) an application is made by ASIC for an order under Part 9.5 in relation to the Offer or an Offer Document or ASIC commences any investigation or hearing under Part 3 of the *Australian Securities and Investments Commission Act 2001* (Cth) in relation to the Offer or an Offer Document;
 - (iv) any person (other than a terminating Joint Lead Manager) gives a notice under section 733(3) of the Corporations Act or any person (other than a terminating Joint Lead Manager) who has previously consented to the inclusion of its name in the Prospectus withdraws that consent; or
 - (v) any person (other than a terminating Joint Lead Manager) gives a notice under section 730 of the Corporations Act in relation to the Prospectus,

and in each case the relevant order, notice, application or investigation is not withdrawn or otherwise satisfactorily dealt with within two Business Days, without having become public, or if it is made within two Business Days of the date of Settlement, it is not withdrawn or otherwise satisfactorily dealt with by 10.00am on the Settlement date, without having become public;
- 29Metals or SaleCo withdraws an Offer Document or the Offer or indicates that it does not intend to proceed with the Offer or any part of the Offer;
- 29Metals or SaleCo does not provide a closing certificate as and when required by the Underwriting Agreement.

Termination events subject to materiality

In addition to the termination events noted above, the Joint Lead Managers may, any time after the date of the Underwriting Agreement until the date of Settlement, terminate the Underwriting Agreement without cost or liability by notice to 29Metals if any of the following events occur and the Joint Lead Managers believes that the event (a) has or is likely to have a materially adverse effect on: (i) the ability of the Joint Lead Manager to market the Offer, or the outcome, success or settlement of the Offer; (ii) the willingness of investors to subscribe for the Shares; or (iii) the price at which Shares are sold or the likely price at which the Shares will trade on ASX; or (b) has given, or is likely to give rise to a contravention by the Joint Lead Manager of, or a liability for the Joint Lead Manager under, the Corporations Act, any other applicable laws or the rules of any securities exchange:

- the report of the due diligence committee, verification material or any other information supplied by or on behalf of 29Metals or any member of the Group to the Joint Lead Managers in relation to the Group or the Offer (including any information supplied prior to the date of this agreement) is (or is likely to be), or becomes (or becomes likely to be) false, misleading or deceptive (including by way of omission);
- an event occurs which is, or is likely to give rise to an adverse change in the assets, liabilities, financial position or performance, profits, losses, earnings, prospects or condition or otherwise of the Group from those disclosed in the Prospectus or an adverse change in the nature of the business conducted by the Group as disclosed in the Prospectus;
- there occurs a new circumstance that arises after the Prospectus is lodged that would have been required to be included in the Prospectus if it had arisen before lodgement;
- 29Metals or SaleCo breach one or more of their respective obligations under the Underwriting Agreement;
- a representation, warranty, undertaking or obligation contained in the Underwriting Agreement on the part of 29Metals or SaleCo (whether severally or jointly) is breached, becomes not true or correct or is not performed;
- there is a contravention by 29Metals or any other member of the Group of the Corporations Act, the Financial Markets Conduct Act 2013 of New Zealand, the Financial Markets Conduct Regulations 2014 of New Zealand, the ASX Listing Rules or any other applicable law or regulation, authorisation, ruling, consent, judgment, order or decree of any government agency;
- any of the Offer Documents or any aspect of the Offer does not comply with the Corporations Act, the Financial Markets Conduct Act 2013 of New Zealand, the Financial Markets Conduct Regulations 2014 of New Zealand, the Listing Rules, or any other applicable law or regulation;
- a change in the Board (other than the Managing Director and CEO or Chair) or the General Counsel and Company Secretary of the Company is announced or occurs;
- except where the potential for the following has been disclosed in relevant sections of the Prospectus, any of the following occurs: the commencement of legal proceedings against the 29Metals or any member of the Group or against any director (or proposed director) of 29Metals or any member of the Group in that capacity, or any government agency commences any enquiry or public action against 29Metals or another member of the Group or any of their respective directors (or proposed directors) in their capacity as a director (or proposed director) of 29Metals or another member of the Group (as applicable) or in relation to the Offer, or announces that it intends to take action, or any government agency makes any adverse finding or ruling in relation to 29Metals or another member of the Group;
- 29Metals or any member of the Group is in breach of any debt covenant in the SFA;
- the outstanding principal and any accrued interest under any existing debt or finance facility of 29Metals or any other Group member other than the SFA becomes payable on or prior to the date of Settlement as a consequence of a breach of that facility;
- a statement in any closing certificate is false, misleading, inaccurate, incorrect, untrue or incorrect (including by way of omission);
- there is an event, occurrence or non-occurrence which makes it illegal or impossible for the Joint Lead Managers to satisfy an obligation under the Underwriting Agreement, or to market, promote or settle the Offer, including any acts, statute, order, rule, regulation, directive or requirement of any governmental agency, orders of any courts, lockdowns, lock-outs, forced closures, restrictions on mobility, or interruptions or restrictions in transportation which has this impact or any acts of God or other natural forces, civil unrest or other civil disturbance, currency restriction, embargo, action or inaction by a government agency, or any other event similar to the aforementioned;
- there is introduced, or there is a public announcement of a proposal to introduce, into the Parliament of Australia or any State of Australia, a new law, or the Reserve Bank of Australia, ASIC, ASX or any Commonwealth or State authority adopts or announces a proposal to adopt a new policy (other than a law or policy which has been announced before the date of this agreement), any of which does or is likely to prohibit or regulate the Offer, capital issues or stock markets or affect the taxation treatment of the Shares as contemplated in the Prospectus;
- hostilities not existing at the date of the Underwriting Agreement commence (whether war has been declared or not) or a major escalation in existing hostilities occurs (whether war has been declared or not) involving any one or more of Australia, the United States, the United Kingdom, Japan, any member of the European Union, Chile, North Korea, South Korea, Singapore, Hong Kong or China, or the declaration by any of these countries of a national emergency (other than as already existing prior to entry into this agreement) or an escalation in an existing national emergency, or a significant terrorist attack is perpetrated on any of those countries or any diplomatic, military, commercial or political establishment of any of those countries elsewhere in the world;
- any of the following occurs (i) a general moratorium on commercial banking activities in Australia, the United States, the United Kingdom, Japan, any member of the European Union, Chile, Singapore, Hong Kong or China is declared by the relevant central banking authority in any of those countries, or there is a material disruption in commercial banking or security settlement or clearance services in any of those countries; (ii) any adverse disruption or change (or any escalation thereof) to the existing financial markets, political or economic conditions or currency exchange rates or controls of Australia, the United States, the United Kingdom, Japan, any member of the European Union, Chile, Singapore, Hong Kong or China or the international financial markets, or any development involving a prospective change in the financial markets, political or economic conditions or currency exchange rates or controls in any of those countries; or (iii) trading in all securities quoted or listed on ASX, the London Stock Exchange, the Hong Kong Stock Exchange or the New York Stock Exchange is suspended or limited in a material respect for one day (or a substantial part of one day) on which that exchange is open for trading, or a Level 3 "market-wide circuit breaker" is implemented by the New York Stock Exchange upon a 20% decrease against the prior day's closing price of the S&P 500 Index only.

Representations, warranties, undertakings and other items

The Underwriting Agreement contains representations and warranties provided by 29Metals and SaleCo to the Joint Lead Managers (as well as common conditions precedent, including the entry into escrow deeds by Escrowed Shareholders, a deed in favour of SaleCo executed by or on behalf of each selling shareholder, ASX granting waivers in in-principle form, obtaining regulatory approvals that are necessary to enable the Offer and Restructure to proceed in accordance with the timetable, the Restructure, the U.S. Institutional Offering Memorandum and the accountant's comfort letters).

The representations and warranties provided by 29Metals and SaleCo to the Joint Lead Managers relate to matters such as the conduct of 29Metals and SaleCo (including in respect of due diligence, disclosure and compliance with applicable laws and the ASX Listing Rules), power and authorisations, information provided by 29Metals and SaleCo, financial information, information in the Prospectus, the Offer Documents and the conduct of the Offer. 29Metals also provides additional representations and warranties in connection with matters including, but not limited to, the Restructure documents, its accounts, assets, insurance, agreements and authorisations, material contracts, occupational health and safety, entitlements of third parties, internal controls (including accounting controls), taxation, intellectual property, data privacy, IT systems, litigation and anti-bribery.

29Metals's undertakings include, among other things, that it will not, vary any term of its constitution apart from any amendments related to the Restructure without the prior written consent of the Joint Lead Managers to the terms of the variation.

29Metals also undertakes to not, at any time from the date of this agreement and up to 90 days after Completion, allot or agree to allot or indicate in any way that it may or will allot or agree to allot any Shares (or other securities representing an equity interest in entities which will form part of the Group) or securities that are convertible or exchangeable into equity, or that represent the right to receive equity, of 29Metals or any other member of the Group, other than pursuant to the Offer, this agreement, the Restructure, as disclosed in sections 7 or 8 of the Prospectus, or any employee security plan, non-underwritten dividend reinvestment plan or bonus security plan in place prior to entry into the Underwriting Agreement.

Indemnity

Subject to certain customary exclusions (including gross negligence, recklessness, wilful misconduct or fraud of an indemnified party), 29Metals and SaleCo agree to indemnify and hold harmless the Joint Lead Managers and certain affiliated parties from certain losses suffered in connection with the Offer.

For the purposes of this Section 10.6.1:

"Offer Documents" means the following documents issued or published by, or on behalf of, and with the authorisation of 29Metals in respect of the Offer, and in a form approved by the Joint Lead Managers:

- the Pathfinder and any document that supplements or replaces the Pathfinder (including any addendum to the Pathfinder);
- the Prospectus, any Application Form and any Supplementary Prospectus;
- the U.S. Institutional Offering Memorandum;
- the pricing disclosure package;
- any cover email, Bloomberg or Confirmation Letter sent by or on behalf of 29Metals and SaleCo to eligible Institutional Investors in connection with the Institutional Offer, Broker Firm Offer and Bookbuild;
- any written communication by 29Metals and SaleCo or their respective agents and representatives that constitutes an offer to sell or solicitation of an offer to buy the Shares in the United States (other than the U.S. Offer documents); and
- any marketing or roadshow presentation and/or ASX announcement(s) issued by or on behalf of 29Metals and SaleCo in connection with the Offer, including the presentation to potential cornerstone investors, and any amendments, supplements, replacement or updates to any of them.

10.6.2 Golden Grove Syndicated Facility Agreement

Certain entities in the Group are party to a US\$190,000,000 syndicated facility agreement ('SFA') with, among others, BNP Paribas acting through its Australia Branch and Natixis, Hong Kong Branch acting as mandated lead arrangers and underwriters and BNP Paribas, acting through its Singapore Branch ('Security Agent').

The SFA was amended most recently on 11 February 2021. There are two facilities under the SFA (as amended), each with a final maturity date of 30 September 2025:

- 'Term Facility' with a commitment of US\$170,000,000. The Term Facility amortises in accordance with a fixed repayment schedule set out in the SFA; and
- 'Revolving Capital Facility' with a commitment of US\$20,000,000.

As at the date of this Prospectus:

- US\$168,000,000 has been drawn and is outstanding under the Term Facility; and
- the Revolving Capital Facility has not been drawn.

Material terms of the SFA are summarised below:

- **Fees and interest:** the SFA is subject to fees that are usual for facilities of this nature, along with variable interest on drawn amounts based on LIBOR plus the applicable margin³
- **Repayment:** The borrower must repay the outstanding amount of the Term Facility and Revolving Capital Facility in full by paying the specified instalments on the relevant payment date.
- **Representations, warranties and undertakings:** the SFA contains certain representations, warranties and undertakings that are typical for a facility of this nature. Certain secured indebtedness is expressly permitted, such as any subordinated shareholder loans and intercompany loan arrangements. The SFA contains restrictions on the borrower and guarantor's right to make distributions from Golden Grove.
- **Covenants:** the SFA contains covenants which are usual for facilities of this nature, such as information covenants (providing financial statements, compliance certificates, annual budgets and life of mine plan), project covenants (diligently operate the Golden Grove mine and comply with all material contracts), and financial covenants (on each calculation date, the borrower must ensure that the debt service cover ratio is at least 1.25:1; the net total leverage ratio does not exceed 3:1; the loan life coverage ratio is at least 1.20:1 and the reserve tail ratio is at least 30%⁴ and that the aggregate balance of its operating accounts is at all times equal to or more than US\$10,000,000).
- **Distributions:** the SFA prevents the borrower and guarantor from paying any dividends or making any other distributions unless an amount equal to 65% of the dividend or distribution is applied to the prepayment of the Term Facility.
- **Events of default:** the SFA contains events of default which are usual for facilities of this nature, including failure to pay, breach of financial covenants, breach of other obligations, misrepresentation, cross-default, termination of mining tenements, certain environmental events, material adverse change, change of control and insolvency-related events. The events of default are subject to materiality thresholds and grace periods where appropriate.
- **Security and guarantee:** the obligations under the SFA are secured by a guarantee provided by the guarantor under the SFA, a general security deed granted by the borrower and guarantor, mortgages of certain leases and a mining mortgage granted by the borrower).

The Group has obtained consents from the lenders under the SFA to the change of control of the borrower which arises from the Restructure and Completion (the '**SFA Consent**').

10.6.3 Byrnecut Underground Mining Services Agreements

10.6.3.1 Golden Grove

Byrnecut Australia Pty Ltd ('**Byrnecut Australia**') provides underground mining services and overall management of operations at Golden Grove, including drilling, blasting, construction, haulage and rehabilitation under an underground mining services agreement ('**GG-Byrnecut UMSA**').

The GG-Byrnecut UMSA commenced on 31 March 2017 with an initial term of 49 months and has subsequently been extended to 31 October 2022.

The GG-Byrnecut UMSA will terminate in the following circumstances:

- **Termination for convenience:** 29Metals may terminate for convenience and without cause by giving 30 days' notice to Byrnecut Australia, subject to payment of the amounts payable under the agreement to Byrnecut Australia.
- **Termination for breach:** 29Metals may terminate for certain Byrnecut Australia defaults and:
 - (i) if the default is remediable, fails to remedy it or establish a plan to remedy it within 14 days of receiving a default notice from EMR Golden Grove; or
 - (ii) if the default is irremediable, fails to ensure that such default does not occur again, to EMR Golden Grove's satisfaction.
 Byrnecut Australia may only terminate if there is an undisputed amount owing under the GG-Byrnecut UMSA within 30 days of the due date and 29Metals fails to remedy the payment default within a further 14 days after receiving default notice from Byrnecut Australia.
- **Termination for insolvency:** If a party to the agreement becomes insolvent, fails to comply with a statutory demand or have it set aside, or has insolvency proceedings commenced in respect of it, then the other party may either terminate the agreement by notice with immediate effect or give the insolvent party's insolvency administrator, controller, liquidator or receiver an option to continue to perform the agreement (which must be exercised within 14 days of receipt), subject to receiving an acceptable guarantee.

10.6.3.2 Capricorn Copper

Byrnecut Australia provides underground mining services at Capricorn Copper, including rehabilitation, development and production activities and any associated works under an underground mining services agreement ('**CC-Byrnecut UMSA**').

The CC-Byrnecut UMSA commenced on 1 February 2017 and with a completion date of 31 January 2022. Capricorn Copper Pty Ltd has the option to extend the term for a further 12 months if it provides written notice to Byrnecut Australia before 31 January 2022.

The terms and circumstances for termination under the CC-Byrnecut UMSA, are similar to those under the GG-Byrnecut UMSA.

3 The SFA includes a confirmation that a "Screen Rate Replacement Event" will occur if LIBOR is no longer available or deemed an appropriate reference rate upon which to determine the interest rate of the loan. Upon a Screen Rate Replacement Event occurring, any amendment or waiver which relates to (amongst other things) the use of a replacement benchmark in place of the relevant screen rate and aligning any provision of a finance document to use that replacement benchmark may be made with the consent of the facility agent (acting on the instructions of the majority lenders).

4 For the purposes of the SFA, 'debt service cover ratio' is the ratio of cash flow available for debt service to debt service for defined calculation periods; 'net total leverage ratio' is on a defined calculation date the total net debt on that calculation date to EBITDA for that calculation period; and 'reserve tail ratio' is recoverable ore remaining to be processed after the final maturity date as shown in the then current life of mine plan updated for any variance between actual and forecast production up to that defined calculation date to the total proved ore reserves and probable ore reserves as at the last reserve statement dated on or before the second amendment date (being 22 May 2020) as shown in the then current life of mine plan.

10.6.4 Mid West Port Authority Services, Lease and Licence

29Metals has agreements with Mid West Ports Authority (formerly Geraldton Port Authority) ('MWPA') for Golden Grove:

- for the provision of ship loading services, including provision of product handling facilities for the loading of product ('Port Services Agreement');
 - for storage and office space at Port of Geraldton ('Port Authority Lease'); and
 - for a dust extraction system and wash down bags ('Port Authority Licence'),
- (each, a 'Port Authority Agreement').

The original term of each Port Authority Agreement ran from 1 July 2006 for ten years to 30 June 2016. Since January 2017, 29Metals may extend the term by eight further terms by giving three months written notice to the MWPA – the first, a three year further term to 30 June 2019, and thereafter seven further terms of one year each.

29Metals issued an extension notice to MWPA to extend the Port Authority Lease until 30 June 2022. Given the interdependent nature of the Port Authority Agreements, the practice of 29Metals has been to issue an extension letter under the Port Authority Lease and 29Metals considers that extension letter as covering the Port Services Agreement and Port Authority Licence extensions as well. Both parties continue to undertake their obligations under the Port Authority Licence and the Port Services Agreement.

MWPA may suspend, commence recovery proceedings or terminate the Port Services Agreement if any undisputed payments are not made within 14 days of notice being received or if either party becomes insolvent.

For all other defaults, a non-defaulting party may take lawful action to rectify the default, commence court proceedings in relation to a default or terminate the Port Services Agreement for a breach that remains unremedied for 30 days from the notice of breach from the non-defaulting party. Where 29Metals is the defaulting party, MWPA may suspend the ship-loading services until the default is remedied.

The Port Services Agreement automatically terminates on termination of the Port Authority Lease, and the Port Authority Licence and Port Authority Lease automatically terminates on termination of the Port Services Agreement.

10.6.5 Golden Grove Trafigura Offtake Agreements

The term of the GG Trafigura Offtake Contracts for copper, zinc and HPM concentrates commenced on 15 September 2020 and will end on 31 December 2025. The term may be extended by a period equal to the period of suspension due to force majeure, provided the period of suspension is less than 90 days.

On 26 May 2021, the GG Trafigura Offtake Contract for Zinc concentrate was varied to, among other things, extend the term of that contract to 31 December 2026 pursuant to a revised delivery schedule.

The agreements contain certain events of default, including failure to pay, breach of contract or any warranties in respect of sanctions and anti-bribery, inability to pay its debt when due, and insolvency-related events. Upon the occurrence of an event of default, the non-defaulting party may do any or a combination of the following:

- terminate a specific delivery in respect of which the event of default occurred;
- terminate the contract prior to the end of its term;
- withhold any payments due until the event of default is cured; and
- suspend performance until the event of default is cured.

29Metals may also seek early termination of the copper and zinc concentrate offtake agreements by notice to Trafigura, provided that:

- the effective termination date is on or after 1 January 2023;
- in relation to the zinc concentrate offtake agreement only, Golden Grove has delivered a minimum volume of 480,000 dmt of zinc concentrate prior to termination; and
- Golden Grove has paid the "Non-Performance Payment" (as described below) in respect of undelivered concentrates as at the termination date.

In connection with the GG Trafigura Offtake Contracts, there is also a 'non-performance agreement' whereby 29Metals will be required to compensate Trafigura if 29Metals fails to meet certain agreed minimum contractual quantities (i.e. aggregate volumes of concentrate delivered into the relevant contract in a defined period) unless Trafigura agrees otherwise.

Under the non-performance agreement, failure to achieve the minimum delivery volumes by Golden Grove under the GG Trafigura Offtake Contracts for copper and zinc concentrate may lead to termination of specific deliveries or the contract, and/or liability under the contract for the "Non-Performance Payment" as liquidated damages.

10.6.6 Capricorn Copper Trafigura Offtake Agreements

29Metals has long-term copper concentrate Offtake Contracts in place with Trafigura that are likely to cover the vast majority of copper concentrate produced at Capricorn Copper until expiry in 2026. In certain circumstances, the Offtake Contracts with Trafigura at Capricorn Copper may continue for the life of mine.

One Offtake Contract provides for the sale of 140,000 dmt (+/- 5%, at 29Metals' discretion) of copper concentrate commencing on 10 July 2018 and ending 31 December 2022.

In the event of suspension of the contract for *force majeure*, the term may be extended by a period equal to the period of suspension due to force majeure, provided the period of suspension is less than 90 days.

The agreement contains events of default, including failure to pay, breach of contract or breach of any representation and warranty, inability to pay debt when due, and insolvency-related events. Upon the occurrence of an event of default, the parties have similar rights as those under the GG Trafigura Offtake Contracts.

A second Offtake Contract with Trafigura provides for the sale of 100,000 dmt for the years 2021 to 2023 and 100% of the copper concentrate produced by Capricorn Copper for the period 2023–2026 (inclusive), covering an aggregate minimum delivery volume of 370,000 dmt (with any shortfall rolling over for delivery in 2027). This Offtake Contract with Trafigura will be extended to the life of mine, if Trafigura still owes any obligations in connection with the Environmental Bond (described in section 10.6.7) at 31 December 2022.

If this second Trafigura Offtake Contract is extended for the life of mine (per above), 29Metals' has a right to *buyback* the life of mine offtake at a price of US\$35/per dmt multiplied by the projected life of mine tonnage (which must be a minimum of 600,000 dmt). 29Metals may only exercise the buyback:

- from 1 January 2027; and
- after a minimum of 370,000 dmt of copper concentrate is delivered.

The term of the second Trafigura Offtake Contract may also be extended by a period equal to the period of suspension due to force majeure, provided the period of suspension is less than three months. The agreement may also be terminated by either party if a force majeure suspension is continuing for three months or longer.

10.6.7 Capricorn Copper Trafigura Indemnity

In consideration for Trafigura providing a counter-indemnity to National Australia Bank Ltd ('NAB') for the Environmental Bond it issued on behalf of Capricorn Copper ('Counter Indemnity'), EMR Fund I entered into an *On Demand Indemnity* on 7 October 2020, pursuant to which EMR Fund I indemnifies Trafigura if the NAB Environmental Bond is called on by the State of Queensland ('Trafigura Indemnity').

On 4 June 2021 29Metals entered into a Replacement Indemnity in consideration for the full and unconditional release of EMR Fund I from the Trafigura Indemnity ('Replacement Indemnity'). Under the Replacement Indemnity, if Trafigura's liability under the NAB Counter Indemnity has not been irrevocably paid, discharged or released within two years following the date of completion of the IPO, 29Metals agrees to:

- ensure that all amounts which may be or become payable under or in connection with the Counter Indemnity are irrevocably paid, discharged or released in full (including, replacing the Environmental Bond and discharging the Counter Indemnity); or
- deliver to Trafigura cash collateral, an unconditional, irrevocable and on demand bank guarantee, or other security (in form and content acceptable to Trafigura, acting reasonably) in an amount sufficient to cover Trafigura's actual and contingent liabilities in respect of the Counter Indemnity.

10.6.8 Ausenco Operations and Maintenance Agreement

Capricorn Copper Holdings and Capricorn Copper Pty Ltd entered into an Operations and Maintenance Agreement for the Capricorn Copper Mine ('Ausenco O&M') on 31 December 2018 with Ausenco Operations Pty Ltd ('Ausenco').

The Ausenco O&M has the following key terms:

- The Ausenco O&M commenced on 1 January 2019 and the term will end on 1 January 2024. The term may be extended by mutual agreement of the parties at least 90 days before expiry.
- Capricorn Copper Pty Ltd may terminate the Ausenco O&M at any time by giving no less than 90 days' notice in writing to Ausenco.
- Either party may terminate the agreement immediately by written notice if the other party commits a "material breach" and fails to rectify such material breach within a reasonable period specified by the non-defaulting party (no less than 14 days after receiving the notice).
- The agreement contains certain restrictions on dealing with contract rights, including no assignment or subcontracting by Ausenco without prior written consent of Capricorn Copper Pty Ltd. Ausenco may terminate the agreement on six months' notice following a change of control of 29Metals, Capricorn Copper Holdings or Capricorn Copper.

10.6.9 Relationship Deed

29Metals has entered into a Relationship Deed with the EMR Parties to govern the relationship between 29Metals and the EMR Capital Investors while the EMR Capital Investors hold Shares. The Relationship Deed has the following key terms:

- the obligations of the parties to the Relationship Deed are conditional on Listing and execution of the Escrow Deeds;
- the parties to the Relationship Deed agree to certain procedures for the management of conflicts of interest and appropriate use of confidential information;
- EMR Capital Advisers Pty Ltd on behalf of the EMR Capital Investors may nominate one Director for appointment to the Board for so long as the EMR Capital Investors hold a Relevant Interest of total issued Shares of at least 10%; or may nominate two Directors to the Board for so long as the EMR Capital Investors hold a Relevant Interest of total issued Shares of more than 20%;
- a nominee Director may also appoint an alternate director for the nominee Director on an ad hoc basis. The alternate director is not entitled to attend any board meeting attended by the nominee Director unless the alternate director is designated as the EMR Capital Investors' observer for that meeting;
- EMR Capital on behalf of the EMR Capital Investors also has the right to appoint a Board observer, subject to 29Metals' Independent Directors having the right to require that any such observer is excluded from relevant Board discussions where the Independent Directors consider it appropriate to do so;
- subject to the relevant conflicts of interests protocols, 29Metals must provide each nominee Director the same information that is provided to the other Directors for Board reporting purposes. The EMR Capital Investors and nominee Directors may also request additional information in relation to 29Metals which the Company must provide unless it does not consider the request to be appropriate in the circumstances;
- the fees payable to nominee Directors and their alternates for being a member of the Board or a member of a Board committee will be the same as the fees payable to other non-nominee Directors and will be subject to the Constitution; and

- subject to the Escrow Deeds, the EMR Capital Investors may elect to sell any or all of their Shares in 29Metals from time to time, in which case 29Metals will provide the EMR Capital Investors with reasonable assistance and co-operate with the EMR Capital Investors in good faith, including providing market disclosure (subject to certain conditions) to facilitate a disposal of Shares by the EMR Capital Investors.

The Relationship Deed terminates if the EMR Capital Investors cease to hold at least 5% of the Shares in 29Metals.

10.6.10 Capricorn Copper hedging arrangements

Prior to the Offer, Capricorn Copper has certain copper hedging arrangements in place, as set out in the following table (the 'CC Hedges').

Maturity date	Copper tonnes	Hedged price \$/tonne
Jun-21	930	8,908
Jul-21	1,160	8,904
Aug-21	980	8,907
Sep-21	900	8,909
Oct-21	1,440	8,900
Nov-21	1,250	8,902
Dec-21	830	8,911
Jan-22	798	8,957
Feb-22	798	8,957
Mar-22	798	8,957
Apr-22	801	9,007
May-22	801	9,007
Jun-22	801	9,007
Jul-22	801	9,007
Aug-22	800	9,007
Sep-22	802	9,007

29Metals intends to cash settle the 2021 CC Hedges from Offer proceeds, up to an aggregate of \$40 million, and 29Metals will seek to opportunistically cash settle the 2022 CC Hedges from operating free cash flows (subject to market conditions and future capital requirements).

10.6.11 29Metals corporate office lease

29Metals has entered into a sub-lease with EMR Capital Pty Ltd for its head office premises at Level 2, 150 Collins Street, Melbourne, Victoria ('Sub-Lease'). The Sub-Lease is on arms' length terms and contains the following key terms:

- an initial term ending on 30 September 2024 with an option to extend to 30 September 2025 and a further option to extend to 30 March 2026;
- annual rent of \$231,530 (subject to annual rent reviews described below) and responsibility for 100% of outgoings that relate to the sub-let premises;

- annual rent reviews commencing on 1 April 2022, with rent increasing 4% on each rent review;
- EMR Capital Pty Ltd will contribute \$221,160 (plus GST) towards the fit-out of the premises; and
- 29Metals will be responsible for the cost of restoring the premises to its original condition if the Sub-Lease expires before the underlying lease term or 45% of those costs if they expire at the same time.

10.6.12 Restructure sale and purchase documents

10.6.12.1 Lighthouse Minerals and Capricorn Copper Holding acquisition

29Metals entered into an agreement with EMR Capital Investment (No.6B) Pte. Ltd. under which 29Metals acquired 100% of the shares in Lighthouse Minerals and 97% of the shares in Capricorn Copper Holdings, in exchange for 29Metals issuing Shares to EMR Capital Investment (No.6B) Pte. Ltd. The acquisition completed on 7 June 2021. Lighthouse Minerals holds the remaining 3% of the ordinary shares in Capricorn Copper Holdings.

10.6.12.2 Conditional acquisition documents

29Metals has entered into a conditional agreement with EMR Capital Investment (No.6B) Pte. Ltd. under which 29Metals will acquire 100% of the shares in Golden Grove TopCo. Under the agreement, EMR Capital Investment (No.6B) Pte. Ltd. provides customary title, solvency, capacity and authority warranties. Completion of the agreement is subject to quotation of all shares in 29Metals commencing on ASX on a conditional and deferred settlement basis. If successful completion of the IPO does not occur by 30 September 2021 (or such earlier date under the terms of the relevant agreement) 29Metals and EMR Capital Investment (No.6B) Pte. Ltd. must use their reasonable endeavours to unwind any action taken pursuant to the agreement.

29Metals has also entered into a conditional agreement with EMR Capital Investment (No.4B) Pte. Ltd. and EMR Capital Advisors Pty Ltd in its capacity as agent and on behalf of EMR Capital Resources, LP under which 29Metals will acquire 100% of the shares in Redhill Mining in exchange for 29Metals issuing Shares to EMR Capital Investment (No.4B) Pte. Ltd. and NomineeCo, as nominee for EMR Fund 0. Under the agreement, EMR Capital Investment (No.4B) Pte. Ltd. and EMR Capital Advisors Pty Ltd in its capacity as agent and on behalf of EMR Capital Resources, LP each provide customary title, solvency, capacity and authority warranties. Completion of the agreement is subject to the quotation of all shares in 29Metals commencing on ASX on a conditional and deferred settlement basis. If successful completion of the IPO does not occur by 30 September 2021 (or such earlier date under the terms of the relevant agreement) 29Metals, EMR Capital Investment (No.4B) Pte. Ltd. and EMR Capital Advisors Pty Ltd in its capacity as agent and on behalf of EMR Capital Resources, LP must use their reasonable endeavours to unwind any action taken pursuant to the agreement.

29Metals has also entered into a conditional agreement with EMR Capital Advisors Pty Ltd, in its capacity as agent for and on behalf of the limited partners of Golden Grove, LP, and EMR Capital GP II Golden Grove Pty Ltd (ACN 612 356 788), in its capacity as the general partner of Golden Grove, LP under which 29Metals will acquire 100% of the limited partnership interests in Golden Grove, LP in exchange for 29Metals issuing Shares to NomineeCo, as bare trustee for the investors of Golden Grove, LP. Completion

of the agreement is subject to quotation of all shares in 29Metals commencing on ASX on a conditional and deferred settlement basis. If successful completion of the IPO does not occur by 30 September 2021 (or such earlier date under the terms of the relevant agreement) 29Metals, EMR Capital Advisors Pty Ltd and EMR Capital GP II Golden Grove Pty Ltd must use their reasonable endeavours to unwind any action taken pursuant to the agreement.

It is proposed that 29Metals will enter into a conditional agreement with certain trusts that hold carried interests in Golden Grove, LP and EMR Capital GP II Golden Grove Pty Ltd, in its capacity as the general partner of Golden Grove, LP under which 29Metals will acquire 100% of the interests each carried interest holder holds in Golden Grove, LP for nominal consideration. Completion of the agreement is subject to quotation of all shares in 29Metals commencing on ASX on a conditional and deferred settlement basis. If successful completion of the IPO does not occur by 30 September 2021 (or such earlier date under the terms of the relevant agreement) the parties must use their reasonable endeavours to unwind any action taken pursuant to the agreement.

29Metals has also entered into a conditional agreement with Golden Grove TopCo (as buyer) and EMR Capital GP II Golden Grove Pty Ltd (as seller), under which Golden Grove TopCo will acquire 100% of the general partnership interests in Golden Grove, LP in exchange for Golden Grove TopCo paying nominal consideration to EMR Capital GP II Golden Grove Pty Ltd (ACN 612 356 788). Completion of the agreement is subject to quotation of all shares in 29Metals commencing on ASX on a conditional and deferred settlement basis. If successful completion of the IPO does not occur by 30 September 2021 (or such earlier date under the terms of the relevant agreement) the parties must use their reasonable endeavours to unwind any action taken pursuant to the agreement.

10.6.12.3 Mortgage over 10% of Capricorn Copper Holdings subject to release

Ten percent of the shares in Capricorn Copper Holdings are the subject of a mortgage in favour of the vendors from whom EMR Capital Investment (No.6B) Pte. Ltd. initially acquired Lighthouse Minerals.

The mortgage secures the balance of the purchase price not yet paid (\$2.5m), and a possible contingent payment of \$12.5m which EMR Capital Investment (No.6B) Pte. Ltd. agreed with those vendors if EMR Capital Investment (No.6B) Pte. Ltd. exceeds a certain money multiple from its investment in Capricorn Copper Holdings.

EMR Capital Investment (No.6B) Pte. Ltd. and 29Metals are taking steps to secure the release of the mortgage which may become litigious if not resolved consensually.

EMR Capital Investment (No.6B) Pte. Ltd. has engaged with the vendors on an offer of replacement security over the 29Metals Shares which it received in exchange for its Capricorn Copper Holdings shares, on the same terms as their current share mortgage (effectively restoring the status quo). The offer includes a \$15m cash escrow from the proceeds of the IPO against termination of the 29Metals share replacement security, despite no contingent payment being reasonably foreseeable. EMR Capital Investment (No.6B) Pte. Ltd. considers there is no possible disadvantage to the Lighthouse vendors in that offer which would put them in a better position than the status quo.

In the meantime because this matter may not be resolved before the Offer completes, 29Metals has agreed to acquire the shares in Capricorn Copper Holdings subject to the 10% mortgage (in the restructure described in section 10.12.1), subject to an indemnity from EMR Capital Investment (No.6B) Pte. Ltd. for the 10% mortgage and any associated claims as finally determined. In connection with the indemnity, 29Metals will hold cash from EMR Capital Investment (No.6B) Pte. Ltd.'s share of the proceeds of the sale of Shares by SaleCo under the Offer. The \$2.5m balance of the purchase price not yet paid, has been paid into escrow by EMR Capital Investment (No.6B) Pte. Ltd. and will be paid to the vendors. The cash held by 29 Metals will secure the indemnity and will be an amount equal to the \$12.5m maximum possible contingent payment, and a provision for legal costs ('**Cash Backed Indemnity**'). The Cash Backed Indemnity Amount will be held in a 29Metals' bank account or an escrow account and will be released by 29Metals (less costs) to EMR Capital Investment (No.6B) Pte. Ltd., or as directed or agreed as part of the resolution of the issues between EMR Capital Investment (No.6B) Pte. Ltd. and the Lighthouse vendors, when the mortgage is released.

Since 7 June 2021 correspondence between EMR Capital Investment (No.6B) Pte Ltd, the Lighthouse vendors and 29Metals has continued which has failed to resolve the matter. In that correspondence the Lighthouse vendors have threatened to take enforcement action. EMR Capital Investment (No.6B) Pte Ltd and 29Metals have referred the unresolved matters to the Court for determination. 29Metals does not consider this dispute to be material to the Offer or to 29Metals.

10.7 Material Regulations

10.7.1 Australia

10.7.1.1 Overview

In Australia, the regulatory framework governing exploration and mining of minerals consists of:

- relevant state mining legislation;
- Commonwealth and relevant state native title and Aboriginal cultural heritage protection legislation;
- Commonwealth and relevant state environmental protection legislation, including laws in respect of water rights, contaminated sites and rehabilitation of land subjected to mining; and
- relevant state work health and safety legislation.

The sale and purchase of Shares in Australia are regulated by Australian laws that restrict the level of ownership or control by any one person (either alone or in combination with others), namely in Australia the:

- *Corporations Act 2001* (Cth); and
- *Foreign Acquisitions and Takeovers Act 1975* (Cth).

This section contains a general description of these laws.

10.7.1.2 Mining

Mining Act 1978 (WA)

In Western Australia, exploration and mining of minerals is governed by the *Mining Act 1978 (WA)* ('**WA Mining Act**') and the *Mining Regulations 1981 (WA)*. Only the holder of an appropriate tenement may conduct exploration or mining activities, as ownership in minerals located within Western Australia is vested in the Western Australian Government ('**WA**') (with some minor exceptions).

A person must apply for and be granted a mining tenement before exploring for or mining minerals that are owned by WA. Relevant tenements under the WA Mining Act are:

- exploration licences, for the exclusive right to search for minerals;
- mining leases, for the exclusive right to extract and process minerals; and
- miscellaneous licences, for the right to construct certain mining-related infrastructure.

Mining tenements (with the exception of miscellaneous licences) confer exclusive rights to carry out mining operations within the boundaries of the mining tenement. However, mining tenements are non-exclusive of other land rights and may co-exist with freehold interests, leasehold interests, crown land and native title rights.

The holder of a tenement is required to comply with the conditions set out in the WA Mining Act and those conditions as determined by the WA Minister for Mines and Petroleum, including compliance with prescribed minimum annual expenditure commitments and lodgement of operations reports each year with the DMIRS. The registered holder of a mining lease must also pay royalties to WA for the extraction and production of minerals from the land subject to the mining lease.

All tenements are granted for a set term with renewal available (except for certain types of prospecting licences) where applications which meet the prescribed grounds of renewal are made within requisite timeframes. A tenement will remain on foot once an application for renewal is made and until that application is determined, even if this goes beyond the formal end-date of the tenement.

All mining leases are granted subject to a condition that the holder of the mining lease must not conduct certain prescribed mining operations on the mining lease without first submitting a Mining Proposal which contains a mine closure plan ('**MCP**') to DMIRS for approval. The Mining Proposal sets out the proponents plans for mining operations and the MCP sets out the proponent's plan for decommissioning and closure, including the rehabilitation standards that must be met and must be reviewed every three years. Mining Proposals and MCPs must be prepared in accordance with DMIRS 'Statutory Guidelines for Mining Proposals (2020)' and 'Statutory Guidelines for Mine Closure Plans (2020)' respectively.

Mineral Resources Act 1989 (Qld) and Mineral and Energy Resources (Common Provisions) Act 2014 (Qld)

In Queensland, exploration and mining for minerals is governed by the *Mineral Resources Act 1989 (Qld)* ('**Qld Mining Act**'), *Mineral and Energy Resources (Common Provisions) Act 2014 (Qld)* and their respective regulations. Only the holder of an appropriate tenement may conduct exploration or mining activities, as ownership in minerals located within Queensland are vested in the Queensland

Government (with some minor exceptions). Relevant tenements under the Qld Mining Act are:

- exploration permits for minerals, for the conduct of exploration activities;
- mineral development licences, for further mineral resources development and as a retention tenure pending future production grants; and
- mining leases, for mine development and the production and processing of minerals.

The holder of a tenement is required to comply with the standard conditions of the tenement set out in the Qld Mining Act and conditions determined at the discretion of the Queensland Minister of Resources, including compliance with the approved work programs and expenditure commitments in relation to exploration permits, requirement to have a development plan for mining leases, rent and security deposit requirements and royalties linked to the production of minerals under a mining lease and lodgement of reports, returns, documents and statements required to be given to the Queensland Minister of Resources. The *Mineral and Energy Resources and Other Legislation Amendment Act 2020 (Qld)* ('**MEROLA**') was passed by the Queensland Parliament on 20 May 2020. Under the MEROLA, the Queensland Minister of Resources may decide to amend these conditions if the Restructure triggers a change in control which the Minister identifies as posing a significant risk that the new entity will not be able to comply with the conditions of the tenements.

All tenements are granted for a set term, with renewal available where applications are made within requisite timeframes. All tenements remain on foot once an application for renewal is made and until that application is determined, even if this goes beyond the formal end-date of the tenement. Similarly, prerequisite tenure remains on foot beyond its end-date where an application for a higher form of tenement has been made and until that application has been decided. Exploration permits are subject to area relinquishment requirements. Waiver or variation of these requirements may be given where the holder can justify this to occur.

- A royalty is payable to the Queensland Office of State Revenue ('**OSR**') for the right to extract minerals. The holder of a mining lease must also lodge royalty returns, generally for a calendar quarter (but in some cases for a financial year). The OSR has, on various occasions, approved royalty deferral repayment plans for Capricorn Copper. Capricorn Copper is yet to receive confirmation of approval of the most recent deferral plan from the OSR. Capricorn Copper is operating on the basis that it has been approved and is making royalty payments in accordance with the most recent deferral plan. Capricorn Copper is required to meet royalty obligations as and when they arise unless the OSR has approved the deferral plan. Outstanding royalty liabilities will continue as a debt owed to the Queensland Government which must eventually be paid and may attract penalty interest. Non-payment of royalties owed to the Queensland Government is a compliance issue which in some cases may result in cancellation of producing mining leases. However, the Minister for Resources is required under the Qld Mining Act to issue a show cause notice and consider responses (if any) to the show cause notice prior to cancelling a producing mining lease for non-compliance with royalty obligations.

10.7.1.3 Native title and Aboriginal heritage

Native Title Act 1993 (Cth)

The *Native Title Act 1993* (Cth) ('NTA') provides for the recognition and protection of native title rights and interests of Australian Indigenous peoples. The NTA sets out procedures under which native title claims may be lodged and determined and compensation claimed for the extinguishment or impairment of the native title rights or interests of Australian Indigenous peoples.

Once there is a registered claim for native title or native title is determined to exist, all 'future acts' (i.e. acts affecting native title, such as the grant of new mining tenements that occur after 1 January 1994) must comply with the future act regime of the NTA. Depending on the nature of the future act in question, the NTA gives registered native title claimants or native title holders a right to be notified, be consulted, or in some cases, a right to negotiate an agreement.

Where the parties reach an agreement during the right to negotiate process, the usual practice is for consents to be given in a 'section 31 deed/agreement', to which the relevant state/territory government (as the grantor of the tenements) is also a party, together with an 'ancillary agreement', which is confidential to the proponent and the native title parties and sets out the commercial terms on which the native title parties gave their consents. These ancillary agreements usually include the payment of compensation to the relevant native title party for the impact an act has on native title. Where the parties are unable to reach an agreement, the proponent can seek a determination from the National Native Title Tribunal ('NNTT'). The NNTT must determine that the tenement can be granted, the tenement cannot be granted, or the tenement can be granted with conditions. The usual determination is that the tenement can be granted or granted with conditions. This will not, however, release the proponent from liability for compensation for the grant of the tenement.

The NTA also provides for the negotiation and registration of Indigenous Land Use Agreements ('ILUAs') with the NNTT. An ILUA is a voluntary agreement between a native title group and others about the use of land and waters, and will often address topics such as consent to development, extinguishment or suspension of native title, access to an area and payment of compensation to the native title group.

In respect of the Golden Grove Mine, all tenements are located either wholly or partially within the area covered by the native title determinations of Yamatji Nation (WCD2020/001) or the Badimia People (WAD6123/1998). The native title determination of Yamatji Nation (WCD2020/001) confirmed that native title does not exist in an area which includes the Golden Grove project tenements, and the associated registered ILUA confirmed the validity of existing tenure (including the Golden Grove project tenements which are located within the determination area), and includes a release from native title compensation. The native title determination of the Badimia People (WAD6123/1998) confirmed that native title does not exist in the determination area.

In respect of the Capricorn Copper Mine, the project area is overlapped entirely by the native title determination of the Kalkadoon People #4 (QCD2011/007). The grant of all Capricorn Copper Mine tenements was valid for native title purposes. For some tenements, Capricorn Copper has entered into certain native title agreements, including ancillary agreements and deeds of variation, which include payments of compensation, non-binding targets for employment positions for native title holders in roles relating to the project and contracts for the supply of goods and services relating to the project to associated businesses. Most of the mining leases were otherwise granted prior to 1 January 1994, and so it was not necessary to negotiate agreements, as the tenements were validated under the NTA as category C past acts. Exploration tenements were granted after the application of the expedited procedure.

Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cth)

The *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Cth) ('*ATSIHP Act*') provides for the protection of areas and objects that are of particular significance to Australian Indigenous peoples. The ATSIHP Act allows the Commonwealth Environment Minister, on the application of an Aboriginal person or group of persons, to make a declaration to protect an area, object, or class of objects from a threat of injury or desecration. The ATSIHP Act can override State and Territory legislation in situations where a State or Territory has approved an activity, but the Commonwealth Minister for the Environment prevents the activity from occurring by making a declaration to protect an area or object.

Aboriginal Heritage Act 1972 (WA)

The *Aboriginal Heritage Act 1972* (WA) ('*AH Act*') provides for the protection of all Aboriginal heritage sites in Western Australia, whether or not they are registered with the Department of Planning, Lands and Heritage.

Under the current regime, a person may obtain the consent of the Western Australian Minister for Aboriginal Affairs to undertake an activity that may interfere with an Aboriginal site under section 18 of the AH Act. These consents provide a legal defence to prosecution and may be accompanied by various conditions. Mining industry practice, agreements and the existing legislative regime has recently been subject to increased scrutiny following the destruction of the Juukan Gorge in 2020.

Golden Grove does not have any section 18 consents or heritage agreements with traditional owners. Golden Grove does have heritage management plans in place for a number of registered sites and other sites of importance to traditional owner groups, which have been developed in consultation with traditional owners.

The legislative regime in Western Australia is currently undergoing reform. The current draft Aboriginal Cultural Heritage Bill 2020, which is proposed to replace the AH Act, proposes an activity-based approach, requiring assessment and management of risk to heritage values arising from the planned project activities. It provides for proponents and traditional owner groups to seek to reach agreement about cultural heritage management plans before activities commence and a range of measures to protect Aboriginal heritage.

Aboriginal Cultural Heritage Act 2003 (Qld)

The *Aboriginal Cultural Heritage Act 2003* (Qld) imposes a statutory duty of care for all persons carrying out an activity to take all reasonable and practicable measures to ensure the activity does not harm Aboriginal cultural heritage in Queensland. The cultural heritage duty of care applies to all land in Queensland, regardless of the tenure and whether native title exists, may exist or does not exist. There are various means by which the cultural heritage duty of care can be discharged, including negotiating and acting in accordance with a cultural heritage management agreement or a native title agreement that provides for Aboriginal cultural heritage.

Capricorn Copper has entered into a cultural heritage management agreement with local indigenous groups for ML 90180, ML 90181 and ML 90182 on relatively standard terms for agreements of this kind, including:

- acknowledgement that a cultural heritage survey was conducted prior to entry into the agreement;
- monitoring by representatives of the native title party (Kalkadoon Native Title Aboriginal Corporation) of high impact activities in defined areas reasonably recommended by the Liaison Committee where there are new discoveries of Aboriginal cultural heritage;
- processes for agreeing on the management of new discoveries of Aboriginal cultural heritage;
- responsibility on Capricorn Copper for storage and safety of all artefacts and significant Aboriginal objects removed from the project area to facilitate the project, which can be discharged by payment to the native title party for reasonable costs to store, manage and ensure long-term safety;
- remuneration for native title party representatives for performing services under the agreement; and
- dispute resolution procedures.

10.7.1.4 Environment

Environment Protection and Biodiversity Conservation Act 1999 (Cth)

The *Environment Protection and Biodiversity Conservation Act 1999* (Cth) ('**EPBC Act**') provides a federal framework to protect and manage matters of national environmental significance such as listed threatened species, world heritage properties, national heritage places and ecological communities and water resources. A person who proposes to take any action that will have, or is likely to have, a significant impact on a matter of national environmental significance must refer that action to the Commonwealth Environment Minister for a decision as to whether Commonwealth assessment and approval is required under the EPBC Act. If a project is required to be approved under the EPBC Act, the assessment process is usually conducted in conjunction with the relevant State's assessment process.

In respect of the Golden Grove Mine, referral and assessment under the EPBC Act is not required as the project will unlikely affect any matters of national environmental significance.

In respect of the Capricorn Copper Mine, mining activities commenced in 1974 and predate the commencement of the EPBC Act. The EPBC Act contains exemption provisions in relation to certain actions that were authorised prior to the commencement of the Act that would otherwise require an approval. Capricorn

Copper has possession of various Environmental Management Overview Strategy ('**EMOS**') documents and supporting Plans of Operation which provide detail as to the activities undertaken at the mine prior to the EPBC Act commencement. An EMOS is an environmental management document which includes strategies and commitments to manage environmental impacts during the mine life. In accordance with the *Mineral Resources Act 1989* (Qld) (as it then was), it was a condition of a mining lease that its holder conduct mining activities in accordance with an accepted EMOS and a current Plan of Operation. The commitments made within an EMOS define the acceptable level of environmental management which a proponent was required to comply with as conditioned in a mining lease. The activities defined in the EMOS dated 20 February 1997 are generally consistent with the activities currently undertaken by Capricorn Copper. The prior authorisation exemption continues indefinitely under the EPBC Act.

Environmental Protection Act 1986 (WA)

The *Environmental Protection Act 1986* (WA) ('**WA EP Act**') provides for the prevention, control and abatement of pollution and environmental harm, for the conservation, preservation, protection, enhancement and management of the environment. Projects in Western Australia that are likely to have a significant effect on the environment must be referred to the Western Australian Environmental Protection Authority for assessment and approval by the Western Australian Minister for assessment and approval by the Western Australian Minister for Environment under Part IV of the WA EP Act.

Part IV approvals are issued in the form of a ministerial statement and are usually subject to conditions for managing the relevant impacts. Ministerial statements may provide the proponent with a defence to other environmental offences that may otherwise arise under the WA EP Act (such as pollution, environmental harm and clearing of native vegetation).

If a particular action does not have a significant effect on the environment, it may still require approval if it requires clearing of native vegetation or causes the premises to become a prescribed premises, such as processing and beneficiation of ore, mine dewatering, sewerage facilities and putrescible landfill sites. Such approvals are granted in the form of Clearing Permits (for the clearing of native vegetation), Works Approvals (for the construction of prescribed premises), and Operating Licences (for the operation of prescribed premises).

The WA EP Act is undergoing reform. Amendments to the WA EP Act were passed through the Western Australian Parliament in late 2020 and include the consolidation of Part V works approvals and operating licences into a single instrument, as well as changes to the Part IV environmental impact assessment process to provide greater clarity, flexibility and efficiencies. Although some of the minor amendments to the WA EP Act have been introduced, the date for implementation of the substantive Part IV and Part V amendments is yet to be proclaimed.

Golden Grove currently holds operating licence L8593/2011/2 (which covers 11 mining tenements that make up the Scuddles and Gossan Hill Mine, and authorises the operation of specified prescribed premises) and clearing permit CPS9046/1 (which authorises specified clearing over tenements M59/195, M59/91, M59/92 and M59/93).

Environmental Protection Act 1994 (Qld)

The *Environmental Protection Act 1994 (Qld)* ('**Qld EP Act**') aims to protect Queensland's environment while allowing for development that improves the total quality of life, both now and in the future, in a way that maintains ecologically sustainable development.

Under the Qld EP Act, it is an offence to carry out a mining activity unless the person holds or is acting under an environmental authority for the activity. The environmental authority imposes conditions on an activity. It is an offence to contravene a condition of an environmental authority. In addition to the requirements found in the conditions of an environmental authority, the holder must also meet its general environmental duty and duty to notify of environmental harm and otherwise comply with the provisions of the Qld EP Act and the regulations promulgated thereunder.

The environmental authority holder must also be a registered suitable operator under the Qld EP Act. Capricorn Copper is a registered suitable operator.

Capricorn Copper holds environmental authority EPML00911413 which authorises the mining operations for the Capricorn Copper Mining Area over the 29 mining leases. The environmental authority authorises the mining of copper ore, mineral processing, chemical storage, crushing, milling, grinding and screening of materials on certain conditions. Those conditions include requirements in relation to air, water, regulated structures (e.g. dams), noise and vibration, waste, land and rehabilitation.

Capricorn Copper also holds a range of subsidiary environmental approvals for its existing operations in relation to exploration and extraction activities.

The Qld EP Act also provides that an owner or occupier of land is required to notify to the DES if they suspect that there may be a risk that the land is contaminated.

The primary statutory responsibility for contaminated land rests with the person who releases the hazardous contaminant. Where such person is not known or cannot be located there is a cascading hierarchy of liability.

The DES maintains a public register of contaminated or potentially contaminated land. Land is recorded in the environmental management register ('**EM Register**') if there is a 'notifiable activity' (an activity which increases the risk of contamination occurring) is being, or has been, undertaken on the land, or the land is contaminated. Land is recorded in the contaminated land register ('**CL Register**') if the land is contaminated and action is required to be undertaken to remediate the land to prevent environmental harm.

In respect of the Capricorn Copper Mine, one lot which Capricorn Copper has a significant leasehold interest in is listed on the EM Register for notifiable activities, including abrasive blasting, chemical manufacture or formulation, chemical storage, landfill, mine wastes and petroleum product or oil storage. However, land listed on the EM Register does not necessarily mean that the land is contaminated or that any action needs to be undertaken in relation to the land or unsuitable for its current use.

No lots Capricorn Copper owns or has a significant interest in are listed on the CL Register.

Rights in Water and Irrigation Act 1914 (WA)

In Western Australia, entitlements to the use, control and flow of most water sources are vested in the state and regulated by the *Rights in Water and Irrigation Act 1914 (WA)* ('**WA Water Act**'). The WA Water Act applies to most surface and groundwater in the state. A licence is required to take water from any surface or groundwater source to which the WA Water Act applies.

Golden Grove holds one water licence which provides an allocation of 3,510 megalitres per annum and expires on 14 August 2024.

Water Act 2000 (Qld)

In Queensland, all entitlements to the use, control and flow of water are vested in the state and regulated by the *Water Act 2000 (Qld)* ('**Qld Water Act**'). A water licence is an authority granted under the Qld Water Act to take water or interfere with water.

Capricorn Copper holds four water licences which all expire on 30 June 2111:

- one which authorises the taking of watercourse water up to 2,555 megalitres per annum and another up to 75 megalitres per annum; and
- one authorises the impounding of water up to 5,776 megalitres per annum and another up to 35 megalitres per annum.

Contaminated Sites Act 2003 (WA)

The *Contaminated Sites Act 2003 (WA)* ('**CSA**') provides that an owner or occupier of land in Western Australia is required to report a site to the Western Australia Department of Water and Environment Regulation ('**DWER**') if they suspect that there may be a risk that the land is contaminated. Once reported, DWER will undertake an assessment of the site and assign a classification. DWER holds a broad power under the CSA to require any owner or occupier of land to investigate or remediate contamination regardless of the site's classification, regardless of when the contamination occurred, or whether it has been reported, if DWER thinks it appropriate to do so based on the risks arising to human health and the environment.

In respect of the Golden Grove Mine, 16 tenements have been classified as "possibly contaminated – investigation required" by DWER and DWER have made recommendations relating to abstraction and use of groundwater.

Mining Rehabilitation Fund Act 2012 (WA)

Under the *Mining Rehabilitation Fund Act 2012 (WA)*, all tenement holders operating on tenure granted under the *WA Mining Act* (with the exception of tenements covered by State Agreements not listed in the regulations), are required to report disturbance data and contribute annually to the Mining Rehabilitation Fund ('**MRF**') based on the amount of land disturbed under the authority of the tenement. Tenements with a rehabilitation liability estimate of less than \$50,000 must report disturbance data but are not required to contribute to the fund.

The MRF is used to rehabilitate abandoned mines across the state but does not absolve tenement holders of their legal obligation to carry out rehabilitation work on a tenement.

In respect of the Golden Grove Mine, Golden Grove paid its contribution to the MRF for the 2019 – 2020 financial years.

Mineral and Energy Resources (Financial Provisioning) Act 2018 (Qld)

Under the Qld EP Act, an environmental authority holder ('EA Holder'), must provide the Queensland Government with financial assurance for the purpose of drawing upon in the event that an EA Holder defaults on its obligations to rehabilitate the mine site.

The Mineral and Energy Resources (Financial Provisioning) Act 2018 (Qld) ('Financial Provisioning Act') amended the financial assurance provisions of the Qld EP Act by creating a new financial provisioning scheme ('Scheme'), from which the DES may source funds to rehabilitate and remediate land subject to mining.

Under the Financial Provisioning Act, the amount of the financial assurance required to be provided by the holder of an EA is determined by an assessment of the risk of the mine determined by the manager of the Scheme and applying a prescribed calculator to establish the estimated rehabilitation cost of the mine ('ERC').

The risk assessment includes an assessment of the mine operator's financial soundness and credit rating, characteristics of the mining operation (e.g., life of mine and offtake agreements), rehabilitation history, environmental compliance history and submissions made by the EA holder. Following a risk assessment, the manager of the Scheme may require a contribution to a pooled Scheme fund or a surety be provided by an EA Holder.

The ERC is set for a defined term after submissions by the EA holder. The ERC for the Capricorn Copper Mine for the period 1 April 2019 to 31 May 2021 is \$35,974,321.00 (excluding GST). Capricorn Copper provided a surety to the manager of the Scheme in the amount of \$36 million (provided by NAB bank under the commercial arrangements with Trafigura described in section 10.6.7, above).

The current ERC period for the Capricorn Copper Mine expired on 31 May 2021 and Capricorn Copper submitted an application for its new ERC in February 2021. Subsequently, the DES required Capricorn Copper to submit a new application applying an updated form of the prescribed calculator for the purposes of the ERC. On 31 May and 1 June 2021, Capricorn Copper submitted an updated ERC application. On 1 June 2021, Capricorn Copper received from DES an email indicating potential non-compliances because a new ERC decision was not in place by 31 May 2021. While this is being resolved and pending a decision on the application regarding a revised ERC, the existing \$36 million surety to the manager of the Scheme remains in place.

The revised ERC for the Capricorn Copper Mine is expected to be greater than the existing \$36 million surety however the amount of the ERC will not be known until the ERC decision is made. Subject to Capricorn Copper's rights to seek review of the ERC assessment, Capricorn Copper will be required to procure an additional or replacement surety for the revised amount of the ERC.

The Financial Provisioning reforms also introduce a new requirement for a Progressive Rehabilitation and Closure Plan ('PRC plan') to be prepared, with respect to mined land and for environmental authority applications for new mines. If approved by the administering authority, a stand-alone PRC plan schedule, containing milestones with completion dates for achieving progressive rehabilitation of the mine site, will be given to the applicant.

The requirement for a PRC plan commenced on November 1, 2019 ('PRC plan start date'), however existing mining operations will only transition into the PRC plan framework once a transition notice is issued by the relevant government department. Transition notices will be issued over a three-year transition period from the PRC plan start date. Capricorn Copper is currently engaging with DES in relation to the preparation of its PRC plan.

Under the Qld EP Act, a PRC plan will need to be prepared for the Capricorn Copper Mine that will include binding, time-based milestones for actions that achieve progressive rehabilitation and will ultimately support the transition to the mine site's future use.

10.7.1.5 Work health and safety

Western Australia

The primary work health and safety legislation that applies to the Golden Grove Mine is the:

- *Mines Safety and Inspection Act 1994 (WA)*; and
- *Mines Safety and Inspection Regulations 1995 (WA)*, (together, the '**WA Mining Safety Legislation**').

The WA Mining Safety Legislation applies to the exclusion of the *Occupational Safety and Health Act 1984 (WA)* and the *Occupational Safety and Health Regulations 1996 (WA)* (together, the '**WA OSH Legislation**') which impose obligations and set minimum requirements in relation to a workplace that is not a mine or declared to be subject to the WA OSH Legislation. As with Queensland, the same or similar additional health and safety laws may also apply (as described below).

Under the WA Mining Safety Legislation, it is likely that Golden Grove will be considered as the 'principal employer' at the Golden Grove Mine. At a high level, the duties of the principal employer include:

- ensuring so far as is reasonably practicable that the mine and the means of access and egress from the mine does not expose persons to hazards;
- appointing a registered manager for the mine;
- establishing and maintaining a health surveillance system;
- ensuring a hazard identification and risk assessment system is implemented with regards to plant; and
- complying with requirements regarding specific hazards, activities or controls.

With the introduction of the *Work Health and Safety Act 2020 (WA)* and proposed introduction of the associated regulations, the WA Mining Safety Legislation and WA OSH Legislation will eventually be replaced.

Queensland

The primary work health and safety legislation that applies to the Capricorn Copper Mine is the:

- *Mining and Quarrying Safety and Health Act 1999* (Qld); and
- *Mining and Quarrying Safety and Health Regulations 2017* (Qld), (together, the '**Qld Mining Safety Legislation**').

The Qld Mining Safety Legislation applies to the exclusion of the *Work Health and Safety Act 2011* (Qld) and the *Work Health and Safety Regulation 2011* (Qld) (together, the '**Qld WHS Legislation**'). The Qld WHS Legislation will impose health and safety obligations on Capricorn Copper in respect of work carried out elsewhere (e.g. not on the Capricorn Copper Mine).

In addition to the Qld Mining Safety Legislation and the Qld WHS Legislation, Capricorn Copper may have obligations under other health and safety laws. For example, there are specific legislative requirements which apply to operations that are carried on off-site or which are not principally in connection with mining (e.g. rail safety, heavy vehicle and electrical safety). Other laws may also impact on the safety and health for specific activities (e.g. the *Explosives Act 1999* (Qld)).

The Qld Mining Safety Legislation imposes safety and health obligations on persons who operate mines or who may affect the safety or health of others at a mine or as a result of its operations. Capricorn Copper has been appointed the 'operator' of the Capricorn Copper mining area and must, amongst other things:

- ensure the risk to workers while at the Capricorn Copper mine is at an acceptable level;
- appoint a site senior executive for the Capricorn Copper mine;
- ensure the site senior executive develops and implements a safety and health management system for all people at the Capricorn Copper mine; and
- audit and review the effectiveness and implementation of the safety and health management system to ensure the risk to persons from operations is at an acceptable level.

10.7.1.6 Corporations Act

The takeover provisions in Chapter 6 of the Corporations Act restrict acquisitions of shares in listed companies if the acquirer's (or another party's) voting power would increase to above 20%, or would increase from a starting point that is above 20% and below 90%, unless certain exceptions apply. The Corporations Act also imposes notification requirements on persons having voting power of 5% or more in 29Metals, either directly or through an associate.

10.7.1.7 Foreign Acquisitions and Takeovers Act 1975 (Cth)

Generally, the *Foreign Acquisitions and Takeovers Act 1975* (Cth) ('**FATA**') applies to acquisitions of shares and voting power in a company of 20% or more by a single foreign person and its associates ('**Substantial Interest**'), or 40% or more by 2 or more unassociated foreign persons and their associates ('**Aggregate Substantial Interest**'). Where a foreign person holds a Substantial Interest in 29Metals or foreign persons hold an Aggregate Substantial Interest in 29Metals, 29Metals itself will be a "foreign person" for the purposes of the FATA.

Where an acquisition of a Substantial Interest or an Aggregate Substantial Interest meets certain criteria, the acquisition may not occur unless notice of it has been given to the Federal Treasurer and the Federal Treasurer has either stated that there is no objection to the proposed acquisition in terms of the Australian Government's Foreign Investment Policy ('**FIRB Approval**') or a statutory period has expired without the Federal Treasurer objecting. An acquisition of a Substantial Interest or an Aggregate Substantial Interest meeting certain criteria may also lead to divestment orders unless a process of notification, and either a statement of non-objection or expiry of a statutory period without objection, has occurred.

In addition acquisitions of a direct investment in an Australian company by foreign Government investors and their related entities are required to be notified to the Federal Treasurer through the Foreign Investment Review Board ('**FIRB**') for approval, irrespective of value. Under the FATA a '**Direct Investment**' will typically include any investment of 10% or more of the shares (or other securities or equivalent economic interest or voting power) in an Australian company but also includes an investment of 5% where the investor has entered a legal arrangement relating to the businesses of target or an investment of any percentage where the investor obtains potential influence or control over the target.

On 1 January 2021, a new foreign investment framework commenced which includes a requirement to seek FIRB approval for certain national security related transactions. The definition of national security is outlined in the FATA and includes reference to the *Security of Critical Infrastructure Act 2018* (Cth). The new national security regime:

- requires mandatory notification of any proposed Direct Investment in a sensitive national security business (including starting such a business) or proposed investment in national security land;
- allows the Federal Treasurer to 'call in' certain transactions for screening on national security grounds and allow investors to voluntarily notify these transactions to obtain certainty about the investment; and
- allows the Federal Treasurer, in exceptional circumstances, to impose conditions, vary existing conditions, or, as a last resort, force the divestment of any realised investment which was subject to the FATA from 1 January 2021, where national security concerns are identified.

Transactions falling within the scope of the national security test are subject to a \$0 monetary threshold.

10.7.2 Chile

10.7.2.1 Overview

Redhill holds 79 granted exploration concessions.

The regulatory framework governing the exploration and extraction of mineral resources in Chile consists of the:

- Political Constitution of the Republic of Chile (*Constitución Política de la República de Chile*);
- Organic Constitutional Law on Mining Concessions (*Ley Organica Constitucional sobre Concesiones Mineras*) which describes what mining concessions are, their duration and expiration, and the rights and obligations of titleholders;
- Chilean Mining Code (*Código de Minería*) which addresses topics covered in the Organic Constitutional Law on Mining Concessions, setting out the procedure for obtaining exploration and exploitation concessions; the protection of such concessions; and contracts and agreements related to mining operations;
- Mining Code Regulations (*Reglamento del Código de Minería*) which sets out the different requirements needed to exercise the rights and comply with the duties under the Chilean Mining Code and detail each procedure's phases;
- Mining Safety Regulations (*Reglamento de Seguridad Minera*), whose objective is to protect the life and physical integrity of those who work in and are related to the mining industry and protect facilities and infrastructure that allow mining operations and their continuance; and
- General Environmental Law (*Ley de Bases Generales del Medio Ambiente*), Regulation on the System of Environmental Impact Assessment (*Reglamento del Sistema de Evaluación Ambiental*) and some provisions of the Water Code (*Código de Aguas*), Health Code (*Código Sanitario*) and Labour Code (*Código del Trabajo*) are also applicable to mining operations.

10.7.2.2 Mining concessions

Under the Chilean Mining Code (Law No. 18,248), there are two kinds of mining concessions:

- Exploration concession, a right granted for a limited term (two years from the date of the court decision establishing such concession, that can be extended for two more years subject to the holder renouncing at least 50% of the original area which gives to its holder (within its corresponding territorial extension) the exclusive right to investigate the existence of grantable mineral substances and to request one or more mining exploitation concessions; and
- Exploitation concession, a right of indefinite duration, which grants the holder the exclusive rights to investigate the existence of grantable mineral substances, extracting such grantable mineral substances, and becoming the owner of such substances.

Exploration and exploitation concessions are granted by a judicial decision rendered by a competent court of justice in the context of a non-contentious proceeding filed with such court. Such a proceeding aims to identify, define, and create the concession.

Once published in the pertinent Official Mining Bulletin, an abstract of the judgment that constituted the exploration or exploitation concession must be registered with the Custodian of Mines (in the Discovery Register or in the Property Register) in the place where the concession is located within 120 days of the date it was granted.

Once these procedures are completed, the concession holder will be entitled to all the rights that the law grants the mining concession owners.

10.7.2.3 Environmental authorisations

The General Environmental Law created a particular procedure before the environmental authorities named Environmental Impact Assessment System (*Sistema de Evaluación de Impacto Ambiental* or 'EIAS'), which is mandatory before the execution or modification of a public or private project or activity.

Under the Chilean environmental regulation, depending on the extension or scale of the environmental impact, there are two types of environmental examinations: an Environmental Impact Statement (*Declaración de Impacto Ambiental* or 'DIA'), and an Environmental Impact Study (*Estudio de Impacto Ambiental* or 'EIA').⁵

The EIAS considers public participation and, in certain cases, the consultation of indigenous peoples established in conformity with the ILO Convention 169 as instances of the procedure.

If the activity or project complies with all environmental requirements, the Environmental Assessment Service grants the Environmental Approval Resolution ('EAR'), authorising the execution of the project or activity and acquiring all necessary permits to conduct the mining operation and exploration activities.

In addition, various sectorial permits (*Permisos Ambientales Sectoriales* or 'PAS') are environmentally approved and must be obtained by the applicant with the respective authority, that cannot deny its granting based on environmental grounds. PAS are authorisations provided by multiple governmental authorities with an environmental jurisdiction and form part of the general environmental approval when a project produces specific actions or effects that require prior approval by such authorities.

Under Chilean mining legislation and the national environmental regulation, the application and granting of both exploration and exploitation concessions do not require a previous environmental assessment. Nevertheless, mining projects or activities capable of producing environmental impacts must be previously submitted to the EIAS to be evaluated for environmental matters before initiation.

10.7.2.4 Water rights

The owner of a mining concession has the right to use the water resources found while developing the concession, but only to explore or exploit the concession and subject to various restrictions and limitations. Normally water sources are obtained by securing water rights from the Republic of Chile following the term and conditions provided by the law or by purchasing water rights from third parties. It is also possible to use sea water (salted or desalinated) for the mining operation and process.

⁵ In accordance with such regulations, any mining activity that moves more than 5,000 tonnes per month, or which produces significant changes to the area or that forces people living there to be relocated, shall be obliged to submit an EIA or a DIA.

10.8 Regulatory Relief

10.8.1 ASIC relief

As 29Metals' first financial year will last for less than eight months, it intends to rely on the relief provided by *ASIC Corporations (Disclosing Entities) Instrument 2016/190* and not comply with sections 302 and 306 of the Corporations Act for its first financial year, which require the preparation of a half-year financial report and directors' report. As a result, 29Metals will not be required to prepare and publish a half-year financial report and accompanying directors' report for the six months' ending 30 June 2021.

10.8.2 ASX confirmations

29Metals has applied for standard waivers and confirmations including the following waivers and confirmations in connection with its application to ASX for admission to the Official List:

- confirmation that the Shares may begin trading on a conditional and deferred settlement basis;
- confirmation that ASX Listing Rules 7.1 and 10.11 will not apply to the issue of Shares under the Restructure;
- confirmation that ASX Listing Rule 10.1 will not apply to the acquisition of certain assets under the Restructure on the condition that the existence and material terms of the agreement are disclosed in the Prospectus;
- waiver in relation to ASX Listing Rule 10.11 to permit the proposed issue of Shares to Non-executive Directors described in section 7.3.2.2 without Shareholder approval; and
- waiver in relation to ASX Listing Rule 10.14 to permit the proposed issue of Performance Rights to the Managing Director & Chief Executive Officer as part of the Staff Offer Incentive without Shareholder approval in relation to ASX Listing Rule 10.11.

10.9 Other Issuances Under This Prospectus

The Shares to be issued to Non-executive Directors, Performance Rights awarded and Restricted Shares issued pursuant to the Plan Rules and described in sections 7.3.2.2, 7.3.3.5 and 7.3.5, respectively, are issued under this Prospectus.

10.10 Litigation and Claims

29Metals may, from time to time, be party to various disputes and legal proceedings incidental to the conduct of its business. These disputes may lead to legal and other proceedings, and may cause 29Metals to suffer additional costs.

As far as the Directors are aware, there is no current or threatened civil litigation, arbitration proceeding or administrative appeal, or criminal or Governmental prosecution of a material nature in which 29Metals is directly or indirectly concerned which is likely to have a material adverse impact on the business, results of operation or financial position of 29Metals.

10.11 Consents to be Named and Disclaimers

Each of the parties listed below in this section 10.11 is a consenting party and, to the maximum extent permitted by law, expressly disclaims all liabilities in respect of, makes no representations regarding and takes no responsibility, for any statements in or omissions from this Prospectus, other than the reference to its name in the form and context in which it is named and a statement or report included in this Prospectus with its consent as specified below.

Each of the parties listed below has given and has not, at the time of lodgment of this Prospectus with ASIC, withdrawn its written consent to the inclusion of statements in this Prospectus that are specified below in the form and context in which the statements appear:

- Macquarie Capital (Australia) Limited has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to be named in this Prospectus as Sole Global Coordinator and Joint Lead Manager to the Offer;
- each of Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to be named in this Prospectus as Joint Lead Manager to the Offer;
- Canaccord Genuity (Australia) has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to be named in this Prospectus as Institutional Co-Lead Manager to the Offer;
- King & Wood Mallesons has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to be named in this Prospectus as Australian legal adviser (other than in relation to tax matters) to 29Metals and SaleCo to the Offer;
- Sidley Austin has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to be named in this Prospectus as U.S. legal adviser to 29Metals and SaleCo in relation to certain matters of New York and U.S. federal securities law in connection with the Offer;
- KPMG Transaction Services has given, and has not withdrawn prior to the Prospectus Date, its written consent to be named in this Prospectus as Investigating Accountant to 29Metals in the form and context in which it is named, and to the inclusion in this Prospectus of its Investigating Accountant's Report in section 9 in the form and context in which it is included. KPMG Transaction Services has not authorised or caused the issue of this Prospectus and expressly disclaims and takes no responsibility for any statements in or omissions from this Prospectus other than its Investigating Accountant's Report;

- KPMG, has given and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to be named in this Prospectus as tax advisor to 29Metals and SaleCo in connection with the Offer;
- Link Market Services Limited has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to be named in this Prospectus as Share Registry of 29Metals and has had no involvement in the preparation of any part of this Prospectus;
- Behre Dolbear Australia Pty Ltd has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to the inclusion in this Prospectus of statements made by it, including the statements specifically attributed to it in this Prospectus in the form and context in which they are included. Behre Dolbear Australia Pty Ltd has had no involvement in the preparation of any part of this Prospectus;
- AMC Consultants Pty Ltd has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to the inclusion in this Prospectus of statements made by it, including the statements specifically attributed to it in this Prospectus in the form and context in which they are included. AMC Consultants Pty Ltd has had no involvement in the preparation of any part of this Prospectus;
- AME Mineral Economics Pty Ltd has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, its written consent to the inclusion in this Prospectus of statements made by it, including the statements specifically attributed to it in this Prospectus in the form and context in which they are included. AME Mineral Economics Pty Ltd has had no involvement in the preparation of any part of this Prospectus; and
- each of the Competent Persons identified in section 4.1.3 has given, and has not withdrawn prior to the lodgment of this Prospectus with ASIC, their respective written consent to the inclusion in this Prospectus of statements attributed to them (respectively), including the statements specifically attributed to them (respectively) in this Prospectus in the form and context in which they are included.

No entity or person referred to above in this section 10.11 has made any statement that is included in this Prospectus or any statement on which a statement made in this Prospectus is based, except as stated above. Each of the persons and entities referred to above in this section 10.11 has not authorised or caused the issue of this Prospectus, does not make any offer of Shares and expressly disclaims and takes no responsibility for any statements in or omissions from this Prospectus except as stated above in this section 10.11.

10.12 Taxation Considerations

10.12.1 Assumptions

The following assumptions have been relied upon with respect to the commentary contained within this memorandum:

- The Company is undertaking an IPO by issuing ordinary shares under a prospectus prepared in accordance with Chapter 6D of the Corporations Act.
- The Prospectus taxation considerations will only consider the Australian income tax, goods and services tax ('GST') and stamp duty implications for Shareholders who hold their shares on capital account (and not revenue account).
- The Prospectus taxation considerations will not consider:
 - the tax consequences for Shareholders who hold their shares on revenue account or otherwise as trading stock, who are exempt from Australian income tax, who are insurance companies or banks, or who are subject to Division 230 of the ITAA 1997 which have made elections to apply the fair value or reliance on financial reports methodologies;
 - all possible Shareholder scenarios or aspects of tax law that may be relevant to a Shareholder's individual circumstances; or
 - any foreign (i.e. non-Australian) taxes or any Australian taxes other than income tax, GST and stamp duty.

The categories of Shareholders considered in this summary are limited to individuals, companies (other than insurance companies), complying superannuation funds, trusts and partnerships that hold their shares on capital account.

This summary is based on the law in Australia in force at the time of issuance of this Prospectus and does not take into account the tax law of countries other than Australia. Australian tax laws are complex and this summary is general in nature and is not intended to be an authoritative or complete statement of the applicable law. The taxation laws of Australia or their interpretation may change. The precise implications of ownership or disposal will depend upon each Shareholder's specific circumstances. Shareholders should seek professional advice on the taxation implications of holding or disposing of the Shares, taking into account their specific circumstances.

10.12.2 Taxation treatment of the acquisition of Shares

The IPO involves the acquisition of Shares which will constitute an equity interest for Australian tax purposes. There are no immediate income tax consequences to the acquirer on the acquisition of equity interests.

10.12.3 Taxation treatment of dividends

The treatment of the dividends which may be paid to Shareholders will vary depending on whether or not the Shareholder is an Australian resident or a non-resident Shareholder. The taxation treatment will also vary depending on the extent to which any dividends are franked.

10.12.4 Dividends received by Australian resident Shareholders

Dividends received by Australian resident shareholders will be assessable income for Australian tax purposes. Generally, both the amount of the cash dividend received and an amount equal to the franking credits attached to a franked dividend must be included in assessable income in the year of receipt. Generally, an Australian resident shareholder would then be entitled to a franking offset against the income tax on this assessable dividend income. However, it is important to note that securities must be held 'at risk' for a period of 45 days, in order for any Shareholder to be able to claim an offset for franking credits.

The level of franking credits attached to such dividends will depend on the level of franking credits generated and available to the Company, through the payment by it of Australian tax.

The tax treatment in respect of the dividends from ordinary shares will vary depending on the nature of the Shareholder, as follows:

Individual Shareholders

An individual receiving a dividend that is unfranked will include the amount of the dividend in their assessable income, with tax being paid at the individual's marginal rate of tax.

Where the dividend is fully or partly franked, the individual's assessable income is grossed up to include the franking credit attaching to the dividend. The individual should then be entitled to a tax offset equal to the amount of the franking credit.

Where the individual's marginal rate of tax is greater than the applicable corporate tax rate (which is currently 30%, unless the company qualifies for the lower base rate entity tax rate), further tax will be payable on the grossed up dividend. This is commonly referred to as "top-up tax".

Where the individual's marginal rate of tax is less than the applicable corporate tax rate, a tax offset is available to reduce tax payable on other income or alternatively results in a refund of the excess franking credits.

Corporate Shareholders

A corporate Shareholder receiving an unfranked dividend will pay tax on this dividend (net of any allowable deductions) at the applicable corporate tax rate.

Where dividends are franked, the corporate Shareholder will be entitled to offset the franking credit against its tax liability for the year. To the extent that the franking credit exceeds the corporate Shareholder's tax liability, the excess can be converted into a carry forward loss and offset against future taxable profits (subject to the loss testing rules for companies). Generally, a corporate Shareholder cannot receive a refund of franking credits (noting there are limited exceptions for certain entities).

Further, the franked dividend may give rise to a franking credit in the corporate Shareholder's franking account.

Complying superannuation funds

Complying superannuation funds (which includes self-managed superannuation funds) are assessable on the dividend and gross up the franked dividend in the same way as individuals and corporate Shareholders.

A complying superannuation fund Shareholder receiving an unfranked dividend will pay tax on this dividend (net of any allowable deductions) at the rate of 15% (current, as at the date of this Prospectus).

Where dividends are franked, the complying superannuation fund Shareholder will include in its assessable income the amount of dividend received and the amount of any franking credits attached to that dividend. The Complying Superannuation Fund tax rate of 15% is then applied to the grossed-up dividend. The franking credit is available to offset tax payable on other income of the complying superannuation fund or alternatively results in a refund of the excess franking credits.

Trusts and partnerships

Shareholders who are trustees (other than trustees of complying superannuation funds) or partnerships should include the franking credit in determining the net income of the trust or partnership. The relevant beneficiary or partner may be entitled to a share of the tax offset equal to the beneficiary's or partner's share of the net income of the trust or partnership.

10.12.5 Dividends received by non-resident Shareholders

The taxation treatment of dividends received by non-resident Shareholders will depend on whether the dividends paid are franked or unfranked.

Franked dividends

Non-resident Shareholders will not be subject to Australian withholding tax on fully franked dividends.

However, non-resident Shareholders may be subject to income tax on the receipt of such dividends in their local jurisdictions.

Unfranked Dividends

It may be necessary for the Company to withhold tax from unfranked dividends paid to non-resident Shareholders and remit the tax to the ATO. Where unfranked dividends are paid to non-resident Shareholders, dividend withholding taxes must be deducted from the gross dividends paid, unless:

- the unfranked dividend is declared to be "conduit foreign income";
- a dividend withholding tax exemption applies (e.g. such as the exemption available to foreign superannuation funds or sovereign entities); or
- a double tax treaty entered into between Australia and the country of residence of the Shareholder applies to reduce the withholding rate to nil.

The withholding tax rate on the payment of unfranked dividends per Australia's domestic income tax law is the applicable corporate tax rate. However, where the Shareholder is resident of a country which Australia has entered into a double tax treaty with, then the rate at which withholding tax is applied will generally be lower, typically ranging from nil to 15%.

Again, non-resident Shareholders may still be subject to income tax on the receipt of such dividends in their local jurisdictions but may be entitled to a credit for the Australian withholding tax applied.

10.12.6 Taxation treatment of disposal of Shares

As noted above, the following overview of Australian tax implications associated with the disposal of Shares is confined to Shareholders who hold their Shares on capital account.

10.12.7 Disposal of Shares by Australian resident Shareholders

The disposal of Shares by a Shareholder will give rise to a capital gains tax ('CGT') event where the Shareholder holds their Shares on capital account. Australian tax resident Shareholders will:

- make a capital gain where the capital proceeds received on the disposal of the Shares exceed the cost base of the Shares, or
- make a capital loss where the capital proceeds received on the disposal of the Shares are less than the reduced cost base of the Shares.

The capital proceeds will generally be equal to the amount received for the disposal of the Shares. Broadly, the cost base and reduced cost base (subject to modifications) of a Shares will be equal to the Offer Price of the Shares plus any incidental costs of acquisition and disposal (such as brokerage).

If a Shareholder is an individual or complying superannuation entity and has held the Shares for at least 12 months or more before disposal of the Shares, the Shareholder will generally be entitled to a "CGT discount" for any capital gain made on the disposal of the Shares. Where the CGT discount applies, any capital gain arising (after applying any available capital losses) may be reduced by:

- 50% in the case of individuals; or
- one-third in the case of complying superannuation entities.

Shareholders that are companies are not entitled to a CGT discount. Any resulting net capital gain is included in a Shareholder's assessable income.

Where the disposal results in a net capital loss and the Shareholder has no remaining capital gains to offset, the capital loss is carried forward and may be available to be offset against capital gains in future years (subject to the satisfaction of any applicable loss recoupment rules). Capital losses cannot be used to reduce ordinary assessable income (only capital gains).

10.12.8 Disposal of Shares by non-resident Shareholders

Generally, for Australian income tax purposes, non-resident Shareholders can disregard the capital gain or capital loss arising from the disposal of shares in Australian resident companies under Division 855 of the ITAA 1997.

Notwithstanding the above comments, certain non-resident shareholders will still be subject to Australian CGT where the Shares constitute Taxable Australian Property ('TAP'). Broadly, the Shares should only constitute TAP if both of the following requirements are satisfied:

- the Shareholder (together with any associates) holds an interest of at least 10% of the Shares in the Company at the time of the disposal, or throughout a 12-month period in the 24 months preceding the disposal; and
- the Company is land rich for Australian income tax purposes (i.e., more than 50% of the market value of the Company's assets is comprised of Australian real property interests).

Our understanding is that the Company should be considered land rich. Accordingly, Division 855 should not apply to disregard any capital gain or loss derived by non-resident Shareholders where the non-resident Shareholder (together with any associates) holds an interest of at least 10% in the Company during the time period prescribed above.

10.12.9 Quotation of Tax File Number

It is not compulsory for Australian resident Shareholders to provide the Company with details of their Tax File Number ('TFN') or Australian Business Number ('ABN'). However, a failure to quote a TFN or ABN (or proof of exemption) to the Company will result in the Company being required to withhold and remit tax at the top marginal rate (currently 45% plus 2% Medicare levy) from unfranked dividends paid to the relevant Australian resident Shareholder. The amount withheld in these circumstances should be available as a credit against the Shareholder's tax liability.

10.12.10 GST

No GST is applicable to the issue or transfer of the Shares given that, under current law, shares in a company are an input-taxed financial supply for GST purposes. However, Shareholders may incur GST on costs that relate to their participation in the proposed offer and should seek their own independent advice in relation to the GST implications.

10.12.11 Stamp duty

On the basis that the Company will be a company listed on the ASX and treated as a public or listed landholder for WA and Queensland duty purposes, no duty should be charged on the acquisition of shares in the Company provided no Shareholder acquires or holds 90% or more of the issued shares in the Company.

10.13 Selling Restrictions

This Prospectus does not constitute an offer of Shares in any jurisdiction in which it would be unlawful. In particular, this Prospectus may not be distributed to any person, and the Shares may not be offered or sold, in any country outside Australia and New Zealand except to the extent permitted below.

10.13.1 Bermuda

No offer or invitation to subscribe for Shares may be made to the public in Bermuda. No invitation is being made to persons resident in Bermuda for exchange control purposes to subscribe for Shares.

10.13.2 Canada (British Columbia, Ontario and Quebec provinces)

This Prospectus constitutes an offering of Shares only in the Provinces of British Columbia, Ontario and Quebec (the 'Provinces'), only to persons to whom Shares may be lawfully distributed in the Provinces, and only by persons permitted to sell such securities. This Prospectus is not a prospectus, an advertisement or a public offering of securities in the Provinces. This Prospectus may only be distributed in the Provinces to persons who are "accredited investors" within the meaning of National Instrument 45-106 – *Prospectus Exemptions*, of the Canadian Securities Administrators.

No securities commission or authority in the Provinces has reviewed or in any way passed upon this Prospectus, the merits of the Shares or the offering of the Shares and any representation to the contrary is an offence.

No prospectus has been, or will be, filed in the Provinces with respect to the offering of Shares or the resale of such securities. Any person in the Provinces lawfully participating in the offer will not receive the information, legal rights or protections that would be afforded had a prospectus been filed and receipted by the securities regulator in the applicable Province. Furthermore, any resale of the Shares in the Provinces must be made in accordance with applicable Canadian securities laws. While such resale restrictions generally do not apply to a first trade in a security of a foreign, non-Canadian reporting issuer that is made through an exchange or market outside Canada, Canadian purchasers should seek legal advice prior to any resale of the Shares.

29Metals as well as its directors and officers may be located outside Canada and, as a result, it may not be possible for purchasers to effect service of process within Canada upon 29Metals or its directors or officers. All or a substantial portion of the assets of 29Metals and such persons may be located outside Canada and, as a result, it may not be possible to satisfy a judgment against 29Metals or such persons in Canada or to enforce a judgment obtained in Canadian courts against 29Metals or such persons outside Canada.

Any financial information contained in this Prospectus has been prepared in accordance with Australian Accounting Standards and also comply with International Financial Reporting Standards and interpretations issued by the International Accounting Standards Board. Unless stated otherwise, all dollar amounts contained in this Prospectus are in Australian dollars.

Statutory rights of action for damages and rescission. Securities legislation in certain Provinces may provide a purchaser with remedies for rescission or damages if an offering memorandum contains a misrepresentation, provided the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's Province. A purchaser may refer to any applicable provision of the securities legislation of the purchaser's Province for particulars of these rights or consult with a legal adviser.

Certain Canadian income tax considerations. Prospective purchasers of the Shares should consult their own tax adviser with respect to any taxes payable in connection with the acquisition, holding or disposition of the Shares as there are Canadian tax implications for investors in the Provinces.

Language of documents in Canada. Upon receipt of this Prospectus, each investor in Canada hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the Shares (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur canadien confirme par les présentes qu'il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d'achat ou tout avis) soient rédigés en anglais seulement.*

10.13.3 Cayman Islands

No offer or invitation to subscribe for Shares may be made to the public in the Cayman Islands or from within the Cayman Islands.

10.13.4 China

This Prospectus has not been approved by, nor registered with, any competent regulatory authority of the People's Republic of China (excluding, for purposes of this paragraph, Hong Kong Special Administrative Region, Macau Special Administrative Region and Taiwan). Accordingly, the Shares may not be offered or sold, nor may any invitation, advertisement or solicitation for Shares be made from, within the PRC. This Prospectus does not constitute an offer of Shares within the PRC.

The Shares may not be offered or sold to legal or natural persons in the PRC other than to: (i) "qualified domestic institutional investors" as approved by a relevant PRC regulatory authority to invest in overseas capital markets; (ii) sovereign wealth funds or quasi-government investment funds that have the authorisation to make overseas investments; or (iii) other types of qualified investors that have obtained all necessary PRC governmental approvals, registrations and/or filings (whether statutorily or otherwise).

10.13.5 European Union

This Prospectus has not been, and will not be, registered with or approved by any securities regulator in the European Union. Accordingly, this Prospectus may not be made available, nor may the Shares be offered for sale, in the European Union except in circumstances that do not require a prospectus under Article 1(4) of Regulation (EU) 2017/1129 of the European Parliament and the Council of the European Union (the '**Prospectus Regulation**').

In accordance with Article 1(4)(a) of the Prospectus Regulation, an offer of Shares in the European Union is limited to persons who are "qualified investors" (as defined in Article 2(e) of the Prospectus Regulation).

10.13.6 Hong Kong

WARNING: This Prospectus has not been, and will not be, registered as a prospectus under the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong, nor has it been authorised by the Securities and Futures Commission in Hong Kong pursuant to the Securities and Futures Ordinance (Cap. 571) of the Laws of Hong Kong (the '**SFO**'). No action has been taken in Hong Kong to authorise or register this Prospectus or to permit the distribution of this Prospectus or any documents issued in connection with it. Accordingly, the Shares have not been and will not be offered or sold in Hong Kong other than to "professional investors" (as defined in the SFO and any rules made under that ordinance).

No advertisement, invitation or document relating to the Shares has been or will be issued, or has been or will be in the possession of any person for the purpose of issue, in Hong Kong or elsewhere that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to Shares that are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors. No person allotted Shares may sell, or offer to sell, such securities in circumstances that amount to an offer to the public in Hong Kong within six months following the date of issue of such securities.

The contents of this Prospectus have not been reviewed by any Hong Kong regulatory authority. You are advised to exercise caution in relation to the offer. If you are in doubt about any contents of this Prospectus, you should obtain independent professional advice.

10.13.7 Norway

This Prospectus has not been approved by, or registered with, any Norwegian securities regulator under the Norwegian Securities Trading Act of 29 June 2007 no. 75. Accordingly, this Prospectus shall not be deemed to constitute an offer to the public in Norway within the meaning of the Norwegian Securities Trading Act. The Shares may not be offered or sold, directly or indirectly, in Norway except to "professional clients" (as defined in the Norwegian Securities Trading Act).

10.13.8 Singapore

This Prospectus and any other materials relating to the Shares have not been, and will not be, lodged or registered as a prospectus in Singapore with the Monetary Authority of Singapore. Accordingly, this Prospectus and any other document or materials in connection with the offer or sale, or invitation for subscription or purchase, of Shares, may not be issued, circulated or distributed, nor may the Shares be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore except pursuant to and in accordance with exemptions in Subdivision (4) Division 1, Part XIII of the *Securities and Futures Act, Chapter 289 of Singapore* (the Securities and Futures Act), or as otherwise pursuant to, and in accordance with the conditions of any other applicable provisions of the Securities and Futures Act.

This Prospectus has been given to you on the basis that you are (i) an "institutional investor" (as defined in the Securities and Futures Act) or (ii) an "accredited investor" (as defined in the Securities and Futures Act). If you are not an investor falling within one of these categories, please return this Prospectus immediately. You may not forward or circulate this Prospectus to any other person in Singapore.

Any offer is not made to you with a view to the Shares being subsequently offered for sale to any other party. There are on-sale restrictions in Singapore that may be applicable to investors who acquire Shares. As such, investors are advised to acquaint themselves with the SFA provisions relating to resale restrictions in Singapore and comply accordingly.

10.13.9 Switzerland

The Shares may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange or on any other stock exchange or regulated trading facility in Switzerland. Neither this Prospectus nor any other offering or marketing material relating to the Shares constitutes a prospectus or a similar notice, as such terms are understood under art. 35 of the *Swiss Financial Services Act* or the listing rules of any stock exchange or regulated trading facility in Switzerland.

Neither this Prospectus nor any other offering or marketing material relating to the Shares may be publicly distributed or otherwise made publicly available in Switzerland. The Shares will only be offered to investors who qualify as "professional clients" (as defined in the *Swiss Financial Services Act*). This Prospectus is personal to the recipient and not for general circulation in Switzerland.

No offering or marketing material relating to the Shares has been, nor will be, filed with or approved by any Swiss regulatory authority or authorised review body. In particular, this Prospectus will not be filed with, and the offer of Shares will not be supervised by, the Swiss Financial Market Supervisory Authority (FINMA).

10.13.10 United Kingdom

Neither this Prospectus nor any other document relating to the offer has been delivered for approval to the Financial Conduct Authority in the United Kingdom and no prospectus (within the meaning of section 85 of the *Financial Services and Markets Act 2000*, as amended ('FSMA')) has been published or is intended to be published in respect of the Shares.

The Shares may not be offered or sold in the United Kingdom by means of this Prospectus or any other document, except in circumstances that do not require the publication of a prospectus under section 86(1) of the FSMA. This Prospectus is issued on a confidential basis in the United Kingdom to "qualified investors" within the meaning of Article 2(e) of the UK Prospectus Regulation. This Prospectus may not be distributed or reproduced, in whole or in part, nor may its contents be disclosed by recipients, to any other person in the United Kingdom.

Any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) received in connection with the issue or sale of the Shares has only been communicated or caused to be communicated and will only be communicated or caused to be communicated in the United Kingdom in circumstances in which section 21(1) of the FSMA does not apply to 29Metals.

In the United Kingdom, this Prospectus is being distributed only to, and is directed at, persons (i) who have professional experience in matters relating to investments falling within Article 19(5) (investment professionals) of the *Financial Services and Markets Act 2000 (Financial Promotions) Order 2005* ('FPO'), (ii) who fall within the categories of persons referred to in Article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the FPO or (iii) to whom it may otherwise be lawfully communicated (together "relevant persons"). The investment to which this Prospectus relates is available only to relevant persons. Any person who is not a relevant person should not act or rely on this Prospectus.

10.14 Governing Law

This Prospectus and the contracts that arise from the acceptance of the Applications under this Prospectus are governed by the laws applicable in the State of Victoria, Australia, and each Applicant under this Prospectus submits to the non-exclusive jurisdiction of the courts in the State of Victoria, Australia.

10.15 Statement of 29Metals and SaleCo Directors

This Prospectus has been authorised by each director of 29Metals and SaleCo, each of whom has consented to its lodgement with ASIC and its issue, and has not withdrawn that consent.

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Metals

11.0

Technical Reports



Inspecting the core



Minerals Industry Consultants

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27 April 2021

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Mr Ed Cooney
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Dear Sirs

INDEPENDENT TECHNICAL REVIEW AND ASSESSMENT REPORT
GOLDEN GROVE MINE – WEST AUSTRALIA
BEHRE DOLBEAR AUSTRALIA PTY LIMITED

1.0 INTRODUCTION

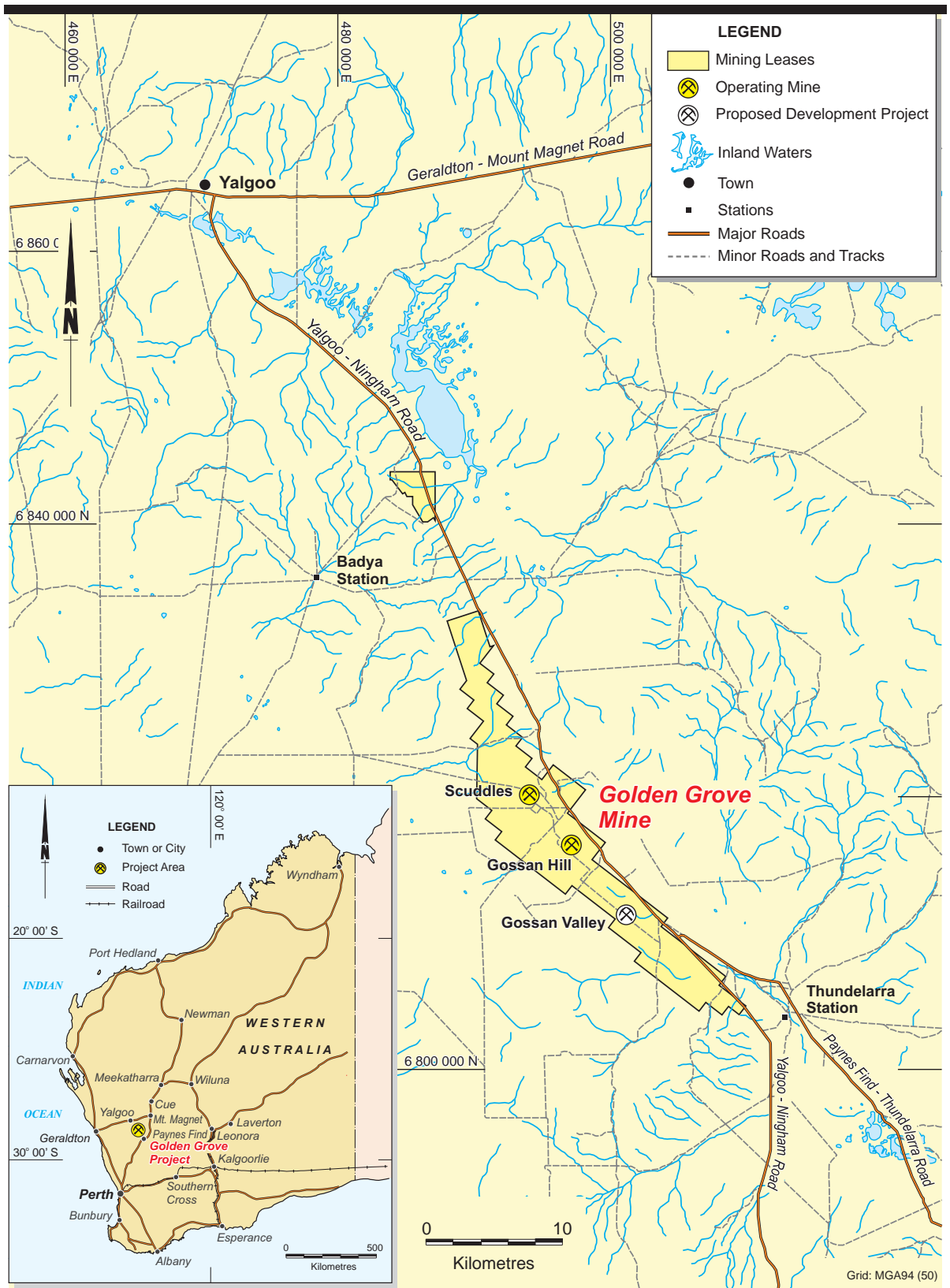
EMR Capital (“EMR”) has requested that Behre Dolbear Australia Pty Limited (“BDA”) undertake an independent technical due diligence review as Independent Technical Expert (“ITE”) and prepare an Independent Technical Report (“ITR”) of the Golden Grove copper, zinc, lead, silver and gold mine (“Golden Grove” or “the project”) 480 kilometres (“km”) north of Perth, 250km east of Geraldton and 50km south of Yalgoo in the Murchison region of Western Australia (“WA”) (Figure 1).

EMR has advised that the ITR may be used to support potential transactions, such as an initial public offering (“IPO”) and listing on the Australian Securities Exchange (“ASX”) (“the Transaction”). The ITR will be relied upon by potential financiers or prospective investors (jointly “the Financiers”).

Golden Grove is an operating mine, with mining and processing operations, on-site and off-site infrastructure, and concentrate transport and sales. The project is owned by EMR Golden Grove Pty Ltd (“GGPL”), which is 100% owned by EMR via wholly-owned subsidiaries. GGPL holds 17 Mining Leases (“MLs”) over the project area (Figure 2) together with a number of General Purpose leases and Miscellaneous Leases.

Mining operations are based on the Scuddles and Gossan Hill volcanic hosted massive sulphide (“VHMS”) underground mines (Figure 2), currently mining approximately 1.4 million tonnes of ore per annum (“Mtpa”) but targeting 1.6Mtpa (“the Base Case”). Golden Grove produces three separate concentrates, copper, zinc, and a lead/high precious metals (“HPM”) concentrate, which are trucked to Geraldton for shipment overseas. EMR is studying the development of a third mining area, Gossan Valley, which would potentially allow production to increase to 2Mtpa (“the Upside Case” or the “Gossan Valley Case”). A Gossan Valley Scoping Study and Pre-Feasibility Study (“PFS”) have been completed and a Feasibility Study (“FS”) is planned for completion in Quarter 2 (“Q2”) of 2021.

Current reserves total 14.3 million tonnes (“Mt”) of ore comprising 2.8Mt of copper ore and 11.3Mt of zinc ore. (together with 0.2Mt of gold ore). Golden Grove has been in operation for 30 years, and EMR advises that the current mining inventory in the mine plan (reserves plus additional mineable resources and exploration targets) is sufficient to support a targeted 15 years of mine life. For the purposes of this report however, BDA has focussed on the first ten years of the mine plan; in BDA’s opinion the mine plan for 2031-2035 is largely conceptual in nature. However, based on the local and regional geology, exploration drill results and the history of Mineral Resources growth, in BDA’s opinion there are reasonable prospects of mine life extension and the mine plan beyond 2030 should be considered illustrative of this potential upside.



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Golden Grove Project

Figure 1

PROJECT LOCATION MAP



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Golden Grove Project

Figure 2

PROJECT TENEMENT PLAN

EMR has provided a comprehensive Scope of Work (“SoW”) for the technical due diligence review. This BDA report covers all relevant technical aspects of the project (regional and local geology, exploration potential, geological data, resource/reserve estimation, reserve reconciliation, mining, geotechnical and hydrology aspects, metallurgy, process testwork and plant design, infrastructure and utilities, historical and current mine and plant production, planned life of mine production, development plans, capital and operating costs and project implementation) together with permitting, approvals, environmental and community aspects and occupational health and safety.

BDA is well qualified to undertake the work required. BDA is the Australian subsidiary of Behre Dolbear & Company Inc., an international minerals industry consulting group which has operated continuously worldwide since 1911, with offices or agencies in Denver, Beijing, Chicago, Hong Kong, London, New York, Toronto, Santiago, and Sydney. Behre Dolbear specialises in mineral evaluations, due diligence studies, independent expert reports, independent engineer certification, valuations, and technical audits of resources, reserves, mining and processing operations and project feasibility studies. BDA has been involved in numerous such studies and Independent Engineer/Independent Expert assignments in recent years; BDA has prepared independent technical reports for IPOs and equity fund raising purposes on the ASX and the Hong Kong, Singapore, Toronto and London exchanges.

BDA has undertaken a site visit to the Golden Grove mine in February 2021 for the purposes of this report. As part of its due diligence review, BDA has inspected the underground and surface operations and environmental programmes and held discussions with operations’ management, technical staff and principal consultants. EMR has provided relevant reports, studies and project documentation and data as background for the review.

The project resources and reserves have been reviewed in accordance with Australian industry standards and for compliance with the Code and Guidelines for Reporting Exploration Results, Mineral Resources and Ore Reserves - Joint Ore Reserve Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia - December 2012 (“the JORC Code”). The ITR has been prepared in accordance with the VALMIN Code for the Technical Assessment and Valuation of Mineral Assets and Securities for Independent Expert Reports as adopted by the Australasian Institute of Mining and Metallurgy in 1995 and as amended and updated in 2015 (“the VALMIN Code”).

The mine plans reviewed by BDA for the purposes of this ITR include some material that is in the Inferred resource category and material drilled at a wider spacing that is described as unclassified. There is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing and the Competent Person has determined that the level of confidence is not sufficient to classify these as Inferred resources without further drilling; in terms of JORC Code classifications these materials could be considered an Exploration Target. The potential quantity and grade of an Exploration Target are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

All of BDA’s consultants and associates are Members or Fellows of the Australasian Institute of Mining and Metallurgy or of equivalent professional bodies as required for reporting under the JORC and VALMIN Codes.

This Independent Technical Report has been prepared for the purpose of assisting in the potential Transaction, in the assessment of the technical issues and associated risks of the project and should not be used or relied upon for any other purpose. The report does not constitute a technical, environmental or legal audit. The report contains forecasts and projections based on data provided by EMR. BDA’s assessment of the production schedule, the projected capital and operating costs and the estimates of mine life are based on technical reviews of project data and discussions with technical and management personnel from EMR and consultants. BDA has reviewed the relevant data to assess the reasonableness of such projections. However, these forecasts and projections cannot be assured and factors both within and beyond the control of EMR could cause the actual results to be materially different from BDA’s assessments and any projections contained in this report.

Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA’s written consent to the form and context in which it appears.

2.0 EXECUTIVE SUMMARY

2.1 Background

BDA has conducted an independent technical and environmental review of the Golden Grove mine in WA, based on visits to the project site, review of Company reports as provided in the virtual data room and discussions with management and technical staff and company consultants. EMR is proposing to undertake potential transactions, such as an initial public offering (IPO) and listing on the Australian Securities Exchange (ASX) (the Transaction); an independent technical due diligence review is required for the purposes of the Transaction.

BDA has reviewed available data relating to the resource and reserve estimates, the mining plans, schedules and mine operations, metallurgical testwork, process flowsheet and plant operations, infrastructure facilities, environmental issues including waste disposal, historical mine production, life of mine production forecasts and capital and operating cost projections.

2.2 Location, Ownership, History

Location

The mine is located 480km north of Perth, 250km east of Geraldton and 50km south of Yalgoo in the Murchison region of WA. Access is via a sealed road from Geraldton to Yalgoo and thence to Golden Grove, or from Perth towards Paynes Find and thence by gravel road to the mine site. The site is also serviced by daily flights (Monday to Friday) from Perth to the sealed site airstrip, and from Geraldton, typically twice weekly.

The mine area topography is relatively flat. The vegetation and topography have been impacted by historic exploration and mining activities undertaken over time and the vegetation has also been subject to grazing. No threatened ecological communities are known to occur within the project area.

The area is semi-arid, with annual rainfall of less than 300mm and evaporation of around 3000mm. Average temperatures range between a maximum of 40°C in summer to a minimum of 4°C in winter. The area is sparsely populated, with the main non-mining activities in the region being rural production in the forms of limited beef and wool production.

Ownership

The project is owned by EMR Golden Grove Pty Ltd (GGPL) which is 100% owned by EMR Capital (EMR) via other wholly-owned subsidiaries. GGPL holds 17 granted Mining Leases (MLs) covering a total area of 129km² (Figure 2) and various General Purpose Leases and Miscellaneous Leases.

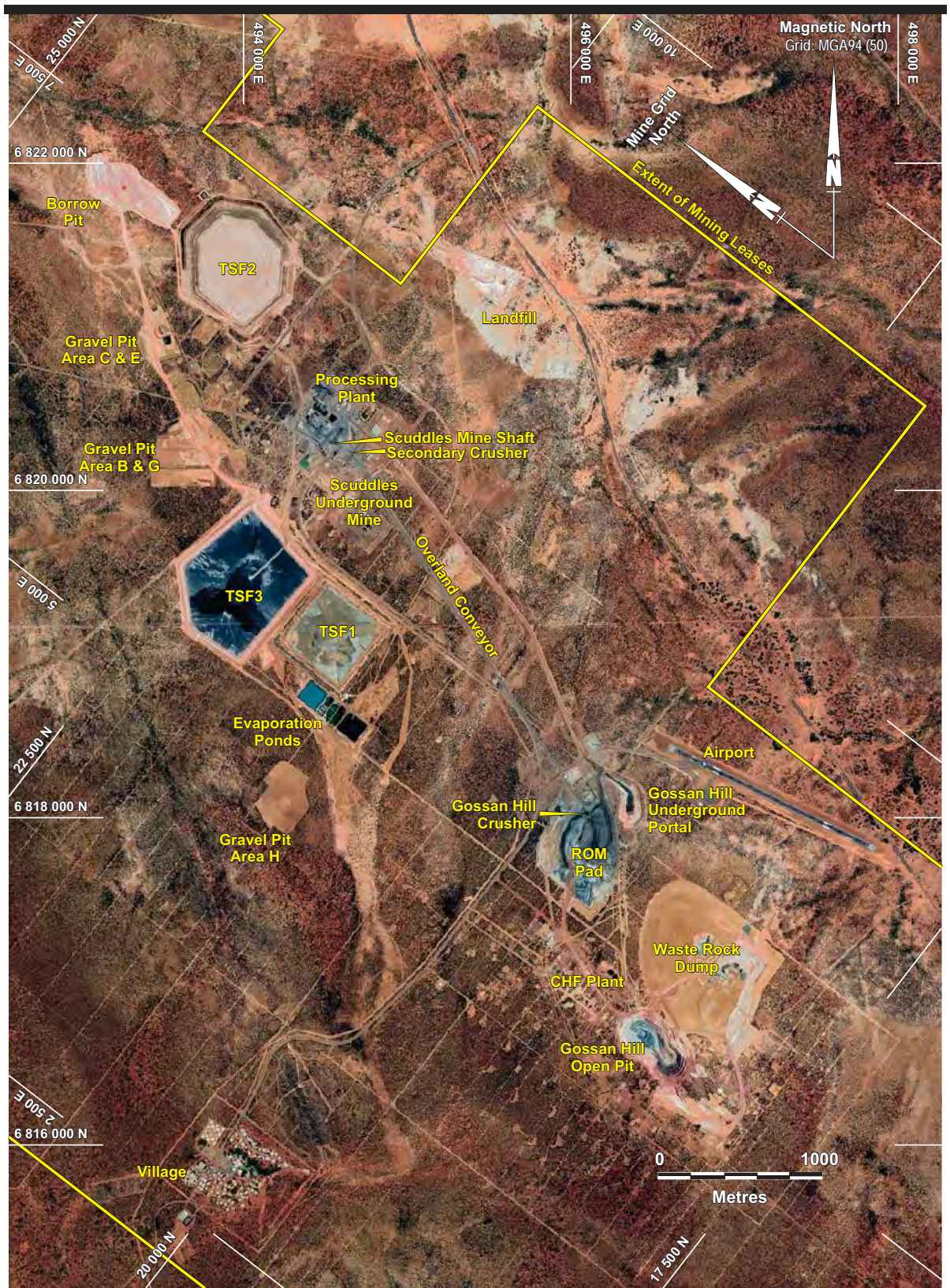
The Golden Grove tenements lie within a number of pastoral leases including Muralgarra, Badja, Bunnawarra, and Thundellara and Unallocated Crown Land (formerly known as Warriedar). The pastoral leases are currently not stocked.

Property History

Mineralisation at Gossan Hill was discovered in 1971 following exploration by Aztec Mining in joint venture with AMAX Mining. The first Mining Lease was granted in 1983 and development of the Scuddles underground mine commenced in 1988 with first production in 1990. The project was acquired by Normandy Poseidon in 1991, and then by Newmont through its acquisition of Normandy Poseidon. Underground development continued, including development at Gossan Hill, with first production from Gossan Hill in 1997. In 2005 the project was acquired by Oxiana Limited (“Oxiana”) and following the merger of Oxiana and Zinifex Limited (“Zinifex”) in 2008 to form Oz Minerals Ltd (“Oz Minerals”), ownership transferred to Oz Minerals. In 2009 China Minmetals Corporation (“CMC”) purchased the project from Oz Minerals, operating the project through its subsidiary MMG Limited (“MMG”).

Production scaled up with the mining of open pit oxide copper and gold mineralisation at Gossan Hill and Scuddles, but by 2016 production was scaled back to less than 1Mtpa with depletion of the open pit reserves.

EMR acquired the Golden Grove operations in March 2017. Exploration and resource drilling increased the resource and reserve base and throughput was increased from around 0.9Mtpa to 1.2Mtpa by 2018. In 2017 a gravity gold circuit was installed to increase gold recovery and in 2019 a secondary crusher was installed to facilitate increased throughput of harder ores. The Gossan Valley Scoping Study and PFS indicated potential to open up a third mining area.



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Golden Grove Project

Figure 3

SITE LAYOUT PLAN

The operation currently consists of the Scuddles underground mine with decline and hoisting shaft, the Gossan Hill underground mine with access decline, a surface conveyor transporting crushed ore from the Gossan Hill run-of-mine (“ROM”) pad and crusher to the processing plant, a processing plant at Scuddles, Tailings Storage Facilities (“TSFs”), waste rock dumps, warehouses, workshops, a sealed airstrip and accommodation village (Figure 3). Various open pits have also been operated during the life of mine.

Through most of its life the Golden Grove processing plant has operated on a batch processing basis, with separate processing campaigns for copper ores and zinc-lead ores. In 2020 EMR commenced an upgrade of the flotation circuit to allow triple sequential flotation, allowing the treatment of a blend of ore material and producing three separate concentrates, copper, zinc and high precious metals/lead to increase overall recovery, operational flexibility and concentrate quality. Installation of the additional equipment and modification of the circuit were largely complete as of end of the first quarter (Q1) of 2021 and commissioning and full operation of the new circuit is planned for Q2 2021.

EMR is also working to complete the Gossan Valley FS during Q2 2021, allowing a decision to be made on the development of the Gossan Valley project, and a potential increase in total throughput to 2Mtpa by 2024/25.

Production from the Golden Grove operation in 2020 from approximately 1.4Mt of ore totalled approximately 55 thousand tonnes (“kt”) of contained zinc, 19kt of contained copper, and 63 thousand ounces (“koz”) of contained gold. The revenue contribution was approximately 30% zinc, 30% copper and 30% gold with silver and minor lead accounting for the balance.

2.3 Technical Data

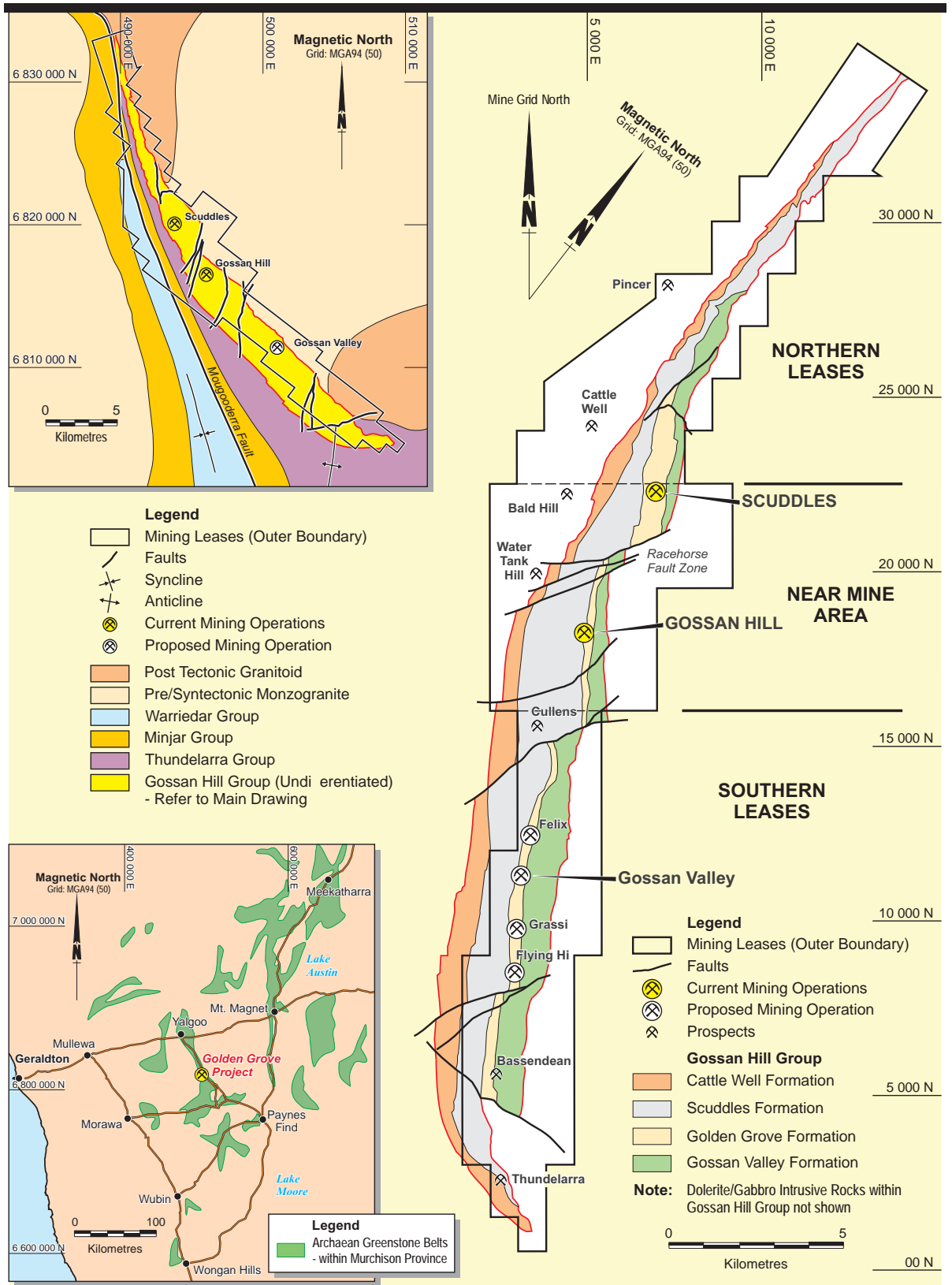
Geology and Mineralisation

The Golden Grove zinc-copper-gold-silver-lead deposits occur within the Warriedar Fold Belt (“WFB”) which is located in the southern part of the Yalgoo-Singleton greenstone belt of the Murchison Province within the Archaean Yilgarn Craton of Western Australia (Figure 4). The WFB is bounded to the east, west and southeast by the pre-syntectonic Murchison Monzogranite. Post-tectonic granitoids intrude the margin of the greenstone belt, post-dating regional folding events.

The Golden Grove volcanic-hosted massive sulphide (VHMS) mineralisation occurs predominantly within the Golden Grove Formation (“GGF”) and the Scuddles Formation (“SCF”) of the Gossan Hill Group (“GHG”). The GHG lies along the northeast flank of the WFB forming the eastern limb of a regional syncline and has an average thickness of 3km and a strike length of around 28km. The stratigraphy is west facing and dips steeply to the southwest (75-80°); the regional syncline has been cut by extensive northeast trending, steeply dipping dextral faults and a major regional structure, the Mougooderra Fault, is located to the west of Golden Grove.

Zinc and copper mineralisation are largely hosted in the Golden Grove Formation which is divided into six members (GG1-6) based on lithology and alteration. The GGF comprises a footwall sequence of rhyolite flows and tuffs, a host sequence of volcanoclastic litharenites and crystal tuffs, and a hangingwall sequence of felsic lavas. Mineralisation forms a series of steeply dipping lodes with most of the mineralisation occurring in the GG4 and GG6 members of the GGF, with stratiform zinc concentrated principally at the GG6 horizon and copper mineralisation typically lower in the stratigraphy at GG4. Some zinc mineralisation occurs within GG5 and in the SC2 and SC3 members of the overlying SCF. Zinc mineralisation in the form of sphalerite also hosts galena, gold and silver. Average zinc grades of lenses are typically in the range 7-16% Zn, with some exceptionally high-grade drill intersections of up to 20-30% Zn. Copper mineralisation is mainly present as chalcopyrite with copper lens grades typically in the range 1.5-3.0% Cu. Gold is present as electrum (Au-Ag alloy) or native gold and silver is present as native silver and freibergite (Cu-Sb-Ag sulphide), as well as electrum. The highest gold and silver grades are present within the SC3 member and in some parts of the GG6 member in the range 1-4g/t Au and 50-100g/t Ag. Elsewhere, in GG4 and GG6, gold grades are generally in the range 0.4-1.3g/t Au and silver in association with zinc ranges from 20-90g/t Ag.

A local mine grid is used at Golden Grove which is rotated 52.4° to the west of the national MGA94 grid. Three main deposits have been defined which are from north to south - Scuddles, Gossan Hill and Gossan Valley. Gossan Hill is located approximately 4km south of Scuddles and Gossan Valley is a further 7km south of Gossan Hill (Figure 4). A dextral fault zone (Racehorse Fault) passes between the Gossan Hill and Scuddles deposits, displacing Scuddles approximately 1.2km to the east. Schematic long sections indicating the position of the various resource zones at Gossan Hill, Scuddles and Gossan Valley are shown in Figure 5.

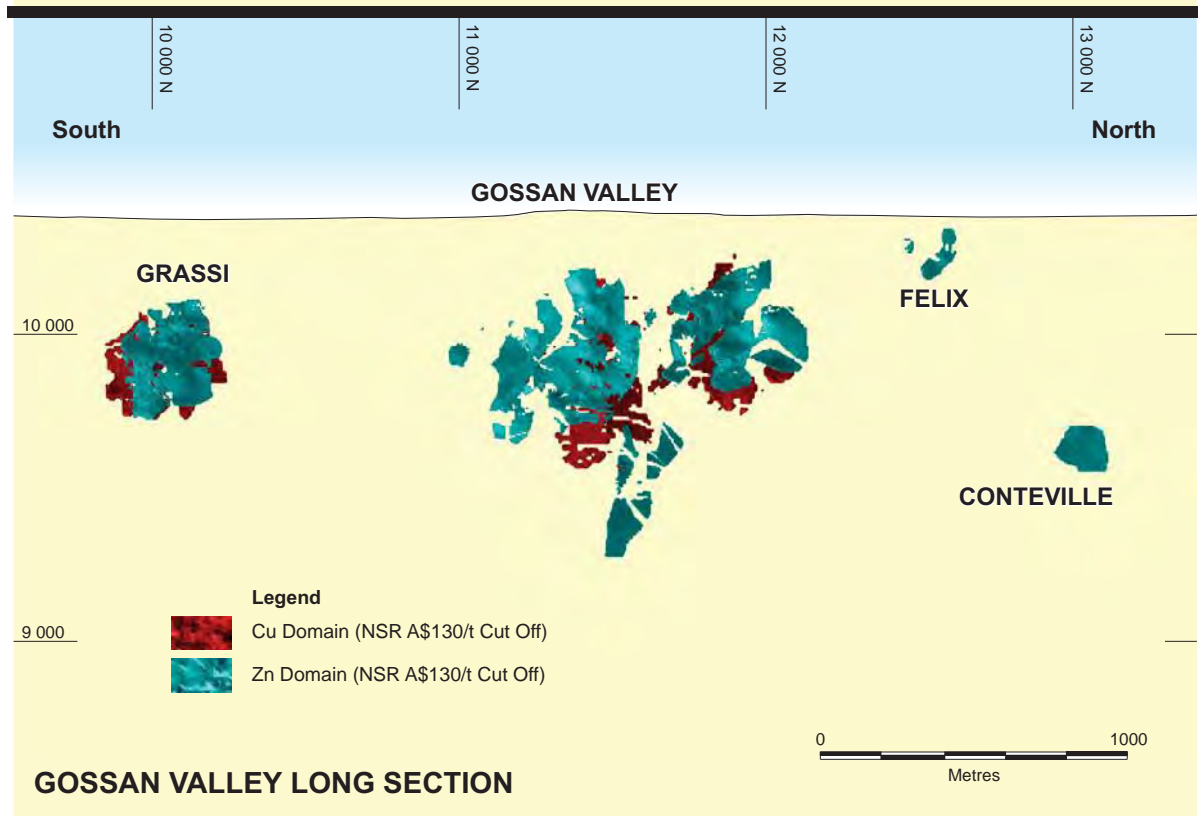
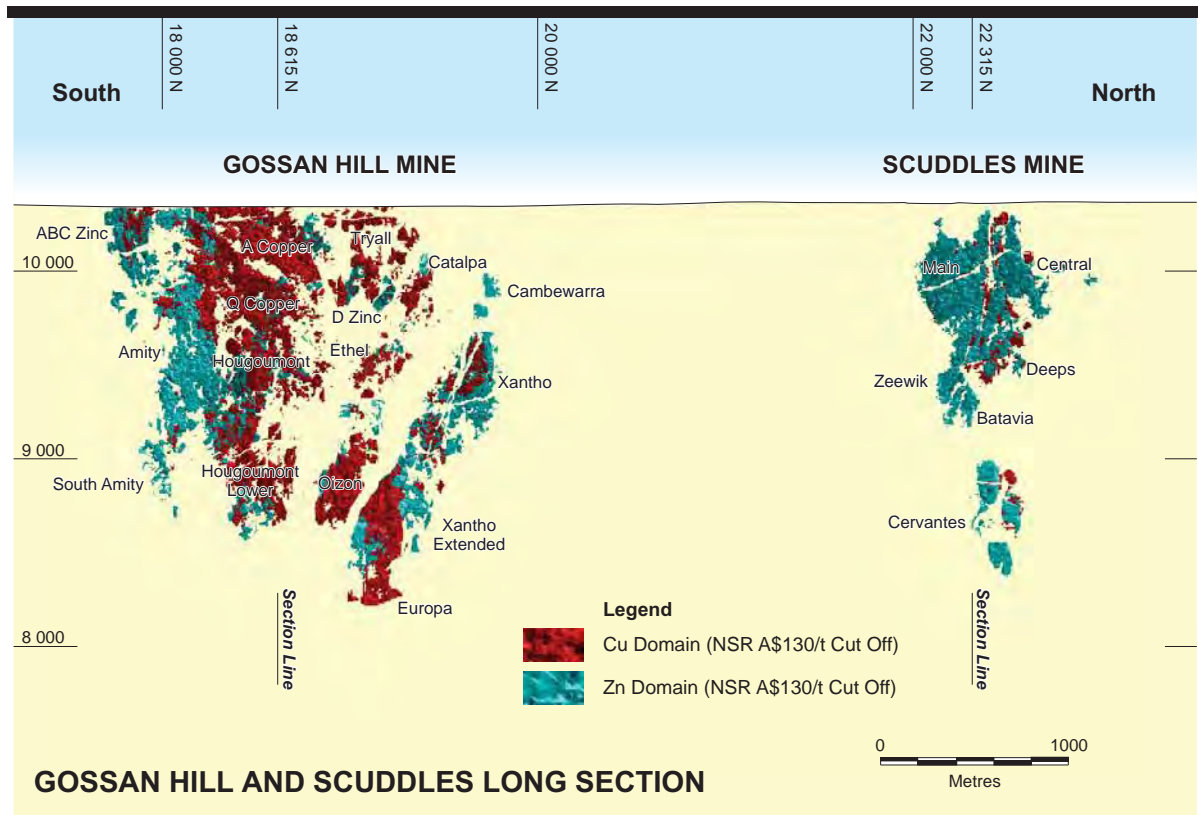


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Figure 4

REGIONAL AND LOCAL GEOLOGY



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Figure 5

LONG SECTIONS

At Gossan Hill, mineralisation occurs within both the GG4 and GG6 members, separated by about 50m of relatively unaltered GG5 clastics. The copper and zinc mineralisation tend to form separate lenses although copper mineralisation can also occur on the footwall of the zinc lodes. Copper and gold resources also occur in the oxide zone above the primary copper and zinc zones respectively. The known mineralisation at Gossan Hill occurs over a strike length in excess of 1,500m, although individual lenses typically have a strike extent of 200-300m and are up to 20m wide. A total of 18 separate mineralised zones are currently defined at Gossan Hill to a maximum depth of around 2,000m below surface, with a number of lenses remaining open in the down-dip direction. There is an oxidized cap above the ABCD primary zinc mineralisation, containing zinc, gold and silver. Oxide and supergene copper, mostly malachite with minor azurite, chalcocite and native copper, overlies primary copper sulphides in the Tryall zone. The oxide zone extends to a depth of 80-100m.

The Scuddles area contains the complete GGF sequence including GG3 which is absent at Gossan Hill. Dacite and rhyodacite in SC1 and SC2 overlie the zinc and copper mineralisation. Mineralisation occurs largely within the GG6 member and consists of massive zinc and massive pyrite with either dominant zinc or copper sulphides. The massive sulphide mineralisation is underlain by a stringer sulphide zone. The mineralisation extends about 500m along strike, is up to 50m wide, and extends to over 1,000m depth. Copper mineralisation occurs adjacent to the zinc mineralisation, but there are some later cross-cutting copper zones. Mineralisation is primarily sphalerite, chalcopyrite and galena with pyrite and pyrrhotite. Silver is present within the sphalerite-rich sections of the deposit and gold occurs mainly in the centre of the sulphide mineralisation near the transition between massive sphalerite and massive pyrite.

Typical cross sections through the Gossan Hill and Scuddles deposits are shown in Figures 6 and 7. The sections illustrate the varying positions of the mineralised horizons within the GGF and the relationship of intrusive rocks to the mineralisation.

The Gossan Valley deposit is located around 7km south of Gossan Hill and presently comprises five separate mineralised lodes, the main Gossan Valley lenses and four smaller areas, Grassi and Flying Hi, 1-2km to the south of Gossan Valley and Felix and Conteville, 0.5-1km to the north (Figure 5). GGPL completed a Pre-Feasibility Study (PFS) on the Gossan Valley deposits in December 2020 and plans to complete a Feasibility Study in 2021.

Zinc and copper mineralisation are hosted in the GGF, chiefly in the GG4 and GG5 members, unlike Gossan Hill and Scuddles where zinc mineralisation occurs predominantly in GG6. Sphalerite and chalcopyrite have locally replaced massive magnetite in GG4 and GG5. Stringer chalcopyrite also occurs in GG1 and occasionally in the GV4 Member of the Gossan Valley Formation. Small lenses of sphalerite and chalcopyrite are also developed in GG6. The same style of mineralisation has been intersected at Felix approximately 500m to the north of Gossan Valley with massive magnetite locally replaced by sphalerite and chalcopyrite.

Post-mineralisation dacite/rhyodacite, dolerite and rhyolite dykes cross cut, displace and stope out portions of the mineralisation. The GGF dacite dykes are interpreted as feeders for the overlying dacitic volcanics in the Scuddles Formation. The dolerite dykes were emplaced after the dacite and form sub-horizontal to moderately dipping bodies. The rhyolite dykes are generally narrow and post-date the dolerite.

Exploration Potential

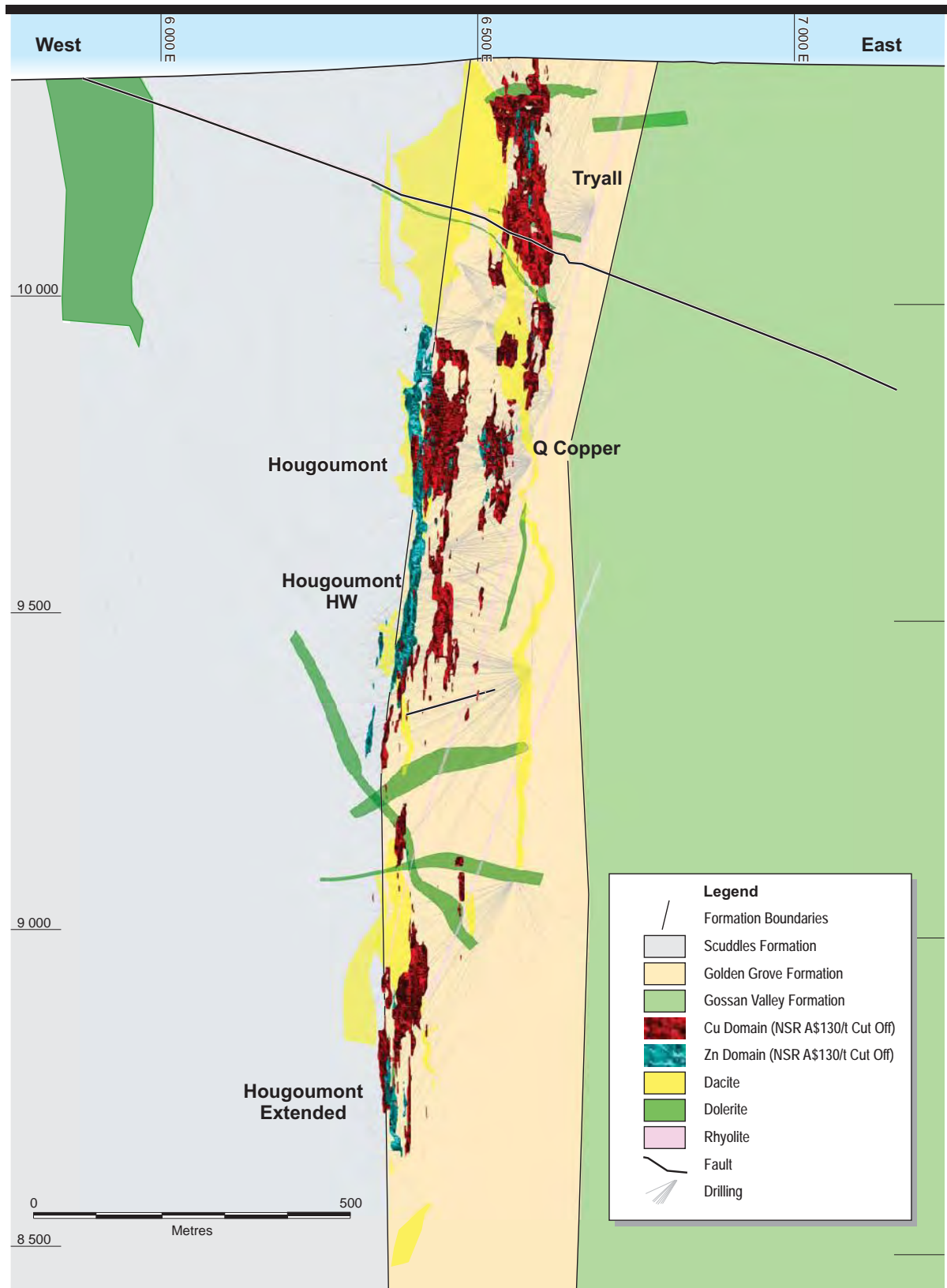
GGPL holds 17 mining tenements which cover a 28km strike length of the prospective Gossan Hill Group stratigraphy. GGPL divides the tenements into three areas – near-mine area, northern leases and southern leases (Figure 4). Any mineralisation defined within the northern and southern leases would potentially be within trucking distance of the existing Golden Grove concentrator.

Since EMR's acquisition of Golden Grove in 2017, GGPL has increased exploration in the near-mine area and in the southern leases. These areas have significant potential for new discoveries and BDA anticipates that additional mineralised bodies remain to be defined. However, not all of these will necessarily be of sufficient size and grade to justify development and mining.

During 2017-2020 EMR carried out underground extension drilling at Xantho Extended, Hougomont Extended, South Amity and Cervantes, and resource conversion drilling at Xantho Extended and Oizon (Figure 5).

GGPL advises that there is potential for further resource extensions along strike and down dip at Xantho Extended, Oizon, South Amity, Hougomont, Europa and Cervantes. EMR is planning resource definition and extension drilling in 2021 at Xantho Extended, Oizon, South Amity and Cervantes totalling in excess of 50,000m of underground drilling.

GGPL also advises that there is potential for further zinc and copper resource extensions along strike and down dip at Gossan Valley, Grassi, Felix, Flying Hi and Conteville, and gold potential in the Bald Hill prospect and other prospects in both the northern and southern leases. In 2021 around 16,000m of resource definition drilling from surface is planned at Gossan Valley with around 10,000m of exploration on other prospects.

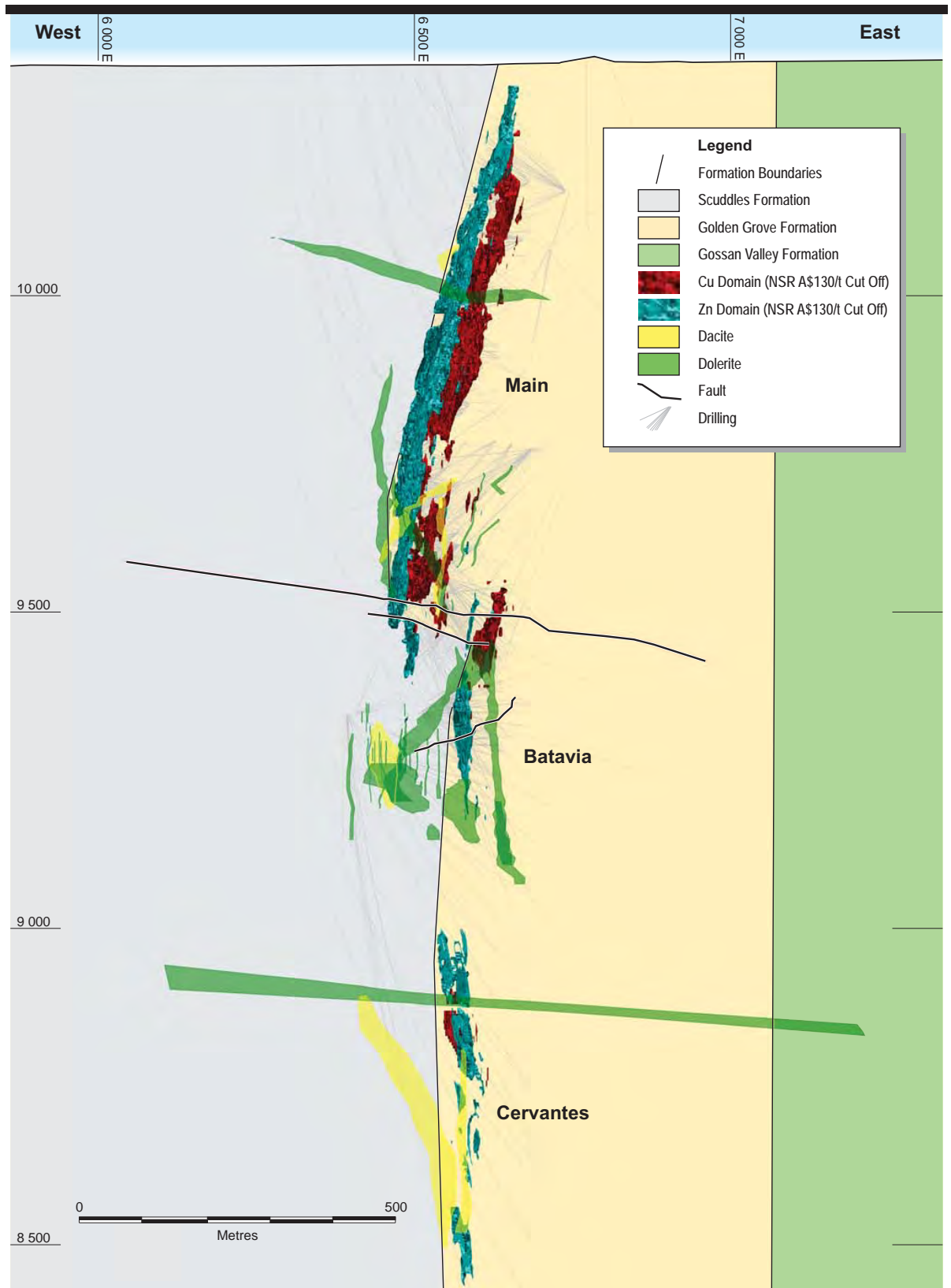


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**GOSSAN HILL MINE
CROSS SECTION 18 615 N**

Figure 6



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Golden Grove Project

**SCUDDLES MINE
CROSS SECTION 22 315 N**

Figure 7

Geological Data

Resource definition drilling at Golden Grove consists mostly of fully cored diamond drill holes (“DD”) drilled either from surface or underground, with a limited amount of reverse circulation (“RC”) and air core (“AC”) drilling used in the near-surface oxide zone. The deposits have been defined by around 9,100 holes at Gossan Hill, 4,200 holes at Scuddles and 530 holes at Gossan Valley. In addition, over 1,600 drill holes (DD, RC and AC) were used in the modelling and estimation of the open pit oxide resources. Since EMR’s acquisition of Golden Grove in 2017, GGPL has undertaken a number of drilling programmes (DD, RC and AC) totalling around 1,240 drill holes for 320,000m; drilling has primarily focussed on definition of resources at Gossan Hill and Scuddles and exploration in the Southern Leases including Gossan Valley. The three main deposits have been defined with a drill hole spacing ranging from around 15 x 15m in active mining areas to 60 x 60m in exploration areas.

The mineralised host rocks are generally very competent below the weathered zone and core recoveries typically average above 99%. All GGPL drill holes are systematically surveyed (drill collars and down hole) and geologically and geotechnically logged and photographed. Drill core is nominally sampled at one metre intervals, while honouring lithological contacts.

Sample preparation and assaying for a standard suite of elements including zinc, copper, lead, gold and silver (payable metals) and iron and sulphur (modelled elements) is carried out by Australian Laboratory Services (“ALS”) in Perth. Quality Assurance/Quality Control (“QA/QC”) protocols are comprehensive and indicate that the sampling and assaying data for the main elements are generally reliable and without material bias.

GGPL’s relational drillhole database is a site-managed system with a front-end utilising Geobank software developed by Micromine Pty Ltd (“Micromine”). The database has been independently reviewed by GGPL’s resource consultant, Mr Stuart Masters of CS2 Pty Limited (“CS2”) on a number of occasions. AMC Consultants Pty Limited (“AMC”) carried out a high-level review of the Gossan Valley database in connection with its role as manager of the PFS on Gossan Valley in 2020. Given the long mine life of Golden Grove, the database has a substantial historical data component which has been progressively reviewed and validated by GGPL and by previous mine owners.

BDA considers that the geological evaluation of the Golden Grove deposits has been thorough, and the drilling, logging, sampling and assaying procedures adopted by GGPL are appropriate and generally in accordance with industry standards. Overall, GGPL’s resource database is considered to form an appropriate and reasonable basis for resource and reserve estimation.

Mineral Resources

The Golden Grove Mineral Resources for zinc, copper, lead, gold and silver were estimated by GGPL in-house as of June 2020 and reported in November 2020. This estimate includes resources defined in three deposits (Scuddles, Gossan Hill and Gossan Valley) and was an update of GGPL’s in-house Mineral Resource Estimate (“MRE”) of June 2019.

The 2020 MRE is divided into 13 separate resource block models, with each model containing seven mineralised domains. The Gossan Hill deposit comprises nine separate resource models, listed alphabetically - ABCD, Amity, Cambewarra, D-Zinc Extended, Ethel-Catalpa, GG4-Tryall, Hougoumont, Tryall Oxide and Xantho. The Scuddles deposit is modelled with two resource models - Scuddles and Cervantes. Gossan Valley is divided into two resource models, with one model including Gossan Valley, Grassi, Felix and Conteville, and a second model containing the Flying Hi area. Mineralised domains are zinc, copper, lead, gold, silver, pyrite and magnetite. Non-mineralised domains are intrusive bodies which include rhyodacite, dacite, dolerite, rhyolite and lamprophyre.

The deposits are systematically and progressively drilled out, with planned mining areas for the current year and following year typically drilled with a hole spacing of 15 x 15m. This provides a firm basis for defining the geometry of the mineralised domains and for grade estimation and resource categorisation in each resource model. Estimation methodology is generally consistent between resource models and BDA considers procedures are generally appropriate.

Domain modelling is carried out using 1 x 5 x 5m (E, N, RL) resource blocks which are later coalesced into parent blocks of 2 x 10 x 10m (E, N, RL). Ordinary Kriging (“OK”) is used for block grade estimation into parent blocks for Cu, Zn, Au, Ag, Fe, S and bulk density. Fe and S are estimated for metallurgical purposes, with Fe related to the recovery of payable metal. Resource categorisation is primarily based on the drill hole density. In general, areas with average drill hole spacing of 20 x 20m or less are categorised as Measured resources, with 40 x 40m or less as Indicated and 60 x 60m or less as Inferred. GGPL also records an Unclassified resource category which consists of resource blocks that have been assigned a zinc or copper grade during grade estimation and have NSR values above cut off but fall outside areas defined as Inferred resources on the basis of a maximum drill hole spacing of 60 x 60m.

BDA considers that the resource models produced by GGPL provide a suitable basis for stope design, reserve estimation and short to long term mine planning. The resource models and MREs are updated annually and are subject to internal peer review and independent review by Resource Consultant CS2.

The current Mineral Resources for Golden Grove (June 2020) are summarised in Table 2.1. The Measured, Indicated and Inferred (“MIP”) resource estimate is 57.8Mt at 1.6% Cu, 4.5% Zn, 0.3% Pb, 0.7g/t Au and 30g/t Ag with 925kt of contained copper and 2.6Mt of contained zinc.

The resources are reported using a Net Smelter Return (“NSR”) cut off, with NSR cut-off values (“COVs”) ranging from approximately A\$122 per tonne (“t”) to A\$145/t. The COV is calculated using a combination of three mining unit costs (the cost per tonne of stoping ore, ore haulage by truck/shaft/conveyor, and mine development costs for new mining areas, together with the costs of geology (excluding exploration and resource development), processing, maintenance and G&A costs, giving a total estimated cost at the mine gate. NSR values applied to the resources are an estimate of revenue from production and sale of concentrate, net of the refining, transport and selling costs, including royalties. Metal prices used for the June 2020 NSR calculations were copper US\$7,716/t, zinc US\$3,306/t, lead US\$2,425/t, gold US\$1,600/oz and silver US\$23/oz.

Table 2.1
Golden Grove - Gossan Hill, Scuddles and Gossan Valley
Mineral Resource Estimate June 2020 (Variable NSR Cut-Off Value)

Resource Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t
Primary Zinc						
Measured	8.2	0.5	9.0	0.7	1.2	61
Indicated	11.6	0.6	10.9	0.6	0.9	38
Inferred	4.8	0.4	9.4	0.4	0.5	33
Total	24.6	0.6	10.0	0.6	0.9	44
Primary Copper						
Measured	14.4	2.4	0.4	0.0	0.6	17
Indicated	12.4	2.5	0.4	0.0	0.5	19
Inferred	5.0	2.3	0.3	0.0	0.3	15
Total	31.9	2.4	0.4	0.0	0.5	17
Oxide Copper						
Measured	0.0	0.0	0.0	0.0	4.4	84
Indicated	0.4	3.2	0.0	0.0	0.6	5
Inferred	0.0	2.4	0.0	0.0	0.1	6
Total	0.5	3.0	0.0	0.0	0.9	10
Partial Oxide Zinc						
Measured	0.1	1.2	10.2	1.8	2.4	164
Indicated	0.4	0.9	3.4	0.8	1.9	117
Inferred	0.3	0.5	3.9	0.5	1.4	80
Total	0.9	0.8	4.6	0.9	1.8	110
Golden Grove						
Measured	22.7	1.7	3.5	0.7	0.8	34
Indicated	24.9	1.6	5.4	0.3	0.7	29
Inferred	10.2	1.4	4.7	0.3	0.4	25
Total Resources	57.8	1.6	4.5	0.3	0.7	30

Note: estimate undertaken by EMR Golden Grove and independently reviewed by Stuart Masters of CS2 Pty Limited; cut-off grade based on Net Smelter Return (NSR) value; NSR cut-off values in A\$/t are calculated separately for each deposit (and in some cases for different mineralised lenses within the same deposit) and range from approximately A\$122/t to A\$145/t; resources depleted for mined voids from both underground and open pit mining at end of June 2020; totals are subject to rounding

Gossan Hill accounts for 68% of the total resources at Golden Grove (by tonnage), with Scuddles containing 20% and Gossan Valley 12%. The two largest orebodies, including both zinc and copper lenses, are in Gossan Hill, namely Xantho and Xantho Extended combined with a resource of around 10.4Mt and Hougomont with around 6.1Mt.

Ore Reserves

The Ore Reserve estimate for Golden Grove, which is based on the GGPL June 2020 resource estimate, was carried out by GGPL and Orelogy Consulting Pty Limited (“Orelogy”); Orelogy worked under the direct supervision of GGPL’s mining and geotechnical staff. The Proved and Probable reserves represent the Measured and Indicated resources within the primary and remnant stopes and development planned to be mined.

The 2021 mine planning and 2020 reserve estimation was based on conventional, mechanised bottom-up longitudinal and transverse Long Hole Open Stopping (“LHOS”) with either waste rock fill or cemented hydraulic fill (“CHF”).

GGPL, as the designated Competent Person, produced an Ore Reserve Statement compliant with the 2012 JORC Code. The Ore Reserves incorporate depletion to end June 2020. A summary of the 2020 Ore Reserves is shown in Table 2.2.

Table 2.2
Golden Grove - Gossan Hill and Scuddles - Combined Ore Reserve Estimate – June 2020
(Variable NSR Cut-Off Value)

Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t	Metal Cu kt	Metal Zn kt	Metal Pb kt	Metal Au koz	Metal Ag koz
Primary Zn											
Proved	2.5	0.9	5.8	0.6	1.4	54	22	144	16	112	4,255
Probable	8.8	1.6	7.4	0.5	0.9	36	145	650	40	255	10,232
Total	11.3	1.5	7.0	0.5	1.0	40	167	794	56	366	14,487
Primary Cu											
Proved	0.9	2.3	0.2	0.0	0.8	16	21	2	0	24	456
Probable	1.9	2.5	0.2	0.0	0.4	13	49	5	0	22	785
Total	2.8	2.4	0.2	0.0	0.5	14	69	7	1	46	1,241
Primary Au											
Proved	0.2	2.0	1.2	0.4	2.9	105	4	3	1	21	756
Probable	-	-	-	-	-	-	-	-	-	-	-
Total	0.2	2.0	1.2	0.4	2.9	105	4	3	1	21	756
Ore Reserve											
Proved	3.6	1.3	4.1	0.5	1.4	47	47	149	17	157	5,467
Probable	10.7	1.8	6.1	0.4	0.8	32	194	655	40	277	11,017
Total	14.3	1.7	5.6	0.4	0.9	36	241	804	57	433	16,484

Note: estimate undertaken by Orelogy and EMR Golden Grove; cut-off grade based on Net Smelter Return (NSR) value; COVs in A\$/t are calculated separately for each orebody and range from approximately A\$122/t (Gossan Hill ABCD stopes) to A\$150/t (Gossan Hill Xantho Extended); reserves based on the following metal prices - copper US\$6,614/t, zinc US\$2,425/t, lead US\$2,094/t, gold US\$1,400/oz and silver US\$21/oz; reserves depleted for mined voids from both underground and open pit mining at end of June 2020; totals are subject to rounding

Mine Grade Control

GGPL uses the term ‘Grade Control Drilling’ to designate detailed 15 x 15m infill drilling, which forms the basis of the Measured resources. GGPL’s annual mine plan is generally based on the mining of stopes which contain only Proved reserves (ie. based on Measured resources) and only rarely includes areas that contain Probable reserves (Indicated resources). Probable reserves are progressively upgraded to Proved reserves and the mine plan adjusted where necessary for the next 12 months such that stopes planned for mining in the current year and generally the following year are based solely on Proved reserves. The detailed 15 x 15m infill grade control drilling data becomes an integral part of each MRE model update.

GGPL’s Mine Geology Department (“MGD”) does not carry out any routine underground face sampling or stope drawpoint sampling and consequently there are no separate grade control models utilised for mine planning. The current MRE models form the basis for reserves and the Life of Mine (“LOM”) plan.

Mine Reconciliation

GGPL reports monthly and year to date (“YTD”) reconciliation data in its Monthly Reports to assist in the management and monitoring of mill and mine performance. Three sets of tonnage and grade figures are reported: Ore Mined Claimed, Ore Milled and Ore Mined Reconciled tonnes and grade.

The Ore Mined Claimed tonnes are derived from the Run of Mine (“ROM”) weighbridge and grade is based on a weighted average of the estimated stope grades from the resource models after allowing for mining dilution. The Ore Milled tonnes and grade are calculated from mill weightometer tonnes, head grade sampling, concentrate production and grade, and the tailings grade. Ore Mined Reconciled tonnes and grade are calculated from the reported Ore Milled tonnes and grade, allowing for opening and closing stockpile figures.

Separate ore mined and ore milled figures are calculated for zinc ore, copper ore and zinc-copper ore, however for reconciliation purposes, the zinc and zinc-copper ore are combined while the copper ore reconciliation remains separate. Any oxide gold ore mined is not included in the reconciliation as the ore is processed off-site.

Table 2.3 shows the results of the annual reconciliations between the Ore Mined Claimed and Ore Milled for contained metal in the ore feed to the mill (zinc, copper, lead, gold and silver) for the period January 2017 to December 2020.

Table 2.3
Golden Grove - Ore Mined Claimed to Ore Milled Reconciliation for 2017-2020

Resource Category	Tonnage Mt	Metal Cu kt	Metal Zn kt	Metal Pb kt	Metal Au koz	Metal Ag koz
2017						
Ore Mined Claimed (1)	984,339	13.41	62.64	7.68	49.80	1,467.7
Ore Milled (2)	958,739	13.54	59.26	8.76	47.90	1,656.3
Reconciliation (2) vs (1)	97	101	95	114	96	113
2018						
Ore Mined Claimed (1)	1,203,660	17.35	63.15	7.39	45.70	1,741.6
Ore Milled (2)	1,248,956	18.72	71.30	9.54	59.23	2,251.3
Reconciliation (2) vs (1)	104	108	113	129	130	129
2019						
Ore Mined Claimed (1)	1,369,879	24.87	70.23	7.51	82.83	2,025.3
Ore Milled (2)	1,289,692	24.34	66.59	8.42	87.97	2,155.1
Reconciliation (2) vs (1)	94	98	95	112	106	106
2020						
Ore Mined Claimed (1)	1,286,578	19.75	53.51	6.37	68.16	1,687.1
Ore Milled (2)	1,377,330	22.66	63.67	8.58	84.02	2,113.8
Reconciliation (2) vs (1)	107	115	119	135	123	125
2017-2020						
Ore Mined Claimed (1)	4,844,456	75.37	249.52	28.94	246.49	6,921.6
Ore Milled (2)	4,874,717	79.27	260.82	35.30	279.12	8,176.5
Reconciliation (2) vs (1)	101	105	105	122	113	118

Note: Ore Mined Claimed figures from the Mine Geology Department; Milled figures are reconciled monthly mill figures from the Process Department; tabulated figures are from GGPL's spreadsheet 'Historic Metal Reconciliation.xls'

Overall, the results indicate a positive reconciliation for tonnes and contained metal for 2017-2020, with the Ore Milled contained zinc and copper reported as 5% higher than the Ore Mined Claimed predicted figures, ie. the resource/reserve models appear to be providing slightly conservative zinc and copper grade forecasts. For the minor metals, lead, gold and silver, results suggest the models are on average under-estimating the contained metal by 22%, 13% and 18% respectively.

Mining and Mine Production

Development of the Scuddles mine started in 1988 with a decline and shaft sink; production commenced two years later. The Gossan Hill decline was started in 1994 and production commenced in 1998. A number of open pits have been mined in the past for copper and gold ores, but no open pit mining is currently being undertaken.

Scuddles is accessed via a 630m shaft and a 1 in 7 gradient decline to a depth of 1,105m with deep drilling having identified ore grade mineralisation to depths of around 1,950m (Figure 8); Gossan Hill to the south is accessed by decline only, to a current depth of around 1,370m at Hougoumont and 1,437m at Xantho (Figure 8). The decline branches off to provide access to the two major current producing orebodies, Xantho and Hougoumont; deep drilling has identified ore grade mineralisation to depths of around 2,180m.

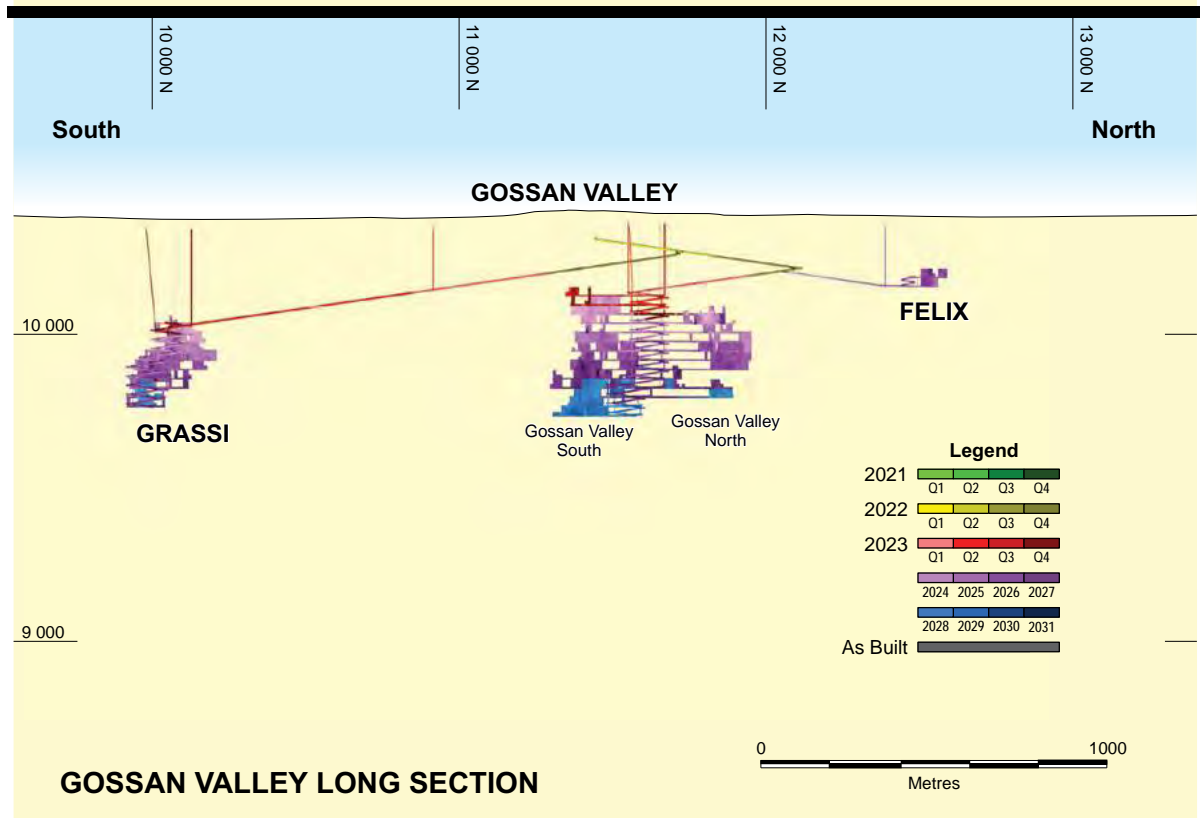
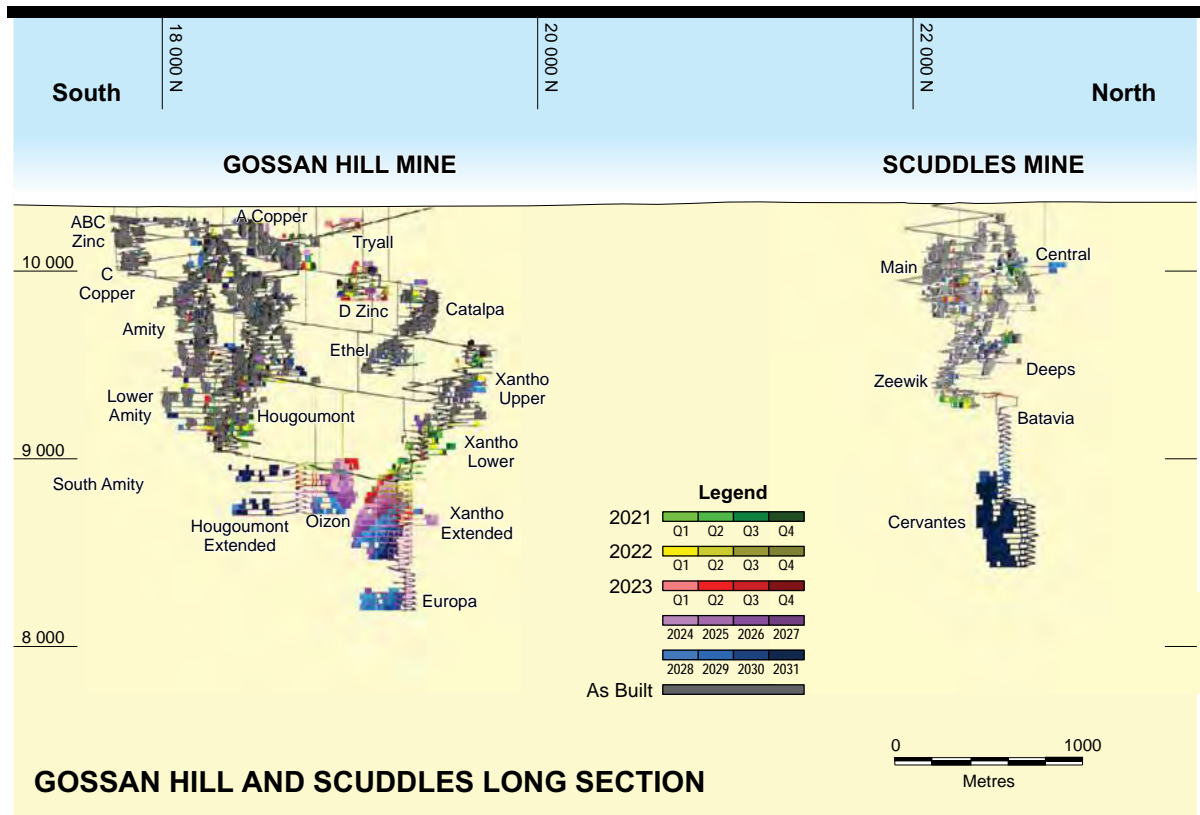
Gossan Hill is currently the primary source of ore, which is hauled to the surface via the decline, stockpiled at the Gossan Hill ROM, crushed and conveyed around 3km by surface conveyor to the processing plant adjacent to the Scuddles shaft; ore from Scuddles is crushed underground and hoisted to the surface by skips operating in the main shaft.

Production in the last two years came from a total of eight ore zones mined at Gossan Hill and Scuddles. The major ore producer over the last two years has been Hougoumont, with 30-40% of production coming from this ore zone. Xantho has been the next most significant ore source contributing around 20% in 2020. AB Zinc, Amity, Tryall and Scuddles each contributed around 10% of production tonnage in 2020.

In terms of ore type, Hougoumont and Xantho have been the main sources of zinc ore while Tryall, Scuddles and Hougoumont are the main sources of copper ore. Zinc ore (including mixed ZnCu ores) made up approximately 60% of the plant feed over the last two years with copper ore accounting for around 40%.

The underground mining method used at Golden Grove is conventional, mechanised bottom-up longitudinal long hole open stoping (LHOS) with either unconsolidated rock fill (mine waste) or cemented hydraulic fill (CHF). This method has been used at Golden Grove for many years and is well understood and successfully applied. Underhand, top-down variations of the method are planned in some areas in the future.

Transverse stoping is used in ore zones with significant width, typically 13m or more. Minimum mining width for longitudinal stopes is 3m before dilution is applied. Sublevel intervals throughout the operation are generally 30m.



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Figure 8

MINING LONG SECTIONS

Cemented Hydraulic Fill (CHF) is used, enabling the design of pillar-less stopes where geotechnically feasible, maximising recovery of the resource. Where practical the mine designs incorporate top level development to facilitate rock filling of stopes to reduce CHF requirements.

The mine production rate is planned to ramp up to 1.53Mtpa in 2021, from 1.44Mt in 2020 and 1.37Mtpa in 2019; production is forecast to average 1.6Mtpa from 2022. The development of the Gossan Valley project is also under consideration with a feasibility study due for completion in Q2 2021, which, if approved, could take total mine production to 2Mtpa.

A number of initiatives are in place to achieve a higher production rate including the introduction of paste fill at Gossan Hill. GGPL is planning to hire a paste fill plant on a three- or five-year contract. The proposed plant was designed and assembled for a BHP contract and it is anticipated that some modifications will be necessary. The proposed commencement date for paste fill is Q2 2021 and drill holes and piping for paste reticulation are currently being established.

All mining operations underground are carried out by the mine contractor, Byrncut Australia Pty Ltd (“BAPL”), except for box-hole boring carried out by Redpath Australia Pty Ltd (“Redpath”) and shaft services and CHF installations carried out by Murchison Mining Services Pty Ltd (“MMS”). The mine contract between GGPL and BAPL commenced in March 2017 and has been recently extended to September 2022. EMR advises that it is reasonably satisfied with the contractor’s performance and BAPL is generally meeting targets.

LOM Production Plans and Financial Models

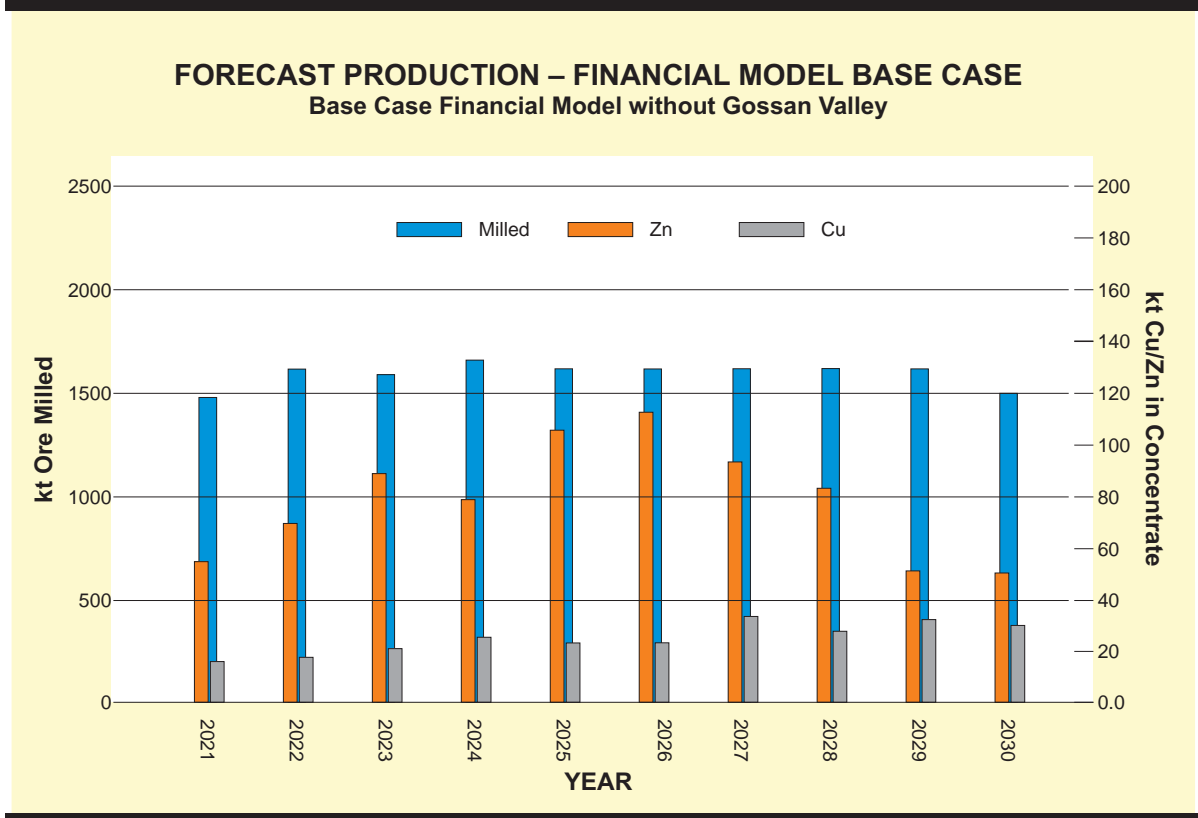
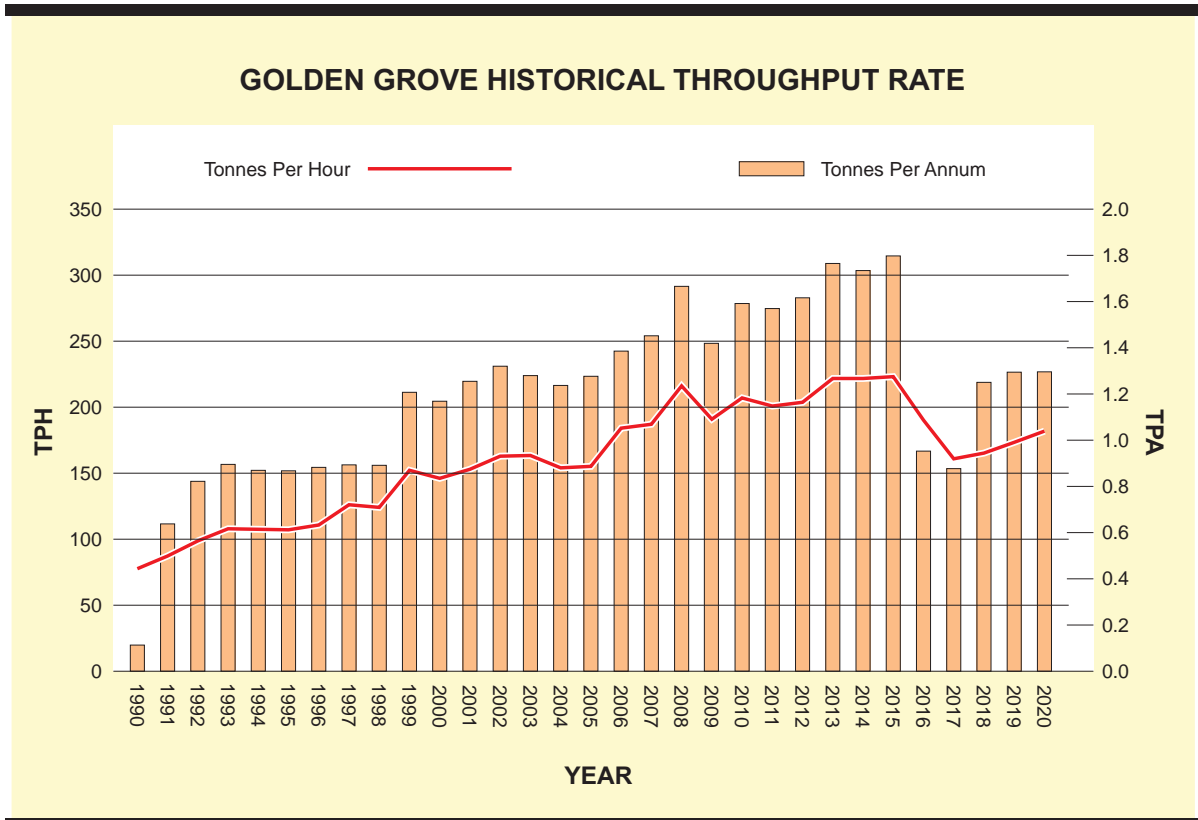
In March 2021 EMR issued a LOM plan report (“March 2021 LOM Report” or “LOM Report”) which considers a number of future development options. Common to the various options is the mining of 13 lodes in the Gossan Hill area, namely Amity, Hougoumont, Hougoumont Hangingwall, Oizon, Q Copper, Tyrall, Xantho, Xantho Extended and a number of smaller lodes. At Scuddles the LOM plan is to continue mining the remaining stopes and remnants and developing the deeper Cervantes lode (Figure 8). The LOM plans also include some limited open pit mining of shallow remnant ore towards the end of the mine life.

One LOM option maintains the mining and processing rate at 1.6Mtpa to around 2029, with production then progressively declining to around 0.5Mtpa by 2033 and further declining to end of mine life in 2036/37, with the latter years largely supported by ore from Cervantes. The other ‘Consolidated’ LOM plan includes development of the Gossan Valley lodes (Gossan Valley, Grassi and Felix), allowing the production and processing rate to ramp up to around 2Mtpa from 2024 to 2029, and then continue at a diminishing level to around 0.6Mtpa by 2033, and then further reducing to the end of mine life in 2036, again with the latter years largely supported by ore from Cervantes. The Gossan Valley lodes are planned to be accessed via a single decline from surface which then branches to connect the three mineralised lodes. A prefeasibility study (PFS) was completed in November 2020 on the development of Gossan Valley, and a feasibility study incorporating further resource drilling is currently underway, due for completion in Q2 2021.

While BDA accepts that it is likely that operations will continue beyond 2030, given the known geology, lode distribution, planned exploration and infill drilling programmes, and history of resource and reserve extensions and renewal, this report has been limited to the LOM plans and Financial Model (“FM”) projections to 2030.

EMR has provided BDA with a March 2021 Financial Model (*Golden Grove Financial Model March 2021*) for review, also incorporating two alternative development scenarios, one with Gossan Valley development and one without. However, neither case actually mirrors the two cases developed in the March 2021 LOM Report, with adjustments to the schedule in the later years and exclusion of any open pit ore. The FM Base Case without Gossan Valley envisages a 1.6Mtpa mining and processing rate (Figures 9 and 10), while the Upside Case with Gossan Valley ramps up to 2Mtpa throughput (Figure 11). Both FM cases have an end of mine life at 2035 (rather than 2036/37 in the LOM Report) but BDA has only, in this report, considered the period to 2030. Neither of the FM scenarios include any open pit ore. Effectively, the schedules for the first ten years from 2021 to 2030 are largely based on Measured and Indicated resources, even though some Inferred and unclassified material (not sufficiently well-defined to be included in a JORC resource category) is included. BDA accepts that the Golden Grove history has been one of ongoing exploration success and the definition of new lodes, and EMR advises that in future iterations it is intended to optimise the development and mining of Cervantes and other lodes following further delineation and extension drilling. BDA considers that there is every possibility that with an ongoing focus on exploration drilling, sufficient resource extensions could be defined to support the conceptual plans for ongoing production through 2035.

The mineral inventory for the Base Case FM scenario totals 16Mt comprising 13.8Mt of Measured and Indicated resources, 1.5Mt of Inferred resources, and 0.6Mt of unclassified mineralisation. The Upside Case including Gossan Valley includes an additional 3Mt of Gossan Valley resource inventory.

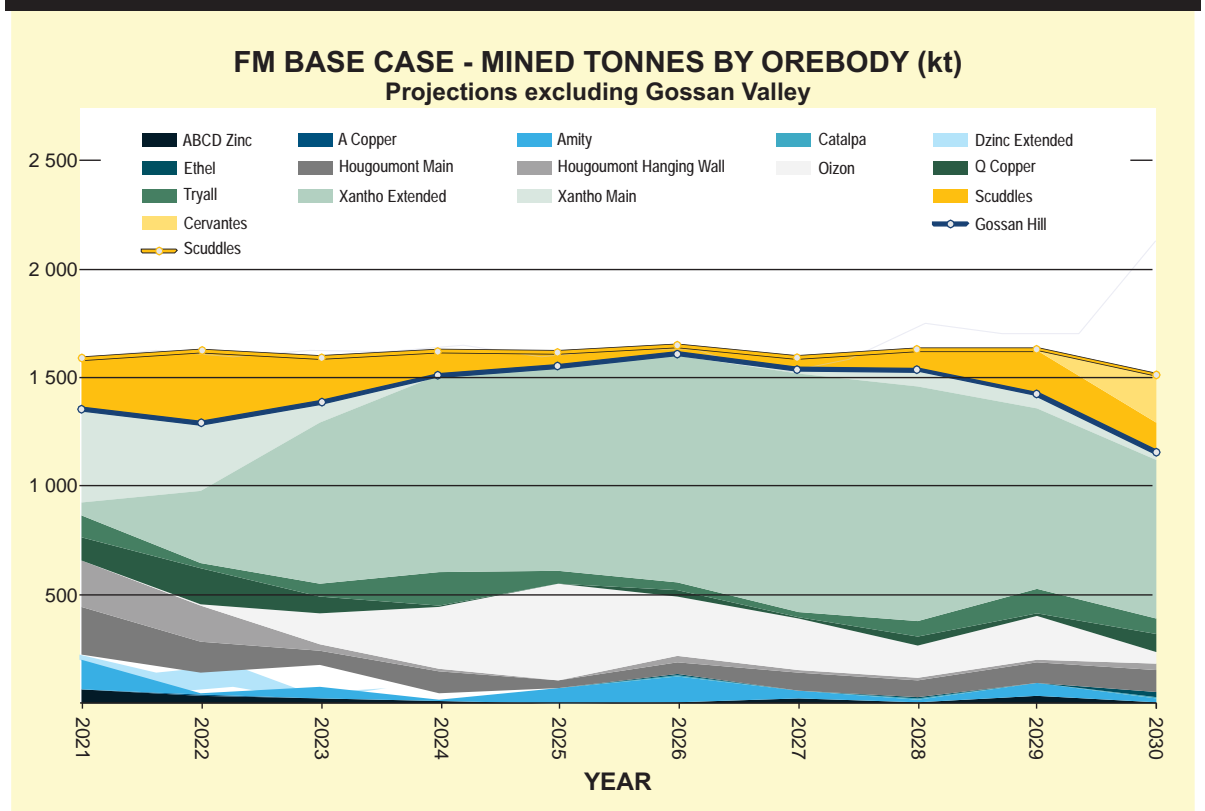
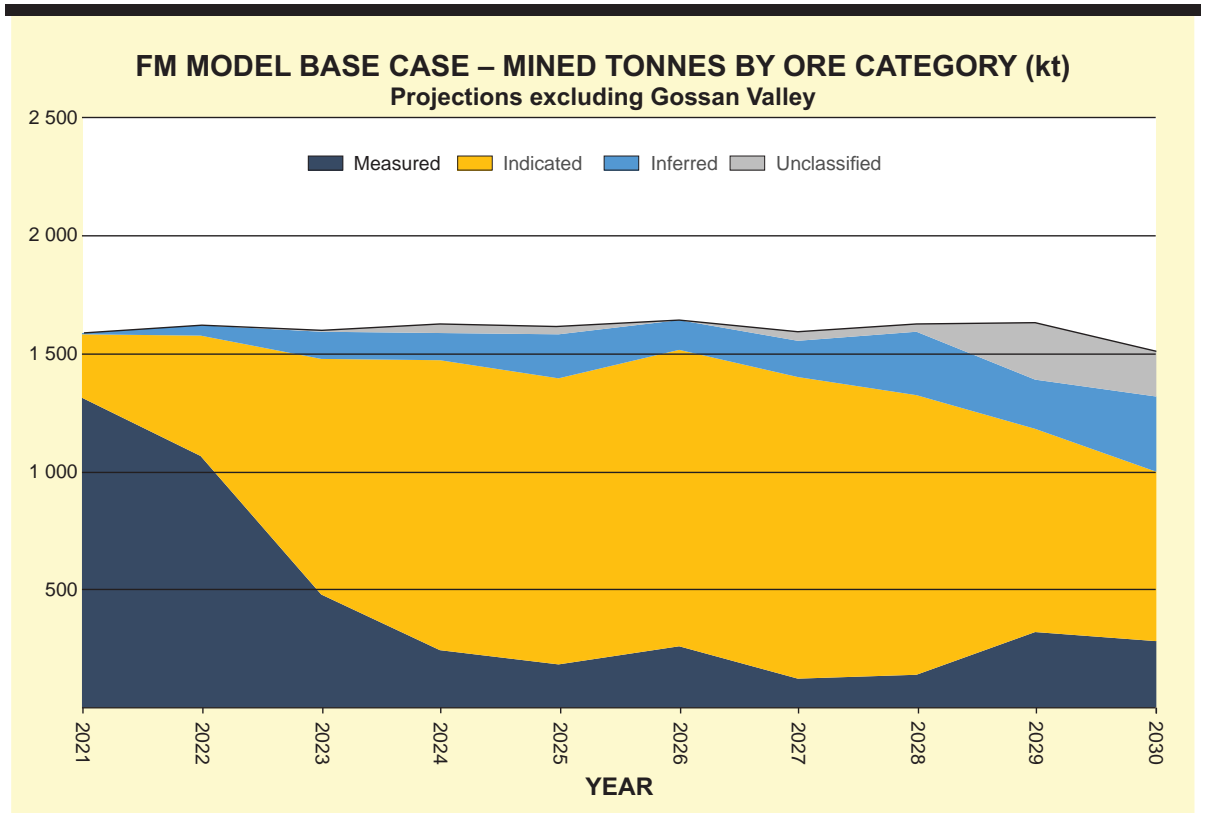


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Figure 9

PRODUCTION BAR CHARTS

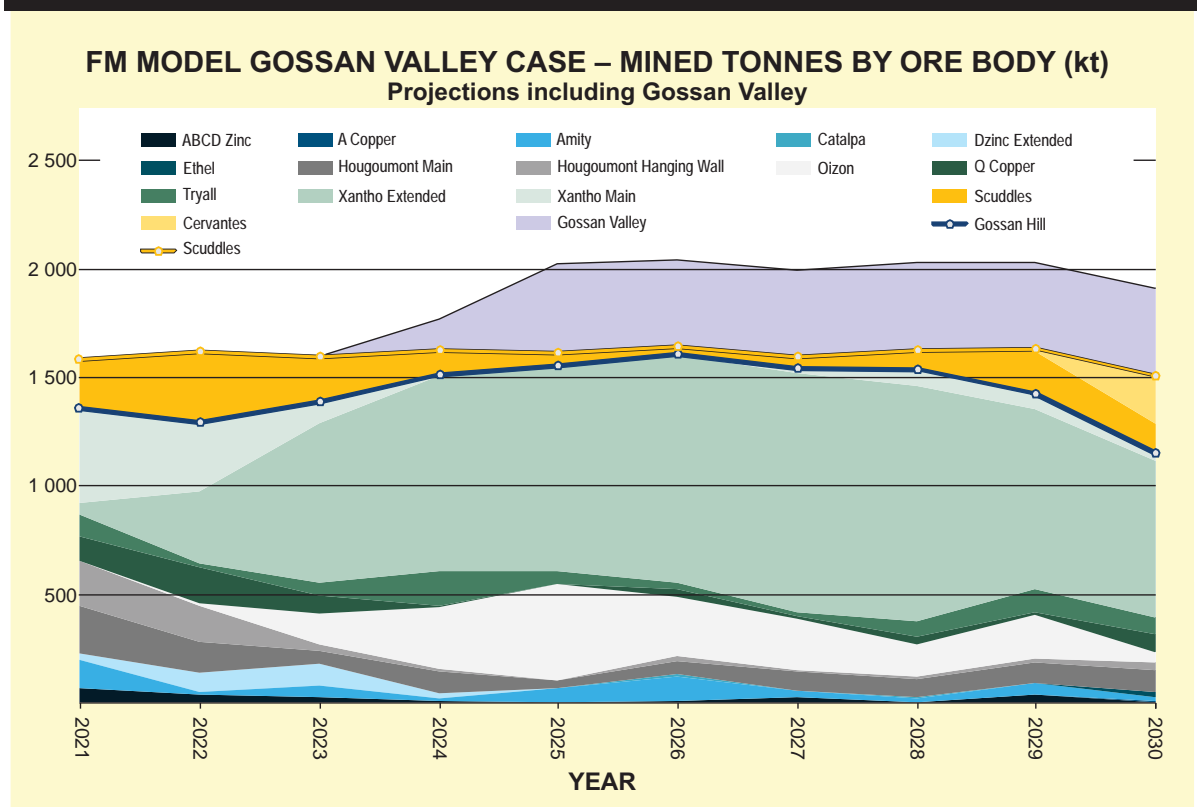
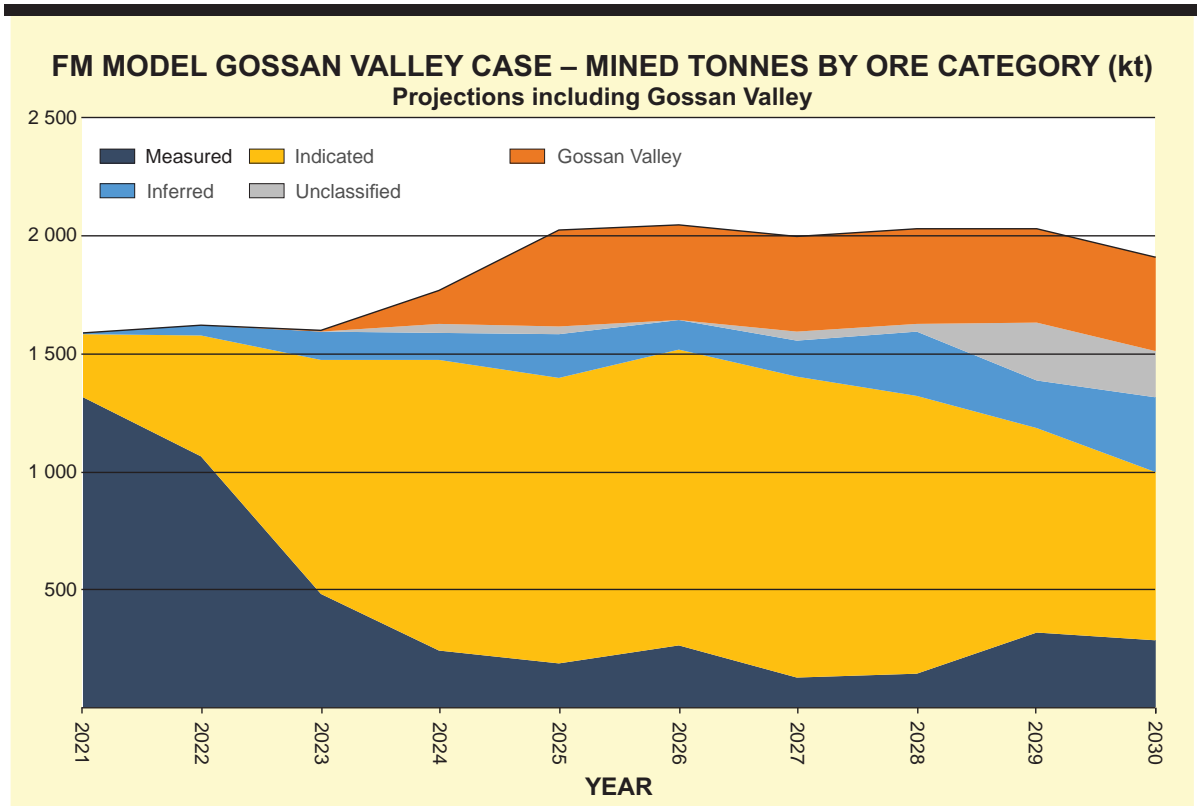


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FINANCIAL MODEL PRODUCTION BASE CASE WITHOUT GOSSAN VALLEY

Figure 10



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**FINANCIAL MODEL PRODUCTION
GOSSAN VALLEY UPSIDE CASE**

Figure 11

EMR has provided BDA with a range of estimates for the unclassified material included in the LOM plan. Estimates of unclassified material range from 0.4Mt at a grade of 3.6% Cu and 1.1% Zn to 0.8Mt at a grade of 4.4% Cu and 1.3% Zn, with a most likely tonnage of around 0.6Mt averaging 4.0% Cu and 1.2% Zn. Subsequent tables and discussions in this report are based on the most likely figures which, for unclassified material represents around 4% of the total mineral inventory.

BDA notes that there is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing and the Competent Person has determined that the level of confidence is not sufficient to classify this material as Inferred without further drilling; in terms of JORC Code classifications this material could be considered an Exploration Target. The potential tonnage and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

Around 87% of ore production for the first ten years of the FM Base Case plan is based on Measured and Indicated resources with 13% Inferred resources and unclassified mineralisation. The quantity of Inferred resources and unclassified mineralisation in the FM schedule imposes additional risks, but GGPL plans to mitigate these risks with additional advance drilling as development progresses in depth.

BDA considers the main short-term risk to mine production relates to development and stope filling rates, maintaining good ventilation and controlling stress levels in new and deeper areas. The main risks to the latter portion of the proposed mining schedule include the above risks, with increasing depth, but also relate to the definition and development of additional resources, and the development of the deep Cervantes lode at Scuddles.

Geotechnical and Hydrological Aspects

The geotechnical aspects of the mine are managed by GGPL's geotechnical engineering team within the Mine Technical Department. A Ground Control Management Plan ("GCMP") has been prepared in line with industry and State government requirements to ensure ground control is appropriately managed and mine designs are properly geotechnically assessed. As part of the day-to-day operations, the mine contractor is required to ensure ground control testing can be carried out on installed support. GGPL also has trigger action response plans ("TARP") for managing seismic events along with other ground control issues such as damaged ground support and rock falls. Management of the stope back-filling is a component of the ground control management.

All stopes and stoping sequences are designed with geotechnical inputs. Each stoping area is given an estimate of stable hydraulic radius ("HR"), based on the 'Q' values, experience with the area and numerical modelling. Detailed mapping of geotechnical domains is undertaken for each stope and the stability graph method analysis (which uses the HR and Q factors) is performed to determine stable spans. Numerical modelling is used to identify stress-related problem areas and refine extraction sequences.

With the increasing depth of the operations there is potential for increase in severity of seismic events as stress levels rise. Geotechnical assessment of proposed mine infrastructure, stope size and sequencing of the stoping are critical in managing the underground stress around stoping operations. Ground support standards used at Golden Grove reflect the level of seismic risk anticipated in the assessment with various levels of dynamic ground support used in areas below 900m in depth.

At Gossan Hill and Scuddles groundwater occurs in permeable zones in the weathered bedrock, and in fractures in the underlying fresh bedrock. The margins of the dolerite dykes at Gossan Hill are permeable to a greater depth than the surrounding country rock. Also fractured bedrock is hydraulically connected to the overlying weathered profile and the brecciated main shear that forms a distinct, deeper aquifer. Prior to development of the mine the Botryoidal Aquifer, above the orebody, was identified and modelled leading to the aquifer being dewatered through a number of surface bores. In-rush potential was further mitigated by drilling diamond drill holes through major faults and connecting the aquifer to the underground workings. Monthly monitoring by GGPL shows the aquifer is not recharging and subsequent drilling into conduit faults to the underground workings have not resulted in significantly high inflows. The faults are not considered to be high-pressure water-bearing conduits. With the mine fully developed the potential for any in-rush of water into the mine from these sources is considered low risk.

A groundwater hydrogeological investigation was undertaken by AECOM Australia Pty Ltd ("AECOM") in 2020 for the Gossan Valley PFS to obtain a characterisation of groundwater properties in the Gossan Valley area. Highly permeable zones associated with deep regional fracture systems known from Gossan Hill have not been detected at Gossan Valley, but marginal contacts of dolerite dykes can be highly fractured and yield significant short-term inflows which will require managing. AECOM has predicted water flows which have been included in the mine development plan.

Processing

The Golden Grove processing plant has operated continuously since initial commissioning in 1990. The plant currently treats ore from two mining areas, Gossan Hill and Scuddles, containing zinc, copper and lead sulphides and precious metals. The processing plant is designed to produce saleable metallic sulphide flotation concentrates, and has the capability, depending on the ore feed, to produce three principal concentrates. Whilst internal reporting refers to additional concentrate classifications for metallurgical accounting purposes, the saleable concentrate classifications are as follows:

- Copper concentrate - LPM (low precious metal) or HPM (high precious metal) content, depending on ore feed
- Zinc concentrate
- Lead HPM (high precious metal) concentrate.

The processing plant is mature, having been in operation since 1990. Incremental upgrades have been made to the flowsheet, primarily focused on the milling and flotation circuits to improve recovery and throughput. The plant is based on conventional proven technology. The operations staff have strong historical operating and technical knowledge and experience, which is of significant benefit given the complex nature of the flotation circuit.

A schematic flowsheet is shown in Figure 12. Comminution of the ore (crushing and grinding) is carried out via primary jaw crushing, secondary cone crushing, crushed ore stockpiling, two stage of grinding utilising a semi-autogenous grinding (“SAG”) mill incorporating a pebble recycle crusher, and two ball mills in parallel (a “SABC” circuit). The circuit has a total installed grinding power of 3.55 megawatts (“MW”), and additionally incorporates a centrifugal gravity concentrator, which produces a gold concentrate which is added to either the copper or lead flotation concentrate.

Ground ore slurry from the grinding circuit, at a size of 80% passing (“P80”) 106 microns (“µm”), reports to the flotation circuit for recovery of metal sulphides. The operation has historically treated copper and zinc ore types separately on a campaign basis, as the circuit did not have the ability to simultaneously treat ore feed containing a combination of copper, lead and zinc and efficiently recover the base metals and precious metals to separate concentrates.

This situation has been rectified via a sequential flotation plant upgrade (Figure 13) which effectively adds a purpose-built copper flotation circuit to the front end of the existing circuit significantly increasing flotation capacity. The sequential flotation circuit upgrades have been completed and the upgraded plant is being commissioned in early Q2 2021 on a blended ore feed, producing a copper concentrate, a lead (HPM) concentrate and a zinc concentrate.

Flotation concentrates are thickened and then filtered, with copper and lead concentrates filtered using fabric vacuum disc filters, and zinc concentrate filtered using a vertical plate (“VPA”) pressure filter.

Tailings are classified via cyclones to produce a coarse size fraction for underground backfill, with the fine size fraction reporting to the Tailings Storage Facility (TSF).

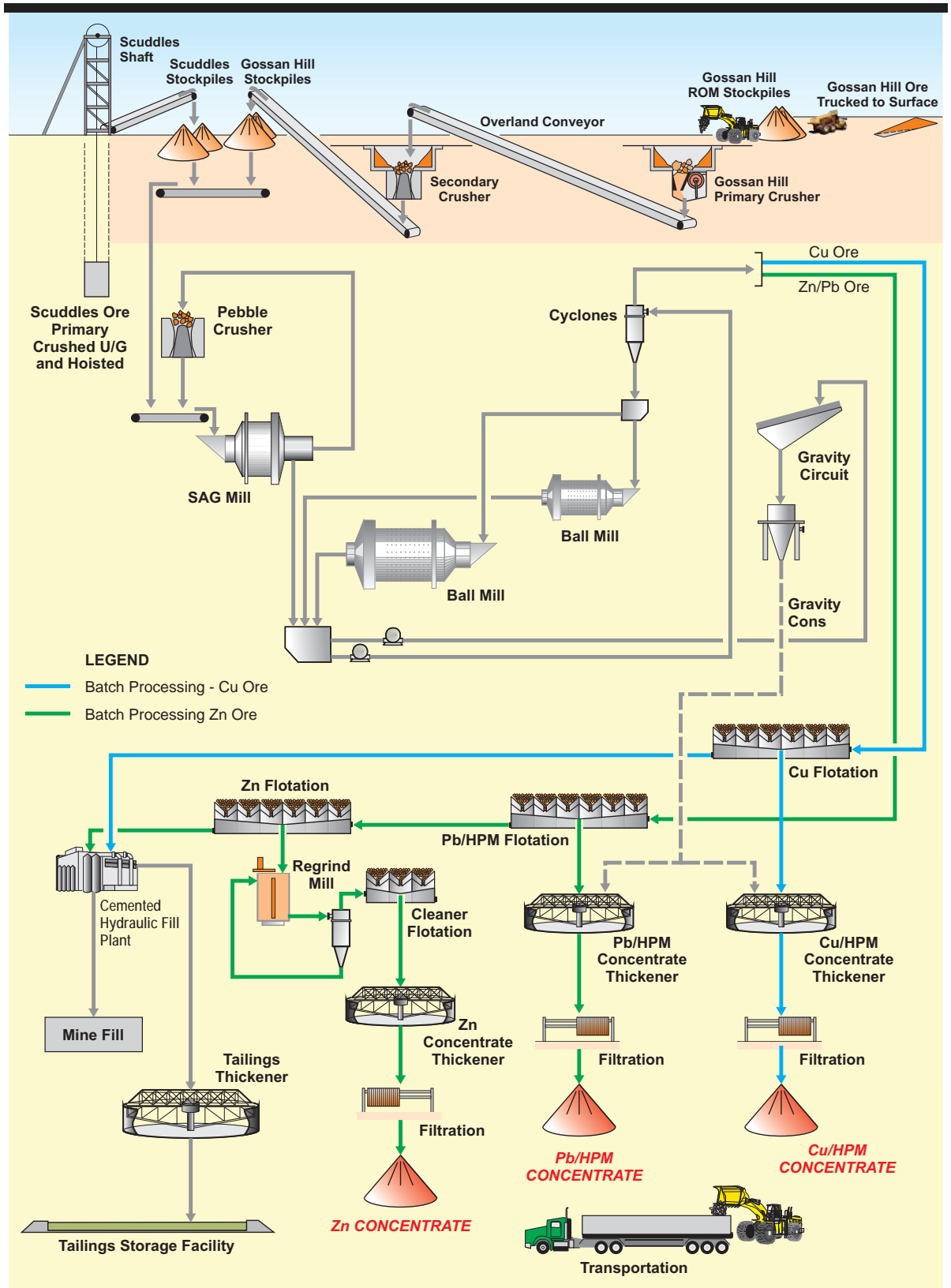
Flotation concentrates are initially stored at a site storage shed. Concentrates are loaded into kibble containers covered with lock-down tarpaulins, prior to transportation via road train to Geraldton Port, where GGPL leases a concentrate storage facility. The facility contains two load-out systems for bulk loading via conveyors, with auto-samplers utilised for concentrate assay verification.

The process plant has a capacity of approximately 1.8Mtpa, equivalent to approximately 230 tonnes per hour (“tph”) at a plant run time of 90.0%. The milled ore tonnage for 2020 totalled approximately 1.38Mt, comprising 0.31Mt of zinc ore at a grade of 7.60% Zn, 0.56Mt of zinc-copper ore at a grade of 6.8% Zn, and 0.50Mt of copper ore at a grade of 2.1% Cu.

Full year concentrate production in 2020 was 111.2kt of zinc concentrate, 94.1kt of copper (HPM and LPM), and 11.9kt of lead HPM. Total contained metal in concentrates produced was 54.5kt zinc, 19.0kt copper, 2.59kt lead, 62,672 ounces of gold, and 1,678,823 ounces silver.

The plant is reasonably equipped with process control instrumentation, operating supervisory systems, and data capture systems, which are important considerations for optimising plant throughput and flotation recovery.

The sequential flotation plant upgrade is currently under commissioning and scheduled to be fully operational in Q2 2021. It is likely that once this update is operational and typical commissioning issues are addressed, the continuous nature of the circuit, rather than the ore-type campaigning that Golden Grove has historically operated under, will yield improvements in plant throughput and metal recovery, due to the ability to stabilise and continuously run the plant and simultaneously produce copper, lead and zinc concentrate streams.

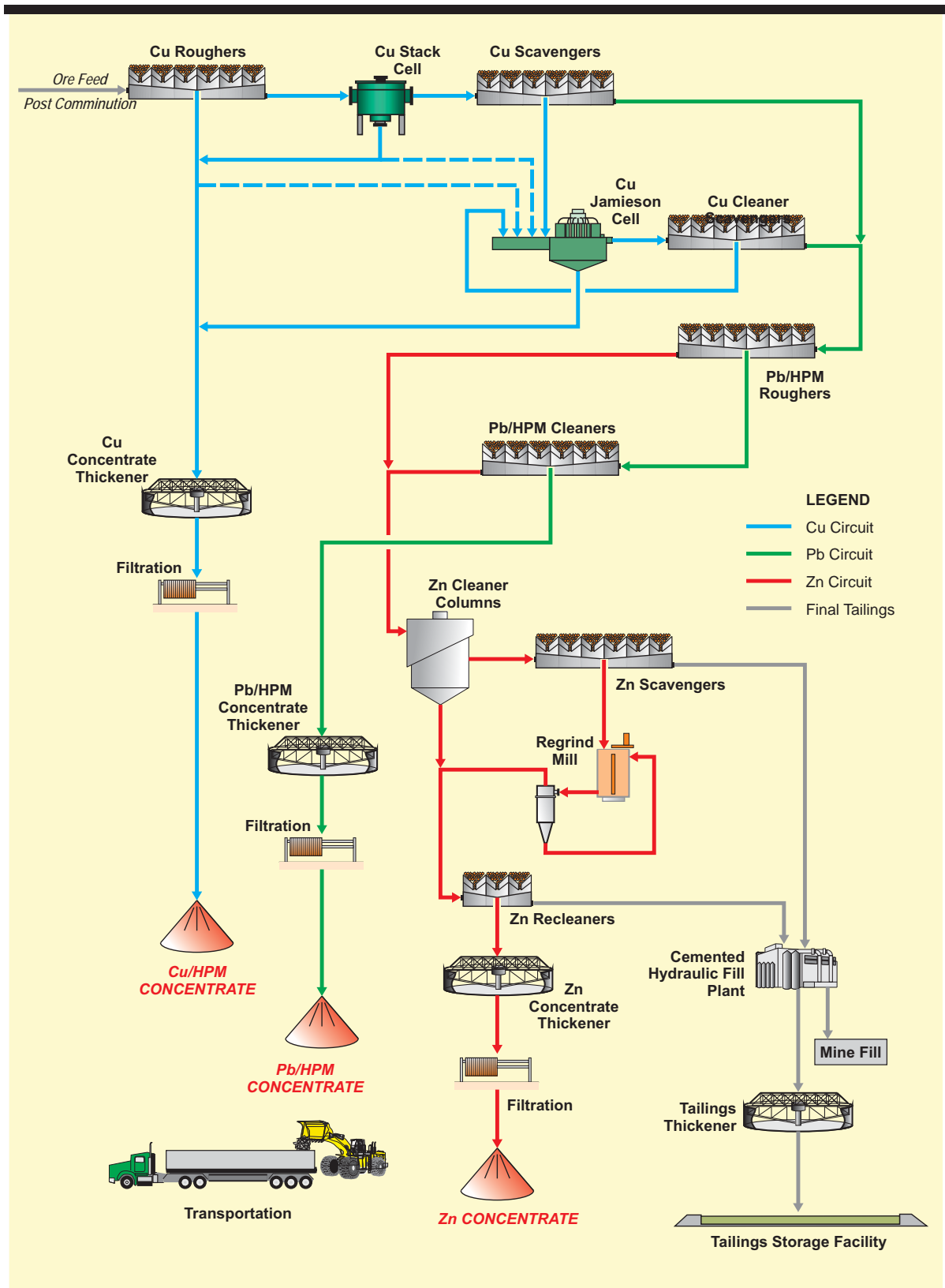


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Figure 12

CURRENT BATCH PROCESSING FLOWSHEET



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Figure 13

SIMPLIFIED UPGRADED SEQUENTIAL FLOTATION FLOWSHEET

Metal recoveries are forecast using Golden Grove forecast metal recoveries via recovery models based upon actual plant performance, using head grade, tail grade and metal ratios as model inputs. The models calculate Net Smelter Return and metal recovery for each concentrate type, including gold values reporting to concentrate. The models appear satisfactory and reflect sound methodology.

Opportunity exists for improved metal recovery and reduction in operating and capital costs via the installation of an on-site gold room for gold bullion production, and the installation of a tailings thickener.

Infrastructure

Road access to Golden Grove from Perth is either via National Highway No. 1 along the coast to Geraldton and from there inland to the site via Yalgoo, a distance of around 680km (Figure 1) or via the Great Northern Highway No. 95 inland towards Paynes Find and then on the Yalgoo-Ninghan road to site, a distance of around 580km. The route via Geraldton and Yalgoo is an all-weather sealed road, and this is the route used for export of concentrate via the port of Geraldton; the route via the Yalgoo-Ninghan road is partially on a formed gravel road which could be subject to closure following high rainfall events, though GGPL has advised that access to the site has not been interrupted by severe rainfall events in the past several years.

The site is also serviced by a sealed airstrip with daily weekday flights from Perth and generally twice-weekly flights from Geraldton.

Power supply to the site is via a transmission line from the Western Australian grid through a southern distribution centre at Three Springs. The current capacity of the supply facilities is 20.5 megawatts (MW), peak demand is around 19MW and the current average demand is around 14MW. It is planned to increase the capacity of the power supply facilities to 24MW in 2022. Backup power is supplied by three 1.15MW diesel power generators. GGPL advises that the project has not experienced any production losses attributable to incoming power outages under EMR ownership.

A site village with accommodation for around 660 personnel is located around 5km southwest of the mine-site (Figure 3). The village comprises 546 rooms in single quarters equipped with en-suite bathrooms, 21 houses with accommodation for 62 personnel and 52 rooms in single quarters with shared bathrooms to accommodate additional personnel for shutdowns. The camp is serviced by an experienced catering contractor. The project workforce is around 700; of these, the site village typically accommodates a maximum of around 440 on site at any one time.

Water supply for operations is provided by dewatering of the Gossan Hill and Scuddles mines. Potable water is sourced from water bores with the raw water treated by a reverse osmosis plant. Water demand is around 600 megalitres per annum (“MLpa”); dewatering of Gossan Hill and Scuddles produces around 840MLpa and the borefield has the capacity to provide around 190MLpa.

An overland conveyor transports ore from the Gossan Hill mine to the process plant at Scuddles. The conveyor is approximately 3km in length and is a conventional belt conveyor on trestles with a capacity of 450tph.

Other infrastructure includes site offices, warehouses and services buildings, communications systems and fuel storage.

Concentrate products are loaded into kibble containers and trucked to Geraldton in quad-trailer road trains, unloaded and stored at the Port of Geraldton and loaded onto ships at that port for export. The loading, trucking, unloading, storage and ship loading of the concentrate is carried out by contractor. The concentrate is stored at the Port of Geraldton in a shed with capacity of more than 30,000 wet metric tonnes (“wmt”) leased by EMR from the Mid-West Port Authority.

The infrastructure facilities are well established and have been in operation for many years. In BDA’s opinion the infrastructure facilities are unlikely to present any significant technical challenges.

2.4 Approvals, Permits, Health and Safety, Environmental and Social

Approvals and Permits

BDA has not undertaken legal due diligence on statutory approval or licensing issues and has relied on information provided by GGPL. However, from the statutory approval information provided, BDA is of the opinion that all necessary approvals, permits and licences are in place for the continuation of current mining operations.

BDA has completed a review of GGPL’s tenements, approvals and permits from the documentation provided by GGPL. The process for gaining variations and amendments to regulatory permits appears relatively straightforward. Relations with the local pastoral leaseholders and Widi Mob and Badimia People (considered as Traditional Owners over their Native Title Claim areas, despite having failed in their legal claim) appear to be good, and there are no known native title or heritage impediments applicable to the project site, which is located on long-term pastoral leases.

BDA can foresee no reason why any future mine development applications or variation to statutory approvals and permits would not be forthcoming.

Environment, Social, Health and Safety

BDA has reviewed those environmental aspects which are considered a material part of the project and which may have significant implications for ongoing mine operations, costs and timing, with particular reference to the TSFs and mine closure and rehabilitation estimates. The management of groundwater flows and the treatment, clarification and settlement of process water are important concerns in maintaining surface and underground water quality, particularly for surplus mine water discharged to Lake Wownaminya.

Based on the information provided by GGPL, BDA considers that the strategies for environmental protection, pollution control and environmental monitoring are appropriate, however, the project Financial Models do not appear to incorporate the latest closure cost estimates. The Environmental Management System deployed at Golden Grove provides an appropriate environmental management framework, setting out statutory obligations, policy statements, management objectives and targets and standard operating procedures. The critical water management database system for collating monitoring results and reporting is a key component of the management system. Adequate provision appears to be available for long term storage of mine waste materials in waste rock dumps and tailings storage facilities. GGPL is operating under a Health and Safety Management System, which provides a risk control framework whose overall objective is to create a Zero Harm culture.

2.5 Production

Actual production data from 2018 to 2020 and projected production data from the Financial Model schedule, are shown in Table 2.4 (file *Golden Grove Financial Model March 2021.xlsx*) and Figure 9.

Table 2.4

FM Base Case Production Schedule - Actual for 2018 to 2020 and Forecast for 2021-2030

Item	Unit	Calendar Years													Total
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Mined															
Zinc - Gossan Hill	Mt	0.68	0.83	0.75	0.74	1.03	1.22	1.12	1.22	1.44	1.38	1.34	1.16	0.84	11.49
Zinc - Scuddles	Mt	0.02	0.05	0.01	0.12	0.20	0.06	0.01	0.02	0.03	0.05	0.07	0.10	0.13	0.79
Copper - Gossan Hill	Mt	0.17	0.26	0.35	0.45	0.26	0.16	0.38	0.34	0.14	0.19	0.19	0.25	0.40	2.76
Copper - Scuddles	Mt	0.35	0.24	0.13	0.17	0.13	0.15	0.11	0.04	0.00	0.00	0.02	0.11	0.13	0.86
Gold Gossan Hill	Mt			0.21	0.05						0.003				0.053
Ore Mined Total	Mt	1.21	1.37	1.44	1.52	1.62	1.59	1.62	1.62	1.62	1.62	1.62	1.62	1.51	15.96
Development	km	7.53	8.49	7.97	9.41	9.61	10.06	10.98	9.76	10.38	9.24	6.17	3.98	4.35	83.94
Milled															
Tonnes Milled - Zn Ore*	Mt	0.72	0.60	0.31	0.69	1.15	1.05	1.02	1.05	1.21	1.16	1.05	0.91	0.83	10.12
Grade Zn	%	9.6	7.3	7.6	6.4	6.8	9.3	8.5	10.9	10.1	8.8	8.7	6.3	6.9	8.4
Tonnes Milled - Cu Ore	Mt	0.53	0.46	0.50	0.59	0.47	0.54	0.64	0.58	0.41	0.46	0.57	0.71	0.67	5.64
Grade Cu	%	2.6	2.9	2.3	2.4	2.2	2.4	2.4	2.9	2.8	3.2	3.1	3.2	3.3	2.8
Tonnes Milled - CuZn Ore	Mt	0.23	0.56	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17
Grade Cu	%	3.0	1.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Grade Zn	%		9.3	6.8	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9
Total Ore Milled	Mt	1.25	1.29	1.38	1.48	1.62	1.60	1.66	1.62	1.62	1.62	1.62	1.62	1.50	15.96
Concentrate															
Zinc Concentrate	kt	128.8	119.0	111.2	112.9	137.1	172.5	153.4	202.6	217.7	180.3	161.2	101.0	99.8	1538.5
Concentrate Grade	% Zn	50.4	48.7	49.0	49.2	50.7	51.2	51.0	51.6	51.5	51.2	51.3	50.7	50.3	51.0
Zn Recovery	%	93.7	88.7	88.1	89.3	88.8	90.6	89.8	91.8	91.3	90.7	90.8	88.8	87.8	90.3
Cu Concentrate HPM	kt		29.2	39.9	35.8	44.0	46.9	60.1	42.0	63.3	98.2	55.5	59.1	46.5	551.4
Concentrate Grade	% Cu		19.6	19.3	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9
Cu Recovery	%		81.9	81.3	84.3	79.9	81.7	83.8	81.7	84.0	88.7	84.5	85.7	81.5	84.2
Cu Concentrate LPM	kt	65.9	64.9	53.4	49.5	50.8	64.7	75.5	81.6	57.7	73.7	85.6	111.1	108.7	758.9
Concentrate Grade	% Cu	18.9	18.7	18.9	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0
Cu Recovery	%	92.0	91.2	88.8	90.5	92.1	92.5	92.8	93.4	94.0	94.0	94.0	94.0	93.8	93.3
Pb HPM Concentrate	kt	24.9	19.7	11.9	18.7	24.8	22.9	20.2	22.9	27.8	25.9	23.1	18.7	17.3	222.3
Concentrate Grade	% Pb	28.6	22.4	22.2	23.2	20.2	20.4	16.8	21.2	22.7	21.9	21.2	18.8	8.9	19.9
Pb Recovery	%	76.8	74.0	73.6	72.8	74.9	75.0	73.5	75.1	75.7	75.5	75.1	74.3	70.6	74.4
Total Concentrate	kt	219.6	232.9	216.4	216.8	256.6	306.9	309.2	349.1	366.5	378.2	325.4	289.9	272.3	3070.9
Cont. Metal in Concentrate															
Zinc	kt	64.9	57.9	54.5	55.5	69.4	88.3	78.2	104.6	112.1	92.4	82.7	51.1	50.3	784.6
Copper	kt	16.0	20.8	19.0	16.4	18.2	21.4	26.0	23.7	23.3	33.1	27.1	32.6	29.7	251.5
Lead	kt	7.2	4.5	2.6	4.4	5.0	4.7	3.4	4.9	6.3	5.7	4.9	3.5	1.5	44.3
Gold	koz	51.9	70.2	62.9	40.0	36.1	28.7	23.7	29.1	32.7	34.7	29.7	21.1	14.5	290.3
Silver	Moz	1.91	1.70	1.68	1.66	1.41	1.19	1.03	1.23	1.63	1.68	1.51	1.38	0.97	13.69

Note: 2021-2030 based on FM forecast; Totals are from 2021 to 2030; *Zn ore is strictly Zn/Pb/Cu ore and from 2021 will be treated through the sequential flotation circuit producing zinc, copper and HPM concentrates

EMR has requested that BDA focus on the FM Base Case (without Gossan Valley) and the production forecasts in Table 2.4 and Fig 9 are accordingly based on the GGPL FM Base Case model through to 2030. Production tonnes by resource category and orebody for the Base Case and Upside Case with Gossan Valley are shown in Figures 10 and 11 respectively. The Base Case to 2030 is largely based on Measured and Indicated resources, although some Inferred and unclassified material is also included. The FM schedules extend to 2035 but in BDA's opinion the schedule from 2031 to 2035 is largely conceptual.

BDA notes that there is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing and the Competent Person has determined that the level of confidence is not sufficient to classify this material as Inferred without further drilling; in terms of JORC Code classifications this material could be considered an Exploration Target. The potential tonnage and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

Ore mined in 2020 was below budget at 1.44Mt (budget 1.70Mt); production from Scuddles was impacted in 2020 by several factors including fill placement rates and latterly a prohibition order on shaft hoisting after an uncontrolled skip movement. GGPL is working with government agencies to have the prohibition on shaft hoisting lifted by Q3 2021; the 'prohibition' has now been modified to an 'Improvement Notice' which allows shaft maintenance and inspections and use as second means of egress.

The FM Base Case schedule shows a ramp up to around 1.6Mt processed per annum by 2022. In total 15 separate lodes contribute to the Base Case production schedule (excluding Gossan Valley), with six principal lodes contributing the bulk of the scheduled production; Scuddles is considered as one lode for the purpose of scheduling, apart from the deeper Cervantes lode.

The FM schedule draws on Measured and Indicated resources plus some additional Inferred resources and unclassified material over the first ten years of mine life to 2030, with nearly 90% of the tonnage coming from Measured and Indicated resources. This part of the schedule is based on the mine stope optimiser ("MSO") stope designs which provide a sound basis for the mine schedule over this period.

Overall, BDA considers that the forecast mine production from 2021 to 2030 is reasonable and achievable, but that further resource definition and detailed mine planning is required to maintain production from 2031 onwards. The FM schedule from 2031 is considered largely conceptual.

The FM Base Case projections for plant throughput at approximately 1.6Mtpa are considered achievable based on the updated sequential flotation plant configuration. The principal constraint remains annual ore supply from mining sources. There is potential to increase throughput to around 2.0Mtpa as envisaged in the Gossan Valley Case with relatively modest capital expenditure, but any increase would be dependent on increased mine production from the development of Gossan Valley.

Metal recoveries to saleable concentrates are based on established metallurgical models, with the most significant influence being metal head grade. The FM metal recovery projections are considered reasonable, and some upside may exist, dependent upon the effectiveness of the sequential flotation plant upgrade. Likewise, projected concentrate tonnages and grades are considered reasonable. Further surety would be achieved via metallurgical testwork on representative samples of future ore types designated within the LOM plan.

Production Including Gossan Valley

The March 2021 Financial Model also includes an Upside case (Table 2.5 and Figure 11) based on the development of the Gossan Valley resource, currently subject to a feasibility study scheduled for completion in Q2 2021. Production from Gossan Valley is forecast to achieve full production of 400ktpa from 2025, with overall Golden Grove project throughput ramping up to 2Mtpa. The Gossan Valley projected production is based on 2.6Mt of resources (2.1Mt of zinc ore and 0.5Mt of copper ore).

As previously noted, there is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing and in terms of JORC Code classifications this material could be considered an Exploration Target. The potential tonnage and grade of an exploration target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

The addition of Gossan Valley to the FM increases the zinc and copper in concentrates by 18% and 89% respectively. The Gossan Valley feasibility study will examine the viability and scheduling of project development,

and any decision to develop Gossan Valley will be dependent on the outcome of the feasibility study. The PFS highlighted a number of opportunities to enhance the viability of the project.

Table 2.5
FM Gossan Valley Case Production Schedule - Forecast for 2021-2030

Item	Unit	Calendar Years										Total
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Mined												
Gossan Hill	Mt	1.23	1.29	1.38	1.51	1.56	1.58	1.57	1.53	1.41	1.24	14.30
Scuddles	Mt	0.29	0.33	0.21	0.11	0.06	0.04	0.05	0.09	0.21	0.26	1.65
Gossan Valley	Mt				0.14	0.41	0.40	0.40	0.40	0.40	0.40	2.55
<i>Ore Mined Total</i>	<i>Mt</i>	<i>1.52</i>	<i>1.62</i>	<i>1.59</i>	<i>1.76</i>	<i>2.03</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>1.91</i>	<i>18.5</i>
Milled												
Tonnes Milled - Zn Ore* (Zn/Pb/Cu)	Mt	0.69	1.15	1.05	1.16	1.43	1.57	1.47	1.37	1.20	1.11	12.2
Grade Zn	%	6.4	6.8	9.3	8.4	10.1	9.4	8.5	8.3	6.9	7.4	8.3
Tonnes Milled - Cu Ore	Mt	0.59	0.47	0.54	0.64	0.60	0.45	0.55	0.65	0.82	0.79	6.1
Grade Cu	%	2.4	2.2	2.4	2.4	2.9	2.8	3.1	2.9	3.1	3.2	2.8
Tonnes Milled - CuZn Ore	Mt	0.17										0.17
Grade Cu	%	1.4										1.4
Grade Zn	%	6.9										6.9
<i>Total Ore Milled</i>	<i>Mt</i>	<i>1.48</i>	<i>1.62</i>	<i>1.60</i>	<i>1.80</i>	<i>2.03</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>1.90</i>	<i>18.51</i>
Concentrate												
<i>Total Concentrate Produced</i>	<i>kt</i>	<i>216.8</i>	<i>256.6</i>	<i>306.9</i>	<i>329.7</i>	<i>412.8</i>	<i>434.7</i>	<i>447.4</i>	<i>388.8</i>	<i>358.5</i>	<i>339.8</i>	<i>3492.0</i>
Contained Metal in Concentrate												
Zinc	kt	55.5	69.4	88.3	87.5	132.4	134.9	112.2	102.6	73.7	72.3	928.8
Copper	kt	16.4	18.2	21.4	26.3	25.4	26.3	36.5	30.4	36.7	34.1	271.7
Lead	kt	4.4	5.0	4.7	3.5	5.1	6.9	6.3	5.4	3.8	1.8	46.9
Gold	koz	40.0	36.1	28.7	24.4	33.7	36.2	37.9	33.3	24.4	17.5	312.2
Silver	Moz	1.66	1.41	1.19	1.06	1.33	1.77	1.85	1.69	1.52	1.09	14.57
Increase in Cont. Metal with GV												
Zinc	%	0	0	0	12	27	20	21	24	44	44	18
Copper	%	0	0	0	1	7	13	10	12	13	15	8

Note: 2021-2030 based on FM forecast; *Zn ore is strictly Zn/Pb/Cu ore and from 2021 will be treated through the sequential flotation circuit producing zinc, copper and HPM concentrates

2.6 Capital Costs

Total capital costs from the start of 2021 to 2030 as input to the Base Case Financial Model (*Golden Grove Financial Model March 2021.xlsm*) are A\$483.3M and comprise A\$266.4M of capitalised development cost, A\$63.2M of expansion capital, A\$128.6M of sustaining capital and A\$25.1M of exploration capital. Annual forecast expenditures are summarised in Table 2.6. The FM schedules extend to 2036 and therefore some expenditure in the latter portion of the 2021-2030 period tabulated below will relate to development designed for future production. The totals to 2030 therefore probably represent an overestimate for the stand-alone period 2021-2030.

Table 2.6
Base Case Financial Model Capital Cost Summary

Capital Category	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
	ASM	ASM	ASM	ASM	ASM	ASM	ASM	ASM	ASM	ASM	ASM
Capitalised Development	34.2	31.6	34.3	31.0	27.6	33.4	21.1	20.5	24.1	8.6	266.4
Expansion	8.4	6.6	11.8	14.3	12.5	6.6	3.0				63.2
Sustaining	16.2	16.2	14.7	8.4	12.7	8.4	12.0	15.0	15.0	10.0	128.6
Exploration	7.4			5.9	5.9	5.9					25.1
Total	66.1	54.3	60.7	59.6	58.6	54.3	36.1	35.5	39.1	18.6	483.3

Capitalised development is the cost of underground mine development estimated from the metres of development in the development schedule discussed in Section 9 applied to unit rates based on historical experience in underground development at Gossan Hill and Scuddles.

The major items of expansion capital are:

- mining expenditure for vent rise infrastructure, a paste plant, underground backfill reticulation and cooling plant No.2 at the Far North Downcast raise system
- processing expenditure for the sequential flotation upgrade and a SAG mill variable speed drive retrofit
- TSF 4 construction and an associated tailings thickener
- maintenance expenditure for a power infrastructure upgrade.

Estimates of the expansion capital have generally been prepared on the basis of quotations from suppliers and contractors and, where the works are to be carried out in-house, on the basis of historical experience.

Sustaining capital is generally expenditure of a capital nature required to allow production to continue and includes the cost of replacing and upgrading of capital items and the cost of raising the tailings dams currently in use. The estimates are based on quotations from suppliers and contractors or, where relevant, on historical experience.

Exploration capital is the budgeted costs for carrying out ongoing geological exploration and resource definition and extension drilling as described in Section 6.

Allowance is made in the financial model for the expenditure of around A\$10M in the period 2021 to 2030 for the progressive rehabilitation of the mine and associated facilities. The methodology for arriving at this estimate is described in Section 13. However, the Financial Models do not appear to incorporate the latest estimate of end of mine life closure costs of around A\$70M.

No capital costs associated with bringing Gossan Valley into production are included in the FM Base Case estimates described above. BDA notes that the Gossan Valley PFS estimates the capital costs for development of the Gossan Valley project at A\$205M. However, BDA has been unable to find any reference in the PFS Report to a project contingency allowance being included in this estimate. The Gossan Valley Financial Model shows A\$1.5M of contingency for surface infrastructure, 15% for backfill installations and 10% for the boxcut excavation. Industry standards for capital cost estimating for resource projects generally require that a significant contingency allowance, of the order of 25% of the estimate before contingency, be included in PFS capital cost estimates.

Total capital costs from the start of 2021 to 2030 as input to the Gossan Valley Case Financial Model (*Golden Grove Financial Model March 2021.xlsm*) are A\$699.1M and comprise A\$401.2M of capitalised development cost, A\$119.7M of expansion capital, A\$153.1M of sustaining capital and A\$25.1M of exploration capital, an overall increase of A\$215.8M compared with the Base Case model. Annual forecast expenditures to 2030 are summarised in Table 2.7.

Table 2.7
Gossan Valley Case Financial Model Capital Cost Summary

Capital Category	2021 ASM	2022 ASM	2023 ASM	2024 ASM	2025 ASM	2026 ASM	2027 ASM	2028 ASM	2029 ASM	2030 ASM	Total ASM
Capitalised Development	34.2	31.6	34.3	69.5	47.5	54.3	35.9	38.1	39.1	16.7	401.2
Expansion	8.4	10.1	64.8	14.3	12.5	6.6	3.0				119.7
Sustaining	16.2	16.2	14.7	20.4	16.1	11.6	14.0	16.5	16.2	11.2	153.1
Exploration	7.4			5.9	5.9	5.9					25.1
Total	66.1	57.8	113.8	110.2	82.0	78.4	52.9	54.5	55.2	27.9	699.1

BDA considers that the capital cost inputs to the financial model are generally reasonable and appropriate, being to a large extent based on historical experience. It should be noted that because they relate to an existing operation, significant flexibility in scope and timing is available to management. However, given that some of the expenditure is not to be made for a number of years, BDA suggests there are some uncertainties in the estimates of costs in future years and it would be prudent to assess the sensitivity of project finances to an increase in capital costs of 10% for expenditures beyond 2021.

2.7 Operating Costs

FM Base Case

The operating costs shown in Table 2.8 comprise the actual costs for 2018 to 2020 and forecast costs from 2021 to 2030 (file *Golden Grove Financial Model March 2021.xlsx*); the latter are based on the Financial Model prepared by GGPL without the inclusion of the Gossan Valley project.

The forecast mining costs are based on the budget costs for 2021 and include detailed costs to 2030 prepared in late 2020 with an adjustment for the first quarter reforecast in 2021. Unit mining costs based on these costs were applied to the various resource extensions in the financial model. The majority of the mining costs are based on activities undertaken by the mine contractor and rely on similar mine productivities as currently achieved. The mine contract is due for renewal in approximately one and a half years which may change some of the unit costs, but overall BDA considers forecast mining costs based on the current cost structure provides a reasonable basis for the FM costs; the recent mine operating costs have shown some increases over the last three years which are reflected in forecast costs. The changeover from CHF to paste fill is expected to significantly reduce cement costs with the cement content reducing from 7.6% to around 4%. Overall, the unit mining costs are considered reasonable to 2030.

Table 2.8
Base Case FM Operating Costs - Actual for 2018 to 2020 and Forecast 2021-2030

Item	Unit	Calendar Years													
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Physicals															
Ore Mined	Mt	1.21	1.37	1.44	1.52	1.62	1.59	1.62	1.62	1.62	1.62	1.62	1.62	1.51	15.96
Ore Milled	Mt	1.25	1.29	1.38	1.48	1.62	1.60	1.66	1.62	1.62	1.62	1.62	1.62	1.50	15.96
Payable Copper	Mlbs	29.0	43.0	39.0	34	37.14	42.75	55.80	48.91	47.85	68.54	55.89	67.64	61.60	520.12
Site Op Costs															
Mining	A\$M	129.9	167.9	188.6	204.3	196.5	195.9	207.7	199.7	202.1	193.4	178.9	169.1	161.8	1909.4
Less Cap Dev	A\$M	-22.1	-45.9	-48.0	-34.2	-31.6	-34.3	-31.0	-27.6	-33.4	-21.1	-20.5	-24.1	-8.6	-266.4
Mining Op	A\$M	107.8	122.0	140.7	170.1	164.9	161.5	176.6	172.1	168.7	172.3	158.4	144.9	153.3	1642.8
Mill	A\$M	22.0	26.4	30.3	31.7	33.2	33.4	33.3	32.6	34.2	33.8	33.3	32.5	30.1	328.1
Maintenance	A\$M	25.6	31.5	32.8	32.4	32.4	31.9	33.1	32.3	32.3	32.3	32.3	32.3	32.3	323.6
Site Serv, O/head	A\$M	20.4	21.7	23.9	26.7	23.8	23.8	24.3	24.3	24.3	24.3	24.3	24.3	24.3	244.4
Port and Transport	A\$M	9.1	10.5	10.3	11.6	12.5	14.8	15.2	16.9	17.7	18.3	15.8	14.1	13.2	150.1
Total Site Costs	A\$M	184.9	212.1	238.0	272.5	266.7	265.4	282.4	278.2	277.2	280.9	264.1	248.1	253.2	2688.7
Other Op Costs															
Corp Costs	A\$M	2.0	2.9	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Realisation Costs	A\$M	31.0	51.0	75.8	46.9	76.3	81.8	78.3	90.4	91.8	89.4	77.8	64.3	60.9	757.9
Royalty	A\$M	17.4	20.0	16.1	19.1	18.2	22.0	23.7	25.7	27.0	29.1	24.8	22.9	20.8	233.3
By-product Credit	A\$M	295.0	357.0	336.0	291.2	306.8	355.4	319.6	412.0	451.0	395.6	351.4	233.4	206.3	3322.7
Total Op Costs	A\$M	-59.7	-71.0	-2.4	47.2	54.4	13.8	64.9	-17.7	-55.1	3.8	15.4	101.9	128.6	357.2
Unit Costs A\$															
Mining (incl Cap Dev)	A\$/t mined	106.9	122.3	130.8	134.2	121.3	123.2	128.2	123.3	124.7	119.1	110.5	104.4	107.3	119.6
Mining Op	A\$/t mined	88.7	88.9	97.5	111.8	101.8	101.6	109.0	106.2	104.1	106.1	97.8	89.5	101.6	102.9
Milling (incl Mtce)	A\$/t milled	38.1	44.8	45.7	43.2	40.5	40.9	40.1	41.1	41.1	40.8	40.5	40.0	41.5	40.8
G&A/Trans/Port	A\$/t milled	23.6	24.9	24.8	25.8	22.4	24.2	23.8	25.4	25.9	26.2	24.7	23.7	25.0	24.7
Total Site Costs	A\$/t milled	148.0	164.2	172.5	183.7	164.7	166.4	170.5	171.8	171.2	173.5	163.2	153.3	168.4	168.5
Unit Costs US\$															
Cu - C1 Costs	US\$/lb	-1.90	-1.38	-0.01	0.53	0.71	-0.14	0.54	-0.65	-1.25	-0.27	-0.12	0.85	1.28	0.17
Cu - AISC	US\$/lb	-0.57	-0.20	1.43	2.12	2.01	1.07	1.36	0.34	-0.20	0.39	0.66	1.52	1.74	1.06

Note: Mining Op costs inclusive of grade control and resource drilling; totals are from 2021 to 2030; AISC = All-In Sustaining Cost; Corporate costs from 2021 have been transferred from site costs to a separate Corporate account

With increasing depth there are increased risks including ground conditions and ventilation and increased travel time to the operations which may impact productivities and hence costs. The introduction of a new paste filling system also adds some uncertainty to the mining cost estimate.

The forecast milling and maintenance operating costs reflect mill throughput and concentrate production and are generally consistent with existing and well-established unit costs and operating and reagent consumption rates. The combined milling and maintenance unit cost of approximately A\$41/t is considered reasonable, although no detailed maintenance cost breakdown has been provided for analysis.

The site service unit cost of approximately A\$25/t appears reasonable.

The port and transport costs are considered reasonable and consistent with forecast concentrate production.

The overall site operating unit costs, including concentrate haulage and port costs, are estimated at A\$169/t milled over the next ten years. The forecast C1 unit costs and the all-in sustaining cost ("AISC") are US\$0.17/lb Cu and US\$1.06/lb Cu respectively, as shown in Table 2.8, and are net of zinc, gold and silver by-product revenues. Details of the by-product revenue assumptions are given in Section 16. BDA considers it would be prudent to test a 10% sensitivity increase to all operating costs.

FM Gossan Valley Case

The operating costs shown in Table 2.9 comprise the actual costs for 2018 to 2020 and forecast costs from 2021 to 2030 (file *Golden Grove Financial Model March 2021.xlsx*) based on the Financial Model prepared by GPL with the inclusion of the Gossan Valley project, ramping up to a 2Mtpa operation.

The operating costs incorporate the Base Case costs but add the Gossan Valley operating costs for the additional 0.4Mtpa operation. The mining costs for Gossan Valley including capitalised development, are estimated at A\$122/t, slightly above the average costs for the Base Case. Mine operating costs for Gossan Valley are A\$101/t, somewhat lower than the mining costs for Gossan Hill and Scuddles due to the significantly shallower operations requiring less haulage and travel time, no cooling requirements and less expensive ground support. Note the 'Totals' (averages) in Table 2.8 comprise the combined costs of the Gossan Hill, Scuddles and Gossan Valley operations. The Processing and Site Service unit costs are lower, reflecting the impact of the additional tonnage on fixed and variable costs.

Table 2.9
Gossan Valley Case FM Operating Costs - Actual for 2018 to 2020 and Forecast 2021-2030

Item	Unit	Calendar Years													Total
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Physicals															
Ore Mined	Mt	1.21	1.37	1.44	1.52	1.62	1.59	1.76	2.03	2.02	2.02	2.02	2.02	1.91	18.51
Ore Milled	Mt	1.25	1.29	1.38	1.48	1.62	1.60	1.80	2.03	2.02	2.02	2.02	2.02	1.90	18.51
Payable Copper	Mlbs	29.0	43.0	39.0	34	37.14	42.75	56.32	52.33	54.02	75.20	62.57	76.15	70.68	561.16
Site Op Costs															
Mining	ASM	129.9	167.9	188.6	204.3	196.5	195.9	261.7	255.8	254.6	241.6	229.9	217.5	203.6	2261.4
Less Cap Dev	ASM	-22.1	-45.9	-48.0	-34.2	-31.6	-34.3	-69.5	-47.5	-54.3	-35.9	-38.1	-39.1	-16.7	-401.2
Mining Op	ASM	107.8	122.0	140.7	170.1	164.9	161.6	192.1	208.3	200.2	205.7	191.9	178.4	186.9	1860.1
Mill	ASM	22.0	26.4	30.3	31.7	33.2	33.4	34.2	35.0	36.9	36.3	35.8	34.8	32.3	343.6
Maintenance	ASM	25.6	31.5	32.8	32.4	32.4	31.9	33.1	32.3	32.3	32.3	32.3	32.3	32.3	323.6
Site Serv, O/head	ASM	20.4	21.7	23.9	26.7	23.8	23.8	24.3	24.3	24.3	24.3	24.3	24.3	24.3	244.4
Port and Transport	ASM	9.1	10.5	10.3	11.6	12.5	14.8	16.1	19.9	20.9	21.5	18.8	17.3	16.4	169.8
Total Site Costs	ASM	184.9	212.1	238.0	272.5	266.7	265.4	299.9	319.9	314.7	320.1	303.0	287.1	292.3	2941.6
Other Op Costs															
Corp Costs	ASM	2.0	2.9	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Realisation Costs	ASM	31.0	51.0	75.8	46.9	76.3	81.8	84.0	108.3	109.2	106.1	93.7	81.8	78.1	866.2
Royalty	ASM	17.4	20.0	16.1	19.1	18.2	22.0	25.0	30.3	31.5	33.3	29.1	27.8	25.8	262.1
By-product Credit	ASM	295.0	357.0	336.0	291.2	306.8	355.4	350.1	510.5	532.2	467.5	424.8	313.5	283.4	3835.4
Total Op Costs	ASM	-59.7	-71.0	-2.4	47.2	54.4	13.8	58.8	-52.1	-76.9	-8.0	1.0	83.2	112.8	234.2
Unit Costs															
Mining (incl Cap Dev)	AS/t mined	106.9	122.3	130.8	134.2	121.3	123.2	148.4	126.0	126.0	119.4	113.8	107.7	106.7	122.2
Mining Op	AS/t mined	88.7	88.9	97.5	111.8	101.8	101.6	108.9	102.6	99.1	101.7	95.0	88.3	98.0	100.5
Milling (incl Mtce)	AS/t milled	38.1	44.8	45.7	43.2	40.5	40.9	37.4	33.2	34.3	34.0	33.7	33.2	34.0	36.0
G&A/Trans/Port	AS/t milled	23.6	24.9	24.8	25.8	22.5	24.3	22.4	21.8	22.5	22.8	21.4	20.6	21.3	22.4
Total Site Costs	AS/t milled	148.0	164.2	172.5	183.7	164.7	166.4	166.5	157.7	155.9	158.6	150.1	142.2	153.6	158.9
Unit Costs US\$															
Cu - C1 Costs	US\$/lb	-1.90	-1.38	-0.01	0.53	0.71	-0.14	0.44	-1.15	-1.46	-0.40	-0.33	0.53	0.90	-0.04
Cu - AISC	US\$/lb	-0.57	-0.20	1.43	2.12	2.01	1.07	1.93	0.16	-0.15	0.41	0.65	1.33	1.45	1.03

Note: Mining Op costs inclusive of grade control and resource drilling; totals are from 2021 to 2030; AISC = All-In Sustaining Cost

The overall site operating unit costs, including concentrate haulage and port costs, are estimated at around A\$159/t milled over the next ten years. The forecast C1 unit costs and the AISC are -US\$0.04/lb Cu and US\$1.03/lb Cu respectively, as shown in Table 2.9, with significant by-product credits contributing to the low copper unit costs. BDA considers a similar approach to the cost escalation and sensitivities recommended for the Base Case would be appropriate.

2.8 Implementation of Capital Works Projects

The near-term major projects include the sequential flotation plant upgrade to be commissioned early in Q2 2021 and the raising of existing tailings dam embankments later in 2021. Studies are continuing into the feasibility of developing the Gossan Valley mine.

The sequential flotation plant upgrade project is essentially complete; the project is being managed by the EMR management team and is forecast by EMR to be commissioned and operational in the second quarter of 2021. Engineering, procurement and construction are being carried out under contracts let by the EMR management team to suitably qualified consultants, suppliers and contractors. In relation to budget and schedule, recent project monthly reports indicate that the construction and commissioning are on schedule and that the costs are close to budget (approximately A\$70k overrun on budget of around A\$12M).

GGPL has advised that the engineering, procurement and construction activities for the various tailings dam embankment raisings have proceeded generally in accordance with budget and schedule.

The Gossan Valley development project is the subject of feasibility studies and permitting activities which are forecast to be completed in the first half of 2021 to allow a decision on development to be made. It is proposed that the mine development, if approved, will be managed by the EMR management team. Detailed mine design is to be undertaken by specialised consultants and EMR will prepare, let, administer and supervise a mining contract for the development and operation of the mine.

GGPL has completed a number of expansion and upgrade projects over the life of the project and has project management and technical personnel with the necessary experience and expertise to complete the current projects and the future development of the Gossan Valley mine. BDA considers that potential capital works projects proposed by GGPL are likely to continue to be implemented successfully.

3.0 RISK SUMMARY

3.1 Project Risk Summary

When compared with many industrial and commercial operations, mining is a relatively high-risk business. Each orebody is unique. The nature of the orebody, the occurrence and grade of the ore, and its behaviour during mining and processing can never be wholly predicted. Estimations of the tonnes, grade and overall metal content of a deposit are not precise calculations but are based on interpretation and on samples from drilling which, even at close drill hole spacing, remain a very small sample of the whole orebody. There is always a potential error in the projection of drill hole data when estimating the tonnes and grade of the surrounding rock. Even with close-spaced drilling, significant variations may occur.

Mine production is subject to geotechnical and hydrological factors. Comprehensive metallurgical testwork can reduce the processing risks, but the questions of representivity and scale-up remain. Estimations of project capital and operating costs are rarely more accurate than ± 10 -15%. Mining project revenues are subject to variations in metal prices and exchange rates.

In reviewing the Golden Grove mine, BDA has considered areas where there is perceived technical risk to the operation, particularly where the risk component could materially impact the project's cashflow. BDA has also taken account of the established operation and the production history. The risk assessment is necessarily subjective and qualitative. Risk has been classified from low through to high. In Section 3.2 BDA has considered factors which may ameliorate some of these risks.

Risk Component	Comments
Geology/Resources/Reserves <i>Low/Medium Risk</i>	<p>Geological investigations have been undertaken at Golden Grove since the 1980s with production at Scuddles commencing in 1990. Data from over 15,000 drill holes has contributed to the current geological and resource modelling at Gossan Hill, Scuddles and Gossan Valley. The geology, and controls to mineralisation, although complex, are well defined and understood.</p> <p>The data collection processes and procedures are comprehensive, well organised and managed by GGPL's experienced Mine Geology Department team. QA/QC protocols are in accordance with industry standards and the database has been reviewed independently by resource consultant CS2 whose latest report indicated no material issues. The database is considered reasonable and appropriate for resource estimation.</p> <p>GGPL has developed a standardised approach to resource modelling and grade estimation for each of the current 13 separate resource models. Modelling of resource domains benefits from using the latest modelling software and techniques. Resources are defined and reported using net smelter return (NSR) dollar per tonne cut off values. BDA considers the resource methodology and procedures are appropriate for the style of deposits, and the resource categorisation appears generally reasonable and consistent with JORC standards.</p> <p>The risk attached to the resource estimates is reduced by incorporation of data from close-spaced diamond drilling (15 x 15m) in the resource models rather than a more conventional approach of controlling mining operations using additional grade control data gathered after completion of resource/reserve estimation but prior to actual mining. GGPL's approach requires extensive underground drilling and regular updates of the resource models. All resource estimates are peer reviewed internally and reviewed independently by CS2.</p> <p>Stope designs and optimisation for Ore Reserves are determined by applying haulage and development costs for each orebody to ensure each stope NSR value is higher than the NSR cut-off value (COV). NSR stope values are based on lower metal prices than those applied to resources; mining recovery and dilution factors applied to each stope are based on GGPL's extensive historical mining record.</p> <p>Some Inferred resources and unclassified material (Exploration Targets) are included in the long-term FM and LOM forecasts, however, the proportion is relatively modest for the next 10 years and this risk is progressively minimised with the infill definition drilling and annual update of resource and reserve models.</p> <p>The approach to resource and reserve estimation has resulted in satisfactory annual mine reconciliations in recent years. Reconciliation of the Ore Mined Claimed against the Reconciled Ore Milled for total contained metals for the period January 2017 to December 2020 show that the primary zinc and copper contained metal forecasts based on the MRE models are slightly conservative, with mill reported actual figures around 5% higher than forecast.</p>

Risk Component	Comments
Mining <i>Medium Risk</i>	<p>The mining operation is well established with the mine contractor (BAPL) appropriately equipped and staffed to meet the requirements of the contract. GGPL has a sound technical services team supported by consultants, although there is some issue with filling current vacancies.</p> <p>There are a number of risks typically associated with underground operations but at Golden Grove there is some mitigation of production risk from having a number of mining locations and production stopes and drawpoints.</p> <p>With the deepening of mining activity there is increasing potential for seismicity to impact on the stoping operation and the mine infrastructure, however, the ongoing monitoring, geotechnical modelling and geotechnical assessment mitigate the risks. Ground conditions are managed appropriately, but always represent a risk area to underground mining. Ground support is installed on the basis of rock mass rating and seismicity rating.</p> <p>Mine production is dependent on the cemented hydraulic fill plant delivering fill as required; the proposal to convert to paste fill will provide a better product but there may be some initial loss in productivity as experience is gained with the new fill product and its characteristics, although the separate fill system provides capacity to commission the paste infrastructure without loss of CHF capacity.</p> <p>Mining conditions within the Gossan Valley deposit, from the geotechnical assessment to date indicates the conditions will be generally good. More detailed assessment of the key underground infrastructure is planned. Stope sizes are considered reasonable and in line with Gossan Hill.</p> <p>The FM plan requires sustained ongoing development to facilitate achievement of ore production targets; current rates are generally in line with forecast and in recent months development advance has exceeded forecasts.</p> <p>While planned production rates have been achieved at times at both Gossan Hill and Scuddles, overall production has fallen short of planned rates. Development and stope filling are important areas that need to meet targets for planned production to be achieved.</p>
Processing <i>Low/Medium Risk</i>	<p>The processing plant, whilst relatively complex, is well established and technically well understood by the operations personnel. Much of the existing plant however is 20 years old, and plant infrastructure and installed equipment condition deteriorated as mine production waned in the period 2014 – 2017, due to perceived limited mine life and hence a reduction in sustaining capital expenditure. A structural corrosion condition assessment completed in March 2019 by ALS identified significant deterioration in plant condition, with 138 items requiring immediate or short-term rectification; GGPL has embarked upon a programme of rectification works, which appears well advanced in restoring plant condition to a reasonable level.</p> <p>The processing plant does not have a tailings thickener, resulting in relatively low-density tailings deposition. Further, the tailings are subject to cyclone classification prior to deposition, with the coarse fraction reporting as underground mine backfill feed, and the fine fraction reporting as final tailings discharge to the Tailings Storage Facility. This results in lower consolidated tailings density, and a higher TSF stability risk, due to the water content of the tailings and the removal of the coarse size fraction; however, annual independent audits (latest by Wood, November 2020) have generally reported satisfactory operations and monitoring and no new seepage points.</p> <p>Whilst the typical metallurgy of the orebody is well understood by the operation, there is no programme in place to systematically evaluate metallurgical performance of future ore types within the deposit.</p> <p>Processing plant throughput rates have trended downwards in recent years. Whilst lower mine production was the primary cause of lower run times in 2016 and 2017, run time has not returned to previously typical levels of approximately 90%, with mean run time during the period 2018-2020 being approximately 86%. Downtime analysis shows that this is predominantly comprised of planned maintenance shutdown activities.</p>

Risk Component	Comments
Infrastructure, Services and Utilities <i>Low Risk</i>	<p>The project is adequately serviced with necessary infrastructure.</p> <p>The shorter road access route to site from Perth along the Great Northern Highway and then along the Ninghan-Yalgoo road includes a gravel section which can be subject to closure following high rainfall events, resulting in some access risk, though BDA notes that site inventory levels of critical consumables can be set to mitigate site access issues and alternative access is available via Geraldton. Export of concentrates is via the sealed road to Yalgoo and the Geraldton port.</p> <p>Power is supplied to the operation via a high voltage transmission line from the WA grid; the supply has proved to be reliable.</p> <p>Water is supplied to the project from water inflows to the underground mines supplemented by a nearby borefield. The water balance and historical experience indicates that the sources of supply are significantly greater than the water demand. The risk of a shortfall in supply is considered low.</p> <p>Accommodation on site is provided in a 600-person camp located round 5km from the mine site and serviced by an experienced catering contractor. The project workforce is around 700, but of these only around 450 are on site at any one time.</p> <p>Overall, the infrastructure, services and utilities risk is considered low.</p>
Tenements, Approvals and Permits <i>Low/Medium Risk</i>	<p>BDA has not undertaken a title search or legal due diligence on the status of the tenements or regulatory approvals held by GGPL. GGPL has advised BDA that there are no material tenement or title issues relating to any of GGPL's mineral tenement assets.</p> <p>From the statutory approval, permit and licence information provided by GGPL, BDA is of the opinion that all necessary approvals, permits and licences are in place for the continuation of GGPL's current mining operations.</p> <p>The site has a 30-year history with associated environmental rehabilitation and environmental management obligations which have been successfully managed.</p> <p>Overall, the Western Australian government approvals process for gaining variations and amendments to various regulatory approvals and permits appears relatively straightforward and the approvals achieved since GGPL ownership appear appropriate for the ongoing mining operations. BDA can foresee no reason why any future mine development approval applications or variations would not be forthcoming.</p>
Environmental Issues <i>Low/Medium Risk</i>	<p>BDA considers that the environmental management and monitoring programmes are appropriate for the location, nature and scale of the project.</p> <p>The management of groundwater flows and the treatment, clarification and settlement of excess water discharges have been important concerns in maintaining surface and groundwater quality, particularly for surplus mine water discharged to Lake Wownamina. Statutory environmental monitoring programmes are being undertaken and appropriate mitigation measures are in place to reduce potential environmental impacts.</p> <p>Independent estimates have been made of mine closure costs, but these costs do not appear to be fully incorporated in the financial modelling.</p> <p>BDA considers that the risks associated with the potential for off-site water contamination via site run-off, waste rock leachate seepage, or tailings dam seepage, are low/medium risk, with the appropriate monitoring and mitigation measures in-place.</p>
Occupational Health and Safety <i>Low Risk</i>	<p>GGPL is operating under a Health and Safety Management System, which provides a risk control framework whose overall objective is to create a Zero Harm culture, focusing on the need to identify and effectively manage high risk activities on site.</p>
Community Issues <i>Low Risk</i>	<p>Mining is an accepted part of the district's history, bringing employment opportunities to the local population and significant revenue to the government through state royalties and taxation. GGPL is committed to maintaining good relationships with stakeholders and has committed to working with the Aboriginal Traditional Owners to protect heritage values present within and on the land on which the mine site is located.</p>

Risk Component	Comments
Production Forecast <i>Medium Risk to 2030</i> <i>High Risk beyond 2030</i>	<p>The targeted mine production rates are considered medium risk for the first ten years of the FM production schedule. An increase in mining productivity is required to consistently achieve the proposed 1.6Mtpa production rate. There is some uncertainty in establishing the required rates at both Scuddles and Gossan Hill. Around 10% of production comes from Inferred and unclassified mineralisation within this period, but allowance has been made for definition drilling to upgrade confidence in these areas prior to mining.</p> <p>EMR advises that the three-year production plan for the Cervantes orebody from 1470-1950m depth will be addressed in future updates and optimisations following further delineation and extension drilling, with potential to bring forward Cervantes development and production. BDA considers that the FM schedule beyond 2030 is conceptual and is only intended as a guide to the potential.</p> <p>The processing forecasts and schedules appear reasonable and achievable. Projected recoveries have been based on established metallurgical models, however, some residual risk remains due to the lack of metallurgical testwork on samples representative of the future, generally deeper, ore sources. This risk would be mitigated by implementing a metallurgical testwork programme, incorporating locked cycle flotation testwork, in order to calibrate the existing metallurgical models with the future ore types.</p> <p>The Financial Model assumes no penalties for concentrate shipments, despite a history of such penalties being incurred in the period 2017-2020, principally involving the zinc concentrate.</p>
Capital Costs <i>Low/Medium Risk</i>	<p>Estimates of expansion capital are based on quotations from suppliers and contractors; estimates of sustaining capital are generally based on historical costs and data and methodology which BDA considers appropriate for budgeting for an operating mining project.</p> <p>The major mining capital items relate to the development of new areas of the underground workings along with paste fill, ventilation and cooling upgrades. The development costs are reasonably well defined by the mine contractor unit rates and budget and historical expenditures relating to sustaining and upgrade capital. Overall, the mining capital costs are considered relatively low risk.</p> <p>The major processing capital items include completion of the sequential flotation upgrade and installation of a tailings thickener. Additional tailings storage capacity is being constructed and further raisings are also planned. The sequential flotation upgrade is nearing completion. Feasibility studies are being undertaken into future additional tailings storage options. Estimates of mine closure costs do not appear to be fully incorporated in the financial modelling.</p> <p>BDA considers that some of the future capital expenditure items are subject to medium risk and that it would be prudent to test the sensitivity impact of a 10% increase in the capital cost estimates.</p>

Risk Component	Comments
Operating Costs <i>Low/Medium Risk to 2030</i> <i>High Risk beyond 2030</i>	<p>The mine operating costs have been prepared on the basis of the current mining contract and the recent historical technical and service costs. The FM mining costs assume achieving steady state at 1.6Mtpa from Gossan Hill and Scuddles; there is potential for increased unit costs if production targets are not achieved.</p> <p>Forecast processing and maintenance costs are consistent with 2019 and 2020 production years, however the maintenance costs are only provided as a single line item in the financial model, so detailed analysis is not possible.</p> <p>No allowance has been made in the Financial Model for concentrate treatment penalties, despite a history of such penalties having been incurred in the period 2017-2020, and with an increasing frequency in 2020.</p>
Implementation of Capital Works <i>Low/Medium Risk</i>	<p>GGPL has completed a number of expansion and upgrade projects over the life of the mine and has project management and technical personnel with the necessary experience and expertise to complete the current projects and, if approved, the future development of the Gossan Valley mine. However, all capital works projects in remote locations involve some risk of cost and schedule overruns.</p>

3.2 Risk Mitigation Factors

There are a number of factors which combine to reduce some of the identified risks. Principal amongst these are:

- The Golden Grove area has a long mining history, and the geology and mineralisation controls are well defined and understood.
- The deposits are systematically and progressively drilled out, with drill coverage of at least 15 x 15m spaced drill holes used to define Measured resources. Resource models are regularly updated, and this results in the planned mining stopes for each successive 12-month period containing generally only Proved reserves.
- The mining schedule is based on ore production being derived from several ore sources, giving some flexibility to maintain overall target levels should one area experience production delays.
- The underground mines at Gold Grove have been in operation for many years providing significant experience in the working conditions.
- Mine production and development operations are undertaken by an experienced Mine Contractor, BAPL, who has generally achieved targeted levels; the contract has been extended 18 months from March 2021.
- The extensive processing operating experience, including historical technical data and improvements, has the operation well placed to manage the process and further optimise throughput and metal recovery.
- Metal recoveries are forecast using Golden Grove recovery models based on actual plant performance, using head grade, tail grade and metal ratios as model inputs. The models calculate Net Smelter Return and metal recovery for each concentrate type, including gold value reporting to concentrate. The models appear satisfactory and reflect sound methodology.
- To address plant infrastructure and installed equipment condition deterioration, GGPL has instigated several corrosion and plant condition audits, and has, since 2019, embarked upon a programme of rectification works which appears well advanced in restoring plant condition to reasonable levels.
- The sequential flotation circuit upgrade has the potential to improve existing plant throughput and metal recovery, due to increased plant runtime and more stable circuit operation.
- Use of grid power via high voltage transmission lines has proved reliable and reduces the risk of power shortages due to reduced road access and interruptions to diesel supply following high-rainfall events for an on-site power station.
- GGPL has a relatively small ongoing capital requirement other than regular mine development capital and has experience in completing mining and processing capital development projects comparable to those included in the budget and LOM plan. The risks of significant overruns in capital costs are considered relatively low. Quotations for major expansion costs and a data base of historical costs are in place providing relative comfort for many of the major capital cost items.
- GGPL has the required environmental approvals, licences and permits and adequate waste and tailing storage facilities necessary for its continuing operations.

- The Environmental Management System provides an appropriate environmental management framework; adequate provision appears to be available for long term storage of mine waste materials in waste rock dumps and tailings storage facilities.
- GGPL has implemented health, safety and environment measures which have resulted in significant improvements in safety and safety statistics in recent years.

4.0 SOURCES OF INFORMATION

For the purposes of this report, BDA undertook a site visit to the Golden Grove mine in February 2021. Discussions were held with technical and management staff in EMR's Melbourne office and on site. Resource and reserve estimates, mining schedules, processing and operations reports and forecasts, tailings disposal plans and environmental and social issues have been reviewed. The principal technical reports and documents reviewed are listed below:

4.1 Reference Material

Annual and Monthly Reports

- Annual Exploration Reports 2017-2019 - EMR Golden Grove
- Geology Monthly Reports - EMR Golden Grove
- Golden Grove Operations Monthly Reports, 2017-2021 – EMR Golden Grove
- EMR Golden Grove Annual Environmental Report to DWER and DMIRS – EMR Golden Grove

Technical Reports

- Golden Grove Flowsheet - 2012
- EMR Golden Grove Report on a site avoidance survey with Widi Mob Traditional Owners - Terra Rosa Consulting, November 2017
- EMR Golden Grove Legal and Obligations Register - EMR, Rev. November 2017
- Review of Dynamic Support Requirements at Golden Grove, EMR, December 2017
- Xantho Extended PFS - Mining Plus Pty Ltd, April 2018
- Golden Grove Underground Ventilation Officer Manual – EMR, June 2019
- Golden Grove Tenement Report & Schedule - EMR, January 2019
- Golden Grove Daily Water and Weather Monitoring - EMR, January 2019
- Golden Grove Tenement Review Report 2019 - Hetherington Mining Title Services Pty Ltd, January 2019
- Structural Corrosion Condition Assessment - Structures of EMR Golden Grove Mine - ALS, March 2019
- Golden Grove TSF Geotechnical Audit Report November 2017 - October 2018 - ATC Williams, May 2019
- Golden Grove Ground Control Management Plan - EMR, May 2019
- Golden Grove Gossan Hill Primary Ventilation Survey Report - EMR, June 2019
- Golden Grove Scuddles Primary Ventilation Survey Report - EMR June 2019
- Golden Grove Reconciliation Process - Colin Moorhead and Associates, August 2019
- Gossan Valley Prefeasibility Study Geology Section - EMR Golden Grove, September 2019
- EMR Golden Grove TSF 3 Raise 4, Mining Proposal - EMR, October 2019
- EMR Golden Grove TSF 3 Raise 4, Supporting Documentation - EMR, October 2019
- Golden Grove Ventilation Study - AMC Consulting, October 2019
- Golden Grove Proposed Paste Fill Process - Outotec, October 2019
- EMR Golden Grove Mine Rehabilitation Fund Report to DMIRS July 2018 to June 2019 - EMR, 2019
- Golden Grove Tenement Obligation Report 2019 (Updated) spreadsheet - EMR, 2019
- Geology Summary for Gossan Hill and Scuddles Deposits - EMR Golden Grove, 2019
- Golden Grove 2019 Ore Reserve Estimate - EMR Golden Grove, February 2020
- EMR Golden Grove Annual Environmental Report 2019 - EMR, March 2020
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5.0 GOLDEN GROVE MINE

5.1 Location, Topography and Climate

Location

The Golden Grove mine is located 480km north of Perth, 250km east of Geraldton and 50km south of Yalgoo in the Murchison region of WA. Access is via a sealed road from Geraldton to Yalgoo and thence to Golden Grove, or from Perth towards Paynes Find on the Great Northern Highway and thence by the Ninghan-Yalgoo gravel road to the mine site.

The site is serviced by daily weekday flights from Perth to the sealed site airstrip, and from Geraldton, typically twice weekly.

The mine area topography is relatively flat. The vegetation and topography have been impacted by historic exploration and mining activities undertaken over time and the vegetation has also been subject to grazing. The area is sparsely populated, with the main non-mining activities in the region being rural production in the form of limited beef and wool production.

The area is semi-arid, with annual rainfall of less than 300mm and evaporation of around 3000mm. Average temperatures range between a maximum of 40°C in summer to a minimum of 4°C in winter.

5.2 Ownership

Ownership

The project is owned by EMR Golden Grove Pty Ltd (GGPL) which is 100% owned by EMR Capital (EMR) via other wholly-owned subsidiaries. GGPL holds 17 granted Mining Leases (MLs) covering a total area of 129km² (Figure 2) and various General Purpose Leases and Miscellaneous Leases.

The Golden Grove tenements lie within a number of pastoral leases (Muralgarra, Badja, Bunnawarra, and Thundellara) and Unallocated Crown Land (formerly known as Warriedar). The pastoral leases are currently not stocked.

5.3 History

Mineralisation at Gossan Hill was discovered in 1971 following exploration by Aztec Mining in joint venture with AMAX Mining. The first Mining Lease was granted in 1983 and development of the Scuddles underground mine commenced in 1988 with first production in 1990. The project was acquired by Normandy Poseidon in 1991. Underground development continued, including development at Gossan Hill, with first production from Gossan Hill in 1997. In 2003 the project was acquired by Oxiana Limited (Oxiana), and following the merger of Oxiana and Zinifex Limited (Zinifex) in 2008 to form Oz Minerals Ltd (Oz Minerals), ownership transferred to Oz Minerals. In 2009 China Minmetals Corporation (CMC) purchased the project from Oz Minerals, operating the project through its subsidiary MMG Limited (MMG).

Production scaled up with the mining of open pit oxide copper and gold mineralisation at Gossan Hill and Scuddles, but by 2016 production was scaled back to less than 1Mtpa with depletion of the open pit reserves.

EMR acquired the Golden Grove operations in March 2017. Exploration and resource drilling increased the resource and reserve base and throughput was increased from around 0.9Mtpa to 1.2Mtpa in 2018 and 1.4Mtpa by 2020. In 2017 a gravity gold circuit was installed resulting in increased gold recovery and in 2019 a secondary crusher was installed on the Gossan Hill feed to facilitate increased plant throughput.

A Scoping Study and PFS have been completed on the Gossan Valley prospect to the south of Gossan Hill, indicating the potential to open up a third mining area.

The operation currently consists of the Scuddles and Gossan Hill underground mines, a processing plant at Scuddles, Tailings Storage Facilities (TSFs), waste rock dumps, warehouses, workshops, an airstrip and accommodation village (Figure 3). Various open pits have also been operated during the mine's history.

The Scuddles mine is accessed by decline with underground crushing and a shaft for ore hoisting. The Gossan Hill underground mine is accessed by decline, which is also used for trucking ore to the Gossan Hill run-of-mine ("ROM") stockpile, where the ore is primary crushed and then transported via a surface conveyor to the Scuddles plant site where it is secondary crushed and conveyed to the crushed ore stockpile.

Production from the Golden Grove operation in 2020 from 1.38Mt of underground ore totalled approximately 55kt of contained zinc, 19kt of contained copper, and 63koz of contained gold. The revenue contribution was approximately 30% zinc, 30% copper and 30% gold with silver and minor lead accounting for the balance.

EMR's plans for 2021 and beyond include installation of triple sequential flotation to increase recovery, operational flexibility and concentrate quality. It is also planned to complete the Gossan Valley Feasibility Study and make a decision on project development, potentially leading to an increase in throughput to 2Mtpa by 2025.

5.4 Tenements and Land Ownership

Tenements held by GGPL

The Golden Grove tenements cover an area of approximately 13,113 hectares ("ha") and consist of seventeen almost continuous blocks held as Mining Leases, extending for 36km along a NNW-SSE strike, over a width of up to 7km (Figure 2), covering the main prospective formations. The project's current footprint is approximately 926ha with some 626ha disturbed and 264ha currently under rehabilitation.

The current mining and exploration tenements held by GGPL as at January 2021 are shown in Table 5.1 and Figure 2. BDA has not undertaken legal due diligence on the tenement status, but has been advised by GGPL that all relevant project tenements are in good standing.

Table 5.1
EMR Golden Grove Pty Ltd held Tenements - February 2021

Tenement	Date Granted	Expiry Date	Area (ha)	Term (Years)	Purpose
M 59/03	09/12/1983	08/12/2025	449.55	21	Scuddles Mine , Process Plant, TSF2,
M 59/88	19/05/1988	18/05/2030	933.15	21	Exploration
M 59/89	19/05/1988	18/05/2030	960.45	21	Exploration
M 59/90	19/05/1988	18/05/2030	977.05	21	Borrow Pit, TSF1, TSF3, Evap. Ponds A, B, C
M 59/91	19/05/1988	18/05/2030	737.60	21	Exploration
M 59/92	19/05/1988	18/05/2030	839.85	21	Gossan Valley , Exploration
M 59/93	19/05/1988	18/05/2030	959.85	21	Exploration
M 59/94	19/05/1988	18/05/2030	960.05	21	Exploration
M 59/95	19/05/1988	18/05/2030	319.05	21	Exploration
M 59/143	10/05/1989	09/05/2031	480.00	21	Exploration
M 59/195	18/05/1990	17/05/2032	687.45	21	Gossan Hill Mine
M 59/227	08/05/1991	07/05/2033	999.85	21	TSF2, Burrow pit, Landfill
M 59/361	02/03/1995	01/03/2037	759.70	21	Exploration
M 59/362	02/03/1995	01/03/2037	958.30	21	Mining village accommodation
M 59/363	02/03/1995	01/03/2037	722.65	21	Exploration
M59/480	02/07/2008	01/07/2029	405.00	21	Mining and/or exploration
M 59/543	05/02/2002	04/02/2023	766.00	21	Mining and/or exploration
G 59/19	06/06/1989	05/06/2031	9.00	21	Mining village accommodation
G 59/20	06/06/1989	05/06/2031	9.77	21	As above
G 59/21	06/06/1989	05/06/2031	9.75	21	As above
G 59/22	06/06/1989	05/06/2031	9.75	21	As above
G 59/23	06/06/1989	05/06/2031	9.75	21	As above
G 59/24	26/07/1990	25/07/2032	2.126	21	As above
L 59/22	29/22/1988	28/11/2023	25.50	5	GG Airstrip
L 59/26	27/11/1989	26/11/2024	30.6	5	Road, pipeline, powerline
L 59/28	22/02/1990	26/02/2025	0.049	5	As above
L 59/29	27/02/1990	26/02/2025	23.38	5	As above
L 59/34	27/01/1994	26/01/2024	23.00	5	Water, bore, pipeline
L 59/41	31/10/1996	30/10/2021	25.45	5	Pipeline, road

Notes: M denotes Mining Lease, G denotes General Purpose Lease, L denotes Miscellaneous Lease; of the 29 mining tenements owned by GGPL, 23 are affected by a registered native title claim by the Widi Mob; however, most of the leases were issued prior to the Native Title Act 1993 (Cwlth) (NTA) and are therefore not subject to native title; leases granted after the commencement of the NTA and subject to Widi Mob's native title claim are: M59/543, M59/480, M59/363, M59/362, M59/361, L59/41, and L59/4.

Land Ownership

The Golden Grove operations are located on Mining Leases M59/03 (Scuddles) and M59/195 (Gossan Hill) which are situated on or near the boundary of the Badja and Muralgarra pastoral leases. Numerous other mining, exploration and general-purpose tenements are situated on Badja and Muralgarra leases, as well as on the Thundelarra and Warriedar stations. In late 2007, Oxiana purchased Muralgarra pastoral station, now owned by GGPL, whilst Badja station is now held by Greg Payne who bought the pastoral lease from Gindalbie JV with Monarch Gold in 2015, to protect these companies' mines from being included in the surrounding WA Department

of Environment and Conservation, now Department of Biodiversity, Conservation and Attractions (DBCA) owned regional Conservation Area. Badja Station includes the accommodation village, TSF1, TSF3, evaporation ponds, the airport and the Gossan Hill mine while the Scuddles mine and concentrator, TSF2, the Lake Wownaminya pipeline and the lake discharge site are within the Muralgarra station leases. GGPL has in place an access compensation agreement with Greg Payne as holder of the Badja pastoral lease. Formal agreements with landowners and other relevant stakeholders regarding post-mining land uses are yet to be developed.

BDA has not undertaken a title search or legal due diligence on the status of the tenements or regulatory approvals held by GGPL. GGPL has advised BDA that there are no material tenement or title issues relating to any of GGPL's mineral assets.

6.0 GEOLOGY AND MINERALISATION

6.1 Regional Geology

The Golden Grove zinc-copper-gold-silver-lead deposits occur within the Warriedar Fold Belt (WFB) which is located in the southern part of the Yalgoo-Singleton greenstone belt of the Murchison Province within the Archaean Yilgarn Craton of Western Australia (Figure 4). The WFB is bounded to the east, west and southeast by the pre-syntectonic Murchison Monzogranite. Post-tectonic granitoids intrude the margin of the greenstone belt, post-dating regional folding events.

The Golden Grove volcanic-hosted massive sulphide (VHMS) mineralisation occurs predominantly within the Golden Grove Formation (GGF) of the Gossan Hill Group (GHG). The GHG lies along the northeast flank of the WFB forming the eastern limb of a regional syncline and has an average thickness of 3km and a strike length of around 28km. The GHG is overlain by the predominantly mafic sequence of the Thundelarra Group. A simplified stratigraphic sequence for the GHG is shown in Table 6.1.

Table 6.1
Golden Grove - Regional Stratigraphy

Group	Formation	Lithology	Comment
	Cattle Well	Poorly sorted sandstone and breccia with minor basalt	Up to 1,500m thick
Gossan Hill (GHG)	Scuddles (SCF)	Dacitic volcanics with minor rhyolite, sediments and breccia	Up to 1,000m thick, subdivided into four members SC1-4, contains minor economic VHMS mineralisation - zinc, lead, silver in SC2-3
	Golden Grove (GGF)	Rhyolitic to andesitic tuffs and breccia, sandstone, siltstone and andesite to rhyodacite volcanics	Up to 800m thick, subdivided into six members, GG1-6; contains economic VHMS mineralisation - zinc, copper, gold, silver; cut by intrusive dykes
	Gossan Valley/Felix (GVF)	Sandstone, lithic and volcanoclastic breccia, tuff, felsic and mafic volcanics	Subdivided into four members, GV1-4

The stratigraphy is west facing and dips steeply to the southwest (75-80°). The GHG has been deformed and metamorphosed to greenschist facies post mineralisation, resulting in a moderately strong foliation sub-parallel to bedding. Recent structural interpretation of the Golden Grove mineralisation suggests that the mineralisation has been subjected to remobilisation as a result of large-scale (>300m) folding resulting in plunging refolded fold hinges.

The regional syncline has been cut by extensive northeast trending, steeply dipping dextral faults. A major regional structure, the Mougooderra Fault, is located to the west of Golden Grove; this fault has been interpreted as either a regional strike slip or thrust fault.

6.2 Local Geology

The Golden Grove zinc and copper deposits are largely hosted in the Golden Grove Formation (GGF) which is divided into six members based on lithology and alteration as shown in Table 6.2. The GGF comprises a footwall sequence of rhyolite flows and tuffs, a host sequence of volcanoclastic litharenites and crystal tuffs, and a hangingwall sequence of felsic lavas.

Mineralisation forms a series of steeply dipping lodes with most of the mineralisation occurring in the GG4 and GG6 members of the GGF, with stratiform zinc concentrated principally at the GG6 horizon and copper mineralisation typically lower in the stratigraphy at GG4. Some zinc mineralisation occurs within GG5 and in the SC2 and SC3 members of the overlying Scuddles Formation (SCF).

A local mine grid is used at Golden Grove which is rotated 52.4° to the west of the national MGA94 grid (Figure 4). Three main deposits have been defined which are, from north to south, Scuddles, Gossan Hill and Gossan Valley. Gossan Hill is located approximately 4km south of Scuddles and Gossan Valley is a further 7km south of Gossan Hill. A dextral fault zone (Racehorse Fault) passes between the Gossan Hill and Scuddles deposits, displacing Scuddles approximately 1.2km to the east. Schematic long sections indicating the extent of mineralisation within the three deposits are shown in Figure 5.

Post-mineralisation dacite/rhyodacite, dolerite and rhyolite dykes cross cut, displace and stope out portions of the mineralisation. The GGF dacite dykes are interpreted as feeders for the overlying dacitic volcanics in the SCF. The dolerite dykes were emplaced after the dacite and form sub-horizontal to moderately dipping bodies. The rhyolite dykes are generally narrow and post-date the dolerite.

Typical cross sections through the Gossan Hill and Scuddles deposits are shown in Figure 6-7. The sections illustrate the varying positions of the mineralised horizons within the GGF and the relationship of intrusive rocks to the mineralisation.

Table 6.2
Golden Grove - Local Mineralised Units

Formation	Member	Lithology	Mineralisation	Comment
Scuddles Formation	SC4	Phyric dacite and andesite flows and breccias		
	SC3	Tuff, breccia, chert and banded iron formation	Sp, Ag, Au	Locally may contain economic Zn mineralisation, (Gossan Hill hangingwall), low in pyrite
	SC2	Quartz rhyodacite, dacite and andesite flows and breccias	Sp	Minor Zn mineralisation (Gossan Hill)
	SC1	Andesite and dacite sills and tuffaceous sediments		
Golden Grove Formation	GG6	Well bedded lithic sandstone, siltstone, chert,	Sp, Cp Py, Mag	Stratabound mineralisation; main zinc host with some copper (Gossan Hill, Scuddles and Gossan Valley)
	GG5	Massive vitric and pumice sandstone and breccia	Py, Sp	Minor mineralisation
	GG4	Clastic quartz-rich pumice pebble breccia, sandstone, siltstone and chert	Cp, Sp Py, Mag	Main copper host; replacement style Cu mineralisation associated with magnetite (Gossan Hill and Gossan Valley)
	GG3	Dacitic pebble breccias and sandstone		Occurs only at Scuddles
	GG2	Amygdaloidal dacite lavas, pumice granule breccias, sandstone and siltstone	Sp, Cp Py, Mag	Minor mineralisation
	GG1	Sandstone with clastic pumice pebble breccia, dacite lava and hyaloclastite	Py	

Note: bold font denotes principal mineralised units; Sp = sphalerite, Cp = chalcopyrite, Py = pyrite, Mag = magnetite

Alteration mineralogy of the hangingwall rocks is zoned from a peripheral albite-chlorite-carbonate-sericite assemblage to proximal quartz-chlorite-sericite-carbonate. Zinc mineralisation in the form of sphalerite also hosts galena, gold and silver. The average grade of zinc lenses is typically in the range 7-16% Zn. Copper mineralisation is mainly present as chalcopyrite with copper grades typically in the range 1.5-3.0% Cu. Gold is present chiefly as electrum (Au-Ag alloy) but also as native gold, with either fine-grained gold locked in pyrite and silicate minerals or as free coarse gold. As well as electrum, silver is present as native silver and as freibergite (Cu-Sb-Ag sulphide). The highest gold and silver grades occur within the hangingwall SC3 member and in some parts of the GG6 member in association with zinc in the range 1-4g/t Au and 50-100g/t Ag. Elsewhere, in GG4 and GG6, gold grades are generally in the range 0.4-1.3g/t Au and silver in association with zinc ranges from 20-90g/t Ag.

Typical gangue minerals include pyrrhotite, pyrite, silica, carbonate, chlorite and talc. The latter two minerals can impact the milling behaviour of the ore depending on their concentration although this was more of an issue in the upper parts of the deposits and in recent years has not been a problem during ore processing.

Gossan Hill Deposit

At Gossan Hill, mineralisation occurs within both the GG4 and GG6 members, separated by about 50m of relatively unaltered GG5 clastics. The copper and zinc mineralisation tend to form separate deposits although copper mineralisation can also occur on the footwall of the zinc lodes. Copper and gold resources also occur in the oxide zone above the primary copper and zinc zones respectively (Figure 5).

Surface and underground mapping have identified two parallel sub-vertical NE-SW trending faults (Catalpa and South Amity) approximately 300m apart cutting across the Gossan Hill deposit.

Copper mineralisation occurs primarily in GG4, consisting of pyrite-magnetite-pyrrhotite-chalcopyrite, and is interpreted as replacement-style mineralisation. Zinc mineralisation is in the form of sphalerite and pyrite with minor chalcopyrite, galena and pyrrhotite, and occurs primarily in the GG6 position but also in the hangingwall in SC2 and SC3 where zinc occurs with elevated lead, silver and gold.

The known mineralisation at Gossan Hill occurs over a strike length in excess of 1,500m, although individual lenses typically have a strike extent of 200-300m and are up to 20m wide. Mineralised lenses currently are defined to a maximum depth of around 2,000m below surface, although a number of lenses remain open in the down-dip direction.

The ore zones from surface are listed in Table 6.3 and are shown schematically in Figure 5. The upper lenses are known as AB, C and D Zinc with A, C, Q and Tryall Copper; deeper lenses are Amity, South Amity, Hougoumont, Hougoumont Extended and Hougoumont Hangingwall, Catalpa, Ethel and Oizon. Some of the lenses form tabular sheet-like bodies; others, due to deformation, are more pipe-like. Several of the lenses have a significant down dip extent; Amity and Hougoumont extend over 600m and 750m respectively and both remain open at depth. Cambewarra, Xantho and Xantho Extended are located north of the Catalpa Fault and all have zinc mineralisation, with Xantho and Xantho Extended also having copper. The main ore sources are currently Hougoumont and Xantho.

There is an oxidized cap above the ABCD primary zinc mineralisation, containing zinc, gold and silver. Part of this zinc oxide zone was previously left in-situ as a crown pillar; the crown pillar was mined during 2020 and the oxide gold ore transported off-site to a gold treatment plant at Kirkalocka where it is being processed under contract. Oxide and supergene copper, mostly malachite with minor azurite, chalcocite and native copper, overlies primary copper sulphides in Tryall. The oxidation zone extends to a depth of 80-100m.

Table 6.3
Golden Grove Mineralisation

Deposit/Lode	Mineralisation	Comment
Gossan Hill		
ABCD	Sphalerite	Upper levels - mostly mined out
ABC	Chalcopyrite	Upper levels - mostly mined out
ABCD	Oxide zinc, gold, silver	Partial Oxide Zinc
Tryall	Sphalerite and Chalcopyrite	Separate zinc GG6 and copper GG4 – zinc mostly mined out
Tryall	Malachite, Chalcocite	Oxide Copper
Q Copper	Chalcopyrite	Copper in GG4
Amity	Sphalerite	Separate zinc and copper lenses in GG6
Catalpa	Sphalerite and Chalcopyrite	Separate zinc in GG6 and copper in GG4 - only zinc remaining
Ethel	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6 - only zinc remaining
Cambewarra	Sphalerite	Zinc in GG6 - mostly mined out
Hougoumont	Sphalerite and Chalcopyrite	Separate zinc in GG6 and copper in GG4
Hougoumont HW	Sphalerite	Zinc in SC3, minor copper
Xantho Main	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6
South Amity	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6
Oizon	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6, in development
Hougoumont Extended	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6
Xantho Extended	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6, in development
Europa	Chalcopyrite	Copper in GG4, being evaluated
Scuddles		
Scuddles Oxide	Oxide Cu	
Main	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6
Central	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6
Deeps	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6 - mostly mined out
Zeewijk	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6
Batavia	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6
Cervantes	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG6, being evaluated
Gossan Valley		
Gossan Valley	Sphalerite and Chalcopyrite	Separate zinc and copper lenses, Feasibility Study April 2021
Grassi	Sphalerite and Chalcopyrite	Separate zinc and copper lenses, Feasibility Study April 2021
Felix	Sphalerite	Zinc in GG4, Feasibility Study April 2021
Conteville	Sphalerite and Chalcopyrite	Separate zinc and copper lenses, Inferred resource
Flying Hi	Sphalerite and Chalcopyrite	Separate zinc and copper lenses in GG1, Inferred resource

Note: Gossan Hill and Scuddles mineralised lenses listed by increasing depth

Scuddles Deposit

The Scuddles area contains the complete GGF sequence including GG3 which is absent in Gossan Hill. Dacite and rhyodacite in SC1 and SC2 overlie the zinc and copper mineralisation.

Mineralisation occurs largely within the GG6 member and consists of massive zinc and massive pyrite with either dominant zinc or copper sulphides. The massive sulphide mineralisation is underlain by a stringer sulphide zone. The mineralisation extends about 500m along strike, is up to 50m wide, and extends to over 1,000m depth. The mineralised lenses in the upper part of the deposit are known as Main and Central and continue as the Deeps lens at depth. The deeper Zeewijk, Batavia and Cervantes zinc and copper lenses occur below the Scuddles Fault, with drilling in 2019 indicating that the narrow Cervantes mineralisation extends around 400m below Batavia.

Copper mineralisation occurs adjacent to, and generally footwall to the zinc mineralisation, but there are some later cross-cutting copper zones. Mineralisation is primarily sphalerite, chalcopyrite and galena with pyrite and pyrrhotite. Silver is present as electrum and native silver within the sphalerite-rich sections of the deposit. Gold is present as electrum in the centre of the sulphide mineralisation near the transition between massive sphalerite and massive pyrite.

Gossan Valley Deposit

The Gossan Valley deposit is around 7km south of Gossan Hill and presently comprises five separate mineralised areas, the main Gossan Valley lenses and four smaller areas, Grassi and Flying Hi, 1-2km to the south of Gossan Valley and Felix and Conteville, 0.5-1km to the north (Figure 5).

Zinc and copper mineralisation are hosted in the GGF, chiefly in the GG4 and GG5 members, unlike Gossan Hill and Scuddles where zinc mineralisation occurs predominantly in GG6. Sphalerite and chalcopyrite have locally replaced massive magnetite in GG4 and GG5 although mineralised lenses are generally narrower than at Gossan Hill and Scuddles. Stringer chalcopyrite also occurs in GG1 and occasionally in the GV4 Member of the Gossan Valley Formation. Small lenses of sphalerite and chalcopyrite are also developed in GG6. The same style of mineralisation has been intersected at Felix approximately 500m to the north of Gossan Valley with massive magnetite locally replaced by sphalerite and chalcopyrite.

A small resource has been defined at Conteville which is located to the north of Felix; mineralisation remains open in all directions and warrants further drilling. Flying Hi to the south of Grassi contains copper and zinc mineralisation which is hosted in the upper portion of the GG1 member.

Post-mineralisation dolerite bodies and rhyolite dykes intrude and stope out portions of the mineralisation at Gossan Valley in a similar manner to Gossan Hill.

6.5 Exploration Potential

Golden Grove has a long history of mineralisation discoveries since the initial discovery of Gossan Hill in 1971 and Scuddles in 1979. In the period 1999-2004 the following mineralised bodies were discovered – Catalpa, Xanthos, Amity, Hougomont, Ethel, and Cambewarra in Gossan Hill and Zeewijk in Scuddles. From 2006 to 2016 further exploration located extensions to Xantho, Xantho Extended and Oizon in Gossan Hill, Oxide and Cervantes in Scuddles and the Gossan Valley and Grassi deposits.

GGPL holds 17 mining leases which cover approximately 28km of strike length of the prospective Gossan Hill Group stratigraphy. GGPL divides the tenements into three areas – Near-Mine Area, Northern Leases and Southern Leases (Figure 4). GGPL is also holder of the mining tenement at Walgardy, located approximately 7km to the north of the Northern Leases. Any mineralisation defined within the northern and southern leases would potentially be within trucking distance of the existing Golden Grove zinc-copper concentrator.

Since EMR's acquisition of Golden Grove in 2017, GGPL has increased exploration in the Near-Mine Area and in the Southern Leases. These areas have significant potential for new discoveries and BDA anticipates that additional mineralised bodies remain to be defined. However, not all of these will be necessarily of sufficient size and grade to justify development and mining.

Near-Mine Area

During 2018-2020, GGPL carried out underground resource extension drilling in Gossan Hill at Xantho Extended, Hougomont Extended and South Amity and resource definition drilling at Xantho Extended and Oizon. Underground extension drilling was also carried out at Cervantes in Scuddles during 2019-2020.

EMR advises that there is potential for further resource extensions down dip in Gossan Hill at Xantho Extended, Oizon, South Amity, Hougomont and Europa, and at Cervantes in Scuddles and is planning the following resource extension and definition drilling in 2021:

- *Xantho Extended* – together with Xantho Main, represents the largest resource at Golden Grove at around 10.4Mt of zinc and copper mineralisation; development of Xantho Extended has commenced and it is expected that stoping will commence in Q3 2021; drilling planned for 2021 includes 6,900m of resource extension drilling and 10,400m of resource and stope definition drilling
- *Oizon* – primarily copper mineralisation adjacent to the hangingwall of the Catalpa Fault; Oizon contains a resource of around 3.4Mt and is scheduled for mining in 2023; drilling planned for 2021 is 2,000m of extension drilling and 2,000m of resource definition drilling
- *South Amity* – primarily zinc mineralisation within GG6 and, with the upper Amity lens, presently contains around 4.2Mt of resource; South Amity is currently under-drilled and has potential for additional resources down dip; EMR plans to drill 3,800m of resource extension drilling in 2021

- *Cervantes* – currently the deepest lens defined in the Scuddles deposit with a zinc and copper resource of around 2.4Mt; EMR considers there is potential for extensions along strike to the north as well as up dip and down dip; an extensive drilling programme is planned for 2021, including 7,900m of resource extension drilling and 17,700m of resource definition drilling; on completion of this drilling, EMR plans to carry out a feasibility study on bringing Cervantes into production.

The Georgette prospect is located between Gossan Hill and Scuddles to the north of the Racehorse Fault. The prospect has been drill-tested by a substantial number of holes drilled from surface. Zinc mineralisation occurs in the GG2 member, however development of mineralisation appears narrow and patchy and consequently GGPL has downgraded the prospect, although some potential for defining a small resource remains.

Southern Leases

In 2017 GGPL conducted soil sampling and shallow surface drilling on the Gossan Hill and Badja mining tenements followed in 2018-2020 by deep diamond drilling from surface in conjunction with geophysical downhole Radiowave Imaging (“RIM”) surveys at Gossan Valley, Grassi, Felix, Flying Hi and Conteville. In addition, shallow drilling from surface was conducted at Cullens, Bassendean and Thundelarra (Figure 4).

EMR advises that there is potential for further zinc and copper resource extensions along strike and down dip at Gossan Valley, Grassi, Felix, Flying Hi and Conteville. EMR also advises that gold potential in the Bald Hill prospect in the Badja tenement will be included in future exploration drilling programmes.

In 2021, around 16,000m of resource extension and definition drilling is planned at Gossan Valley and Grassi, with an additional 10,000m of exploration drilling planned over a number of leases. As part of an ongoing evaluation of the mining leases, GGPL also plans to review exploration data at a number of prospects including the Bald Hill and Water Tank Hill gold prospects with assistance from Sensore Limited, using its proprietary Discriminant Productive Targeting technology.

Northern Leases

The GGF which is the main host for zinc and copper mineralisation is absent north of the Scuddles deposit and although the SCF is present in the area, there are no sediments present within the SCF, only volcanic rocks. A geophysical electromagnetic survey was carried out by MMG in 2014-2015 to follow up a surface geochemical copper anomaly in the area but did not detect any significant conductors that would indicate presence of sulphide mineralisation. GGPL therefore considers that there is low potential for locating additional zinc and copper resources in the Northern Leases, however GGPL does consider that the area has potential for locating gold resources associated with volcanic rocks, particularly in the Cattle Well and Pincer areas.

Conclusions

The geology and mineralisation controls at Golden Grove are well understood, and the interpreted geological models of the deposits appear reasonable and appropriate for resource modelling. A number of mineralised lenses at Gossan Hill, Scuddles and Gossan Valley remain open at depth, and in some cases along strike; GGPL plans to conduct a number of drilling programmes to systematically test all potential areas. Underground drilling programmes at Gossan Hill and Scuddles planned for 2021 total in excess of 50,000m and are directed at resource extension and conversion of Inferred resources to higher resource categories.

In BDA's opinion the Golden Grove Near-Mine Area and the Southern Leases, including the Gossan Valley deposits, have significant exploration potential, though it is recognised that mineralisation in some prospects may be either too limited in tonnage or too deep to justify mine development and conveying or trucking of ore to the existing zinc-copper concentrator.

7.0 GEOLOGICAL DATA

BDA has not undertaken an audit of the resource database as part of this review. The following information is based on discussions with EMR and GGPL staff and senior management, and review of geological reports. BDA has reviewed the geological logs, drill core, sampling and assaying processes and procedures.

Data collection and database management at Golden Grove are well organised and well documented. Procedures generally follow standard international mining industry practice.

Mr Stuart Masters of CS2 Pty Limited (CS2) has been appointed by EMR to act as an independent reviewer of the Golden Grove resource database and estimation processes and procedures for the June 2020 MRE. CS2 previously acted as Competent Person under the JORC Code for the 2019 Golden Grove Mineral Resource Estimate (MRE).

7.2 Drilling and Survey

Drilling

The Golden Grove deposits have been drilled using mostly fully-cored diamond drill holes (DD); for exploration and for the shallower oxide deposits drilling has consisted of a combination of reverse circulation (RC) and air core (AC) drilling and in some cases for early-stage exploration, rotary air blast (“RAB”) drilling.

Initial drilling was carried out from surface until such time underground development had been established which then allowed collaring of drill holes from underground. Currently almost all resource extension and conversion drilling at Gossan Hill and Scuddles is conducted from underground, while the Gossan Valley deposits continue to be defined using surface drilling. Shallow RAB drilling is used as an adjunct to surface geochemical surveys to rapidly cover large areas along strike from the main deposits. RC or AC drilling is used where exploration to a moderate target depth in the range 100-200m is required.

The drill hole database contains data from over 26,500 drill holes totalling approximately 2,806km of which approximately 45% is DD drilling and 40% RAB drilling. The total number of drill holes used in resource modelling and estimation of the three underground deposits, mainly DD with minor RC holes, is around 9,100 holes at Gossan Hill, 4,200 holes at Scuddles and 530 holes at Gossan Valley. In addition, over 1,600 drill holes (DD, RC and AC) were used in the modelling and estimation of the open pit oxide resources. RAB drill data is excluded from resource estimations.

Surface drill holes completed by GGPL are normally collared PQ3 size (83.1mm diameter), reduced to HQ (63.5mm) and then NQ (47.6mm) to the end of the hole. For underground drilling, holes are completed using NQ or LTK60 (44mm) coring equipment. Historical underground holes were drilled with LK48 equipment which provided a 35.3mm diameter core. The hole inclinations range from horizontal to $\pm 90^\circ$ depending on the drill site and target location. Historically, drill spacing has ranged from 10 x 10m in active mining areas to 80 x 80m in exploration areas.

All surface holes are orientated where possible through mineralised zones and other zones of interest using a Reflex Act orientation tool. Core from underground holes is not routinely oriented, though since 2013, selected holes have been oriented where they are planned to intersect important or less understood structures or bedding planes.

The rocks are generally very competent below the weathered zone and hence core recoveries are generally good. GGPL reports average recoveries of 99.5% in both mineralised and non-mineralised zones.

Validation of historic data at Golden Grove is a continual process. Every year a number of drill holes are excluded from the database; the rejected holes are mainly long holes drilled from surface which have suspect hole surveys when compared with more recently completed shorter underground drill holes.

GGPL Exploration and Resource Definition Drilling

Since EMR acquired Golden Grove in 2017, GGPL has undertaken a number of drilling programmes primarily focussed on defining resources at Gossan Hill and Scuddles and exploration in the Southern Leases including Gossan Valley. In the 2017-2020 period, GGPL completed drilling of approximately 1,240 fully cored diamond drill holes (DD) totalling over 320,000m, together with a number of RC and AC programmes targeting the zinc, copper and gold potential in the Southern Leases. In particular, GGPL has been successful in increasing the resources in the Gossan Valley, Felix and Grassi-Flying Hi deposits as well as with down-dip extensions to resources at Gossan Hill and Scuddles. The various drilling programmes are summarised in Table 7.1.

Table 7.1
GGPL Exploration and Resource Definition Drilling 2017- 2020

Year	Deposit/Prospect	Drill Type	No of Holes	No of Metres
2017	Gossan Hill - Underground Zn/Cu	DD	63	31,576
	Gossan Hill - Oxide Zn/Cu/Au	RC	60	5,550
	Bald Hill and Water Tank Hill - Au	RC	58	9,037
	Cattle Well and Pincer - Au	AC	64	6,683
2018	Gossan Hill/Scuddles - Underground - Zn/Cu	DD Grade Control	155	15,656
	Gossan Hill/Scuddles - Underground - Zn/Cu	DD Delineation	53	21,528
	Gossan Hill/Scuddles - Underground - Zn/Cu	DD Extension	49	25,800
	Gossan Hill/Scuddles - Surface - Zn/Cu	DD	4	2,429
	Gossan Valley - Surface - Zn/Cu	DD	21	5,380
	Bassendean and Cullens - Zn/Cu	DD	9	4,643
	Cattle Well and Water Tank Hill - Au	RC	4	902
	Cattle Well and Pincer - Zn/Cu	AC	96	7,611
	2019	Gossan Hill/Scuddles - Underground - Zn/Cu	DD Grade Control	241
Gossan Hill/Scuddles - Underground - Zn/Cu		DD Delineation	74	29,293
Gossan Hill/Scuddles - Underground - Zn/Cu		DD Extension	27	16,523
Gossan Valley - Surface - Zn/Cu		DD	91	39,543
2020	Gossan Hill/Scuddles - Underground - Zn/Cu	DD Grade Control	303	39,883
	Gossan Hill/Scuddles - Underground - Zn/Cu	DD Delineation	57	12,057
	Gossan Hill/Scuddles - Underground - Zn/Cu	DD Extension	32	19,525
	Gossan Valley - Surface - Zn/Cu	DD	64	34,016
Total		DD	1,243	326,918
		RC	122	15,489
		AC	160	14,294

GGPL divides resource drilling programmes (as distinct from initial stage exploration drilling) into three categories, namely resource extension drilling, resource definition drilling and grade control drilling. In terms of the Golden Grove deposits, the first two categories can be drilling either from surface or underground, whereas the third category is exclusively underground drilling.

Currently drill hole spacing for resource extension drilling is carried out on a 60 x 60m grid and gradually reduced to 30 x 30m and then 15 x 15m for grade control drilling. Historically drilling at Golden Grove was carried out with a progressively reducing hole spacing from 80m, 40m, 20m to 10m spacing. GGPL has found resource definition to be more effective by reducing the initial spacing to 60m and then progressing infill drilling to 30m and then 15m.

- *Extension Drilling* – resource drilling on a nominal 60 x 60m grid, following on from initial exploration drilling, which is sufficient to define new areas of mineralisation as Inferred resources.
- *Definition Drilling* – resource drilling on a nominal 30 x 30m grid, generally sufficient to define Indicated resources.
- *Grade Control Drilling* – this drilling is underground DD drilling designed to raise Indicated resources to Measured resources. It is not conventional ‘grade control’ drilling, as understood in the mining industry, that is normally carried out after estimation of resources and reserves and prior to mining. GGPL’s grade control drilling is an integral part of the resource evaluation process and all drilling and assay data contribute to the final resource modelling and estimation.

GGPL advises that underground DD extension and definition drilling programmes planned at Gossan Hill and Scuddles for 2021 total more than 50,000m and are focussed on the deep mineralised lenses of Xantho Extended, Oizon and South Amity at Gossan Hill and Cervantes at Scuddles.

GGPL with assistance from AMC Consultants Pty Limited (AMC) completed a PFS in 2020 on Gossan Valley, based on development of the Gossan Valley, Grassi and Felix deposits. The PFS showed that the economics of developing Gossan Valley would be improved significantly if the resource tonnage could be increased and consequently GGPL embarked on a 7,500m resource definition drilling programme in October 2020 with the aim of increasing the Indicated resource inventory prior to commencing a Feasibility Study based on an updated resource estimate. The FS is being carried out for GGPL by AMC and is planned for completion in April 2021.

Geophysical Downhole Surveys

Downhole geophysical surveys have been utilised at Golden Grove to assist with targeting potential mineralisation away from existing drill holes. Initially downhole electromagnetic (“DHEM”) surveys were carried out and more recently an improved technique of downhole radiowave imaging (RIM) has been used. Both techniques assist in locating subtle conductivity contrasts in the rocks that could indicate the presence of sulphide mineralisation.

DHEM and RIM have been used successfully at Golden Grove in the definition of new mineralised lenses or extensions to existing lenses.

Survey

Collar locations are surveyed by GGPL or contract surveyors using a global positioning system (“GPS”) instrument for surface holes and a total station survey for underground.

Down hole surveys are performed on all holes by the drilling contractor under geological supervision using electronic survey instruments, either a REFLEX Multi-shot or a Champ Gyro north-seeking gyroscopic tool that is capable of taking single shots anywhere in the hole; down hole surveys with dips greater than $\pm 20^\circ$ are surveyed every 12m while holes with less than $\pm 20^\circ$ dip are surveyed at 30m intervals and at the end of the hole.

Topographic control at the mine site uses a local Mine Grid system (GGMINE) which is based on the MGA94 Zone 50 UTM datum with truncated eastings and northings and with 10,000m added to the Australian Height Datum (“AHD”) to produce positive mine RLs for surface and underground.

Topographical surface control is provided by aerial site surveys and drill hole collar surveys. Underground control is taken from a known datum.

7.3 Logging, Sampling and Assaying

Logging

All GGPL holes are systematically logged, recording lithology, stratigraphy, mineralisation, percentage of sulphides, bedding, alteration and geological structures (bedding/foliation, contacts, faults and veins). Geotechnical logging is limited to recording the rock quality designator (“RQD”). Both surface and underground cores are photographed prior to sampling.

Rock codes which are applied to drill composites and used as the basis for resource modelling are defined using the lithology/stratigraphy/mineralisation descriptors and where necessary, modified on receipt of the sample assays.

Sampling

Drill core sampling is based on visual identification of the main lithologies hosting mineralisation. Drill core is nominally sampled at one metre intervals, while honouring lithological contacts; a minimum sample length is not specified but in general sample lengths are not shorter than 0.5m. Diamond drill core is sawn in half through the mineralised zone, with half core submitted for sample preparation and analysis. The remaining core is retained for reference and additional sampling if required. Pre-2017 drill core was subjected to similar logging and sampling procedures.

RC and AC samples are collected directly from the drill rig cyclone at one metre intervals. Prior to 1994, samples were split using a 40-50mm PVC pipe spear and after 1994 by a triple-stage riffle splitter.

Sample Preparation and Analysis

Sample preparation and analysis of all GGPL exploration and grade control DD drill samples and RC and AC drill samples are conducted off-site at the Australian Laboratory Services (ALS) facility in Perth. GGPL’s on-site laboratory is used only for sample preparation and analysis of mine production samples. GGPL contracted Intertek Australia (“Intertek”) in Perth to act as an independent umpire laboratory for inter-laboratory check sample analyses.

The current sample preparation procedure for GGPL drill core samples is as follows: core samples of around 2-4kg are dried, coarse crushed to 6mm, then fine crushed to -2mm using a jaw crusher, followed by pulverising to 85% passing 75 microns (μm). After pulverising, a 400g pulp is taken for laboratory analysis.

Drill samples prior to 2017 were subjected to a similar preparation procedure.

A standard analytical suite includes Zn, Cu, Pb, Au and Ag (payable metals), Fe and S (modelled elements). Analysis uses a four-acid digest followed by inductively coupled plasma-atomic emission spectroscopy (“ICP-AES”) on a 0.2g charge. Any Golden Grove samples with over-range Zn ($>25\%$ Zn) and Ag ($>1,000\text{g/t}$ Ag) are re-analysed using a standard ore grade method utilising a volumetrically precise four-acid digest and ICP-AES finish. Gold is determined using a 30g fire assay and ICP-AES finish, with grades $>10\text{g/t}$ Au subject to a further determination using atomic absorption spectrometry (“AAS”) finish.

Prior to 2017, base metals were analysed using aqua regia or four-acid digest and ICP, and for gold, either fire assay or aqua regia digest with AAS finish.

7.4 Quality Assurance/Quality Control (QA/QC)

QA/QC protocols used by GGPL, and previously by MMG and Oxiana, generally meet standard mining industry practice. Prior to 2005 when Oxiana acquired the project, the QA/QC protocols are not well documented.

GGPL's QA/QC includes insertion of certified reference material ("CRM"), blanks, coarse duplicates (taken after fine crush at -2mm) and pulp duplicates. Field duplicate RC samples are taken directly at the riffle splitter at a rate of 1:50 samples, however the taking of DD core field duplicates was discontinued in 2014. Coarse and pulp duplicates are taken at a rate of 1:20 samples. Sizing tests are also carried out on a regular basis to monitor the grind size of 85% passing 75µm.

GGPL uses matrix-matched CRM material sourced from Golden Grove and prepared by Ore Research and Exploration Pty Limited (OREAS). CRMs are inserted at a rate of 1:20 samples. During 2019-2020, 16 CRMs were in use and provided a wide range of zinc, copper and gold grades; CRM zinc grades ranged from 0.14-19.2% Zn, copper from 0.07-9.5% Cu and gold from 0.16-9.2g/t Au. Certified blank material is inserted at a rate of 1:50 samples. Five barren quartz flush samples are inserted after any significant mineralised intercept.

For the period July 2019 to June 2020, 35,346 drill hole samples were analysed and a total of 4,237 QA/QC samples, including CRMs, blanks, flushes and checks, were inserted into sample batches, equivalent to an average of one QA/QC sample for every eight drill samples submitted to the laboratory. CRMs generally performed well with only a small percentage of fails (ie. assay results >3 standard deviations of the nominated value), with one CRM discontinued by GGPL due to poor performance. Blanks and quartz flushes also performed well with only a few fails associated with high zinc grades in preceding samples. Coarse and fine pulp duplicate samples submitted for analysis totalled 1,112 samples, equivalent to approximately 3% of all samples analysed; results of these duplicate samples indicated good precision for zinc and copper across a wide range of grades at the ALS laboratory.

MMG carried out inter-laboratory check sampling however this practice was discontinued after EMR acquired the project. GGPL advises that six new CRMs introduced in 2020 were subject to a laboratory 'round robin' programme involving 10 Australian and international laboratories with no significant issues reported from the programme. GGPL intends to undertake a check sampling programme at least every three years using Intertek as the umpire laboratory. BDA suggests that any inter-laboratory check sampling programmes between ALS and Intertek should include coarse reject and pulp duplicates in addition to CRM checks. This would assist in the independent monitoring of the analytical accuracy and precision of the primary ALS laboratory.

The chain of custody of drill hole samples from the core shed through to the Perth laboratory and results from the laboratory to the assay database is considered satisfactory and secure.

QA/QC data are checked against pass/fail limits at the time of loading into the database and any queries immediately investigated; QA/QC reports are issued on a monthly basis. Overall, results of GGPL's QA/QC control samples show acceptable performance. There is no evidence of a consistent bias in any of the sampling or assay data used for resource estimation.

Review by GGPL of the historical database has not identified any significant errors or bias compared to the more recent GGPL drill hole results; a number of historical drill holes have been rejected due to suspect down hole surveys but the historical geological and analytical data for the remaining holes is considered suitable for use in resource estimation.

7.5 Database

GGPL uses a relational database with a Micromine Geobank database front end for loading, validation and retrieval of geological and analytical data including all drill hole collars, down hole surveys, geology, geotechnical and mineralisation data. The Geobank database was first established in 2008 by Oxiana and now interfaces with Vulcan software for geological modelling and resource estimation. Prior to 2008 the database used Microsoft Access software which was established in the 1990s. Data was validated during the migration process between the Access and Geobank databases, with checks carried out against hardcopy drill logs and survey records.

The master Geobank database is separated into a number of sub-databases; validated data for use in resource estimation is divided between Gossan Hill, Scuddles and Gossan Valley, and data from drill holes that are excluded from use in resource estimation such as RAB drill holes and some DD historical holes, is similarly divided between deposits.

Drill hole traces are reviewed in 3D to check the validity of the surveys. Analytical results are electronically received from ALS and Intertek laboratories and imported directly into the database after validation. QA/QC data is continuously monitored and reported. Only the original sample values are used for resource estimation unless QA/QC results indicate a requirement for re-analysis of a sample batch.

In addition to the automated database validation systems of the Geobank software and regular monitoring of QA/QC results, the resource database and estimation processes and procedures have been independently reviewed by CS2. CS2's review report of the database used for the resource estimation carried out in June 2020 by EMR was issued in November 2020. The report concluded that the resource database consisted of high-quality drill hole and analytical data but noted that the documentation of QA/QC and geological modelling procedures could be improved. AMC Consultants Pty Limited (AMC) carried out a high-level review of the Gossan Valley database and QA/QC data as part of the PFS on Gossan Valley in 2020. AMC concluded that data collection and QA/QC procedures met with accepted industry standards.

7.6 Bulk Density

GGPL has developed a substantial database of bulk density values for the sulphide mineralisation of all deposits at Golden Grove. Bulk density is measured for each DD core sample at GGPL's on-site core processing facility using an automated self-levelling machine which uses the water immersion method to calculate the density of the whole of the core sample. The mostly competent and low permeability core is air dried and does not require wax coating or other sealing method prior to measurement. This system of measuring whole core bulk density has been in place at Golden Grove since 2008. Previously half core samples were measured.

For the sulphide resource estimation, the bulk density data is composited in the same way as the grade data; resource domain block bulk density values are estimated based on variography and using OK estimation at Gossan Hill and Scuddles and at Gossan Valley, which has a smaller bulk density database, by inverse distance weighting. A default value of 2.82t/m³ is applied to un-mineralised domains.

The bulk density database for the oxide zones at Gossan Hill and Scuddles is limited in number due to the bulk of the resource drilling being accomplished using RC drilling which produces chip samples rather measurable core samples. In these cases, GGPL applies appropriate average values to each resource domain (ie. for oxide, transitional, and waste zones) within each deposit.

Bulk density statistics for the drill hole composites and bulk density resource block models for selected primary sulphide mineralisation at Golden Grove are summarised in Table 7.2. Estimated resource block mean bulk densities are generally 1-3% lower than the composite data due to the smoothing effect of Ordinary Kriging.

Table 7.2
Bulk Density Values for Golden Grove

Deposit/Domain	Composites			Resource Blocks		
	Number	Mean (t/m ³)	Range (t/m ³)	Number	Mean (t/m ³)	Range (t/m ³)
Gossan Hill Zinc						
Amity	18,847	3.36	2.82 – 5.89	70,969	3.27	2.80 – 5.43
Hougoumont	12,262	3.46	2.82 – 5.67	44,860	3.37	2.80 – 4.76
Xantho	5,728	3.36	2.82 – 5.04	65,875	3.38	2.80 – 4.82
Gossan Hill Copper						
Amity	19,739	3.41	2.82 – 5.89	55,928	3.31	2.86 – 5.43
Hougoumont	32,849	3.30	2.82 – 5.71	143,220	3.21	2.80 – 4.93
Xantho	8,803	3.37	2.82 – 5.12	119,922	3.33	2.80 – 4.88
Scuddles Zinc						
Scuddles	29,678	3.90	2.82 – 5.73	89,284	3.79	2.89 – 4.81
Cervantes	481	3.51	2.83 – 5.16	8,992	3.30	2.90 – 4.64
Scuddles Copper						
Scuddles	58,502	3.57	2.82 – 5.97	158,916	3.48	2.82 – 4.81
Cervantes	432	3.49	2.82 – 5.16	7,363	3.35	2.84 – 4.64
Gossan Valley Zinc						
Gossan Valley	1,388	3.32	1.94 – 4.98	26,606	3.26	2.85 – 4.37
Flying Hi	59	3.19	2.43 – 4.05	2,406	3.14	2.65 – 3.96
Gossan Valley Copper						
Gossan Valley	1,201	3.16	1.91 – 4.64	29,249	3.15	2.85 – 4.42
Flying Hi	209	2.98	2.49 – 4.05	9,620	2.92	2.51 – 3.93

Note: Composite values are bulk density determinations from each sampled drill core composited to 1m; resource block values estimated by Ordinary Kriging of 1m composite values into 2 x 10 x 10m parent blocks

Conclusions

BDA considers that the geological investigations carried out by GGPL (and, as far as can be determined, by its predecessors) have been thorough, and the drilling, logging, sampling and assaying procedures adopted are appropriate and in accordance with industry standards. QA/QC results are generally satisfactory with good repeatability and no significant bias. The database is well managed by GGPL and has been independently reviewed recently by Mr Stuart Masters of CS2. Overall, BDA considers the current Golden Grove resource database forms an appropriate and reasonable basis for resource and reserve estimation.

8.0 RESOURCES AND RESERVES

8.1 Standards and Definitions

The Golden Grove resource and reserve estimates have been reported under the JORC Code.

A Mineral Resource is defined in the JORC Code as a concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade, quality and quantity that there are reasonable prospects for eventual economic extraction. Resources are classified as Measured, Indicated or Inferred according to the degree of confidence in the estimate.

A Measured Mineral Resource is one for which quantity, grade, densities, shape and physical characteristics are estimated with sufficient confidence to support mine planning and evaluation; geological evidence is derived from detailed sampling and testing sufficient to confirm geological and grade continuity; a Measured Mineral Resource may be converted to a Proved Ore Reserve.

An Indicated Mineral Resource is one for which quantity, grade, densities, shape and physical characteristics are estimated with sufficient confidence to support detailed mine planning and final evaluation; geological evidence is derived from adequately detailed sampling and testing sufficient to assume geological and grade continuity; an Indicated Mineral Resource may be converted to a Probable Ore Reserve.

An Inferred Mineral Resource is one for which quantity and grade are estimated on the basis of limited geological evidence and sampling; geological evidence is sufficient to imply but not verify geological and grade continuity; an Inferred Mineral Resource is not known with sufficient confidence to be converted to an Ore Reserve, but it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated status with continued exploration.

An Ore Reserve is defined in the JORC Code as the economically mineable part a Measured or Indicated Resource. It includes diluting materials and allowances for losses which may occur when the material is mined or extracted, and is defined by studies at Pre-Feasibility or Feasibility level that include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. Proved and Probable Reserves are based on Measured and Indicated Resources respectively. Under the JORC Code, Inferred Resources are deemed to be insufficiently delineated to be transferred into a reserve category. In this report, and in the public reporting of resource and reserve data by GGPL, resources are inclusive of reserves.

8.2 Mineral Resource Estimation

GGPL completed its initial Mineral Resource Estimate (MRE) for Golden Grove in-house which was reported in September 2017. The Measured, Indicated and Inferred 2017 MRE was 39Mt at 1.7% Cu and 4.6% Zn with contained metal of 660kt of copper and 1,790kt of zinc. This MRE was based on a net smelter return (NSR) cut off using a range of NSR values in different parts of the deposits, with an overall average of approximately A\$130/t. The MRE consisted of separate estimates for different ore types within the Gossan Hill, Scuddles and Gossan Valley deposits which included primary zinc, primary copper, oxide gold and partial oxide gold. Partial oxide gold refers to resources within the zone below the completely oxidised zone and above the un-oxidised sulphide zone (ie. a transition zone), comprising a mix of oxidised and un-oxidised mineralisation.

GGPL completed similar MRE updates in June 2018 (39.4Mt at 1.7% Cu and 5% Zn) and in June 2019 (52.8Mt at 1.6% Cu and 4.7% Zn). In 2019 the ore types estimated were expanded to five, namely primary zinc, primary copper, oxide copper, partial oxide zinc and partial oxide gold.

In 2018 the total resources estimated exceeded resource depletion due to mining by a small margin primarily as a result of definition of new resources from underground drilling. In 2019 the increase in resources became significant with an overall increase in resources of around 30% as a result of a combination of resource extension drilling and a reassessment of the recoverable resources surrounding previously stoped areas in Gossan Hill and Scuddles.

GGPL's June 2020 MRE forms the basis for a new Ore Reserve estimate completed in April 2021 by mining consultant Orelogy Consulting Pty Limited in conjunction with GGPL staff. This reserve estimate forms the basis for the current LOM plan and Financial Model.

Resource Modelling and Estimation

Resource Modelling

Golden Grove resources are modelled in 13 separate resource models, with each model containing seven mineralised domains. The Gossan Hill deposit comprises nine separate resource models, listed alphabetically – ABCD, Amity, Cambewarra, D-Zinc Extended, Ethel-Catalpa, GG4-Tryall, Hougomont, Tryall Oxide and Xantho. The Scuddles deposit is modelled with two resource models – Scuddles and Cervantes. Gossan Valley is

divided into two resource block models, with one model including Gossan Valley, Grassi, Felix and Conteville, and a second model containing the Flying Hi area.

The seven mineralised resource domains that are modelled for each resource block model are zinc, copper, lead, gold, silver, pyrite and magnetite. Non-mineralised domains are intrusive bodies which can include rhyodacite, dacite, dolerite, rhyolite and lamprophyre.

All resource models are based on the underlying geological interpretation of the main mineralised, stratigraphic units of the Scuddles Formation (SC1-4) and Golden Grove Formation (GG1-6). Geological modelling of these lithological units utilise data from drill hole logging, geological surface mapping and mapping of underground development drives. Intrusive rocks and faults have been interpreted that cross-cut and displace both the stratigraphy and mineralisation.

Zinc-rich mineralisation occurs as massive to semi-massive sulphide lenses which also contain moderate copper, lead, gold and silver mineralisation. Copper-rich lenses can have moderate gold and silver grades but are generally weakly mineralised with zinc and lead. Zinc and copper lenses are generally surrounded by low grade mineralisation haloes some of which have been modelled as low grade resource domains.

The primary sulphide mineralisation at Golden Grove comprises multiple steeply dipping lenses. Most mineralised lenses in Gossan Hill and Scuddles vary from 200-400m along strike, 200-700m down-dip and 3-20m in thickness. The current primary sulphide domains are located between 200m and 1,900m below surface.

In Gossan Valley, the primary sulphide lenses tend to be narrower ranging in thickness from 3-10m and extend from 50-450m along strike and 40-400m down dip.

The oxide copper zone at Gossan Hill is about 300m long, 80m wide and 20-30m deep and the partial oxide zinc zone is around 450m long.

Resource Estimation

The approach taken by GGPL for resource estimation is essentially the same for each resource model, with some variation between models for certain parameters, for example grade top cuts and variography. The methodology and parameters used for domain modelling and resource estimation are summarised below.

- The host rocks to mineralisation are folded and consequently wireframes are modelled using Local Varying Anisotropy (“LVA”) Leapfrog software to develop hangingwall and footwall trend surfaces to guide modelling of the mineralised resource domains. Geological interpretation is carried out on 10-20m spaced plan slices through the deposits and also in section in order to build up the 3D LVA trend surfaces.
- The majority of wireframes for non-mineralised intrusive bodies have been constructed by implicit modelling using Leapfrog software, with the remainder using a conventional interpretive approach with polygons snapped to drill hole intercepts. Weathering surfaces denoting the base of complete oxidation of sulphides and base of partial oxidation are modelled to assist in defining the oxide and partial oxide copper and zinc resources.
- Drill hole sample compositing (as used for statistical analysis of data and for resource modelling) was set to 1m which aligns with the majority of drill hole sample lengths.
- Mineralised resource domains in Gossan Hill (except for D Zinc Extended and Tryall Oxide Copper) and Scuddles where drill hole coverage is extensive and mineralised lenses are generally thick, were modelled using Categorical Indicator Kriging (“CIK”). A rock code (combination of logged lithology and assay data) is assigned to each composite sample and then assay cut offs are applied in order to populate indicator fields in the drill hole database (ie. an indicator of 1 for above cut off and 0 below cut off). The cut-off grades applied were for zinc 2% Zn, copper 0.4% Cu, lead 0.3% Pb, gold 0.4g/t Au and silver 20g/t Ag. Variography is developed based on the indicators for each mineralised domain and then CIK is used to develop domain models using the LVA trend surfaces as control. A probability threshold of 40% is used in the CIK modelling to assist with assigning resource blocks to a particular resource domain. Pseudo drill holes containing only lithological data are also created to assist with CIK modelling; the pseudo holes are formed from geo-referenced images of geologically mapped underground development drives.
- GGPL advises that CIK modelling is unsuitable in areas with less drilling data and narrower mineralised lenses and hence for Gossan Valley, Grassi, Felix, Flying Hi and the Gossan Hill D Zinc Extended and Tryall Oxide Copper resource models, domains were modelled using a conventional 3D wireframing approach with Leapfrog software, using grades of 2% Zn and 0.4% Cu as cut offs and known bounding structures and mineralisation trends to define mineralisation envelopes.
- Mined voids were included in the block models with shapes incorporating unrecoverable 3m skins on the hangingwall and footwall of the mined stopes.

- Fixed top-cuts were applied to a small number of outlier values for all modelled elements based on a statistical assessment of each domain data set. Separate variography for grade estimation in each of the seven mineralised domains was carried out after top-cutting.
- Domain modelling (both CIK and conventional wireframing) was carried out using 1 x 5 x 5m (E, N, RL) resource blocks. These blocks are later coalesced into parent blocks of 2 x 10 x 10m (E, N, RL) for block grade estimation.
- Ordinary Kriging (OK) is used for block grade estimation for Cu, Zn, Au, Ag, Fe, S and bulk density for Gossan Hill and Scuddles. Fe and S are estimated for metallurgical purposes, with Fe related to the recovery of payable metal which affects the NSR calculation. Grade estimation for the two Gossan Valley resource models and for the D Zinc Extended and Tryall Oxide Copper models was undertaken using inverse distance squared (“ID²”). Block discretisation was set at 4x4x4 for the Gossan Hill and Scuddles OK models and 2x2x2 for ID² models.
- Block grade estimation is achieved with two to five passes depending on data density; search ellipses for Pass 1 generally range from 5 x 20 x 20m to 10 x 150 x 70m (E, N, RL) in well drilled domains to 40 x 80 x 80m (E, N, RL) in domains with wider spaced drilling such as Gossan Valley. For Pass 1, typical search parameters are maximum samples 24, minimum samples 8 and minimum octants 3. Domain boundaries are treated as hard boundaries and LVA trend surfaces are used to control grade estimation.
- Net smelter return (NSR) values incorporate metallurgical recoveries, concentrate grades, payable metal terms, trucking costs to the port, shipping costs and royalties and were calculated at an A\$/US\$ exchange rate of 0.73. Metal prices used for the June 2020 NSR calculation were: copper US\$7,716/t, zinc US\$3,306/t, lead US\$2,425/t, gold US\$1,600/oz and silver US\$23/oz. Note that these metal prices are higher than the prices used for reserve estimation; this is to allow for estimation of resources that have a reasonable prospect of eventual economic extraction, in compliance with the JORC Code.
- A range of NSR values are applied as cut offs to define resources. The NSR cut-off value (COV) is made up of several mining components: the cost per tonne of stoping of ore, ore haulage by truck/shaft/conveyor, and mine development costs for new mining areas. In the case of Gossan Hill and Scuddles, costs are based on recent actual costs. For Gossan Valley, Grassi and Felix, mining costs were calculated from first principles and included costs specific to establishing mining costs in these new areas. The COV also includes geology cost per tonne mined, and processing, maintenance and G&A cost per tonne milled. This calculation provides a total cost estimate at the mine gate.
- COVs for resource definition vary between deposits and between mineralised lenses; COVs applied to Gossan Hill ranged from US\$121.83-137.43/t, with a higher haulage component applied to the deeper lenses including Hougoumont Extended, Xantho Extended and Oizon. COVs in Scuddles ranged from US\$122.95/t for Scuddles Oxide to US\$133.57 for the deepest lens Cervantes. A COV of US\$135/t was determined for the Gossan Valley, Grassi and Felix deposits and a nominal value of US\$145/t applied to the Flying Hi resource. COVs relating to the definition of Ore Reserves are discussed further in Section 8.4.
- Resource categorisation is primarily based on the drill hole density, with the data quality and resource domaining also taken into consideration. In general, areas with average drill hole spacing of 20 x 20m or less are categorised as Measured resources, with 40 x 40m or less as Indicated and 60 x 60m or less as Inferred. Areas with drill hole spacing greater than 60 x 60m but less than 80 x 80m may be categorised as an Inferred resource depending on geological and grade continuity of the mineralisation and geometry of the drill holes, but generally resource blocks in areas with drill hole spacing in excess of 60 x 60m are recorded by GGPL as unclassified resource material. Unclassified material consists of resource blocks that have been assigned a zinc or copper grade during grade estimation and have NSR values above cut off. Wireframes of similar block estimation metrics (number of samples/drill holes and average distance of samples used) were developed to avoid erratic/spotty block categorisation in the resource models.
- Resource models were validated using a combination of visual checks of the estimated block grades against the drill hole composite data, statistical comparisons of block model and drill hole sample data, including use of swath plots (slice comparisons of composite sample grades and estimated block grades) in the easting, northing and RL directions.

8.3 Reported Mineral Resources

The Golden Grove Mineral Resources for zinc, copper, lead, gold and silver were estimated by GGPL in-house as of June 2020 and reported in November 2020. This estimate includes resources defined in three deposits (Scuddles, Gossan Hill and Gossan Valley) and was an update of GGPL's June 2019 MRE.

The Mineral Resource estimate is summarised in Table 8.1. The resources are reported at a variable cut off defined by a NSR COV in the range A\$121.83/t - A\$145/t. The Measured, Indicated and Inferred (MII) resource estimate is 57.8Mt at 1.6% Cu, 4.5% Zn, 0.3% Pb, 0.7g/t Au and 30g/t Ag with 925kt of contained copper and 2.6Mt of contained zinc. The percentage of Measured and Indicated resources available for conversion to Ore Reserves is 82% or 47.6Mt at 1.6% Cu and 4.5% Zn with contained copper of 762kt and contained zinc of 2.1Mt.

Table 8.1
Golden Grove - Gossan Hill, Scuddles and Gossan Valley
Mineral Resource Estimate June 2020 (Variable NSR Cut-Off Value)

Resource Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t
Primary Zinc						
Measured	8.2	0.5	9.0	0.7	1.2	61
Indicated	11.6	0.6	10.9	0.6	0.9	38
Inferred	4.8	0.4	9.4	0.4	0.5	33
Total	24.6	0.6	10.0	0.6	0.9	44
Primary Copper						
Measured	14.4	2.4	0.4	0.0	0.6	17
Indicated	12.4	2.5	0.4	0.0	0.5	19
Inferred	5.0	2.3	0.3	0.0	0.3	15
Total	31.9	2.4	0.4	0.0	0.5	17
Oxide Copper						
Measured	0.0	0.0	0.0	0.0	4.4	84
Indicated	0.4	3.2	0.0	0.0	0.6	5
Inferred	0.0	2.4	0.0	0.0	0.1	6
Total	0.5	3.0	0.0	0.0	0.9	10
Partial Oxide Zinc						
Measured	0.1	1.2	10.2	1.8	2.4	164
Indicated	0.4	0.9	3.4	0.8	1.9	117
Inferred	0.3	0.5	3.9	0.5	1.4	80
Total	0.9	0.8	4.6	0.9	1.8	110
Golden Grove						
Measured	22.7	1.7	3.5	0.7	0.8	34
Indicated	24.9	1.6	5.4	0.3	0.7	29
Inferred	10.2	1.4	4.7	0.3	0.4	25
Total Resources	57.8	1.6	4.5	0.3	0.7	30

Note: estimate undertaken by EMR Golden Grove and independently reviewed by Stuart Masters of CS2 Pty Limited; cut-off grade based on Net Smelter Return (NSR) value; NSR COVs in A\$/t are calculated separately for each deposit (and in some cases for different mineralised lenses within the same deposit) and range from A\$121.83/t to A\$145/t; resources depleted for mined voids from both underground and open pit mining at end of June 2020; totals are subject to rounding

The resources within each of the main deposits (Gossan Hill, Scuddles and Gossan Valley) are summarised in Table 8.2-8.4. Gossan Hill accounts for 68% of the total resources at Golden Grove (by tonnage), with Scuddles containing 20% and Gossan Valley 12%.

Gossan Hill, with 68% of the total resource, has the most extensive orebodies. The largest orebodies, including both zinc and copper lenses, are Xantho and Xantho Extended combined which contain around 10.4Mt of resource and Hougomont with around 6.1Mt. Other substantial resources are Amity (4.2Mt), Q Copper (3.7Mt) and Oizon (3.4Mt).

In the Scuddles deposit, the Main orebody (Cu and Zn lenses) is the largest with around 4Mt of resource followed by Cervantes at 2.4Mt and Central at 2.3Mt.

Of the above orebodies, Amity, Xantho, Hougomont, Oizon and Cervantes have potential for increasing resources either down dip or along strike. Cervantes also has up dip potential.

The June 2020 MRE resulted in a net increase in resource tonnes of approximately 4.9Mt compared with the June 2019 MRE. Resource depletion from July 2019 to June 2020 of around 1.4Mt was offset by definition of additional resources from drilling, mainly in Hougomont, Xantho, Oizon and Cervantes. There was also an increase in resources of around 1.4Mt as a result of the following changes:

- NSR cut-off values
- revision of metallurgical recoveries relating to the new sequential flotation process

- introduction of an additional haulage unit cost for the deeper mineralised lenses
- adjustments to the lead and gold metal prices.

However, the average NSR cut-off value used for the June 2020 MRE remained close to the 2019 average of around A\$130/t.

Table 8.2

Golden Grove - Gossan Hill Mineral Resource Estimate - June 2020 (Variable NSR Cut-Off Value)

Resource Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t
Primary Zinc						
Measured	5.0	0.5	8.5	0.8	1.3	58
Indicated	8.4	0.8	11.2	0.7	1.0	46
Inferred	1.4	0.3	10.5	0.6	0.7	37
Total	14.9	0.6	10.2	0.7	1.1	49
Primary Copper						
Measured	9.7	2.3	0.4	0.1	0.7	18
Indicated	10.9	2.4	0.4	0.0	0.5	19
Inferred	3.0	2.4	0.3	0.0	0.3	13
Total	23.6	2.4	0.4	0.0	0.5	18
Oxide Copper						
Measured	0.0	1.7	0.0	0.0	0.1	3
Indicated	0.3	2.8	0.0	0.0	0.6	8
Inferred	0.0	2.4	0.0	0.0	0.1	6
Total	0.3	2.8	0.0	0.0	0.6	8
Partial Oxide Zinc						
Measured	0.1	1.2	10.2	1.8	2.4	164
Indicated	0.4	0.9	3.4	0.8	1.9	117
Inferred	0.3	0.5	3.9	0.5	1.4	80
Total	0.9	0.8	4.6	0.9	1.8	110
Gossan Hill						
Measured	14.8	1.7	3.2	0.3	0.9	33
Indicated	20.0	1.7	5.0	0.3	0.7	32
Inferred	4.7	1.7	3.6	0.2	0.5	24
Total Resources	39.7	1.7	4.2	0.3	0.8	31

Note: estimate undertaken by EMR Golden Grove and independently reviewed by Stuart Masters of CS2 Pty Limited; cut-off grade based on Net Smelter Return (NSR) value; NSR COVs in A\$/t are calculated separately for each mineralised lens within Gossan Hill and range from A\$121.83/t to A\$137.43/t; resources depleted for mined voids from both underground and open pit mining at end of June 2020; totals are subject to rounding

Table 8.3

Golden Grove - Scuddles Mineral Resource Estimate - June 2020 (Variable NSR Cut-Off Value)

Resource Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t
Primary Zinc						
Measured	3.2	0.6	9.7	0.7	0.9	65
Indicated	0.6	0.3	8.8	0.6	0.6	50
Inferred	1.4	0.4	11.2	0.3	0.6	47
Total	5.1	0.6	10.0	0.6	0.8	59
Primary Copper						
Measured	4.7	2.5	0.4	0.0	0.5	15
Indicated	0.4	2.2	0.2	0.0	0.1	8
Inferred	0.9	2.2	0.5	0.0	0.3	16
Total	6.0	2.4	0.4	0.0	0.4	15
Oxide Copper						
Measured	0.0	0.0	0.0	0.0	4.5	85
Indicated	0.2	3.8	0.0	0.0	0.7	0
Inferred	0.0	2.6	0.0	0.0	0.0	4
Total	0.2	3.2	0.0	0.0	1.2	13
Scuddles						
Measured	7.9	1.7	4.2	0.3	0.7	35
Indicated	1.2	1.5	4.5	0.3	0.5	28
Inferred	2.3	1.1	7.0	0.2	0.5	35
Total Resources	11.3	1.6	4.8	0.3	0.6	35

Note: estimate undertaken by EMR Golden Grove and independently reviewed by Stuart Masters of CS2 Pty Limited; cut-off grade based on Net Smelter Return (NSR) value; NSR COVs in A\$/t are A\$126.13/t for Scuddles and A\$133.57 for Cervantes; resources depleted for mined voids from both underground and open pit mining at end of June 2020; totals are subject to rounding

Table 8.4

Golden Grove - Gossan Valley Mineral Resource Estimate - June 2020 (Variable NSR Cut-Off Value)

Resource Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t
Primary Zinc						
Indicated	2.6	0.1	10.5	0.2	0.5	10
Inferred	1.9	0.6	7.5	0.2	0.4	21
Total	4.6	0.3	9.2	0.2	0.5	15
Primary Copper						
Indicated	1.1	3.0	0.2	0.0	0.5	20
Inferred	1.1	2.1	0.2	0.0	0.5	17
Total	2.2	2.5	0.2	0.0	0.5	19
Gossan Valley						
Indicated	3.7	1.0	7.4	0.1	0.5	13
Inferred	3.0	1.2	4.8	0.1	0.4	20
Total Resources	6.8	1.1	6.2	0.1	0.5	16

Note: estimate undertaken by EMR Golden Grove and includes resources defined within the Gossan Valley, Grassi, Felix and Flying Hi deposits; MRE independently reviewed by Stuart Masters of CS2 Pty Limited; cut-off grade based on Net Smelter Return (NSR) value; NSR COVs in A\$/t are A\$135/t for Gossan Valley, Grassi and Felix and A\$145/t for Flying Hi; totals are subject to rounding

Zinc, copper, lead, gold and silver grades for the primary zinc and copper resources in the 2020 MRE remained similar to the 2019 grades. The overall increase in zinc and copper metal in 2020 compared to 2019, which averaged around 8%, was primarily due to the increase in resource tonnage rather than changes to grade.

Overall, BDA considers that the resource estimation approach is generally reasonable and appropriate for the style of deposit at Golden Grove and the variable density of resource definition drilling.

The deposits are systematically and progressively drilled out, with drill coverage of at least 15 x 15m spaced drill holes used to define Measured resources, and this provides a firm basis for modelling the geometry of the mineralised domains and for grade estimation and resource categorisation for each of the resource models.

The 13 separate resource models each with seven mineralised domains are developed by an experienced team of mine and resource geologists who can rely on historical experience and geological understanding gained over a considerable period of time with respect to the Gossan Hill and Scuddles deposits, resulting in a generally consistent approach for resource modelling and estimation for all the models.

Resources are reported using a complex NSR cut-off formula which appears effective in handling different ore types with different metal contents and metallurgical recoveries and allowing for various mining scenarios ranging from established mining areas to new areas subject to additional mine development costs. In BDA's opinion the resource models produced by GGPL provide a suitable basis for stope design, reserve estimation and long term mine planning. The resource modelling, NSR cut off formula and MREs are updated annually and are subject to internal peer review and independent review by CS2.

8.4 Ore Reserve Estimation

EMR commissioned Orelogy Consulting Pty Limited (Orelogy) in 2020 to work closely with GGPL's mining and geotechnical staff on reserve estimation and update of the LOM plan commencing January 2021. Reserve estimation was based on GGPL's June 2020 MRE which incorporated mining depletion to the end of June 2020. On completion of the LOM plan, Orelogy, under direction of GGPL as Competent Person, produced an Ore Reserve Statement compliant with the 2012 JORC Code.

The 2020 mine planning and reserve estimation was based on conventional, mechanised bottom-up longitudinal and transverse Long Hole Open Stopping (LHOS) with either waste rock fill or cemented hydraulic fill (CHF).

The parameters used by Orelogy for reserve estimation are summarised below and further discussed in Section 9.

- GGPL calculated NSR stope cut-off A\$/t values (COVs) for each orebody; values were determined on the basis of a nominal ore production rate of 1.6Mtpa and using costs from the Q3 2020 forecast adjusted for abnormal costs (relating to the effect of Covid-19). A base COV of A\$118.28/t included all general mine and administrative costs (G&A), processing, maintenance and geology costs, with mining costs exclusive of haulage and development. The base COV was then incremented for average haulage costs per tonne for each orebody and development costs per tonne were added where appropriate.
- Metal prices used for the NSR calculation for determining economic stopes were: copper US\$6,614/t, zinc US\$2,425/t, lead US\$2,094/t, gold US\$1,400/oz and silver US\$21/oz. Stope revenues allowed for metal prices and metal recoveries (incorporating triple sequential flotation), net of refining, transport and selling costs.

- GGPL used Deswik Mine Stope Optimiser (MSO) software to define stope blocks in Gossan Hill and Scuddles. Stope optimisation incorporated development costs, and stope optimisation targeted stope NSR values exceeding the COV.
- Mining recovery and dilution factors were applied as part of the stope optimisation; these factors were based largely on historical mining records. The stope designs were based on Proved and Probable reserves and Inferred resources.
- Stope recovery factors vary between orebodies and range from 88% to 97%. Mining dilution was estimated separately for stopes and development; stope dilution in new mining areas was based on a 0.5m skin of dilution on longitudinal stope hangingwall and footwall boundaries with grade of dilution assigned according to block model grades; transverse stopes included 1.5m skins on hanging wall and 0.5m on footwall boundaries. In remnant mining areas, a dilution factor of 10% was applied manually to the stope designs. Development dilution in the form of overbreak was accounted for in the Deswik Scheduler and ranged from zero for development in ore to 7-10% dilution in waste.
- Inferred resources and a small amount of unclassified material were included in the MSO stope designs, with a limit of 30% Inferred resource within any stope. GGPL compiled two separate inventories, one based on the economically mineable Measured and Indicated resources and a second full mining inventory which included Measured, Indicated and Inferred resources and unclassified material; the former inventory was reported as the Ore Reserves and the latter constituted the mining inventory which forms the basis for GGPL's LOM plan.
- GGPL also requested Orelogy to update the open pit optimisation for the Gossan Hill oxide copper and partial oxide zinc open pit and the Scuddles oxide copper open pit, with the intent of using any ore mined from the open pits as supplementary ore towards the end of the mine life. The update indicated that there was potential for economic mineable ore, however further work is required to bring this material into reserves.

8.5 Reported Ore Reserves

The Proved and Probable reserves for Golden Grove represent the Measured and Indicated resources within the stopes and development planned to be mined. The 2020 Ore Reserve estimate, which is based on GGPL's June 2020 resource models, is shown in Table 8.5.

Table 8.5

Golden Grove Ore Reserve Estimate – June 2020

Gossan Hill and Scuddles - Combined Ore Reserve Estimate - (Variable NSR Cut-Off Value)

Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t	Metal Cu kt	Metal Zn kt	Metal Pb kt	Metal Au koz	Metal Ag koz
Primary Zn											
Proved	2.5	0.9	5.8	0.6	1.4	54	22	144	16	112	4,255
Probable	8.8	1.6	7.4	0.5	0.9	36	145	650	40	255	10,232
Total	11.3	1.5	7.0	0.5	1.0	40	167	794	56	366	14,487
Primary Cu											
Proved	0.9	2.3	0.2	0.0	0.8	16	21	2	0	24	456
Probable	1.9	2.5	0.2	0.0	0.4	13	49	5	0	22	785
Total	2.8	2.4	0.2	0.0	0.5	14	69	7	1	46	1,241
Primary Au											
Proved	0.2	2.0	1.2	0.4	2.9	105	4	3	1	21	756
Probable	-	-	-	-	-	-	-	-	-	-	-
Total	0.2	2.0	1.2	0.4	2.9	105	4	3	1	21	756
Ore Reserve											
Proved	3.6	1.3	4.1	0.5	1.4	47	47	149	17	157	5,467
Probable	10.7	1.8	6.1	0.4	0.8	32	194	655	40	277	11,017
Total	14.3	1.7	5.6	0.4	0.9	36	241	804	57	433	16,484

Note: estimate undertaken by Orelogy and EMR Golden Grove; cut-off grade based on Net Smelter Return (NSR) value; COVs in A\$/t are calculated separately for each orebody and range from approximately A\$122/t (Gossan Hill ABCD stopes) to A\$150/t (Gossan Hill Xantho Extended); reserves based on the following metal prices - copper US\$6,614/t, zinc US\$2,425/t, lead US\$2,094/t, gold US\$1,400/oz and silver US\$21/oz; reserves depleted for mined voids from both underground and open pit mining at end of June 2020; totals are subject to rounding

The reserves are split between Gossan Hill deposit (90% of tonnes) and the Scuddles deposit (10%). The combined Xantho and Xantho Extended orebodies at Gossan Hill contain approximately 53% of the total reserve tonnage, with the Gossan Hill Hougomont orebody contributing around 13%.

The Cervantes resource principally comprises Inferred resources at this point in time, though there are some Indicated resources. GGPL has excluded the Cervantes lode from reserves until further infill drilling is carried out to raise the confidence level to principally Measured and Indicated and until a feasibility study is completed to demonstrate the economic viability of development. GGPL also excluded the Gossan Valley deposit from reserves

until ongoing feasibility studies are completed.

The net change between the June 2019 and the June 2020 reserve tonnage was a decrease of 1.2Mt or approximately an 8% reduction. The net change included around 1.5Mt of mining depletion and 3.5Mt reduction based on a combination of a higher cut-off value and orebody economic analysis, partially offset with a 2.3Mt increase based on new drilling and a 1.2Mt addition based on design changes.

Mining Inventory

The Financial Model life of mine plan, from January 2021 to 2030, is based on a Mining Inventory of 16.0Mt which is made up of Measured and Indicated resources of 13.8Mt, Inferred resources of 1.5Mt, and unclassified material (Exploration Target) of 0.6Mt. The Gossan Valley resource has been included in a Financial Model upside case with a total mining inventory of 18.5Mt.

The Mining Inventory and Life of Mine Plan are discussed further in Section 9, but BDA notes that there is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing and the Competent Person has determined that the level of confidence is not sufficient to classify this material as Inferred without further drilling; in terms of JORC Code classifications these materials could be considered an Exploration Target. The potential tonnage and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

8.6 Grade Control Procedures and Modelling

GGPL's Mine Geology Department (MGD) does not carry out any routine underground face sampling or stope drawpoint sampling.

The assay data from the underground grade control diamond drilling on a 15 x 15m grid (as previously discussed in section 7.2) is used to raise Indicated resources to a Measured status and consequently is an integral part of the current MRE models which forms the basis for the Ore Reserves and the current LOM plan.

GGPL advises that the mine plan, which is revised annually, is generally based on mining of stopes within the next two years which contain only Proved reserves (ie. based on Measured resources) and only rarely include areas of Probable reserves (Indicated resources). Probable reserves are progressively upgraded to Proved reserves and the mine plan adjusted where necessary for the next 12 months such that stopes planned for mining in the current year and the following year contain only Proved reserves, ie. based on 15 x 15m grade control drilling.

There is no additional sampling data collected that is used to develop a grade control model separate from the MRE model. GGPL advises that if new resource drilling data during the course of the year results in significant changes to the current MRE model, the model may be updated and an interim MRE estimated and used for adjustments to the short to medium term mine planning, however generally MRE models are updated annually mid-year with the current MRE being June 2020.

8.7 Mine Reconciliation

GGPL reports monthly and year to date (YTD) reconciliation data in its Monthly Reports to assist in the management and monitoring of mill and mine performance. Three sets of tonnage and grade figures are reported, Ore Mined Claimed, Ore Milled and Ore Mined Reconciled.

The Ore Mined Claimed tonnes are derived from the ROM weighbridge; grade is based on a weighted average of the estimated stope grades taken directly from the resource block models (after applying ore recovery and dilution factors).

The Ore Milled tonnes and grade are calculated from mill weightometer tonnes, head grade sampling, concentrate production and grade and the tailings grade. Separate mill figures are calculated for zinc ore, copper ore and zinc-copper ore however for reconciliation purposes, the zinc and zinc-copper ore are combined and the copper ore reconciliation remains separate. Any oxide gold ore mined is not included in the reconciliation as the ore is processed off-site.

Ore Mined Claimed tonnes and grade are reconciled against the reported Ore Milled tonnes and grade to derive the Ore Mined Reconciled tonnes and grade which are reported monthly and YTD. Adjustments are applied to the Ore Mined Claimed figures for opening and closing stockpiles and the reconciliation figures are factored back to the tonnes and grade figures from each ore source (ie. Gossan Hill and Scuddles).

This is different from a more conventional method whereby the resource/reserve depletion tonnes and grade and the actual ore mined tonnes and grade are separately estimated and used for reconciliation against the reported ore

milled reconciled tonnes and grade in order to monitor the resource models and mining operations separately. In GGPL's case, the Ore Mined Claimed is regarded as the most accurate estimate for ore feed to the plant in the absence of additional grade control sampling post-mining of the stopes. In effect, GGPL does not report a separate reconciliation of the resource models against actual ore mined; justification for this is based on the satisfactory historical tonnage reconciliation between ore mined and the mill and on the fact that close-spaced grade control drilling data is incorporated into the MRE models and the models updated on a regular basis prior to mining. New resource/reserve models are used for mine reconciliation as soon as a resource model is updated and officially released (at least on an annual basis).

MGD also tracks the stope grades for the Undiluted Stope Design, the Diluted Stope Design (ie. the resource grade after factoring for dilution) and uses a Cavity Monitoring System ("CMS") to obtain the final tonnes and grade of each mined stope, termed the Final Void CMS. Any grade variance between the Diluted Stope Design and the Final Void CMS grade is attributed to underbreak or overbreak in the stope.

Ore Mined Claimed against Ore Mined Reconciled

Tables 8.6 and 8.7 show the results of the annual reconciliations between the Ore Mined Claimed and Ore Mined Reconciled for the period March 2018 to December 2020. This provides separate reconciliations of ore feed to the plant for zinc ore and copper ore. The separate zinc and copper reconciliations have been back-calculated by GGPL's MGD only to March 2018.

Table 8.6

Golden Grove – Reconciliation of Zinc Ore Mined Claimed to Ore Mined Reconciled for 2018 - 2020

Resource Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t
2018 (March to December)						
Ore Mined Claimed (1)	565,799	0.60	9.01	1.01	1.73	67.0
Ore Mined Reconciled (2)	570,719	0.68	9.68	1.27	2.35	84.3
Reconciliation (2) vs (1)	101	113	107	126	136	126
2019						
Ore Mined Claimed (1)	882,550	1.13	7.66	0.78	2.24	58.7
Ore Mined Reconciled (2)	887,871	1.41	7.65	0.96	3.00	70.1
Reconciliation (2) vs (1)	101	125	100	123	134	119
2020						
Ore Mined Claimed (1)	758,452	1.11	6.93	0.83	2.16	60.4
Ore Mined Reconciled (2)	771,774	1.23	7.53	1.03	2.34	69.0
Reconciliation (2) vs (1)	102	111	109	124	108	114
2018-2020						
Ore Mined Claimed (1)	2,206,801	0.99	7.76	0.86	2.08	61.4
Ore Mined Reconciled (2)	2,230,363	1.16	8.12	1.06	2.61	73.3
Reconciliation (2) vs (1)	101	117	105	123	125	119

Note: Ore Mined Claimed figures from Mine Geology Department; Ore Mined Reconciled figures from Processing Department Reconciled Mill figures after adjustment for opening and closing stockpiles; tabulated figures from GGPL's spreadsheet 'Grade Variance Report.xls'

Table 8.7

Golden Grove – Reconciliation of Copper Ore Mined Claimed to Ore Mined Reconciled for 2018 - 2020

Resource Category	Tonnage Mt	Grade Cu %	Grade Zn %	Grade Pb %	Grade Au g/t	Grade Ag g/t
2018 (March to December)						
Ore Mined Claimed (1)	448,406	2.56	0.20	0.03	0.34	11.6
Ore Mined Reconciled (2)	453,722	2.62	0.43	0.04	0.50	17.9
Reconciliation (2) vs (1)	101	102	215	133	147	154
2019						
Ore Mined Claimed (1)	488,421	2.73	0.18	0.03	0.50	15.4
Ore Mined Reconciled (2)	483,162	2.87	0.37	0.04	0.71	19.1
Reconciliation (2) vs (1)	99	105	205	133	142	124
2020						
Ore Mined Claimed (1)	502,232	2.25	0.16	0.03	0.83	14.5
Ore Mined Reconciled (2)	500,599	2.28	0.36	0.04	1.10	18.3
Reconciliation (2) vs (1)	100	101	225	133	133	126
2018-2020						
Ore Mined Claimed (1)	1,439,058	2.51	0.18	0.03	0.56	13.9
Ore Mined Reconciled (2)	1,437,483	2.59	0.39	0.04	0.78	18.5
Reconciliation (2) vs (1)	100	103	217	133	139	133

Note: Ore Mined Claimed figures from the Mine Geology Department; Ore Mined Reconciled figures are derived from the Processing Department Reconciled Mill figures after adjustment for opening and closing stockpiles; tabulated figures are from GGPL's spreadsheet 'Grade Variance Report.xls'

Overall, the results indicate acceptable reconciliations for tonnes and grade for both the primary zinc and primary copper ore for the period March 2018 to December 2020. The Ore Mined Claimed tonnes are close to the Ore Mined Reconciled reported tonnes. The reconciliation of the Ore Mined Reconciled grades to Ore Mined Claimed grades for both the primary zinc and copper ores are positive for all metals; this reconciliation, combined with the 100% tonnage reconciliation, results in positive reconciliations for all contained metals.

As the Ore Mined Claimed grades are based on the resource model grades, the reconciliation results suggests that the resource/reserve models appear to be slightly under-estimating the zinc ore grade in the zinc domains by 5% and the copper ore grade by 3% in the copper domains. For lead, gold and silver grades, there appears to be a more significant under-estimation of grades in the resource models, both in zinc and copper domains. The average differences in zinc domains are 23% for lead, 25% for gold and 19% for silver; comparable average differences for copper domains are 33% for lead, 39% for gold and 33% for silver. Although very positive results with respect to mine production, BDA considers that under-estimation of resource model grades in the order of 25-35%, even for minor metals, warrants investigation of the estimation parameters used in modelling (eg. grade top cuts and variography) with a view to improving the resource estimation and model grade forecasts.

BDA notes that the under-estimation of grades is also greater for copper grades in zinc domains (17%) than copper grades in copper domains (3%) and the same holds true for zinc grades in copper domains (117%) although in the latter case, the zinc is the low-grade component of the zinc mineralisation, well below the 2% Zn cut off used to define zinc domains and therefore potentially difficult to estimate with any confidence. GGPL advises that estimation parameters including variography used for grade estimation differ between copper and zinc domains for all metals which helps explain the different copper and zinc grade reconciliation results.

Ore Mined Claimed against Ore Milled

Table 8.8 shows the results of the annual reconciliations between the Ore Mined Claimed and the Ore Milled for the period 2017-2020. This reconciliation is for the total combined ore processed and therefore provides a reconciliation for the predicted contained metal in the reserve model (ie. MRE model adjusted for dilution and recovery) and the actual reconciled contained metal of the ore feed processed by the plant.

Table 8.8
Golden Grove - Ore Mined Claimed to Ore Milled Reconciliation for 2017 - 2020

Resource Category	Tonnage Mt	Metal Cu kt	Metal Zn kt	Metal Pb kt	Metal Au koz	Metal Ag koz
2017						
Ore Mined Claimed (1)	984,339	13.41	62.64	7.68	49.80	1,467.7
Ore Milled (2)	958,739	13.54	59.26	8.76	47.90	1,656.3
Reconciliation (2) vs (1)	97	101	95	114	96	113
2018						
Ore Mined Claimed (1)	1,203,660	17.35	63.15	7.39	45.70	1,741.6
Ore Milled (2)	1,248,956	18.72	71.30	9.54	59.23	2,251.3
Reconciliation (2) vs (1)	104	108	113	129	130	129
2019						
Ore Mined Claimed (1)	1,369,879	24.87	70.23	7.51	82.83	2,025.3
Ore Milled (2)	1,289,692	24.34	66.59	8.42	87.97	2,155.1
Reconciliation (2) vs (1)	94	98	95	112	106	106
2020						
Ore Mined Claimed (1)	1,286,578	19.75	53.51	6.37	68.16	1,687.1
Ore Milled (2)	1,377,330	22.66	63.67	8.58	84.02	2,113.8
Reconciliation (2) vs (1)	107	115	119	135	123	125
2017-2020						
Ore Mined Claimed (1)	4,844,456	75.37	249.52	28.94	246.49	6,921.6
Ore Milled (2)	4,874,717	79.27	260.82	35.30	279.12	8,176.5
Reconciliation (2) vs (1)	101	105	105	122	113	118

Note: Ore Mined Claimed figures from the Mine Geology Department; Milled figures are reconciled monthly mill figures from the Process Department; tabulated figures are from GGPL's spreadsheet 'Historic Metal Reconciliation.xls'

The reconciliation of the overall contained metal between Ore Mined Claimed and Ore Milled for the period January 2017 to December 2020 shows a similar positive result to the separate reconciliations for zinc and copper ore presented in Tables 8.6 and 8.7 above. Ore Milled figures report higher contained metal for all metals compared to the Ore Mine Claimed figures. Results suggest that the resource model forecasts are under-estimating all contained metals (as a result of under-estimating grades), although forecasting of contained zinc and copper metal is within 5% of actual milled reported figures which is an acceptable reconciliation (ie. a reconciliation for Measured resources of 10% or less is generally regarded as a satisfactory reconciliation). With respect to the minor metals lead, gold and silver, the under-estimation by the resource model forecasts is higher in the range 13-22% and as previously discussed, BDA considers this under-estimation should be reviewed.

Conclusions

BDA has not undertaken an audit of the Mineral Resource or Ore Reserve estimates. BDA has reviewed the methodology and procedures used by EMR/GGPL, and mining consultant Orelogy on the modelling and estimation of the resources and reserves, and discussed processes and procedures with GGPL staff and the consultants.

BDA considers the resource modelling and estimation approach used by GGPL is generally appropriate and consistent between resource models and results in acceptable resource block estimates suitable for use in reserve estimation and long term mine planning.

Estimation of Ore Reserves has been achieved through close collaboration between GGPL mining staff and Orelogy. Reserve parameters and modifying factors applied to the resource models are considered appropriate for the stope designs.

Reconciliation of the ore mined claimed (tonnes based on actual weightometer data and grade based on MRE model forecasts) and actual mill data shows that the resource models are providing a generally acceptable outcome of the tonnage, grade and contained metal for the primary zinc and copper ore, with resource models providing a slightly conservative forecast (around 5% lower) for total contained zinc and copper metal compared with the actual mill data reported on an annual basis since 2017. The results for the minor metals (lead, gold and silver) indicate more significant under-estimations ranging from -13% for gold to -22% for lead. Although positive in terms of overall mine performance, BDA considers that the latter under-estimation of contained metal for the minor metals, primarily as a result of grade forecasts in the MREs, warrants a review of grade estimation parameters for lead, gold and silver with the aim of improving block grade forecasts in the resource models.

9.0 MINING

9.1 Overview

Background

Development of the Scuddles mine started in 1988 with a decline and shaft sink; production commenced two years later. The Gossan Hill decline was started in 1994 and production commenced in 1998. A number of open pits have been mined for copper and gold oxide ores but are now inactive, though some resources remain.

Scuddles is accessed via a 630m shaft and a 1 in 7 gradient decline to a depth of 1,105m with deep drilling having identified ore grade mineralisation to depths of around 1,950m; Gossan Hill to the south is accessed by decline only, to a current depth of around 1,370m at Hougomont and 1,440m at Xantho. The Gossan Hill decline branches off to provide access to the two major producing orebodies, Xantho and Hougomont; deep drilling has identified ore grade mineralisation to depths of around 2,180m. Gossan Hill is currently the primary source of ore.

Current Status

GGPL's current LOM plan is based on the mining of 13 lodes in the Gossan Hill area, namely Amity, Hougomont Main, Hougomont Hangingwall, Oizon, Q Copper, Tyrall, Xantho, Xantho Extended and a number of smaller lodes. At Scuddles the LOM plan is to continue mining the remnant areas and develop the deeper Cervantes lode. Key parameters of the planned mining operations are summarised in Table 9.1. Planning for a number of lodes has extended beyond 2030; however, for the purpose of this report, production table projections are limited to 2030.

Table 9.1
Summary of Golden Grove Underground Operations - Current and Planned

Item	Units	Amity	Hougomont Main/H/W	Oizon	Q Copper	Tyrall	Xantho
Ore Reserve Tonnes	Mt	0.55	1.81	1.44	0.0	0.41	1.21
Ore Reserve Grade	% Cu	0.4	1.4	2.3		2.3	0.8
Ore Reserve Grade	% Zn	4.0	4.1	2.1		0.2	6.5
Ore Reserve Grade	g/t Au	1.2	1.5	0.6		0.3	1.2
LOM Inventory Tonnes	Mt	0.51	1.48	1.81	0.52	0.69	1.04
Mining Method	-	LHOS	LHOS	LHOS	LHOS	LHOS	LHOS
Access/Decline	-	Gossan Decline	Gossan Decline	Gossan Decline	Gossan Decline	Gossan Decline	Gossan Decline
Haulage	-	Truck	Truck	Truck	Truck	Truck	Truck
LOM Max. Production Rate	Mtpa	0.12	0.43	0.45	0.17	0.16	0.44
LOM Production Period	Year	21-32	20-32	22-30	21-32	21-32	20-30
LOM Life of Operation	Years	12	12	9	12	12	10
Reserve Coverage	%	100	100	80	0	59	100
LOM Working Levels	mRL	10120-9150	9880-8690	9000-8700	9700-9350	10280-9830	9630-9000
LOM Depths (from 10340mRL)	m	280-1224	508-1677	1400-1,677	700-964	100-490	760-1,920

Item	Units	Xantho Ext	Other GH Zones	Scuddles Zn/Cu	Cervantes Zn/Cu	Gossan Valley
Ore Reserve Tonnes	Mt	6.39	0.88	1.45	0.0	0.0
Ore Reserve Grade	% Cu	1.9	1.5	1.6		
Ore Reserve Grade	% Zn	8.2	3.3	3.0		
Ore Reserve Grade	g/t Au	0.9	0.7	0.6		
LOM Inventory Tonnes	Mt	7.8	0.30	1.47	0.23	2.55
Mining Method	-	LHOS	LHOS	LHOS	LHOS	LHOS
Access/Decline	-	Gossan Decline	Gossan Decline	Scuddles Decline	Scuddles Decline	New Decline
Haulage	-	Truck	Truck	Shaft & Truck	Shaft & Truck	Truck
LOM Max. Production Rate	Mtpa	1.10	0.13	0.30	1.7	0.40
LOM Production Period	Year	20-32	21-31	20-31	29-32	24-32
LOM Life of Operation	Years	12	11	11	4	9
Reserve Coverage	%	82	100	99	0	0
LOM Working Levels	mL	9000-8200	10250-9500	10250-9240	8925-8400	10300-9770
LOM Depths (from 10340mRL)	m	1407-2187	120-900	115-1,105	1,445-1,950	153-631

Note: Other GH Zones includes ABCD Zinc, A Copper, Catalpa, D Zinc and Ethel; Gossan Valley is considered an upside addition to the LOM inventory; Ore Reserve is based on the June 2020 resource model with ore depletion to June 2020; LOM Inventory is from January 2021 and includes Measured, Indicated and Inferred resources plus unclassified mineralisation; reserve coverage could be slightly overstated as no allowance has been made for reserve depletion from June 2020 to January 2021

The mining method is long hole open stoping (LHOS) with all planned stopes backfilled with either CHF, paste or waste rock. The bulk of the ore (79%) is classified as zinc ore, with copper ore representing 21%.

The Gossan Valley deposits of Gossan Valley, Grassi and Felix are the subject of a current feasibility study. A prefeasibility study (PFS) was completed in November 2020 and the feasibility study is scheduled for delivery in

Q2 2021. The study is based on access via a single decline connecting the three lodes and a stand-alone mining operation delivering ore to the Scuddles processing plant.

A decline provides access to the Gossan Hill orebodies with mine infrastructure comprising ventilation raises, power supply network, cemented fill plant, cooling plant and ground water pumping. At Scuddles the shaft and decline provide access to the underground orebodies with mine infrastructure of ventilation raises, power supply network, cemented fill plant and ground water pumping.

At Gossan Hill, ore mined is trucked to surface via the decline where it is primary crushed and conveyed to the process plant while ore mined at Scuddles is hauled to an underground grizzly and ore pass, at 550mL, which feeds the underground crusher and loading station in the shaft where ore is hoisted to surface and conveyed to the plant.

All mine development and stoping activities including drill and blast, load and haul and ground support, are carried out by mine contractor, ByrmeCut Australia Pty Ltd (BAPL); another two contractors provide additional service activities in the shaft, cemented hydraulic fill and raise boring. GGPL manages the mine contractors and provides technical oversight including grade control, mine planning, production engineering, ventilation, survey and geotechnical engineering.

2019 and 2020 Underground Production Sources

Table 9.2 shows the various ore zones from which mine production has been sourced in the last two years. A total of eight ore zones have been mined at Gossan Hill; all ore zones at the Scuddles mine are consolidated in the table. The major production zone at Gossan Hill over the last two years has been Hougomont, with 30-40% of production coming from this ore zone. Xantho has been the next most significant ore source contributing around 20% in 2020. AB Zinc, Amity, Tryall and Scuddles each contributed around 10% of production tonnage in 2020.

In terms of mineralisation, Hougomont and Xantho are the main sources of zinc ore, while Tryall, Scuddles and Hougomont are the main sources of copper ore.

Table 9.2
2019 and 2020 Underground Production by Ore Zone and Ore Type

Ore Zone	Unit	2019				2020				Percentage Split	
		Zinc	Copper	Gold	Total	Zinc	Copper	Gold	Total	2019	2020
Tonnage											
AB Zinc	Mt	0.08			0.08	0.00		0.14	0.14	6%	10%
Q Copper	Mt		0.04		0.04		0.02		0.02	3%	1%
Hougomont	Mt	0.52	0.03		0.55	0.38	0.11		0.50	40%	35%
Amity	Mt	0.09	0.02		0.11	0.07	0.03	0.04	0.15	8%	10%
A Copper	Mt		0.06		0.06		0.04		0.04	4%	3%
Tryall	Mt		0.07		0.07		0.16		0.16	5%	11%
Xantho	Mt	0.16	0.02		0.18	0.27			0.27	13%	19%
Scuddles	Mt	0.05	0.24		0.29	0.01	0.13		0.14	21%	10%
D Zinc	Mt				0.00	0.02			0.02		2%
Total	Mt	0.89	0.48	0.00	1.37	0.76	0.49	0.18	1.43	100%	100%
Average Grade											
Grade - Zn	%	7.6	0.4		5.1	7.7	0.4	1.4	4.4		
Grade - Cu	%	1.4	2.8		1.9	1.3	2.2	0.2	1.5		
Grade - Pb	%	1.0	0.1		0.6	1.0	0.1	0.5	0.6		
Grade - Ag	g/t	70.1	21.5		53.0	68.5	16.8	131.3	58.6		
Grade - Au	g/t	3.0	0.9		2.3	2.3	0.9	2.8	1.9		

Note: based on Ore Zone and Ore type production figures provided by GGPL; total production figures in this table are slightly at variance to historical total mined figure shown in other tables

9.2 Mine Planning and Design

The underground mining method used at Golden Grove is conventional, mechanised bottom-up longitudinal long hole open stoping (LHOS) with either unconsolidated rock fill (mine waste) or cemented hydraulic fill (CHF). These mining methods have been used at Golden Grove for many years, are well understood and have been successfully applied. Paste fill, as discussed below, is to become the main cemented fill at Gossan Hill in the future.

Transverse stoping is used in ore zones with significant ore width. The minimum width of these stopes is 13m. Minimum mining width for longitudinal stopes is 3m before dilution. Sublevel interval throughout the operation is generally 30m.

Cemented Hydraulic Fill (CHF) is used to enable the design of pillar-less stopes where geotechnically feasible, maximising recovery of the resource. The mine designs, where practicable, include top level development to facilitate rock filling of stopes to reduce CHF requirements, but EMR has advised that a considerable portion of future ore, particularly from the Gossan Valley and Cervantes lodes, is planned to be mined using narrow longitudinal stopes mined in an underhand continuous retreat sequence.

The mining sequence at Gossan Hill is from the access to the mine block, mining out along strike where practical, to avoid closing pillars, rather than a primary secondary stope sequence which is employed when mining transverse stopes. Pillar stress is less of a concern for the shallower ore zones, such as Gossan Valley.

The short to medium term planning takes the MSO stope designs and reviews the shape in terms of the revised resource model and reviews development design and mine extraction sequence. The stopes are designed in detail at the NSR cut off (currently A\$126/t) and dilution is applied between 10-15% to these designs with a mining recovery of 95%.

The Ore Reserves and LOM plan have been prepared by EMR and Orelogy. The stopes for the Ore Reserves include only Measured and Indicated resources (Proved and Probable reserves) but the LOM plan includes, as well as Measured and Indicated resources, some Inferred resources and unclassified material. Both the reserves and the LOM plan are based on an NSR cut-off value of A\$118/t included all G&A, processing, maintenance and geology costs, with mining costs exclusive of haulage and development (both capital and operating) added. The breakeven cut-off value was adjusted for average haulage costs per tonne for each orebody, and development costs per tonne were added where appropriate.

For the Ore Reserve, EMR used mining and processing rates and recoveries based on recent performance. Mining rates and productivities are based on the performance achieved by the underground mining contractor. Revenues are based on commodity prices and exchange rate guidance provided by EMR Capital.

The economic analysis was carried out in two phases using EMR Capital commodity prices and exchange rates. A discrete stope by stope analysis of cashflows was carried out to ensure the revenue covered associated operating and capital development costs. Secondly, an overall net present value was calculated for the Ore Reserve schedule using the same cost inputs but also taking into consideration the costs of exploration, non-mining capital costs and tax etc, to confirm that the overall economic viability of the reserves.

For the LOM analysis, stope by stope analysis of cashflows was carried out to ensure the revenue covered associated operating and capital development costs, but where additional capital development was required a scoping study level assessment of economic viability of each lode was completed prior to inclusion in the schedule.

All existing short-term designs and scheduling, geotechnical and ventilation engineering assessments were incorporated into the LOM design process. The Cervantes lode is included in the LOM but is not included in reserves as most of the Cervantes resources remain at the Inferred level. The Cervantes lode is scheduled to be mined from around 2030 to 2032 based on the LOM plan, but production projections in this report are limited to 2030.

Gossan Valley

A prefeasibility study was completed on the Gossan Valley, Grassi and Felix deposits (collectively referred to as Gossan Valley) in November 2020 by EMR and AMC Consultants Pty Ltd (AMC); three scoping studies have previously been completed on the project in 2011, 2018 and 2019.

The study concluded that longhole stoping with fill was the most appropriate mining method because of ore geometry, good ground conditions and with the advantage that this is the same method as used at Gossan Hill and Scuddles. The Mineral Inventory was estimated at 3Mt at 6.5% Zn and 0.9% Cu.

The mining sequence at Gossan Valley will be dominantly a top-down continuous sequence with backfill exposed in one wall and undercut. The majority of stopes at Gossan Valley are between 4-7m wide; Grassi has wider stopes with some over 15m in width while Felix stopes are all at the minimum mining width of 4m. Fill exposures will range from 4-15m in width. A typical longitudinal retreat stope is 7.5m wide, 20m long and 30m in height (the sublevel interval).

At Felix the smaller stope will not support a reticulated fill system and it is planned to use waste rock fill methods.

The only stope modifying factor applied during scheduling was a mining recovery of 95%. No additional dilution was applied other than that included as part of the mineable stope optimiser shape (MSO).

Access

Underground access is planned via a decline from a portal in a 30m deep boxcut to the south of the Gossan Valley ore zone. From the portal the decline strikes north towards the Felix mineralisation. The decline goes north at a 1:7 gradient before turning back to the south to reach the top of the Gossan Valley deposit. The Grassi decline takes off south of the portal at a position that allows the 1:7 gradient decline to reach the top of the Grassi lode. The Grassi decline has a return air rise approximately halfway to Grassi. A separate return air rise and escapeway system is designed for the Grassi deposit. Felix is accessed by a separate decline that comes off the main Gossan Valley decline at the northern most point. The Felix lode has its own return air rise developed to the surface and it

has been assumed that a ladderway will also be installed in this rise. Gossan Valley has its own return air rise, intake air rise and escapeway system. Figure 8 shows a long section of the proposed development.

While the prefeasibility study concluded that the mine plan was technically viable, the study also suggested that the mineral inventory needed to be in excess of 3.5Mt. Further resource drilling has since been completed and a feasibility study is planned for completion in Q2 2021.

9.3 Geotechnical Considerations

The geotechnical aspects of the mine are managed by GGPL's geotechnical engineering team within the Mine Technical Department. A Ground Control Management Plan (GCMP) has been prepared in line with industry requirements to ensure ground control is appropriately managed and mine designs are properly geotechnically assessed. The geotechnical section carries out routine inspections of shotcrete thickness, shotcrete quality and pull tests of rock bolts to ensure ground support standards are maintained. As part of the day-to-day operations, the mine contractor is required to ensure ground control testing can be carried out on installed support. Management of the stope filling is a component of the ground control management plan.

GGPL also has trigger action response plans (TARP) for seismic events along with other ground control issues such as damaged ground support and rock falls.

Rock Mass Assessment

Comprehensive rock property testing has been performed on drill core obtained from both mines. Generally, all rocks tested are medium to high strength.

The Rock Tunnelling Quality Index (Q), and the Modified Rock Tunnelling Quality Index (Q'), are determined from borehole core samples, underground heading inspections, and underground geotechnical window or line mapping and compiled in a database for both Scuddles and Gossan Hill mines.

Q' values (or their descriptive rock mass quality equivalents, based upon the Q system) for the different rock types within Scuddles and Gossan Hill are shown in Table 9.3; typically, the values at both mines are in the range of good to extremely good.

Table 9.3
Q' Values for Scuddles and Gossan Hill UG Mines Geotechnical Domains

Domain	Q' Range
Sediment	5 - 145 (Fair to Extremely Good)
Massive Sulphide	12 - 380 (Good to Extremely Good)
Rhyodacite & Dacite	2 - 60 (Poor to Very Good)
Dolerites & Rhyolite	2 - 60 (Poor to Very Good)

Rock mass properties used in elastic numerical modelling techniques are shown in Table 9.4. No testing of fault plane strength parameters has been conducted to date. The adopted strength components for faults are considered conservative.

Table 9.4
Rock Mass Properties Used in Elastic Modelling

Item	Parameter
Large Scale Rock Parameters	
Failure Criterion	Hoek-Brown
Intact UCS	150MPa
Shape Factor, m	1.7
Shape Factor, s	1.0
Young's Modulus	80GPa
Poisson's Ratio	0.25
Fault Conditions	
Failure Criterion	Mohr - Coulomb
Friction Angle,	20°
Cohesion, c	0MPa

Note: MPa = mega pascals; GPa = gigapascals

The major principal stress (σ_1) is sub-horizontal, and sub-perpendicular to the dominant foliation, the trend of the major faults, and the trend of the dolerite intrusions. The intermediate principal stress (σ_2) is also sub-horizontal, sub-parallel to the strike of foliation, whilst the minor principal stress (σ_3) is sub-vertical and sub-parallel to

foliation dip. The current depth/principal stress relationship (stress gradient) has been calculated and is used in the modelling of stress in capital development excavations.

Stope designs incorporate the various geotechnical factors in determining stope sizes, sequencing and dilution factors. Table 9.5 summarises some of the inputs used in the design process for the various ore lenses in Gossan Hill and Scuddles.

All stopes and stoping sequences are designed with geotechnical inputs. Each stoping area is given an estimate of stable hydraulic radius (HR), based on the Q' values, experience in the area and numerical modelling. Detailed mapping of geotechnical domains is undertaken for each stope and the stability graph method analysis (which uses the HR and Q' factors) is performed to determine stable spans. Numerical modelling is used to identify stress-related problem areas and refine extraction sequences.

Table 9.5
Recommended Mining Factors for Each Ore Lenses

Mine	Ore Block	HW/FW Recommended HR	Recommended Max Strike Length based on 25m Sublevel (m)	Recommended Max Stope Widths (m) with/without Secondary Support	HW/FW ELOS (m)
Gossan Hill	AB Zn	9	35	15-25	0.5
	Amity	9	35	15-25	0.5
	Ethel	9	30	15-25	0.5
	Hougoumont Cu	9	30	15-25	1.0
	Hougoumont Zn	8	30	15-25	1.5
	Hougoumont HW	9	30	15-25	1.0
	Q Copper	10	35	15-25	1.0
	Xantho	9	30	15-25	1.0
	Xantho Extended	TBA	TBA	TBA	TBA
Scuddles	Batavia	9	30	15-25	1.0
	Main – Cu	10	35	15-25	0.5
	Main – Zn	7	25	15-25	2.0

The numerical modelling of stope exposures is conducted as part of the Stope Design Record (“SDR”) or stope note using the modelling software MAP3D. Numerical modelling is done both internally and externally. External modelling is undertaken by consultants, assessing annual or longer budget periods and Life of Mine plans for stope sequencing, pillar stability and impact on life of mine infrastructure such as declines and capital ventilation rises; internal modelling is carried out to assess local effects on individual stopes or groups of stopes on one, two or three levels.

Structures

There are a number of structures within the underground mines that can affect development and stoping. Surface and underground mapping have defined several major faults in both the Scuddles and Gossan Hill area. The major faults are, Racehorse, Scuddles, Batavia, Fault 1 and Catalpa. Numerous dolerite, rhyolite and dacite intrusives cut across the stratigraphy and the sulphides of Gossan Hill. Managing development through the various structures is critical to the stability of excavations and minimising stress build up and release.

Within the Gossan Hill mine, interaction of the Catalpa Fault zone with Xantho Extended and Oizon stoping has potential to sterilise ore and may well impact the LOM schedule. GGPL reports that ongoing drilling is improving the understanding of the Catalpa Fault zone, both in terms of location and rockmass properties which should assist in minimising the potential risk.

Gossan Valley PFS

The geotechnical assessment by AMC for the Gossan Valley PFS was based on review of information available from the small database of holes logged for rock quality designation (RQD), and the more extensive database of core photographs. The RQD data indicates that ground conditions, in general, are ‘excellent’. The host lithologies are understood to be the same as those encountered at Gossan Hill.

As the deposits currently extend to a depth of generally less than 600m below surface, it is not expected that stresses will be a major consideration in the design of the underground mine. Stope design parameters were based on the stability graph method; the hydraulic radius (HR) values determined from AMC’s assessment ranged from 8m for the backs and 12m for the footwall and hangingwall. These are comparable with stable stoping dimensions at Gossan Hill and Scuddles mines (8-10m). Numerical modelling was undertaken to assess the overall mining

sequence and the potential of developing high stress conditions; high stress levels were only expected in localised pillars towards the end of the LOM and are expected to cause only minor damage.

Ground Support

The Ground Control Management Plan is a key live document that outlines the responsibilities and systems used to manage ground control at each mine; this document is standard in all underground mines in Australia. Related documents include the Cement Hydraulic Fill Management Plan (“FMP”) which outlines the systems used to ensure safe and efficient backfill placement of cemented hydraulic fill (CHF). The use of waste rock to fill stopes is covered in the Rockfill Management Plan (“RMP”).

Ground support is generally static support with split sets and mesh for typical ground conditions from surface to 900m with fibrecrete used in areas of weak ground. Below 900m depth, dynamic support is used with de-bonded fully resin encapsulated bolts with mesh or friction bolts with mechanical point anchor in addition to standard frictional force bolts with mesh; for areas of high seismic risk, fibrecrete is used to augment the mesh. Cable bolts are used at development intersections.

Inspection of new underground development is conducted weekly by the Geotechnical Engineer on each active heading as per the mining weekly schedule. Regular pull testing of rock bolts is carried out. Ground monitoring includes void monitoring, borehole camera and micro-seismic monitoring systems.

Ground support standards are reviewed by external consultants.

Seismicity

Golden Grove employs an Institute of Mine Seismology (“IMS”), fully digital, high resolution micro-seismic monitoring system at both Gossan Hill and Scuddles mines, synchronised via GPS units mounted on surface. Linking the two seismic systems provides increased accuracy in determining the position of significant seismic events. The current system is capable of being expanded to encompass deeper mining areas at both Gossan Hill and Scuddles.

The latest results of seismic monitoring for the 12 months to December 2020 showed 78 events greater than Magnitude-local (M_L) 0.5 with 72 at Gossan Hill and six at Scuddles with 28 events at Gossan Hill greater than $1M_L$. The number of events per month varied significantly from no events in October 2020 to 21 events in August 2020. The highest event was in June 2020 at $2.5M_L$ in the area to the west of Hougoumont. A Mine Control section on surface oversees the monitoring, and alerts are broadcast warning of any significant events so that appropriate action can be taken immediately.

The GGPL Geotechnical Engineer is responsible for investigating all large seismic events (Magnitude-local (M_L) > +1.0) and all events that cause damage to ground or ground support; IMS converts seismic moment to local magnitude, M_L . The level of investigation is dependent on a number of factors including proximity to active work areas, major infrastructure and capital development, access through the affected area by personnel and magnitude and concentration of events in the affected area. The monitoring and site investigations provide input to ongoing stope extraction sequencing, modelling and designs.

9.4 Hydrogeology Considerations

Groundwater occurs in permeable zones in the weathered bedrock, and in fractures in the underlying fresh bedrock. The base of the weathered zone is generally more permeable, as are the main mineralised north-south shears and the margins of dolerite dykes when they are partly weathered. At Gossan Hill, a shallow-dipping shear (reverse fault) is brecciated, with carbonate-lined voids, and is significantly permeable to several hundred metres depth. The dolerite dykes at Gossan Hill in the area dip eastwards at a shallower angle than the main shear, and the margins of the dykes are permeable to a greater depth than the surrounding country rock. The fractured bedrock is hydraulically connected to the overlying weathered profile and the brecciated main shear that forms a distinct, deeper aquifer. Prior to development of the mine the Botryoidal Aquifer, above the orebody, was identified and modelled leading to the aquifer being dewatered through a number of surface bores. Inrush potential was further mitigated by drilling diamond drill holes through major faults and connecting the aquifer to the underground workings. Monthly monitoring by GGPL shows the aquifer is not recharging and subsequent drilling into conduit faults to the underground workings have not resulted in significantly high inflows. The faults are not considered to be high- pressure water-bearing conduits. With the mine fully developed the potential for any inrush of water into the mine from these sources is considered very low risk.

Gossan Valley

A groundwater hydrogeological investigation was undertaken by AECOM Australia Pty Ltd (AECOM) in 2020 for the PFS to obtain a characterisation of groundwater properties in the Gossan Valley area, including baseline studies to determine groundwater levels, groundwater quality, aquifer types, natural groundwater flow systems (recharge and discharge) and existing groundwater users.

Highly permeable zones associated with deep regional fracture systems known from Gossan Hill have not been detected at Gossan Valley, but marginal contacts of dolerite dykes can be highly fractured and yield significant short-term inflows which will require managing.

Overall, dewatering rates from the project are predicted by AECOM to be about 2,000 kilolitres per day (“kL/d”) over the life of the mine but could fluctuate to as high as 5,300kL/d under the worst-case conditions. The peak dewatering rate is predicted to be in Year 2 based on assumptions that decline and ventilation shafts intersect doleritic saprock. If deep fractures are intersected, water flows may increase by an additional 100 to 900kL/d.

Dewatering

Ground water, and service water taken into the mines, is pumped out and used in the operations. The dewatering of the two mines has averaged about 900 megalitres per annum (“MLpa”) from Gossan Hill and Scuddles mines over the last year.

The pumping system at Gossan Hill comprises two rising mains to the surface from staged pumping systems. Three pumps (capacity 27L/s each with two duty and one standby) are located at the 667m level pump station. The other Gossan Hill pump system comprises three dirty water pumps capable of delivering 14L/s each, again with two duty and one standby pumping arrangement, typically pumping 300m vertically.

At Scuddles there is a similar configuration at the 605m level pump station to 667m level Gossan Hill pump station.

9.5 Mine Ventilation

The Gossan Hill ventilation system comprises three exhaust fans installed at the Catalpa ventilation raise (“CVR”), 5m diameter (“Ø”), the Main ventilation raise (“MVR”), 4.5m Ø and the Far South upcast raise (“FSUC”), 3.5m Ø, three intake shafts and the main decline, which serves as an intake. The total airflow for Gossan Hill is approximately 650 cubic metres per second (“m³/s”).

Scuddles ventilation comprises an exhaust fan at the North upcast raise (“NUC”), 4m Ø, pulling around 260m³/s of air through the mine and fresh air intakes via the main decline, the haulage shaft, the South down cast raise (“SDC”), 2.5m Ø, and the Central downcast raise (“CDC”), 2.5m Ø. The primary ventilation circuit also utilises various internal airways, ore passes and old stopes.

Cooling

The geothermal gradient at Golden Grove has been measured at Gossan Hill at 1.4°C per 100m with a surface rock temperature of approximately 20°C. Mining at current depths at Gossan Hill requires cooling of the ventilation air to ensure workplace temperatures do not exceed 28°C wet bulb (“WB”). At the bottom of the mine the temperature is between 27-29°C WB and in summer between 28-30°C WB with refrigeration operating; the refrigeration units only run around 20-30% loading in winter.

Two cooling (refrigeration) units are currently in operation. In November 2019 a 6.5MW unit was installed at the collar of the Far North downcast raise system (“FNDC”) which is a series of 4.5m diameter raises from surface to 1240m depth. Also, in 2019 a 2.5MW unit was installed at the collar of the South Downcast raise system (SDC) which is a 3.5m diameter raise linking further raise systems into the southern section of the mine.

GGPL has advised that work has had to be suspended due to high WB temperatures, but only for half a shift, and irregularly. These events have been reduced with additional hired cooling units added to the system over summer. In addition, GGPL has added a booster fan arrangement on 987mL into the CVR ventilation circuit that has improved the return airflow by 110m³/s and combined with the refrigeration has brought summer temperatures in January 2021 to below 28°C WB.

GGPL has restrictions on the number of loaders and trucks that can operate in the various air districts so that ventilation requirements are met, and heat loads are managed.

The LOM plan will require further expansion of the cooling system and the current plan provides for upgrades to the FNDC plant in 2022 and 2025 with two further 4.5MW units.

Sulphide Dust

Historically sulphide dust explosions (“SDE”) have been a significant issue at both Gossan Hill and Scuddles because of the high sulphide ore present in both mines. SDE has the potential to cause severe damage to underground services and equipment and produce a large amount of toxic gases, the most prevalent of which is sulphur dioxide.

GGPL has an established site procedure to manage any risk of SDE from high levels of sulphides. The Geology department provides notification to mine operational staff when development is approaching areas of elevated sulphides; blasting safety procedures are instituted, depending on the sulphide level. For levels above 16% sulphide, all firing is done from the surface with the mine cleared before firing with development perimeter rounds charged with low density emulsion. All development headings are washed down prior to firing to reduce the amount of sulphide dust. For areas with a sulphide content above 20%, water sprays are added and for extreme sulphur levels (+25%) a 20kg lime bag is located 10m back from the face and detonated with the development round.

With the precautions taken to identify areas of high sulphides and the steps taken during mining, the risk to the operation is substantially mitigated.

Underground Gas

Underground operations can have toxic gasses introduced from a number of sources such as diesel motors and explosives. At Golden Grove toxic gas releases have also occurred during drilling, particularly diamond drilling. GGPL has prepared gas management plans for operations that are likely to encounter toxic gases and set alarm systems for drilling locations to alert the operators to any gas release. Currently, GGPL has gas monitors capable of measuring CH₄, O₂, SO₂, H₂S and CO. The exposure of personnel to one or more of the mine gases is subject to defined exposure standards set by Safe Work Australia, an Australian Government statutory agency; these standards are in use at GGPL, and they specify exposure limits such that there is no resulting permanent impact upon the health of personnel. Appropriate precautions are taken to minimise potential risk to the operators and the operations from toxic gases.

Gossan Valley

The planned Gossan Valley complex consists of three separate declines (the two Gossan Valley ore zones and Grassi) that are ventilated in parallel. These declines share some common intake infrastructure, and the two Gossan Valley declines share a common exhaust, but as the exhaust capacity of the declines cannot be shared easily, the airflow requirements for each must be calculated separately based on the expected peak fleet requirements in each ore zone. When at full production, production is divided relatively evenly across the three declines and the same airflow requirement of 150m³/s is proposed for all three declines. An estimated total airflow of 480m³/s is required including an additional 30m³/s for fixed infrastructure (magazine and fuel bay).

9.6 Underground Operations

Operations

Mining is split into two distinct areas, the Scuddles operation serviced by a haulage shaft and decline, and the Gossan Hill operations serviced by declines. All mining operations underground are carried out by the mine contractor, Byrnegut Australia Pty Ltd (BAPL), except for boxhole boring carried out by Redpath and shaft services and CHF installations carried out by MMS. The mine contract between GGPL and BAPL commenced in March 2017 and has been extended recently to September 2022. Overall, EMR is reasonably satisfied with the contractor’s performance and BAPL is generally meeting targets.

The mine offices and mine fleet workshops are located at Gossan Hill. GGPL manages the underground operations as well as carrying out all technical services including mine planning, scheduling, geotechnical engineering, survey and geological grade control. GGPL is currently experiencing some difficulties filling vacancies in some technical areas and is using short term contractors in the interim.

Mining Fleet

The mine contractor has a mining fleet comprising 13 x 65t haul trucks, seven 20t loaders, five development jumbos, three production drills, and miscellaneous service vehicles including graders and charging vehicles. The equipment is serviced and maintained in the contractor’s workshop at Gossan Hill; there are no underground workshops although some refuelling is done underground. The mine fleet also includes a boxhole rig provided by a separate contractor.

Load and Haul

At Gossan Hill, ore is loaded from the drawpoints to stockpile bays and then loaded into trucks which haul the ore to the surface where it is crushed and conveyed approximately 3km to the Scuddles processing plant. The total ore haulage distance to the ROM at Gossan Hill is currently around 10km from the deepest stopes, and with increased depth this will increase to around 15km for the deepest orebodies. This equates to an increase in haulage tonne kilometres (“tkm”) including both ore and waste from 15Mtkm to a peak of 25Mtkm per annum at Gossan Hill.

At Scuddles, ore is typically loaded from the stope drawpoints to stockpile bays and then loaded into trucks which haul the ore either to ore passes or up the decline to the 550mRL grizzly where it is fed to the shaft hoisting system for shaft hoisting to surface. A rock breaker at the grizzly manages large rocks. If the shaft is unavailable ore is trucked to surface and then trucked to the Gossan Hill ROM pad (crushed and conveyed back to the Scuddles processing plant) as there is no primary crushing at surface at Scuddles.

In late 2020 the Scuddles shaft hoist was placed under a prohibition notice, as a result of an unplanned movement of the skip. Currently the mechanical and electrical systems are being upgraded and it is envisaged Government approval to recommence use of the shaft will be given in July 2021.

Fill

Cemented hydraulic fill (CHF) was first placed underground at Gossan Hill in 2004. In 2019 the Scuddles fill plant was commissioned. The fill plant capacities are currently 65m³/hr at Gossan Hill and 45m³/hr at Scuddles; design work has been completed and work is progressing on the work to increase the Scuddles CHF plant to 65m³/hr.

A summary of the fill placement is given in Table 9.6; Scuddles CHF placement has been increased over the last couple of the years. Fill placement has generally lagged the budget but fill placement has been increasing over the last three years.

Table 9.6
Actual and Planned Fill Placement

Fill Type	Units	Gossan Hill	Scuddles	Total	Plan/Budget	Variance
Rock Fill						
2018	tonnes	55,245	15,899	71,144	332,671	-261,527
2019	tonnes	76,421	19,801	96,222	305,098	-208,876
2020	tonnes	175,902	38,171	218,934	113,426	105,508
CHF						
2018	m ³	155,834	0	155,834	163,175	-7,341
2019	m ³	253,513	2,654	256,167	316,633	-60,466
2020	m ³	245,022	72,429	326,172	395,747	-69,575

CHF is produced by cycloning mill tailings to produce a coarse, dense and de-slimed underflow product with the addition of between 3-8% cement by weight to generate fill with an unconfined compressive strength (“UCS”) of >200 kilopascals (“kPa”). Typical specifications of de-slimed mill tails have a slurry density greater than 70% w/w (solids by weight) with majority of material greater than 10µm to produce a free draining material.

Liquefaction may occur when the inter-particle bonds in unconsolidated CHF break down due to the fill mass being subjected to a rapidly applied load. This failure can be triggered by a large seismic event ($M_L > +1.0$) or significant rock fall within the stope. It is unlikely that small events, like those typically experienced at Gossan Hill and Scuddles, or even blasting would generate sufficient force to cause liquefaction, particularly in cemented fill. A general industry rule is that liquefaction cannot occur once the fill mass achieves a minimal strength of 100kPa. This is considered a low risk given the strength of the CHF placed. A move to paste with a target strength of 750kPa would further lower the risk.

Stope sizes, the fill medium and sequencing have been modified to cope with changes as mining induced stress levels increase around existing voids and as stresses increase with depth; the move to paste will provide engineers with the benefits of cemented fill at depth while reducing the cement requirements.

Paste Fill

GGPL is planning to move to paste filling and has located a Low-Profile Medium Output Modular Paste Plant (“LPMO”) owned by Quattro which has a minimum capacity of 24,000m³ of fill per month (nameplate capacity 120m³/hr). GGPL is considering hiring the plant (that was designed and assembled for a BHP contract) for a three- or five-year contract. It is anticipated that some modifications to the plant will be necessary; proposed initial commencement date is Q2 2021.

The plan for the paste plant is to use TSF2 dry tailings which will be trucked approximately 5km to the paste plant site at Gossan Hill. The site has been prepared and drilling of fill holes for the paste fill infrastructure is in hand.

The underground reticulation network is initially targeting Xantho Upper/Lower, D Zinc and Lower Hougoumont before being subsequently expanded in stages.

The introduction of paste fill will have a number of benefits in particular the improved turn-around of stopes and reduced bulkhead requirements for paste fill compared to CHF. The curing time of the paste will be four days to achieve the required strength, compared to CHF of between seven and 14 days. Other benefits are the reduced requirements of cement from 7.6% in CHF to 4% in paste with potential to lower further, and paste fill provides better utilisation of the plant tailings (incorporating the fine material).

The Gossan Valley PFS indicated that the preferred option for Gossan Valley was reclaimed TSF2 tailings trucked to the mine area with a dry paste plant producing the paste fill for the new mine.

If GGPL progresses to using tailings direct from the plant for paste fill, then some form of thickeners and/or filtration will be required at the process plant prior to delivery of the tailings to the paste plant.

9.7 LOM Production Plans and Financial Models

In March 2021 EMR issued a LOM plan report (“March 2021 LOM Report” or “LOM Report”) which considers a number of future development options. Common to the various options is the mining of 13 lodes in the Gossan Hill area, namely Amity, Hougoumont, Hougoumont Hangingwall, Oizon, Q Copper, Tyrall, Xantho, Xantho Extended and a number of smaller lodes. At Scuddles the LOM plan is to continue mining the remaining stopes and remnants and develop the deeper Cervantes lode (Figure 8). In this report, while mention may be made where appropriate of EMR’s future plans beyond 2030, the review of production projections has been limited to the period 2021-2030.

The LOM study also reviewed the open pit resources remaining at Scuddles and Gossan Hill and carried out optimisation analysis and design to a scoping study level. The remaining open pit mineable inventory was estimated at 1.5Mt at a grade of 1.5% Zn, 0.9% Cu and 0.5g/t Au at a strip ratio of approximately 15:1, and was scheduled to be mined over a three-year period towards the end of mine life. The open pit inventory included 0.4Mt of gold ore that would require treatment at a gold processing plant, with the remainder used to supplement the feed to the Scuddles processing plant.

The March 2021 Base Case financial model reviewed in this BDA report excluded the open pit resources and is based only on the underground reserves, resources and possible extensions.

The LOM option without Gossan Valley maintains the mining and processing rate at 1.6Mtpa to around 2030. The ‘Consolidated’ LOM plan includes development of the Gossan Valley lodes (Gossan Valley, Grassi and Felix), allowing the production and processing rate to ramp up to around 2Mtpa from 2024 to 2030.

The Gossan Valley lodes are planned to be accessed via a single decline from surface which then branches to connect the three mineralised lodes. A prefeasibility study (PFS) was completed in November 2020 on the development of Gossan Valley, and a feasibility study incorporating further resource drilling is currently underway, due for completion in Q2 2021.

EMR also provided BDA with a March 2021 Financial Model (FM) (*Golden Grove Financial Model March 2021*) for review, also incorporating two alternative development scenarios, one without Gossan Valley development (the Base Case) and one with Gossan Valley (the Upside Case). However, unfortunately, neither case actually mirrors the two cases developed in the March 2021 LOM Report. The FM Base Case without Gossan Valley envisages a 1.6Mtpa mining and processing rate (Figures 9 and 10), while the case with Gossan Valley ramps up to 2Mtpa throughput (Figure 11). Both FM cases have an end of mine life beyond 2030. Neither of the FM scenarios include any open pit ore. The schedules for the first ten years from 2021 to 2030 are largely based on Measured and Indicated resources (even though some Inferred and unclassified material is included) but the schedules beyond 2030 are, in BDA’s opinion, largely conceptual. However, BDA accepts that the Golden Grove history has been one of ongoing exploration success and the definition of new lodes; BDA considers that there is every possibility that with an ongoing focus on exploration drilling, sufficient resource extensions could be defined to support the conceptual plans for ongoing production through 2035.

BDA notes that there is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing and the level of confidence is not sufficient to classify this material as Inferred without further drilling; in terms of JORC Code classifications this material could be considered an Exploration Target. The potential tonnage and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

The comparative LOM Report schedules and Financial Model schedules (from 2021 to 2030) are shown in Table 9.7, highlighting the variances in the approaches. Both the LOM Report and the FM consider cases without Gossan Valley (with a maximum mill throughput of 1.6Mtpa) and with Gossan Valley (with throughput ramping up to a maximum of 2Mtpa).

Typically, BDA would expect the Financial Model to be based on the detailed LOM plans and design; this appears to be largely the case for the schedules for the first ten years to 2030.

Table 9.7

Comparative Production Schedules - Life of Mine Report v Financial Model

Item	Unit	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Without Gossan Valley												
LOM Report	Mt	1.59	1.62	1.65	1.68	1.58	1.54	1.54	1.58	1.55	1.50	15.83
FM Base Case	Mt	1.52	1.62	1.59	1.62	1.62	1.62	1.62	1.62	1.62	1.51	15.96
With Gossan Valley												
LOM Report	Mt	1.59	1.62	1.65	1.73	1.92	1.98	2.02	2.06	1.99	1.89	18.45
FM Gossan Valley Case	Mt	1.52	1.62	1.59	1.76	2.03	2.02	2.02	2.02	2.02	1.91	18.51

Note: LOM Report Cases include Gossan Hill, Scuddles and Open Pits, with and without Gossan Valley; FM Cases include Gossan Hill and Scuddles with and without Gossan Valley and Resource Extensions, but without Open Pits

The mineral inventory for the Base Case FM scenario comprises 15.4Mt of Measured, Indicated, and Inferred resources, together with 0.6Mt of unclassified mineralisation. The case including Gossan Valley includes an additional 3Mt of Gossan Valley resource inventory.

Around 87% of ore production for the first ten years of the FM Base Case plan is based on Measured and Indicated resources with 13% Inferred resources and unclassified mineralisation. The quantity of Inferred resources and unclassified mineralisation in the FM schedule imposes additional risks, but GGPL plans to mitigate these risks with additional advance drilling as development progresses in depth.

BDA accepts that the FM Base Case mining scenario to 2030 is reasonable and the schedules appear achievable. Given the potential to develop Gossan Valley and the additional exploration potential, BDA considers an extension of mine life beyond 2030 to be a not unreasonable projection.

BDA considers the main short-term risk to mine production relates to development and stope filling rates, maintaining good ventilation and controlling stress levels in new and deeper areas. The main risks to the latter portion of the proposed mining schedule include the above risks, with increasing depth, but also relate to the definition and development of additional resources.

Table 9.7 sets out the FM Base Case production from each lode over the mine life, based on a mill throughput of around 1.6Mtpa. GGPL advises that the production rate of 1.6Mtpa requires some strategic planning of trucking capacity given the increasing depth of stoping, and attention to ventilation, cooling, backfill and development, given the rate is higher than current rates being achieved. Nevertheless, GGPL considers the 1.6Mtpa underground production rate achievable.

Current mine production is predominantly from Gossan Hill, producing approximately 89% of the ore tonnage, with Scuddles contributing around 11%; over the mine life the split is similar.

The case with Gossan Valley included is considered by GGPL to be an upside case, as the feasibility study has yet to be completed. In this Gossan Valley Case, the Gossan Valley deposits are developed with a planned production rate of 400,000tpa; it is proposed that inclusion of Gossan Valley production will allow the processing rate to increase to 2Mtpa. However, the Base Case reviewed here and shown in Table 9.8 maintains a maximum mining and throughput rate of 1.6Mtpa.

The mining schedules rely on timely construction of bulkheads and completion of filling and curing of the CHF and paste fill when commissioned. The schedules allow for 11 days for stope fill preparation including bulkhead construction and curing; the schedule allows for one filled stope wall; longer periods are scheduled for multiple stope walls. Paste filling has the potential to reduce stope filling periods and improve extraction sequencing. GGPL has advised that between 6-8 stopes are mined monthly and a single bulkhead is required for each stope access.

Studies of the fill system at Gossan Hill indicated that the CHF plants would need to run at an instantaneous rate of 115m³/hr, rather than the current 65m³/hr capacity to meet the fill requirements for a production rate of 1.6Mtpa. After considering several options, EMR has moved to introduce paste fill with an improved turn-around of stopes and reduced bulkhead requirements for paste fill compared to CHF. Paste fill also provides for better utilisation of the plant tailings (incorporating the fine material). The planned changes should allow the production targets to be met, but there may be some initial issues as paste is introduced. GGPL has engaged the assistance of external consultants to manage the commissioning of the paste plant and filling.

Table 9.8
FM Base Case Mine Production Schedule

Item	Units	Calendar Year										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Gossan Hill												
ABCD Zinc	Mt	0.06	0.04	0.02	0.01	0.00	0.00	0.02	0.00	0.03	0.00	0.18
Amity	Mt	0.12	0.01	0.05	0.01	0.07	0.12	0.03	0.02	0.06	0.02	0.51
Hougoumont	Mt	0.21	0.14	0.06	0.10	0.04	0.06	0.09	0.08	0.09	0.10	0.97
Hougoumont H/W	Mt	0.20	0.17	0.03	0.01	0.00	0.03	0.01	0.01	0.02	0.03	0.51
Oizon	Mt	0.00	0.01	0.14	0.29	0.45	0.28	0.24	0.15	0.20	0.05	1.81
Q Copper	Mt	0.10	0.17	0.08	0.00	0.00	0.03	0.01	0.04	0.01	0.08	0.52
Tryall	Mt	0.09	0.02	0.06	0.16	0.06	0.03	0.02	0.07	0.11	0.07	0.69
Xantho Extended	Mt	0.06	0.33	0.74	0.90	0.94	1.05	1.10	1.08	0.83	0.73	7.76
Xantho	Mt	0.41	0.31	0.10	0.00	0.01	0.01	0.02	0.08	0.07	0.03	1.04
Other Zones	Mt	0.03	0.09	0.10	0.03	0.00	0.01	0.00	0.01	0.00	0.03	0.3
GH Res Extensions	Mt											0
Scuddles												
Scuddles	Mt	0.24	0.33	0.21	0.11	0.06	0.04	0.05	0.09	0.20	0.14	1.47
Cervantes	Mt									0.01	0.22	0.23
Scuddles. Res Extensions	Mt											0
Total	Mt	1.52	1.62	1.59	1.62	1.62	1.64	1.59	1.63	1.63	1.51	15.97
Average Grade												
Grade Zn	% Zn	4.4	4.9	6.2	5.3	7.1	7.6	6.4	5.7	3.6	3.9	5.5
Grade Cu	% Cu	1.4	1.3	1.5	1.8	1.6	1.6	2.2	1.8	2.2	2.2	1.8
Grade Pb	% Pb	0.4	0.4	0.4	0.3	0.4	0.5	0.5	0.4	0.3	0.2	0.4
Grade Au	g/t Au	1.3	1.0	0.8	0.7	0.8	0.9	0.9	0.8	0.6	0.5	0.8
Grade Ag	g/t Ag	41.3	33.1	29.0	25.0	29.5	37.7	38.8	34.9	31.7	25.3	32.6
Resource Category												
1.Measured	Mt	1.26	1.06	0.48	0.24	0.19	0.26	0.12	0.14	0.32	0.28	4.35
2.Indicated	Mt	0.26	0.51	0.99	1.23	1.21	1.25	1.28	1.18	0.86	0.72	9.49
3.Inferred	Mt	0.00	0.04	0.12	0.12	0.18	0.12	0.15	0.27	0.21	0.32	1.53
4.Unclassified	Mt	0.00	0.00	0.00	0.04	0.04	0.00	0.04	0.03	0.24	0.19	0.58
5.Res Extensions	Mt											0
Total	Mt	1.52	1.62	1.59	1.62	1.62	1.64	1.59	1.63	1.63	1.51	15.97
Percent (3+4+5)/Tot	%		2.8	7.6	9.4	13.6	7.8	12.0	18.7	27.6	33.7	13.2

Note: 2020-2030 production is based on LOM forecasts including Measured, Indicated and Inferred Resources and unclassified mineralisation; average grade is based on the milled average grade; slight difference in LOM total production to the other production tables due to minor variations in rounding; **there is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised; the unclassified material could be considered an Exploration Target, as such the potential tonnage and grade is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised**

Mine lateral development is planned to be approximately 84km over the first ten years of the mine life with around 9,500m per year in the short term, peaking at 11,000 per annum in 2024; development begins reducing in 2028 but resource extensions will likely see the development metreage continue at comparable levels for longer. The split of the development by cost allocation is 40km operating and 44km capital. GGPL advises that the capital development advance rate in Xantho Extended is critical, as this mining area underpins a major portion of the ore production for much of the mine life and contains stopes with the highest grades.

Development rates are scheduled at appropriate levels based on the available mine fleet and development headings; however, BDA notes the development metreage in 2018, 2019 and 2020 was 7,533m, 8,420m and 7,967m respectively which is significantly below the target rate going forward. GGPL is aware that improving productivity of the five development crews is an important part of meeting the mining targets and advises that significant improvements have been made in equipment and manning, with Q1 development advance ahead of schedule and on target to achieve the higher production rates. The requirement to rehabilitate development to access remnant stopes adds to the work, with approximately 1km scheduled for rehabilitation per year.

Overall, BDA considers that the forecast mine production over the next ten years is realistic and achievable, but with some risks including development rate, seismicity and stope filling rates.

Conclusions

GGPL has well-established mine planning and technical departments, providing short, medium and long-term planning, supported by external consultants. The mining operation requires a high level of technical input and control due to significant seismicity and stress, high heat load on the ventilation system, the depth of the main production areas and the stope backfilling scheduling.

Geotechnical knowledge and input are significant and appropriate; seismic monitoring is an important tool in day-to-day geotechnical supervision. Management of ground conditions is critical to the operation and requires ongoing assessment of structures and stress points within the mine development and stoping sequence. Some adjustments of the mining plans may need to be made as the mine progresses, but the potential impact can be mitigated with continuing geological and geotechnical data collection and assessment ahead of the mine front.

Mining conditions within the Gossan Valley deposits from the geotechnical assessment to date indicates the conditions will be generally good. More detailed assessment of the key underground infrastructure is planned. Slope sizes are considered reasonable and in line with Gossan Hill.

Mine ventilation is well established at both Gossan Hill and Scuddles. With the increasing depth at Gossan Hill there is ongoing requirement for cooling with increases in ventilation and cooling capacity planned in the next four years. Infrastructure improvements are included in the capital budget.

Golden Grove has potential issues with sulphide dust explosions and with occasional toxic gas emissions during exploration and resource drilling; GGPL has established procedures to mitigate the risk from such issues including determination of sulphides quantities in new development or stopping, specific blasting procedures and gas monitoring of workplaces.

Backfilling of stopes with CHF and rock fill has been carried out successfully for many years. While there has been some recent upgrade to the CHF plants, GGPL acknowledges that the current system cannot meet the requirements for the life of mine operations as currently planned. Paste fill is planned to be introduced in 2021 to improve fill rates, reduce cement requirements and improve the turnaround time for stope filling. The paste fill plant will initially use TSF2 dry tailings which will allow filling to be disconnected from the process plant which will allow filling to continue during shutdowns. The schedule for establishing paste filling is reasonable but there is potential for some commissioning issues and reticulation problems typical with start-ups; however, GGPL will use external specialist consultants to assist with the installation and commissioning of the paste plant. The performance of the fill plants, CHF and paste, and filling rates are important to the achievement of the mining schedule; underperformance may reduce available ore tonnages to the plant.

The mining operation is well established with the mine contractor (BAPL) appropriately equipped and staffed to meet the requirements of the contract (which has recently been extended by 18 months). GGPL has a sound technical services team supported by consultants, although there is some issue with filling current vacancies. The mine operation has well established systems and procedures.

GGPL is targeting a production rate of 1.6Mtpa, based on the Base Case Financial Model without Gossan Valley. While planned production rates have been achieved at times at both Gossan Hill and Scuddles, production has not achieved this rate in recent years. Development and stope filling are important areas that need to meet targets for planned production to be achieved, while controlling issues around ground control, ventilation and backfilling. BDA considers the mine schedule assumptions are reasonable and production is considered achievable in the period 2021 to 2030. The inclusion of Inferred Resources and unclassified mineralisation in the plan inventory increases the production risk, given the lack of definition of this material. However, the multiple ore sources planned to be mined in the mining schedule should allow some mitigation of this production risk, and there also remains material upside from definition of additional ore through infill and exploration drilling.

The production schedule in the FM mine plan from 2031 to 2035 is somewhat higher risk and in BDA's opinion is largely conceptual. However, exploration success has provided significant resource extensions over the project's life, and it is not unreasonable to project that additional lodes and lode extensions will be defined, though likely at significant depth. In BDA's opinion the FM mine plan forecasts beyond 2030 should be considered as illustrative of potential upside.

The development of the Gossan Valley project provides the potential ore feed for the ramp up of the Golden Grove operation to 2Mtpa, should the project feasibility study prove positive and project development be approved. BDA considers the mine plan is reasonable but the establishment of production at 400ktpa may be delayed given the length of development required before full production. Gossan Valley is included in the Golden Grove Financial Model March 2021 but is not included in the Base Case model discussed in this report.

10.0 PROCESSING

10.1 Overview

The Golden Grove process plant has operated continuously since initial commissioning in 1990. The processing plant is designed to produce saleable metallic sulphide flotation concentrates, and has the capability, depending on the ore feed, to produce three principal concentrates. Whilst internal reporting refers to additional concentrate classifications for metallurgical accounting purposes, the saleable concentrate classifications are as follows:

- Copper concentrate - LPM (low precious metal) or HPM (high precious metal) content, depending on ore feed
- Zinc concentrate
- Lead HPM (high precious metal) concentrate.

The plant currently treats ore from two mining areas, Gossan Hill and Scuddles. The different ore types are separately stockpiled and batch treated to optimise production and maximise the value of saleable concentrates.

The concentrates are thickened, filtered, and trucked by a contractor to the port of Geraldton for storage and ocean shipment to customers in South Korea, China, Southeast Asia and Australia.

10.2 Mineralogy and Ore Characterisation

The Golden Grove deposit is a volcanic-hosted massive sulphide (VHMS) deposit, producing three concentrates: copper, zinc and high precious metals/lead (HPM). The copper concentrate can contain low or high precious metals, depending on the ore source at the time. The sulphide mineralogy is dominated by chalcopyrite, sphalerite, galena, and pyrite. The copper oxide open pit deposit, developed in 2012 but now mined out, was dominated by malachite. Precious metals of gold and silver are present as native gold and silver, electrum and freibergite (silver-rich tetrahedrite). The precious metals are chiefly associated with galena, as inclusions and in solid solution, with smaller amounts also associated with chalcopyrite and pyrite.

The mineralisation at Golden Grove occurs as two distinct ore-types, copper-rich ore and zinc-rich ore (with minor lead), which are typically physically separated into different lodes. The ores are processed in separate campaigns of copper ore and zinc ore. In some mining areas, copper and zinc ores occur in close proximity and are mined together and separately stockpiled as copper-zinc ore.

Chalcopyrite (CuFeS_2) is relatively coarse grained and well liberated (>80% in flotation feed) at a flotation feed of p80 106 μm or more. Recoveries are high at the targeted concentrate grade of 19.0% Cu. The copper concentrate stream intentionally accepts 25-35% pyrite by mass due to the gold content of the pyrite. Chalcopyrite mineralogy and texture is consistent in discrete Cu ores and mixed Cu/Zn and Cu/Pb/Zn ores. Chalcopyrite can constitute between 1 - 12% of Cu ore feed material, with a grade of 0.4-4% Cu.

Sphalerite (ZnS) is relatively coarse grained and well liberated. This is reflected in the ability to achieve 90% recovery of zinc at a 50% Zn concentrate grade with a flotation feed P80 typically of 106 μm or more. Sphalerite can constitute between 12-30% of the zinc ore feed material with a grade of 8-20% Zn.

Galena (PbS) is relatively coarse grained and mostly liberated (>70% in flotation feed) with composite particles primarily formed with silicates and pyrite at a flotation feed p80 of 106 μm or more. Concentrate grades of 20-40% Pb are achievable. Galena can constitute 0.5-6% of PbZn feed ore material, with a grade of 0.4-4% Pb.

Gold mineralogy varies from coarse grained gravity recoverable particles (primarily electrum, a silver-gold alloy) through to fine intergrowths and gold in solid solution within pyrite grains. A centrifugal gravity concentrator enables recovery of coarse gold present in the ore. Finer electrum and gold locked within pyrite grains is recovered via flotation into the Cu LPM, Cu HPM and Pb HPM streams. As pyrite content in the feed to the plant increases, the gold content tends towards inclusions within pyrite grains (refractory) and is of lower gravity recoverable form. Feed grades range between 0.1-3.5g/t Au and recovery to gravity concentrate ranges from 10-40%. The gravity gold concentrate is recombined with the flotation concentrate streams, however it can be collected separately for further refining or separate sale, with product grades ranging from 500-4000g/t Au.

Gangue minerals include quartz and clinochlore. Talc has previously been present in varying amounts in the copper ore, and has impacted on flotation efficiencies, but significant quantities of talc have not been encountered in recent years. Any ores with material talc are quarantined on the ROM pad for selective treatment.

The gold mineralogy varies from fine intergrowths locked inside pyrite and silicate minerals, to coarse free gold and electrum (silver and gold alloy), which can be recovered via gravity concentration means.

10.3 Ore Stockpile Management and Batch Processing

The Gossan Hill ore is trucked up the decline and dumped on designated stockpiles on the ROM pad as determined by the geologists and metallurgists based upon grade and mineralogy. Depending on plant requirements, the ore is recovered from the appropriate stockpiles and crushed via a primary jaw crusher located at the Gossan Hill ROM pad (Figure 12). The crushed ore is then conveyed via an overland conveyor to the Scuddles processing plant and is secondary crushed prior to stockpiling on the crushed ore stockpile prior to feeding to the plant.

Scuddles ore is crushed underground via primary jaw crusher and hoisted up the Scuddles shaft and discharged to the crushed ore stockpile adjacent to the processing plant (Figure 12).

The Scuddles hoisting shaft is currently out of commission, so any ore produced from Scuddles is currently trucked up the decline, trucked to the Gossan Hill ROM pad and separately stockpiled. Ore from the Scuddles ROM pad stockpile is reclaimed, crushed and conveyed to the Scuddles processing plant as described above for the Gossan Hill ores.

Under the current batch processing system, the two principal ore types are copper ore and zinc ore (the latter also containing lead values). Copper ore is processed through the copper flotation system, producing a copper concentrate with variable precious metals content (LPM/HPM), depending on the ore source. The zinc ore is processed initially through lead flotation, which removes the bulk of the lead and precious metals content, producing a Pb/HPM concentrate, followed by zinc flotation and production of a high-grade zinc concentrate.

In some mining areas both copper and zinc lenses occur in close proximity and are difficult to mine separately. In these cases, a combined Cu/Zn ore is produced, separately stockpiled and typically processed through the copper flotation circuit to produce a copper concentrate with elevated zinc values, with the tailings reprocessed through zinc flotation to recover the remaining zinc sulphides.

CuZn ores are differentiated from PbZn ore based on the Cu:Pb ratio being greater than one and vice versa.

The ores are selectively retrieved from the stockpiles by the stockpile loader to provide the required ore supply to the plant, with the goal being to provide a steady and optimal feed grade for processing.

With completion of the sequential flotation processing upgrade, batch processing will no longer be undertaken, and all ores will be processed through essentially the same process flowsheet comprising copper flotation, lead flotation and zinc flotation, removing first the copper, then the lead (and precious metals) and finally the zinc. The only exception will be clean copper ores with lead and zinc values too low to justify economic extraction; these copper ores will just be processed through the copper circuit with the tailings going straight to waste.

As part of the comminution circuit, a portion of the feed is directed to the gravity circuit, where a gravity concentrate high in precious metals is produced. This gravity concentrate is added either to the lead concentrate thickener or to the copper concentrate thickener, subject to concentrate terms and maximisation of revenue, to produce a high precious metals (HPM) concentrate.

10.4 Comminution

The Gossan Hill crushing circuit consists of a 60" x 48" 150kW primary jaw crusher located at the surface of the Gossan Hill mine. The ore is crushed to 100mm and conveyed via an overland conveyor to the Gossan Hill stockpile at the Scuddles processing plant. The ore size is reduced further to 40mm via a secondary crusher (Weir Trio TC66 Cone Crusher with 315kW drive) before discharge to the Gossan Hill stockpile.

Scuddles ore is crushed underground through a 60" x 48" 150kW primary jaw crusher and hoisted up the Scuddles shaft and discharged to the Scuddles stockpile. This ore stream does not currently report to any subsequent secondary crushing.

The grinding circuit (Figure 12) is a semi-autogenous (SAG) mill, ball mill and recycle crusher configuration (SABC) comprising:

- a 6.7m diameter by 2.1m 1500kW SAG Mill
- a Weir Trio TC51 150 kW pebble (recycle) cone crusher
- two ball mills, a 3.8m diameter by 6.7m 1500kW mill, and a recently re-purposed smaller 2.74m diameter by 4.26m 400kW ball mill, which was previously utilised as a regrind mill.

Classification is achieved via a bank of six Weir Cavex 400 cyclones.

The SAG mill operates in closed circuit with the single-pass pebble (recycle) cone crusher. SAG mill grinding media comprises 105mm and 125mm diameter steel balls. The SAG mill is a single pinion fixed speed mill that rotates at 12.5 revolutions per minute ("rpm"), 76% of critical speed. Many SAG mills in this grinding

configuration are variable speed; the Golden Grove SAG mill is a fixed speed design, resulting in the potential for SAG mill charge weight variations with variable feed characteristics. Manipulation of the stockpile feeders and a bypass gate on the pebble crusher are used to assist in maintaining the SAG charge weight with varying feed characteristics, such as ore size and ore hardness. Rapid increases in ore size limit the mill throughput and induce surging through to the flotation plant. Decreases in ore size are less deleterious, as the pebble crusher can be bypassed with the pebble stream (uncrushed) re-cycled back to the SAG mill.

Secondary crushing of the Gossan Hill ore, introduced in December 2019, has increased stability in the grinding and flotation sections.

The SAG discharge passes through a 12mm trommel; the trommel oversize reports to the pebble crusher to produce a <10mm product which is returned to the SAG mill and the trommel undersize is pumped to the primary cyclones, which classify the slurry, with the coarser particles reporting to the cyclone underflow, and the finer particles reporting to the cyclone overflow. The cyclone underflow is recirculated to the ball mills for further size reduction, and the cyclone overflow is pumped directly to flotation feed. The target flotation feed is a P80 (80% passing) of 106µm and is monitored manually on a shift basis.

A 2.74m 400kw ball mill has been repurposed from regrind duties to run in parallel with the primary ball mill to increase grinding circuit capacity.

A portion of the combined SAG and ball mill discharge is treated via a SB2500B–SE Falcon gravity concentrator unit (Figure 12). This unit recovers approximately 30-40% of the gold present in the ores prior to flotation. The gravity circuit contributes to an increase in overall gold recovery of about 10% compared with flotation only. The concentrate produced from the gravity circuit is recombined with either the Pb or Cu concentrates (added to the Pb or Cu concentrate thickeners) and marketed as a high precious metal concentrate.

The ore throughput of the Golden Grove processing plant steadily increased since commissioning in 1990 from 0.6Mtpa to a high of 1.8Mtpa in 2014, with throughput assisted by the use of contract secondary crushing. With cessation of the open pit operations and declining underground production, throughput declined sharply to approximately 0.85-0.9Mtpa in 2016 prior to EMR taking over the operation. Plant operations were conducted on a two week on, one week off basis. The stop-start nature of such campaigning had an adverse impact on both instantaneous throughput rates and metal recovery. Under EMR ownership, underground production ramped up and in 2018 plant throughput totalled 1.25Mtpa, ramping up to 1.29Mtpa and 1.38Mtpa in 2019 and 2020 respectively, reflecting improving mine production and the installation of a permanent secondary crusher for Gossan Hill ores which was commissioned in December 2019 to facilitate higher treatment rates and increased stability in the grinding and flotation sections.

10.5 Existing Flotation

Overview

The current flotation strategy is based on batch processing of separate copper and zinc ores, producing separate copper, zinc and lead (HPM) concentrates (Figure 12). When processing copper ores, a significant percentage of pyrite with associated precious metals, mostly gold, is also recovered, producing a relatively low-grade copper concentrate, but with gold credits. Copper production represents approximately 30% of overall revenue. Any gravity gold concentrate recovered from the gravity concentrator when processing copper ores is recombined with the copper concentrate by adding the gravity concentrate to the copper concentrate thickener.

When processing zinc ores, an initial flotation step separates lead sulphide (galena), which is typically associated with the zinc sulphide (sphalerite) orebodies. Silver and gold are also associated with the lead sulphides, producing a high precious metals (HPM) lead concentrate. The lead values represent a relatively small percentage of the HPM concentrate value. Overall, lead production represents only 1% of overall concentrate revenue, while silver and gold production account for 8% and 30% respectively of overall revenue. The gravity gold concentrate recovered from the gravity concentrator when processing zinc ores is recombined with the lead concentrate by adding the gravity concentrate to the lead/HPM concentrate thickener.

Following flotation of galena and precious metals, the lead flotation tailings contain primarily sphalerite; the sphalerite is separately floated in the zinc flotation circuit, producing a high grade (approximately 50% Zn) zinc concentrate. Zinc production contributes approximately 30% of overall revenue.

Flotation Equipment

Slurry from the grinding circuit proceeds to the flotation circuit at a target flotation feed P80 of 106µm. The flotation equipment currently used is summarised in Table 10.1.

Table 10.1
Flotation Circuit Equipment

Circuit	Equipment
Bulk Roughers	4 Dorr Oliver 300, 8.5m ³ , 15kW; 8 Dorr Oliver 600, 16m ³ , 22kW
Lead Primary Cleaners	4 Metquip BQ80-4-PV150, 3.3m ³ , 18.5kW
Lead Secondary Cleaners	4 Dorr Oliver 100, 3m ³ , 18.5kW
Lead Recleaner	4 Dorr Oliver 100, 3m ³ , 18.5kW
Zinc Rougher Columns	4 Cominco Column Cell, 2.44m diameter by 16m
Zinc/Copper Scavengers	12 Dorr Oliver 300, 8.5m ³ , 22kW
Zinc/Copper Primary Cleaners	4 Metquip BQ30, 3m ³ , 18.5kW
Zinc/Copper Secondary Cleaners	4 OK8, 5m ³ , 15kW; 4 Dorr Oliver 180, 8m ³ , 22kW
Zinc/Copper Recleaner	8 OK8 HG, 4.25m ³ , 18.5kW
OSA System	Outotec Courier SSL

Copper Ore Flotation

Copper ore that contains minor amounts of lead and zinc is separately batch processed. Lime is used for pyrite depression and a copper collector is used to produce a saleable copper concentrate. The copper circuit flowsheet can be modified to provide extra residence time and regrinding capacity for optimal flotation performance.

Copper flotation is conventional and consists of roughing, scavenging and cleaning. Flotation takes place in conventional cells. Pyrite content in the feed is moderate, but variable, and is depressed throughout the circuit using lime at a pH of 10.5-11.5 and occasionally by also dosing with sodium metabisulphite. Frother and a thionocarbamate promoter (RTD609) are dosed to the rougher conditioning tank and throughout the copper circuit. The scavenger concentrate undergoes regrinding in a closed-circuit ball mill and is returned to the cleaners. The regrind mill is charged with 40mm steel media.

Target Cu concentrate grade is 19.0% Cu. Whilst the plant can achieve higher grade concentrate, accepting some pyrite in the concentrate increases the amount of gold that is recovered, increasing overall payable value.

Lead-Zinc Ore Sequential Flotation

Zinc ore is typically associated with lead mineralisation. The galena (lead sulphide) floats readily, however sphalerite (zinc sulphide) does not float naturally. The existing circuit is configured to recover a lead concentrate prior to zinc flotation.

The zinc-lead ore is processed in conventional flotation cells. The lead circuit is pH modified using lime to a pH of 8-9. The collector sodium disobutylidithiophosphinate (Aerophine 3418A) is dosed to the rougher conditioning tank and throughout the lead circuit. This reagent is used as it is a highly selective collector that minimises the zinc reporting to the lead concentrate and also provides for low circulating loads. Additional sodium metabisulphite is dosed to further suppress zinc from floating. The tailings stream from this circuit becomes feed for the zinc circuit. Target lead concentrate grade is dependent on feed grade and ranges between 20-35% Pb plus precious metals.

The feed to the zinc circuit first reports to a conditioning tank, where the slurry is dosed with copper sulphate to activate sphalerite. Rougher flotation is achieved via three or four column cells. The resulting concentrate may either report as final concentrate or is routed to a conventional cleaning circuit. The tailings from the columns reports to scavenger cells and are reground and cleaned. The zinc circuit is pH modified throughout the circuit using lime to a pH of 11.5-12. The collector sodium-isobutyl xanthate (SIBX) is dosed to the rougher conditioning tank and throughout the zinc circuit. SIBX is used as it a low cost and effective collector. Target zinc concentrate grade is 50% Zn.

Copper-Zinc Sequential Flotation

While the copper and zinc ores typically occur in distinct lenses, in some areas the proximity of the lenses results in some mixing of copper and zinc ores. When copper-zinc ores are treated, the lead circuit is configured to recover copper concentrate prior to zinc flotation. The limited flotation capacity results in a lower copper recovery and results in some copper reporting to the zinc circuit. This will be addressed by the sequential flowsheet upgrade commissioning in Q2 2021.

10.6 Metal Recoveries

GGPL's metal recovery forecasts are based on recovery models based upon actual plant performance. The models calculate Net Smelter Return and metal recovery for each concentrate type, including gold value reporting to concentrate. The models appear satisfactory and reflect sound methodology.

Flotation recoveries have generally trended downwards slightly in the period 2018-2020. Performance has been found to reduce as the chalcopyrite to pyrite and sphalerite to pyrite ratios decrease. Recovery models use this relationship simplified to Cu:Fe and Zn:Fe elemental assay ratios and both these ratios have reduced in the 2018-2020 period.

Copper and zinc recoveries in CuZn ores have been affected by insufficient residence time. In order to maximise copper recovered to copper concentrate, high mass pull rates from the copper circuit have resulted in entrainment of sphalerite (Zn) into the concentrate, which is not payable and not classified as recovered zinc metal.

10.7 Copper-Lead-Zinc Sequential Flotation Upgrade

Sequential flotation allows the option to process a mixture of copper, zinc and lead ores to produce three separate concentrates, rather than the former strategy of separate batch processing. The former circuit did not have enough flotation capacity (volume) to achieve this, but additions and modifications to the circuits have been undertaken and will be commissioned early in Q2 2021. Modifications to the plant include:

- new copper rougher-scalper flotation cell (Eriez 3.0m Stackcell)
- new copper scavenger circuit (3 x 70m³ FLSmidth tank cells)
- new copper flotation cleaning circuit (Glencore E3432/8 Jameson cell)
- repurposing existing conventional cells as cleaner scavengers
- adding a regrind mill (ANI RUWOLT 1.83m diameter by 3.05m, 150kW) with 4 Warman 10CE-FSA cyclones to liberate copper or zinc minerals locked in composites within the scavenger concentrate stream
- new dextrin reagent dosing system for lead suppression
- modification of the existing copper roughing circuit to perform lead rougher duty
- additional low pressure blower systems for flotation circuit requirements
- repurposing of concentrate clarifier to copper thickener duty
- additional concentrate storage tank to utilise the existing filtration capacity
- additional slurry management equipment including pumps, pipework and hoppers.

The sequential flotation circuit will assist in simplifying and increasing the mining efficiency, removing the requirement to carefully demarcate and separately mine copper and zinc ores. However, where clean copper ore can be mined, this will still be batch treated rather than blending with zinc ores, so as to achieve a higher recovery product.

Once commissioned, the sequential flotation circuit (Figure 13) will initially separate copper sulphides using the collector RTD-609, followed by removal of lead via the addition of reagents dextrin and sodium metabisulphite. The pH of the copper circuit tailings will be increased with the addition of lime, and sodium disobutyldithiophosphinate collector (Aerophine 3418A) will be added to re-activate and float a lead and precious metals concentrate. Zinc minerals do not readily float and will comprise the tailings from the lead circuit. The zinc minerals will be activated with the addition of copper sulphate. Once activated, a xanthate collector is used to float the zinc concentrate.

The gravity concentrate will, as present, be added to the lead or the copper concentrate thickeners to produce a high precious metals concentrate.

Golden Grove ore has a relatively high percentage of pyrite (FeS₂) in the feed and this can contaminate the copper concentrate, resulting in a lower grade product. Careful control of lime addition is essential to depress pyrite and thus maintain target concentrate grades.

GGPL reports the following technical progress on the sequential flotation circuit:

- successful flowsheet confirmed within laboratory and full-scale plant trial
- repeatable success with use of SMBS and dextrin reagents for galena and sphalerite suppression during copper flotation
- piloting of Stackcell (copper rougher-scalper flotation) flotation unit in flotation plant completed late 2019

- improved copper recovery during treatment of copper-zinc ores, which is limited by flotation residence time; this will be addressed by installation of an additional 60% rougher-scavenger flotation capacity in the sequential flotation circuit
- testwork to date indicates that most of the gold reports to the copper concentrate stream
- the flowsheet testwork and the proposed flowsheet have been independently peer reviewed by specialist consultant Geometcon and the project execution plan has been endorsed.

10.8 Concentrate Dewatering

All final flotation concentrates report to the dewatering section to reduce the water content from typically 90% to less than 10%. This stage allows for the recovery of water to the process water pond for reuse in the plant and to allow for economical storage and trucking of the concentrate product. The concentrates are each sent to separate thickeners. Upon the addition of flocculant, the solids settle under gravity to yield a thickener underflow product with a typical density of 70% solids.

Thickener underflow is further dewatered via filtration to produce concentrate products with densities greater than 90% solids. The overflow which contains clear water is recovered to the process water pond for re-use. It is important to maintain the moisture content within the Transportable Moisture Limit (“TML”), which differs for each concentrate as shown in Table 10.2.

Table 10.2
Concentrate Transportable Moisture Limit (TML)

Concentrate	TML (% moisture)
Copper HPM	9.0
Copper LPM	8.9
Lead HPM	8.7
Zinc	9.9

The dewatering equipment currently used is summarised in Table 10.3.

Table 10.3
Dewatering Equipment

Equipment	Specifications
Zinc/Copper Thickener	Supaflo C21.4, 7.5kW
Zinc/Copper Clarifier	Supaflo C21.4, 7.5kW
Zinc/Copper Pressure Filter	METSO, VPA Pressure Filter 2040-36 (88dtp capacity)
Zinc/Copper Disc Filter	2 Emico 2.69m diameter, 10 disc vacuum filters (2 x 50dtp capacity)
Lead Thickener	Supaflo C6.1, 4kW
Lead Clarifier	Supaflo C6.1, 4kW
Lead Disc Filter	Emico 2.69m diameter, 6 disc vacuum filters (30dtp capacity)
Deslime Cyclone	6 Warman 10CE-FSA

Note: dtp = dry tonnes per hour

10.9 Tailings Disposal

The flotation circuit final tailings are pumped to either the Tailings Storage Facility (TSF) or to the Cemented Hydraulic Fill (CHF) plants at Gossan Hill and Scuddles. At the CHF plants the coarse particles are recovered through two stages of cyclones and mixed with cement to produce a cemented backfill for underground stope filling. The fine particles that report to the overflow are pumped to the TSF. Settled supernatant solution is recycled to the processing plant via the use of a decant system.

The current tailings storage facility, TSF 3, has sufficient capacity remaining to support production until Q4 2021. It is planned that TSF 1 will be recommissioned in Q3 2021, which will provide tailings storage for approximately two years while a new TSF is constructed to provide Life of Mine capacity.

A project is underway to supplement backfilling operations by reclaiming material from the decommissioned TSFs, re-pulping, adding cement and producing a paste fill product. It is currently scheduled to complete this installation in Q2 2021.

10.10 Process Control

Plant process control utilises a Yokagawa distributed control system (“DCS”). In 2011, OSISoft PI data historian was commissioned and replaced the Yokagawa Exaquantum data historian. The data historian captures and stores real time plant data, allowing metallurgists to analyse trends to facilitate process improvements.

Copper, lead and zinc grades and recoveries are monitored and controlled in the flotation circuit using an Outotec Courier 5SL On-Stream Analyser (“OSA”) system. The Courier system was commissioned in 2009 and replaced the previous Amdel in-stream analysis system. The Courier system analyses for density and copper, lead, zinc and iron grades. Cascade control loops are utilised to adjust certain selected reagent doses depending on the feed tonnage, however some of the reagents are still manually adjusted.

10.11 Concentrate Management

Concentrates are separately stored within a shed at the mine site with approximately 60kt capacity. The concentrates are transported via road train to Geraldton Port, utilising kibble containers covered with lock down tarpaulins, and are discharged at GGPL’s bulk storage facility, containing two load-out systems for bulk loading via conveyors. Loaded material is sampled using an HS-1000 Consep ARM Autosampler.

The Lead HPM concentrate no longer has a Western Australian Dangerous Goods DG9 classification, however, this concentrate is transported with controls consistent with such classification. A consignment document is required for each road train, and trucks are thoroughly washed down prior to departing site by an EMR representative.

The concentrate storage facility at Geraldton Port utilises a negative pressure system. No concentrate movements inside the facility are permissible with any entry points open. A dust extraction system is installed on all load-out transfer points, and conveyors are covered with wind guards. A dust suppression chemical is sprayed onto the surface of the concentrates as they are conveyed to the ship loader. Load-out from the concentrate shed is only carried out within favourable wind and weather conditions. At completion of each ship loading event, the load-out systems are completely washed down, and the residual water and solids returned to the Golden Grove mine site through a formalised Controlled Waste process required by the Department of Water and Environmental Regulation (“DWER”). Routine dust monitoring for personnel and environmental impact is carried out.

GGPL has a permanent supervisor based at the Port facility who is an ex-supervisor from the Golden Grove processing plant, and reports to the Golden Grove Process Plant Manager.

10.12 Concentrate Specifications

GGPL advises that typical concentrate specifications are as follows:

Table 10.4
Typical EMR Golden Grove Copper Concentrate Assay

Element/Compound	Symbol	Unit	Typical Assay Range	Rejection Limit
Copper	Cu	%	19-23	
Gold	Au	ppm	0-6	
Silver	Ag	ppm	50-240	
Arsenic	As	ppm	50-100	5,000
Alumina	Al ₂ O ₃	%	0.5-1.5	
Bismuth	Bi	ppm	40-80	
Cadmium	Cd	ppm	25-80	500
Chlorine	Cl	ppm	100-900	
Fluorine	F	ppm	300-600	1,000
Iron	Fe	%	27-33	
Lead	Pb	%	0.1-2.0	6
Mercury	Hg	ppm	<1	100
Silica	SiO ₂	%	Approx. 3-10	
Sulphur	S	%	28-35	
Zinc	Zn	%	1.0 - 6.0	

Table 10.5
Typical EMR Golden Grove Zinc Concentrate Assay

Element/Compound	Symbol	Unit	Low	Typical	High	Penalty Trigger	Rejection Limit
Zinc	Zn	%	48	50.5	54		
Lead	Pb	%	0.4	1.6	2.5		
Silver	Ag	g/t	40	90	160		
Gold	Au	g/t	0.4	1.1	2.4		
Copper	Cu	%	0.2	0.4	1.3		
Cadmium	Cd	%	0.08	0.16	0.2		0.3
Total Sulphur	S	%	28	33	34		
Iron	Fe	%	6	7	10	9	
Silica	SiO ₂	%	1	2	4	4	
Arsenic	As	%		0.02			0.6
Mercury	Hg	ppm		<20			600
Chlorine	Cl	%		<0.10		Cl + F 0.075	
Fluorine	F	%		<0.03			
Cobalt	Co	%		<0.02			
Nickel	Ni	%		<0.001			
Soda	Na ₂ O	%		0.02			
Potassium	K	%	0.05		0.15		
Magnesium	MgO	%		0.3			
Manganese	Mn	%	0.02		0.05		
Lime	CaO	%		0.3			
Alumina	Al ₂ O ₃	%	0.5		1.2		
Moisture		%	7	8.3	9		

Table 10.6
Typical EMR Golden Grove Lead/HPM Concentrate Assay

Element/Compound	Symbol	Unit	Typical Assay Range
Lead	Pb	%	14 - 35
Zinc	Zn	%	4 - 13
Silver	Ag	g/t	800 - 2500
Gold	Au	g/t	45 - 100
Mercury	Hg	ppm	2
Copper	Cu	%	8 - 22
Silica	SiO ₂	%	2 - 6
Cadmium	Cd	ppm	200
Iron	Fe	%	Oct-20
Magnesium Oxide	MgO	%	0.2 - 0.7
Manganese Oxide	MnO	%	0.03
Arsenic	As	%	0.03 - 0.08
Lime	CaO	%	0.1 - 0.3
Sulphur	S	%	25 - 34
Alumina	Al ₂ O ₃	%	0.3 - 1.2
Nickel	Ni	ppm	20
Chlorine	Cl	ppm	300 - 600
Bismuth	Bi	ppm	200 - 600
Selenium	Se	ppm	40 - 200
Antimony	Sb	%	0.1 - 0.2
Tin	Sn	ppm	30

The concentrates are generally free from deleterious elements harmful to smelting, with no concentrate shipments in the period 2017 -2020 subject to rejection. However, penalty charges were applied to a number of shipments, with the most common concentrate penalised being the zinc concentrate.

In the period 2017-2020, a total of sixteen shipments of zinc concentrates incurred penalties, eight of which were incurred in 2020. The penalties incurred were due to silica (13), iron (12), and chlorine + fluorine (5). The largest silica penalty was US\$8.97/dry metric tonne ("dmt"); the largest iron penalty was US\$3.77/dmt, and the largest chlorine + fluorine penalty was US\$5.00/dmt.

Conclusions

The processing plant is mature, having been in operation since 1990. Incremental upgrades have been made to the flowsheet, primarily focused on the milling and flotation circuits to improve recovery and throughput. The plant is based upon conventional proven technology. The Operating staff have strong historical records and operating and technical knowledge and experience, which is desirable given the complex nature of the flotation circuit.

The plant is reasonably equipped with process control instrumentation, operating supervisory systems, and data capture systems, which are important considerations for optimising plant throughput and flotation recovery.

Plant throughput has steadily increased since commissioning in 1990 from 0.6Mtpa to a highpoint of 1.8Mtpa in 2014, followed by a sharp decline in 2015-2016 due to limited mine production, with throughput improving steadily thereafter to 1.38Mtpa in 2020, as mine production increased.

Metal recoveries are forecast using Golden Grove recovery models based upon actual plant performance, with head grade, tail grade and metal ratios as model inputs. The models calculate Net Smelter Return and metal recovery for each concentrate type, including gold values reporting to concentrate. The models appear satisfactory and reflect sound methodology.

Good communication was observed between geology and processing staff on ore blending and treatment, which is an important consideration at a complex polymetallic mine.

The Sequential flotation upgrade is currently under commissioning and scheduled to be fully operational in Q2 2021. It is likely that once this update is operational and typical commissioning issues are addressed, the continuous nature of the circuit, rather than the ore-type campaigning that Golden Grove has historically operated under, will yield improvements in plant throughput and metal recovery, due to the ability to stabilise and continuously run the plant.

Plant infrastructure and installed equipment condition deteriorated as mine production waned in the period 2014 – 2017, due to a perceived limited mine life and hence a reduction in sustaining capital. With the increase in planned mine life, GGPL has instigated several corrosion and plant condition audits, and has, since 2019, embarked upon a programme of rectification works, which appears well advanced in restoring plant condition to reasonable levels.

An opportunity exists for the installation of an intense cyanide leach reactor to recovery gold to a site-installed gold room. This would allow a high proportion of recovered gold to be smelted on site, thus eliminating costs associated with concentrate shipment, and reducing the risk of lower paid metal credits due to assay discrepancies between the mine and the smelter. A concept study into on-site gold smelting is underway.

An opportunity also exists for installation of a flotation tailings thickener to increase water recovery. A higher density tailings product has the potential to reduce capital costs related to TSF wall raises, due to increased consolidated tailings density. It also has the potential to reduce Paste Plant capital and operating costs, as the higher density feed to this plant should result in reduced dewatering capital and operating costs.

The processing plant has essentially been ore-feed constrained since 2016, with resulting lower annual plant throughputs. FM projections for plant throughput at approximately 1.6Mtpa are considered achievable and have been historically achieved with the current plant. The constraint remains annual ore supply from mining sources. There is potential upside to plant throughput of 2.0Mtpa with relatively modest capital expenditure, premised upon increased mine production.

Metal recoveries to saleable concentrates are based upon established metallurgical models, with the most significant influence being metal head grade. The projected future metal recoveries are considered reasonable, and some upside may exist, dependent on the effectiveness of the sequential flotation plant upgrade. Likewise, the FM forecasts of concentrate tonnages and grades are considered reasonable.

Notwithstanding the use of established metallurgical models for projected metal recoveries in the model, some residual risk remains in achieving these recoveries, due to the lack of metallurgical testwork on representative samples of the future generally deeper, ore sources. This risk would be mitigated by implementing a metallurgical testwork programme, incorporating locked cycle flotation testwork, in order to calibrate the existing metallurgical models with future ore types. However, BDA recognises that historically, mineralisation from the various lodes has been relatively homogeneous.

11.0 INFRASTRUCTURE

11.1 Site Access

Road access to Golden Grove from Perth is either via National Highway No. 1 along the coast to Geraldton and from there inland to the site via Yalgoo, a distance of around 680km or via Great Northern Highway No. 95 inland towards Paynes Find and then along the Ninghan-Yalgoo road to site, a distance of around 580km (Figure 1). The route via Geraldton and Yalgoo is an all-weather sealed road; the Great Northern Highway towards Paynes Find is sealed but the Ninghan-Yalgoo turn-off to site is a formed gravel road which could be subject to closure following high rainfall events; however, GGPL has advised that access to the site has not been interrupted by severe rainfall events in the past several years.

The route from site via Yalgoo to the Geraldton port is used for the export of concentrates.

The site is also serviced by an airstrip which accommodates flights from Perth and Geraldton.

11.2 Power Supply

Power supply to the site is via a transmission line from the Western Australian grid through a southern distribution centre at Three Springs. The current capacity of the supply facilities is 20.5MW, peak demand is around 19MW and the current average demand is around 14MW. It is planned to increase the capacity of the power supply facilities to 24MW in 2022. Backup power is supplied by three 1.15MW diesel power generators. GGPL has advised that the project has not experienced any production losses attributable to incoming power outages under EMR ownership.

11.3 Water Supply

Water supply for operations is provided by dewatering of the Gossan Hill and Scuddles mines and from a nearby borefield. Potable water is sourced from potable water bores. Raw water is treated by a reverse osmosis plant. Water demand is around 600MLpa; dewatering of Gossan Hill and Scuddles has the capacity to provide around 840MLpa and the borefield has the capacity to provide around 190MLpa.

11.4 Workforce Accommodation

A site village with accommodation for around 660 personnel is located around 5km southwest of the mine-site. The village comprises 546 rooms in single quarters equipped with en-suite bathrooms, 21 houses with accommodation for 62 personnel and 52 rooms in single quarters with shared bathrooms to accommodate additional personnel for shutdowns. The camp is serviced by an experienced catering contractor. The December 2020 monthly report indicates that the project workforce is around 700; of these, the site village is currently accommodating a maximum of around 440 on site at any one time.

11.5 Overland Conveyor

An overland conveyor transports ore from the Gossan Hill mine to the process plant at Scuddles. The conveyor is approximately 3km in length and is a conventional belt conveyor on trestles with a capacity of 450tph.

11.6 Site Buildings

Site buildings include site offices, workshops, warehouse and other services buildings.

The buildings have adequately serviced the project for several years and are considered adequate to meet future requirements.

11.7 Communications

External communications are through national voice and data networks and are reported by GGPL to be adequate for project operations.

On-site communications systems are through the site voice and data networks and two-way radios for mobile equipment and service and light vehicles.

11.8 Fuel Storage

Diesel fuel is stored in bulk fuel facilities comprising two 90,000L tanks at Scuddles and two 90,000L tanks at Gossan Hill, each equipped with high flow and low flow bowsers. The average weekly usage is around 160,000L meaning that the storage capacity is sufficient for approximately two weeks operation.

11.9 Concentrate Transport and Port Facilities

Concentrate products are loaded, trucked to Geraldton in quad-trailer road trains, unloaded and stored at the Port of Geraldton and loaded onto ships at that port for export. The loading, trucking, unloading, storage and ship loading of the concentrates is carried out by contractor. The concentrates are stored at the Port of Geraldton in a shed with capacity of more than 30,000wmt leased by EMR from the Mid-West Port Authority.

The concentrate transport contractor is responsible for ship loading and transfer of the concentrates from the port storage facility to the port authority's ship loading conveyor system using front end loaders.

Conclusions

Site infrastructure including site access roads, power supply, water supply, workforce accommodation and other service facilities are well established and have been in operation for many years. In BDA's opinion the infrastructure facilities are adequate for requirements and are unlikely to present any significant technical challenges.

12.0 REGULATORY APPROVALS, LICENCES AND PERMITS

12.1 Environmental Regulatory Compliance

Background

GGPL operations cover a number of Mining Tenements, each of which has statutory conditions attached. Typically, the conditions require the tenement holder to gain permission from the WA Department of Mines, Industry Regulation and Safety (“DMIRS”), to undertake activities on the lease and detail rehabilitation requirements for disturbed land and performance bonds relating to the rehabilitation of the area.

The Golden Grove tenements cover an area of approximately 12,917ha and consist of seventeen almost continuous blocks held as Mining Leases, extending for 36km along a NNW-SSE strike. The project’s current footprint is approximately 926ha with some 626ha disturbed and 264ha currently under rehabilitation. The EMR Golden Grove operations are located on Mining Leases M59/03 (Scuddles) and M59/195 (Gossan Hill).

Statutory Approvals, Licences and Permits

BDA has not undertaken legal due diligence on the status of the statutory approvals held by GGPL but has examined their status of compliance with the various approval conditions. The information contained herein is based on information provided by GGPL, including the Annual Environmental Compliance Report (2019), the Legal and Other Obligations Register, the Annual Environmental Report (2019) and other documentation. Table 12.1 provides a schedule of the more recent key statutory approvals, licences and permits currently held by GG.

Golden Grove mine is a ‘prescribed premise’ within Schedule 1 under the *Environmental Protection Regulations 1987*. Environmental statutory requirements are outlined within the Environmental Operating Licence (reviewed and re-issued annually by the Department of Water and Environmental Regulation (DWER) which includes environmental monitoring and reporting requirements as well as limits for allowable environmental parameters such as groundwater quality and discharge quantities.

The Department of Mines, Industry Regulation and Safety (DMIRS) is the principal regulatory authority responsible for the decommissioning and closure of mining operations in Western Australia. The DMIRS imposes conditions on the mining, exploration and miscellaneous leases held by GG. The operation is required to pay a Mine Rehabilitation Fund (“MRF”) levy for each tenement, depending on the extent and nature of disturbance within each tenement. The lease conditions also stipulate compliance with commitments made in relevant Mining Proposals, which are also considered legal obligations.

The Golden Grove site operates under an Environmental Operating Licence issued by the Western Australia Department of Water and Environmental Regulation (DWER), and a Consolidated Water Extraction Licence issued by DWER. Other statutory requirements are applicable to other environmental and community relations aspects of the operations, eg. permits for land clearing and feral animal control (WA Pastoral Act).

Golden Grove maintains a Legal and Other Obligations Register which is regularly updated.

Compliance

GGPL advises that the operation is in compliance with environmental requirements in all material respects and there are no significant or unusual environmental issues likely to affect the continuing operation of the mine. BDA considers that appropriate allowances have been made for rehabilitation costs. The site appears to have established good community relationships, and there are no known native title issues applicable to the site, which is on long-term pastoral leases.

The EMR Golden Grove Annual Environmental Report to DWER for the period 1 January 2019 to 31 December 2019, reports that no environmental incidents were recorded at Golden Grove that resulted in non-compliance with the environmental licence or harm to the environment. One minor exceedance against the licence water quality limit in Monitoring Bore MB18 (TDS 5220mg/L – limit 5000mg/L) was detected. No complaints were received during this reporting period.

Table 12.1
Summary of Key Environmental Approvals, Licences and Permits

Issuing Authority	Approval/Licence/Permit	Requirements/ Comments	Relevant Legislation/ Instrument
<i>Status: Granted</i>			
Department of Mines, Industry Regulation and Safety (DMIRS)	Land Tenure for Mining - Mining Lease - Miscellaneous Leases - General Purpose Leases	Mining leases have been granted over all mining areas Miscellaneous and General Purposes leases have been granted for all project required infrastructure	WA Mining Act 1978
DMIRS	Dangerous Goods Site Licence	DGS011925 - Hazardous materials storage DGS021154 - Hazardous materials/chemicals storage – Geraldton Port Concentrate Storage	Dangerous Goods Safety Act 2004
DMIRS	Explosives Storage Licence	ETS002137 - Explosives Storage Licence	Dangerous Goods Safety Act 2004
Department of Water and Environmental Regulation (DWER)	Environmental Operating Licence - various amendments: 2011, 2014, 2015, 2016, 2017, 2020	L8593/2011/2 - latest amendment 2020 (issued 18/6/2020) is to allow for the TSF 3 Raise 4 (now completed), and to remove certain groundwater monitoring bores	Environment Protection Act 1986
DWER	Licence to Take Water Licence soon to be converted to an ‘Operating Strategy’ – various amendments	GWL103574(8) - maximum extraction volume 3.51GLpa for dust suppression, mine dewater, mining camp uses and ore processing; licence expiry date 14 August 2024	Rights in Water and Irrigation Act 1914
DMIRS	Mining Proposal - various	Reg. ID 83255 - Mining Proposal for TSF3 Raise 4 design upgrade dated 18 October 2020 – approved 5 December 2019 – completed Jan 2021. Mining Proposal for TSF 1 Stage 5 Raise, Paste Plant Facility and Reclaimed Tailings from TSF 2	WA Mining Act 1978
DMIRS	Native Vegetation Clearing permit	Various issued; most recently Gossan Valley 2020 – #9046/1	Issued under delegated authority from DWER
DWER	Works Approval - various	W4551/2009/1, W5260/2012/1 W5328/2012/1 - latest Works Approval is to allow for the construction of TSF 3 Raise 4	Environment Protection Act 1986
<i>Status: Outstanding (not yet commenced)</i>			
DMIRS	Mining Proposal – in progress	TSF 1 Raise 5, TSF 2 reclaim and Paste Plant	WA Mining Act 1978
DWER	Licence Amendment to Works Approval	TSF 1 Raise 5, TSF 2 reclaim and Paste Plant	Environment Protection Act 1986

Native Title

Native Title Claim Processes in Australia

The Native Title Act (“NTA”) allows Aboriginal people to lodge claims for Native Title that go through a registration process with the National Native Title Tribunal (“NNTT”). While those claims are negotiated by respective parties and are eventually determined by the Federal Court, the NTA provides State governments with a process to continue business such as land management and grants of land and mineral tenure. These grants are classified as ‘future acts’ under the NTA and if they proceed without following the prescribed NTA processes they may be invalid so far as they affect Native Title.

Registered Native Title claimants and Determined Native Title holders have certain rights under the provisions of the Native Title Act 1993 (Commonwealth) (NTA) future act regime, when governments intend to conduct business such as the granting of mineral tenure that are future acts under the NTA.

A 'future act' is an act done after the 1 January 1994, which affects Native Title. The future act can be a proposed activity or development on land and or waters that has the potential to affect Native Title, by extinguishing it or by creating interests that are inconsistent with the existence or exercise of Native Title.

Common examples of future acts in Western Australia are the proposed grants of mining or land titles by the DMIRS as well as the Department of Lands.

In the first instance the NTA affords any holder or claimant for Native Title the right to be notified of the application for the mining title and of the government's intention to grant the title.

The NTA stipulates that a future act process need only apply where Native Title exists due to a Native Title claim being Determined, or is claimed to exist in the case of a Registered Claim. To ensure validity, prudence would dictate that these processes should also be followed where Native Title may exist. A Registered Claim is dealt with using the same processes as if it was a Determined claim, until such time as it is Determined. The Federal Court awards certain rights, or lack of rights, to a Determined claim and must consider the order of rights it awards to a claim.

Mining Lease applications can be processed in parallel with the NTA upon request from the applicant; if the request is not made the *Mining Act* processing may be completed first.

A tenement cannot be granted unless it has satisfied the future act requirements of the NTA (except in some special circumstances where pre-existing rights apply, such as in some State Agreement Acts - see S24IC of NTA) or where appropriate evidence is available that proves Native Title has been extinguished such as the granting of freehold tenure, or other historical grants of exclusive possession or a previous Federal Court Determination of a claim that deems Native Title does not exist.

Work intended to be carried out on Mining Lease tenements is of importance to NTA procedures (particularly negotiation and the National Native Title Tribunal (NNTT) hearing processes) in terms of its potential impact upon any registered Native Title rights and interests. Therefore, the detailing of proposed work is crucial to assessing the impact on Native Title and determining the scope of an agreement.

Right to Negotiate Process

The proposed grants of all mining titles are generally what the NTA describes as 'future acts' which are then subject to certain processes under the NTA before the grant may be considered valid so far as it may affect native title. Tenements that have the potential to cause major disturbance to the ground such as mining leases are subject to the highest form of future act rights known as the Right to Negotiate.

The Government party (DMIRS) must give notice of its intention to grant titles in the determined way to:

- native title holders and claimants
- representative bodies
- the National Native Title Tribunal (NNTT)
- the proposed grantee, and the public.

The applicants for mining leases (and some other tenement application types) must negotiate in good faith with a view to obtaining the agreement of each of the native title parties affected by the proposed grant of the tenement subject to conditions. DMIRS is also a negotiating party on behalf of the State.

If agreement is reached it is likely to include heritage protection protocols and other benefits depending on the type of applicant (corporate or individual) and the extent of the project.

If the parties are unable to reach an agreement within the statutory six month minimum period of the original notice, any party may apply to the NNTT for a final determination as to whether the proposal may proceed and only if parties are able to demonstrate that negotiations have been carried out 'in good faith' (s35 NTA).

Golden Grove Tenements Affected by Native Title (NT)

Native title claims covering Golden Grove tenements have been made by the Widi Mob and Badimia People and they are considered as Aboriginal Traditional Owners over their Native Title Claim areas. The Badimaya NT Claim was not accepted for Registration and has been dismissed. Previously, two draft Heritage Agreements with the Badimia People and the Widi Mob were a result of negotiations held between MMG and these two aboriginal traditional owner groups, however, these agreements were never executed by the parties.

Of the 29 mineral tenements owned by GGPL, 23 are affected by a registered native title claim by the Widi Mob. However, most of the tenements were issued prior to the Native Title Act 1993 (Cwlth) (NTA) and are therefore not subject to native title. However, those tenements which were granted after the commencement of the NTA and

subject to Widi Mob's native title rights, are: M59/534, M59/480, M59/363, M59/362, M59/361, L59/41, and L59/3.

The recent 2020 Yamatji Nation Native Title claim determination (WCD2020/001) means that almost all tenements held by GGPL are affected by Yamatji Nation Native Title determination and the associated Indigenous Land Use Agreement (ILUA) signed with the State Government of Western Australia. However, as stated above, most of these tenements were issued prior to the Native Title Act 1993 (Cwlth) (NTA) and are therefore not subject to this recent NT Determination.

Despite the Golden Grove tenements not being subject to Native Title, GGPL works with the Aboriginal Traditional Owners to identify and protect heritage, so ensuring compliance with the Aboriginal Heritage Act 1972 (WA). Ongoing activities include:

- conducting heritage clearance surveys prior to ground disturbance with some 5,500ha having already been surveyed across the Golden Grove tenements; the more recent surveys include the Widi Mob Traditional Owners heritage survey conducted in November 2017 and the Badimia Traditional Owners heritage survey conducted in May 2020 over areas planned for exploration and development
- maintaining a database and land clearing permit system to ensure identified heritage areas are protected
- engaging with traditional owners to develop heritage management plans for identified heritage areas.

Sites identified at Golden Grove are predominately artefact scatters of stone flakes and gnamma holes. The most significant site consists of a rock shelter, ochre source, gnamma hole and surrounding artefact scatters.

Royalty

WA State Royalty System

In Western Australia, mineral royalty rates are prescribed under either the Mining Regulations 1981 or the various State Agreement Acts. Two systems are used to collect mineral royalties:

- *Specific rate* – calculated as a flat rate per tonne produced – generally applied under legislation to construction and industrial minerals
- *Ad valorem* – calculated as a proportion of the 'royalty value' of the mineral; the royalty value is broadly calculated as the quantity of the mineral in the form in which it is first sold, multiplied by the price in that form, minus any allowable deductions; in some cases an alternative to 'royalty value' applies, e.g. nickel.

The Golden Grove royalty is based on the *ad valorem* system which applies (under the Mining Regulations 1981), the following principles:

- bulk material (subject to limited treatment) – 7.5% of the royalty value
- concentrate material (subject to substantial enrichment through a concentration plant) – 5.0% of the royalty value
- metal – 2.5% of the royalty value.

This system takes into account price fluctuations and material grades. The 'royalty value' components used to calculate the 'royalty value' are defined under Regulation 85 of the Mining Regulations.

Golden Grove Royalty

The Golden Grove 2020 Budget Report Spreadsheet indicates copper, zinc and lead concentrate royalties are based on 5% of the NSR on payable metal (with Allowable Deductions being Treatment and Refining Charges and Freight). Gold and silver royalties are based on 2.5% NSR on payable metal (with Allowable Deductions being Refining Charges (other freight and treatment charges are considered incorporated in the concentrate royalty deductions).

Private Royalty

There is no private royalty payable by GGPL.

Conclusion

BDA has completed a review of GGPL's tenements, approvals and permits from the documentation provided through EMR. The process for gaining variations and amendments to regulatory permits appears relatively straightforward. Relations with the local pastoral leaseholders and Widi Mob and Badimia People (considered as Traditional Owners over their Native Title Claim area) appear good. BDA can foresee no reason why any future mine development applications or variation to statutory approvals, licences and permits would not be forthcoming.

BDA is of the opinion that the GGPL operations are in compliance with environmental requirements in all material respects and there are no significant or unusual environmental issues or impediments likely to affect the continuing operation of the mine. BDA considers that appropriate allowances have been made for rehabilitation costs. The site appears to have established good community relationships, and there are no known native title impediments applicable to the site, which is on long-term pastoral leases.

13.0 ENVIRONMENT, SOCIAL/COMMUNITY AND HEALTH AND SAFETY

13.1 Physical Setting

Location

The mine is located 480km north of Perth, 250km east of Geraldton and 50km south of Yalgoo in the Murchison region of WA (Figure 1). The Golden Grove mining tenements are located within a number of pastoral leases including Muralgarra, Badja, Bunnawarra, and Thundellara, and Unallocated Crown Land (formerly known as Warriedar). The pastoral leases are currently unstocked.

Climate

Golden Grove is situated within the Yalgoo bioregion and has a variable climate with characteristics of semiarid and Mediterranean climates. Rainfall at both Golden Grove and Yalgoo is spread over most of the year, although peak rainfall is recorded between January and September. The monthly rainfall seldom exceeds evaporation and the potential for groundwater recharge from direct rainfall is typically limited and episodic. Only the largest rainfall events, which exceed the saturation limit of the soil profile, are likely to recharge groundwater within the region.

Variable climatic aspects of rainfall and evaporation have the ability to affect key site resources and activities, including water quality and availability, rehabilitation and dust management.

The annual total rainfall measured at Golden Grove for 2018 - 2020 has ranged from 196mm to 213mm with total evaporation 1,824mm to 2,965mm.

13.2 Environmental Management

BDA has reviewed those environmental aspects which are a material part of the project and which may have implications for project approvals and costs.

Environment Strategy

GGPL has committed to a sustainable operation that focuses on the safety of its workforce, minimises its impacts on the environment, engages with the community and is a respected mining operator in the region. GGPL's Environment, Social, and Governance ("ESG") objectives are:

- to protect the health and wellbeing of employees and contractors
- to be a respected and trusted member of the local and regional community
- to minimize impacts on the environment and the heritage values on the land on which it operates.

GGPL advise that in 2019 these ESG objectives were achieved by demonstrating:

- zero community complaints or grievances
- no environmental harm events
- the annual Department of Water and Environment Regulation (DWER) site inspection recording a 'good performance'
- A\$143,000 invested into local communities, focusing on education and training, health and infrastructure support
- contracting 100 local MidWest suppliers, with a combined contract value of A\$27M
- 23% of Golden Grove's workforce residing locally.

Since 2006, 136 students have completed the Bayalgu Programme (providing training to the Aboriginal community with the intention to later employ them at Golden Grove and in other industries), of which 86% are currently variously employed at Golden Grove.

Key programmes implemented since EMR ownership (2017) include:

- revision of key management documents (e.g. water operating strategy, TSF operating manuals)
- Lake Wownamina bioavailability study
- coordination and verification of rehabilitation of historic disturbance
- improved waste management infrastructure and practices (e.g. installation of landfill fence, designated waste recycling areas)
- fauna and flora studies commenced for Gossan Valley (regarding new mining proposal).

Environmental Management System

Golden Grove has an Environmental Management System (EMS) that is risk based and aims to minimise environmental impacts and facilitate maintenance of compliance with legislative requirements. The EMS, which is routinely audited and reported against, includes a collection of specifically targeted Management Plans, which include:

- Exploration Management Plan
- Water Management Plan
- Mineral Waste Management Plan
- Non-mineral Waste Management Plan
- Fauna and Weed Management Plan
- Land and Biodiversity Management Plan
- Malleefowl Management Plan.

Environmental controls incorporated in these plans include:

- high-density polyethylene (“HDPE”) lined tailings storage facility (TSF) to manage tailings from the processing plant
- a water treatment system that treats underground mine water for reuse on site and a waste-water treatment plant designed and maintained to manage sewage treatment
- a reverse osmosis plant that provides a potable water supply to the mining operation
- environmental monitoring programmes (including groundwater, surface water and air quality) that monitor any changes to the local environment
- a Land Clearance Certificate (“LCC”) process for approval and tracking of all land disturbance on site.

An Annual Environment Report (“AER”) is lodged with DMIRS and DWER, as per the statutory requirement, with the statutory review of the AER followed up by a site inspection conducted by DMIRS.

13.3 Waste Residues Management

Waste Rock

The site Mineral Waste Management Plan (“MWMP”) describes the systems and processes used at Golden Grove to manage mineral waste in a manner that minimises potential environmental impacts, liabilities and compliance risks during operations and post-closure. The Management Plan applies to all employees and contractors working at Golden Grove.

Most waste rock mined remains underground and is used as underground backfill. Waste that is not used underground or for surface road base is placed on waste rock dumps, next to the Gossan Hill mine.

The Waste Dump and ROM Pad Stockpile Management Plan component of the MWMP provides the methodology for ongoing construction, operating strategy and management (including eventual closure) of the ROM Pad. GGPL is currently progressing design of a staged Waste Dump Development Plan, with four stages providing a total storage capacity of approximately 800,000m³, to be filled by May 2022. The waste rock landform is designed to contain only non-acid forming (“NAF”) material from the open pits with 97% of the material comprising saprolite and the remaining 3% made up of lateritic ironstone, dolerite, saprock and fresh metasediments.

An additional storage facility will need to be identified for post-May 2022 use, which could include backfilling of the existing open pits, underground rockfill of secondary stopes or additional surface dumps. Deposition of waste in abandoned pits provides the dual benefit of reducing the rehabilitation requirements of both pit and waste dump.

The Mine Closure Plan calls for any sulphide rich materials that have not already been encapsulated to be removed to the TSF, where they will be encapsulated and entombed.

Tailings Storage Facilities (TSF)

There are three TSFs at Golden Grove, TSF 1, TSF 2 and TSF 3 that have sequentially served as storages for the tailings produced from the processing of ore extracted from the mining operations.

TSF 1

TSF 1 was commissioned in 1990 to store tailings produced from the processing of ore extracted from the Scuddles underground mining operation. TSF 1 is located adjacent to TSF 3 as shown in Figure 3. TSF 1 comprises a single

cell, paddock storage facility. The perimeter embankments of TSF 1 were raised in three stages using upstream construction methods, resulting in a maximum embankment height of 13m.

Approximately 6.4Mt of tailings have been deposited into TSF 1 over a nine-year period from 1990 to 1999. TSF 1 has received mine waste for use during the capping and cover construction. No material has been placed in TSF 1 since December 2016; it is currently being used as a water holding structure and has no spillway.

TSF 2

TSF 2 was commissioned in January 1999 to store tailings produced from the processing of ore extracted from the Scuddles and Gossan Hill underground mines. TSF 2 is located approximately 2km north of TSF 3 (Figure 3). TSF 2 comprises a single cell, paddock storage facility. The perimeter embankments of TSF 2 were raised in eight stages using upstream raising construction methods, resulting in a maximum embankment height of 26.5m.

Minor, periodic discharge of tailings into TSF 2 occurred between 2010 and 2013, since which time the facility has been under care and maintenance. A 100mm thick layer of waste clay material cover was placed on the tailings beach in the period of the first quarter of 2015, and the pipelines were decommissioned. TSF 2 currently has no emergency spillway.

TSF 3 Construction and Operational Status

TSF 3 was commissioned in 2010 to store tailings produced from the processing of ore extracted from the Scuddles and Gossan Hill mines and is located adjacent to TSF 1 (Figure 3). TSF 3 comprises a single cell, paddock storage facility inclusive of a high-density polyethylene (HDPE) floor liner and two underdrainage systems. Since completion of the 8.5m high starter embankment, the perimeter embankment has undergone three 3m high raises (in 2013, 2015, 2017) with Raise 4 commenced in 2020 using the upstream construction method, resulting in a maximum embankment height of 18m at an elevation of RL378.0m; this raise was completed in January 2021. TSF 3 is currently the only active tailings storage facility for the Golden Grove mine.

TSF 3 has an emergency spillway to mitigate the risk of overtopping of embankments in the event of a high pond level combined with an extreme rainfall event. The emergency spillway is located on the south western embankment, opposite the decant causeway.

A decommissioning and rehabilitation plan for TSF 3 has been prepared by Jacobs Australia Pty Limited (“Jacobs”). A life of mine tailings storage study is currently underway by tailings consulting firm ATC Williams.

TSF 3 was designed by GHD Pty Ltd (“GHD”) in June 2009 and updated in October 2019. The updated design proposed a change to the construction methodology for the next raise (Raise 4) from upstream construction methods to centreline/downstream construction methods. The updated design report was independently peer reviewed by ATC Williams (“ATCW”) and a number of issues were raised mainly with respect to seepage and drainage that were subsequently addressed in a ATCW redesign. No further concerns have arisen with the current TSF 3 ATCW design. The Stage 4 raise has now been completed.

GGPL plant processing staff inspect TSF 3 on a 3-hourly basis. Monthly surveys of the beach and decant pond are also carried out to monitor and record the pond elevation/location. A comprehensive TSF operators manual is in place for the operation of TSF 3. The manual is regularly reviewed and updated and covers items such as roles and responsibilities, monitoring requirements, operating procedures, response plans, emergency procedures and contingency plans.

TSF Management and Assurance

Critical controls for managing the risk of tailings dam failure at Golden Grove focus on the design, construction and ongoing management of operating and non-operating TSFs and are in line with the Australian National Committee on Large Dams (“ANCOLD”) guidelines.

GGPL monitors the implementation of these controls to provide assurance that the right actions are occurring over time. GGPL commissions Annual Independent Third-Party Audits of the management and operation of the site TSFs (latest audit was conducted by Wood, November 2020). Ongoing improvements have been made over a number of years, to ensure that the most effective control and governance strategy is in place such that the TSFs are managed to the highest standard and remain compliant with State regulatory requirements and current ANCOLD guidelines.

On the basis of observations made and documentation studied during the 2019 surveillance inspection, ATC Williams concluded that TSF 1 and TSF 2 do not present any immediate risk to safety or personnel, downstream population, or the environment.

The latest TSF 3 audit (conducted by Wood, November 2020) concluded that TSF 3 is generally in good condition and is operated and monitored appropriately and there are no new seepage spots noted or reported on or near the embankments since the previous audit.

This TSF 3 audit further concluded “that there are now less signs of seepage, with the buttress now in place and Raise 4 which was nearing completion, the facility has sufficient freeboard to comply with the required ANCOLD guidelines. Piezometers generally indicate that water or phreatic levels are all within prescribed “green” margins. There are some outliers where isolated piezometer levels have shown unusually rapid level increases, where other piezometers in that area, show none. These will require continued monitoring and replacement should be considered...”

TSF 3 Raise 4 Design Status

Tailings discharge into TSF 3 commenced in 2010 and TSF 3 is still actively receiving tailings. Construction of the Stage 4 Raise 4 commenced in 2020. Construction of buttressing for the Stage 4 Embankment Raise (commenced in April 2020) and the internal bunding is now complete; the raise was completed in January 2021.

A stability analysis of TSF 3 by ATC Williams as part of the Raise 4 re-design indicates that the factor of safety (“FOS”) for the existing embankment arrangement did not meet the minimum requirements stipulated by ANCOLD (July 2019) guidelines. The FOS for different scenarios together with the minimum criteria is summarised below:

- short term with loss of containment (minimum 1.5 required): calculated FOS 1.4
- short term with no loss of containment (minimum 1.3 required): calculated FOS 1.1
- post liquefaction/seismic stability (minimum 1.0-1.2 required): calculated FOS 1.1.

It is noted that in the above stability analyses the phreatic surface has been conservatively assumed to be at the downstream surface of the starter embankment and Raise 1. Construction of adequate buttressing as part of the embankment Raise 4 design is expected to increase the FOS to above those factors required by ANCOLD guidelines.

A review of the TSF 3 Raise 4 design with respect to seepage and drainage by ATC Williams indicated the adopted seepage control measures and drainage design proposed by GHD for Raise 4 were not adequate and needed to be revised to allow lowering of the relatively high pore water pressures and seepage surfaces in and around TSF 3 so as to minimise the risk of piping (i.e. embankment internal soil erosion) in an event of cracking (i.e. due to a seismic event etc.).

ATC Williams concluded that the construction of the buttressing and seepage collection measures should be started as soon as possible to address the above issues. During construction, development of pore water pressure in the TSF embankments, foundation and tailings should be closely monitored to ensure adequate measures are employed if sudden or unfavourable changes are detected. Also, displacement instrumentation such as survey prisms and inclinometers should be installed to allow monitoring of embankment movements during and after construction.

BDA understands that these recommendations were adopted by GGPL for the design and construction of the TSF 3 Raise 4. As noted above, the more recent November 2020 TSF 3 surveillance audit by Wood observed that no new seepage areas have been noted or reported on or near the embankments since the previous audit.

A Statutory Works Approval for the TSF 3 Raise 4 has been granted which includes the amendment to the GHD design by ATC Williams. The ATC Williams upgrade design consists of a 3.0m centre raise to the original design crest elevation of RL381m, to be constructed over the existing Raise 3 Embankment and supported downstream by the proposed buttress. The design of the Raise 4 Embankment is similar to the previous embankment raises, with a crest width of 6m and a slope of 2.5(H):1(V). The additional tow buttress design by ATC Williams provides additional structural support and increases the factors of safety against failures through the foundation. The Stage 4 Raise was completed in January 2021.

Proposed TSF 1 Raise 5

A mining proposal has been developed to seek approval for the construction of two additional lifts to TSF1, Stage 5A raise and Stage 5B. It is proposed that staged raises will occur with construction of Stage 5B commencing once Stage 5A is nearing capacity or once the TSF1 Stage 5A lift reaches a reduced level of 375.5m. Maximum reduced level of Stage 5A will be 376.0m and Stage 5B 379.0m.

Stage 5A and Stage 5B embankments have been designed to ensure that the integrity of the structure with respect to stability under static and seismic loading conditions is preserved. The TSF 1 Raise 5 design has been conducted by ATC Williams who are considered a reputable tailings engineering consulting company.

Based on the assessment conducted by ATC Williams, the TSF1 older tailings do not have the potential for static liquefaction or seismic flow liquefaction when saturated. The tailings are believed to have significantly densified overtime due to surface evaporation and consolidation.

Additional LOM Tailings Storage Options Study

ATC Williams has recently conducted a LOM Tailings Storage Options Study (October 2020) which has identified seven possible options for future tailings storage. The possible options range from potential tailings storage volumes of 4.7Mm³ to 8.5Mm³ and are located within the current project area.

13.4 Site Water Management

Key elements of the mine water management scheme at Golden Grove covered by the Water Operating Strategy and regulated under the site's Environmental Licence, issued by the DWER, comprise the following:

- mine dewatering abstraction from the Scuddles and Gossan Hill underground mines using bores and sumps
- potable-quality water abstraction from selected bores
- discharge of excess water to Lake Wownaminya
- TSF2 Seepage Recovery network.

As there are no naturally occurring surface water bodies within the Golden Grove tenements, excess site water is discharged to an ephemeral salt lake, Lake Wownaminya, which is located 27km north of the mining operations. Discharge of this water to the lake is regulated under the site's Environmental Licence.

The Golden Grove production borefield comprises:

- one active and three standby production bores for potable water supplies
- two underground mines, each with a series of underground interconnected mine sumps and pumping stations
- one open pit mine which sits within the dewatering zone above the Gossan Hill mine which requires no dewatering.

Water Licence

Golden Grove is a net water producer. Raw process water is extracted under a 'Licence to Take Water', GWL 103574(8), issued by DWER on 14 August 2014, expiring 14 August 2024. This licence allows for the abstraction of 3,510,000 kilolitres ("kL") of water per year for the purposes of dewatering, dust suppression, ore processing and potable water supply. Both Scuddles and Gossan Hill mines intercept productive aquifers that require dewatering to facilitate mining; GWL 103574(8) provides the legal approval for this activity.

Potable water is extracted under a DWER licence from Bore 69P (98% of the supply, and of good quality) with a minor contribution from GGW54P. These bores are maintained as a standby potable supply, and together with Bore GGW53, supply a reverse osmosis plant.

Total water demand for the operation is approximately 616ML/year (558ML required for mining and processing), accounting for 61% of full pumping capacity. Dewatering of Gossan Hill and Scuddles underground mines produce 900MLpa and potable bores 187MLpa; of this capacity, 1017MLpa is treated for use.

Water from both mines is treated in the site Mine Water Clarifier to adjust the pH, remove solids and lower contaminant concentrations. This treatment allows the water to be re-used and supply most of the processing requirements at the mill. Process water is also recovered by decant and underdrainage returns from the TSF. The site aims to recover the maximum amount of water possible from the TSF with losses only due to evaporation and entrainment within the tailings.

Treated mine water is either reused for mining operations or discharged to Lake Wownaminya, discharging via a wetland system. The DWER concentration limits for discharge to Lake Wownaminya, and the constraint this imposes on GGPL excess mine water discharge, comprises a compliance risk, as metal levels have, on occasion, exceeded permissible levels. The life of mine plan acknowledges these constraints, and appropriate management strategies (such as increased site water reuse, and direction of all Gossan Hill mine water to be treated) have been identified and are being implemented.

A site-wide water balance (a requirement under the Water Licence) is continuously maintained, including addressing all metering mechanisms.

The Golden Grove water monitoring programme provides baseline and ongoing operational data to identify risks and future liabilities, to ensure that Golden Grove complies with all applicable water licence conditions, standards and commitments.

GGPL provides a Groundwater Monitoring Summary to the DWER by 31 March each year and a Groundwater Monitoring Review to the Department every three years.

Lake Wownamina Discharge

Site water discharge to this 150ha lake has created a semi-permanent water body covering an area of approximately 10ha. Operation of the pipeline is regulated by DWER, with discharge conditions equivalent to the Australia and New Zealand Environment Conservation Council (“ANZECC”) guidelines for livestock watering. Remedial actions have been put in place to reduce the cadmium levels in the discharge, which have been measured at up to twice the licence criteria of 10µg/L. Discharge monitoring shows metal occurrences in line with the local mineralised geology, including that of cadmium and chromium. Reuse initiatives have reduced or for periods eliminated the need for discharge to the lake, the only site discharge point identified on (and controlled by) the Environmental Operating Licence.

Waste Water Treatment

Sewage is treated through a ‘Biomax’ wastewater treatment plant which has been designed to LOM requirements with the treatment of up to 300,000 litres per day for 808 people.

13.5 Acid Mine Drainage (AMD)

AMD is a significant geochemical environmental risk but is appropriately addressed in the Mineral Waste Management Plan (MWMP), which, in BDA’s opinion, contains an appropriate consideration of specific risk, relevant management actions and expected outcomes, to ensure the project remains in compliance. The following areas have been identified, and are comprehensively addressed in the MWMP as having some potential for AMD:

- ROM Pad
- Potential Acid Forming (“PAF”) Encapsulation Facility
- Gossan Hill waste rock dump
- underground void (wallrock)
- TSFs 1,2, and 3
- open pit voids (wallrock)
- cemented hydraulic fill (CHF)
- process plant area and ore feed stockpiles
- concentrate shed and loadout facilities
- geological core storage area
- overland conveyor
- tailings pipelines.

13.6 Air Quality

Concentrates are separately stored within an enclosed storage shed at site with approximately 60kt capacity. The concentrates are transported via road train to Geraldton Port, utilizing kibble containers covered with lock-down tarpaulins, where they are discharged at GGPL’s bulk storage facility which contains two load-out systems for bulk loading via conveyors.

The Lead HPM concentrate is no longer classed as DG9 (Dangerous Goods Class 9 – environmentally hazardous), however, this concentrate is transported with controls consistent with this classification, and transport is managed by a different process to the other concentrates. A consignment document is required for each road train; the road trains are thoroughly washed down prior to departing site by an EMR representative.

The concentrate storage facility at Geraldton Port utilises a negative pressure system. A dust extraction system is installed on all load-out transfer points, and conveyors are covered with wind guards. A dust suppression chemical is sprayed onto the surface of the concentrates as they are conveyed to the ship loader. Load-out from the concentrate shed is only carried out within favourable wind and weather conditions. At completion of each ship loading event, the load-out systems are completely washed down, and the residual water and solids returned to the Golden Grove mine site through a formalised Controlled Waste process required by DWER. Routine dust monitoring for personnel and environmental impact is carried out.

13.7 Other Environmental Factors

Greenhouse Gas (“GHG”) Emissions

GHG emissions for the 2019/20 Financial Year, as reported to the National Greenhouse and Energy Reporting Scheme were:

- *Mine Site operations* - for Scope 1, 23,262t CO₂e and for Scope 2, 94,908t CO₂e, totalling 118,627t CO₂e; the (net) energy consumed over the same period was 842,320 gigajoules (“GJ”).
- *Port operations* - Scope 1 (diesel) 134t CO₂e and Scope 2 (electricity) 297t CO₂e, with energy consumption of 3,469GJ.

For the 2019-2020 year 8,989MWh of electricity and 7,100kL of diesel were consumed.

Biodiversity

Golden Grove’s Land and Biodiversity Management Plan describes the systems and processes used by GGPL to manage the land and biodiversity values of the area and minimise adverse impacts on flora and fauna.

Golden Grove’s key biodiversity values include:

- two listed vulnerable fauna species known to exist in the local area under the Environmental Protection and Biodiversity Conservation Act 1999: Malleefowl (*Leipoa ocellata*) and the Western Spiny Tailed Skink (*Egernia stokesii badi*); the Malleefowl is further listed as vulnerable under the International Union for Conservation of Nature (“IUCN”) Red List
- twelve fauna species of conservation significance listed under either the Wildlife Conservation Act 1950 or Environmental Protection and Biodiversity Conservation Act 1999 that may exist over the managed leases including eight birds, three reptiles and one mammal
- identified flora species listed under the Wildlife Conservation Act 1950 including one Threatened Flora (Declared Rare Flora), nine priority Three, and one priority Four.

A study has been initiated into metals bioavailability and ecotoxicity at Lake Wownaminya and established that there was minimal risk from the operations activities.

13.8 Land Rehabilitation and Mine Closure

Rehabilitation of historic and current exploration and mining land disturbance is ongoing. GGPL has committed to a progressive rehabilitation programme, thereby minimising final closure costs and development of contaminated sites.

The Life of Mine (LOM) plan for Golden Grove has been modified since the previous Mine Closure Plan (“MCP”) reporting period with the LOM now extending to 2030 and potentially beyond. Revision of the site MCP commenced in 2018 for submission to DMIRS in March 2019. The revised MCP (dated June 2020) updates the current status of closure planning for the site, including stakeholder engagement, domain attributes and implementation, materials balance, timeframes and responsibilities.

The updated MCP includes the revised approach for capping and rehabilitation of TSF1 and outlines proposed field trials and an associated monitoring regime. The learnings from implementing closure of TSF1 will be invaluable in the eventual closure of TSF2 and TSF3, as agreed with DMIRS in late 2018.

Site restoration will involve decommissioning and removing redundant infrastructure, encapsulation of potentially acid forming mineral waste, profiling landforms to maximise stability and minimise erosion, revegetating disturbed land, making voids safe and implementing post closure monitoring and maintenance requirements.

An interception trench was constructed at Evaporation Pond A to contain seepage water and pump it back into the evaporation pond. This will reduce the impact on nearby vegetation and the resultant closure liability. There are two bores near this trench to monitor the quality of the seepage water.

The major closure cost for the underground operations is effective sealing of all shafts and portals to protect public safety.

The mine closure liability model is reviewed annually by a third party. On the basis of the review completed in December 2019, End of Mine Costs were estimated at A\$70.4M. A Current Obligations Cost estimate for the same time period is A\$68.9M. BDA notes that whilst the Financial Models appear to make allowance of around A\$21M for ongoing rehabilitation, they do not appear to include the estimated End of Mine cost provisions.

Mine Rehabilitation Fund (MRF) Levy

As of June 2020, total mine site land disturbance was estimated as 691ha, and land under rehabilitation was estimated at 58.1ha, resulting in an annual MRF levy contribution paid in September 2020 of A\$151,125.

13.9 Community Issues**Native Title, Stakeholder Engagement and Cultural Heritage**

Good relationships with stakeholders are managed through execution of a Stakeholder Engagement Plan and Community Investment Strategy. Key stakeholders include Yalgoo Shire and the City of Geraldton-Greenough Councils, neighbouring pastoral leaseholders, Aboriginal traditional owners (Badimia and Widi Mob) and the Yalgoo community. A Community Consultative Committee for Golden Grove was established in 2016.

Native title claims on Golden Grove tenements have been made by the Widi Mob and Badimia People, who despite having failed in their claim, are still considered the Traditional Owners (“TO”) over their Native Title Claim area. GGPL works with the TOs to protect heritage by:

- conducting heritage surveys prior to ground disturbance; some 5,500ha have already been surveyed across the Golden Grove tenements; the Widi mob conducted a heritage survey in November 2017 prior to ground disturbance for gold exploration activities
- maintaining a database and land clearing permit system to ensure identified heritage areas are protected
- developing Heritage Management Plans for identified heritage areas in conjunction with the TOs; sites identified at Golden Grove are predominately artefact scatters of stone flakes and gnamma holes (natural rock holes that hold water); the most significant site consists of a rock shelter, ochre source, gnamma hole and surrounding artefact scatters.

Stakeholder relations with Yalgoo Shire are important to GGPL, with a Memorandum of Understanding (“MOU”) that addresses local issues such as road maintenance and funding and community investment and consultation. The relationship with the City of Geraldton-Greenough and the Geraldton Port Authority are also key relationships with respect to ongoing regulatory support for GGPL’s handling, storage and shipping activities at the port.

EMR advises that Golden Grove has been engaging with and contributing to the local and regional community for more than 25 years. The site’s Community Relations Management Plan outlines GGPL’s approach to engaging with and investing in the community and protecting cultural heritage. The Plan includes specific sections addressing:

- Cultural Heritage
- Community Investment
- Community Engagement
- Indigenous Employment

GGPL has committed to working with the TOs to protect heritage values that may be present within and on the land on which the mine is located.

Community Development and Local Employment

GGPL has committed to employing local people, and in 2020 23% of Golden Grove’s workforce resided locally with Geraldton as their commute base. GGPL has also established a programme with its contracting partners to increase the level of local employment.

GGPL has made a significant investment in the local community, supporting local business development and seeking to utilise local businesses. In 2020, GGPL worked with local Midwest suppliers, with a combined contract value of A\$29.5M. Social Impact Assessments were used to determine GGPL’s investment strategy and align the Company’s spend with community needs. In 2020, approximately A\$161,000 was invested in support of local community programmes.

Regional environmental and sustainability initiatives have been promoted through research and development opportunities in partnership with the Northern Agricultural Catchments Council.

Recent Key Projects

GGPL supports local projects including:

- The Bayalgu Aboriginal Pre-employment Training Program, established in 2006, which is regarded as a best-practice training programme for improvement of Aboriginal representation in employment in WA's Midwest region. The Programme seeks to increase the employability and availability of job opportunities for local Indigenous people, contribute to the overall community benefit arising from improving the socio-economic status of Indigenous people, and empower the participants. The 10-week programme for Aboriginal Australians aged over 18 years provides opportunity for attaining Work Safe qualifications and a Resource and Infrastructure Certificate. GGPL has committed to supporting two intakes of 6 trainees each per year. Since 2006, 114 trainees have done the course and since 2008 (when long-term tracking commenced) 98% have completed the training, 92% have found suitable employment and 86% are still employed.
- The Yalgoo Community Development Fund which runs community programmes targeting healthy communities, focusing on youth.
- A partnership with Shine, a respected local organization working with disadvantaged high school girls to improve their wellbeing and education outcomes.
- Cross cultural awareness programmes with traditional owners.
- Various education, employment and local community initiatives active in the broader Midwest region.

13.10 Occupational, Health & Safety (OHS) Management System

GGPL's Health and Safety Policy includes the following commitments:

- a belief that all injuries are preventable
- commitment to a culture of zero harm
- commitment to safety leadership that improves safety attitudes, behaviours and beliefs
- continuous improvement to health and safety management systems, programmes and practices
- a commitment to value consultation and engagement in reducing injuries and improving health and wellbeing
- an acceptance of responsibility for the occupational health and safety of employees.

GGPL has a risk-based Health and Safety Management System ("HSMS") that aims to protect and enhance the health and safety of the workforce while ensuring the operation complies with legislation. Implementation of this HSMS has resulted in steadily reducing key injury factors such as Total Recordable Injury Frequency Rate ("TRIFR") over the period of EMR ownership. Over the last decade this performance measure has been improved by around 60%.

Key elements of the Health and Safety Management System include:

- provision of risk and hazard management tools
- clear procedures for controlling risks associated with sources such as confined space, working at heights and traffic
- a hygiene monitoring programme that aims to identify exposure risks and health surveillance to confirm control effectiveness
- an Emergency Management Plan with a trained mines rescue team and well-maintained emergency equipment.

Recent key projects include:

- development of a new HSEC Policy and set of supporting management system standards aligned to ISO Standards 14001 and 45001
- implementation of an exposure management system, updated hygiene risk assessment and completed exposure monitoring of site personnel
- implementation of an improved contractor management system
- completion of a review of the site's material risks and implementation of a critical control risk assurance process
- further development of the mine rescue team capabilities and strengthening the mutual aid agreement ties with neighbouring mines.

Conclusion

BDA has reviewed those environmental aspects which are considered a material part of the project and which may have significant implications for ongoing mine operations, costs and timing, with particular reference to the TSFs and mine closure and rehabilitation estimates. The management of groundwater flows and excess water quality discharges are important in maintaining surface and groundwater quality, particularly for surplus mine water discharged to Lake Wownaminya.

Based on the information provided by GGPL, BDA considers that the strategies for environmental protection, pollution control and environmental monitoring are appropriate. The Environmental Management System deployed at Golden Grove provides an appropriate environmental management framework, setting out statutory obligations, policy statements and management objectives and targets and standard operating procedures. The critical water management database system for collating monitoring results and reporting is a key component of the management system.

The cost to rehabilitate the currently disturbed areas of the Golden Grove mine site has been estimated at approximately A\$70M. Given the environmental legacies associated with the site, BDA is of the opinion that this estimate is reasonable and appropriate for the proposed operations, however, GGPL should ensure that these estimates are incorporated in the latest financial modelling.

GGPL is committed to maintaining good relationships with stakeholders, managed through execution of a Stakeholder Engagement Plan, a Community Investment Strategy and a Community Relations Management Plan, and is demonstrated in the employment of local indigenous people and making a significant investment in the local community. GGPL has committed to working with the Traditional Owners to protect heritage values present within and on the land on which the mine site is located.

14.0 PRODUCTION SCHEDULE**Overview**

Production data from 2018 to 2020, plus forecast production from 2021 to 2030, based on the March 2021 GGPL Financial Model Base Case (without Gossan Valley) (*Golden Grove Financial Model March 2021.xlsx*), are shown in Table 14.1 and Figures 9 and 10. Production from Gossan Valley has not been included in the Base Case forecast.

Table 14.1**FM Base Case Production Schedule - Actual for 2018 to 2020 and Forecast for 2021-2030**

Item	Unit	Calendar Years														Total
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Mined																
Zinc - Gossan Hill	Mt	0.68	0.83	0.75	0.74	1.03	1.22	1.12	1.22	1.44	1.38	1.34	1.16	0.84	11.49	
Zinc - Scuddles	Mt	0.02	0.05	0.01	0.12	0.20	0.06	0.01	0.02	0.03	0.05	0.07	0.10	0.13	0.79	
Copper - Gossan Hill	Mt	0.17	0.26	0.35	0.45	0.26	0.16	0.38	0.34	0.14	0.19	0.19	0.25	0.40	2.76	
Copper - Scuddles	Mt	0.35	0.24	0.13	0.17	0.13	0.15	0.11	0.04	0.00	0.00	0.02	0.11	0.13	0.86	
Gold Gossan Hill	Mt			0.21	0.05							0.003			0.053	
Ore Mined Total	Mt	1.21	1.37	1.44	1.52	1.62	1.59	1.62	1.62	1.62	1.62	1.62	1.62	1.51	15.96	
Development	km	7.53	8.49	7.97	9.41	9.61	10.06	10.98	9.76	10.38	9.24	6.17	3.98	4.35	83.94	
Milled																
Tonnes Milled - Zn Ore*	Mt	0.72	0.60	0.31	0.69	1.15	1.05	1.02	1.05	1.21	1.16	1.05	0.91	0.83	10.12	
Grade Zn	%	9.6	7.3	7.6	6.4	6.8	9.3	8.5	10.9	10.1	8.8	8.7	6.3	6.9	8.4	
Tonnes Milled - Cu Ore	Mt	0.53	0.46	0.50	0.59	0.47	0.54	0.64	0.58	0.41	0.46	0.57	0.71	0.67	5.64	
Grade Cu	%	2.6	2.9	2.3	2.4	2.2	2.4	2.4	2.9	2.8	3.2	3.1	3.2	3.3	2.8	
Tonnes Milled - CuZn Ore	Mt	0.23	0.56	0.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	
Grade Cu	%		3.0	1.7	1.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	
Grade Zn	%		9.3	6.8	6.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.9	
Total Ore Milled	Mt	1.25	1.29	1.38	1.48	1.62	1.60	1.66	1.62	1.62	1.62	1.62	1.62	1.50	15.96	
Concentrate																
Zinc Concentrate	kt	128.8	119.0	111.2	112.9	137.1	172.5	153.4	202.6	217.7	180.3	161.2	101.0	99.8	1538.5	
Concentrate Grade	% Zn	50.4	48.7	49.0	49.2	50.7	51.2	51.0	51.6	51.5	51.2	51.3	50.7	50.3	51.0	
Zn Recovery	%	93.7	88.7	88.1	89.3	88.8	90.6	89.8	91.8	91.3	90.7	90.8	88.8	87.8	90.3	
Cu Concentrate HPM	kt	29.2	39.9	35.8	44.0	46.9	60.1	42.0	63.3	98.2	55.5	59.1	46.5	551.4		
Concentrate Grade	% Cu		19.6	19.3	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	18.9	
Cu Recovery	%		81.9	81.3	84.3	79.9	81.7	83.8	81.7	84.0	88.7	84.5	85.7	81.5	84.2	
Cu Concentrate LPM	kt	65.9	64.9	53.4	49.5	50.8	64.7	75.5	81.6	57.7	73.7	85.6	111.1	108.7	758.9	
Concentrate Grade	% Cu	18.9	18.7	18.9	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	19.0	
Cu Recovery	%	92.0	91.2	88.8	90.5	92.1	92.5	92.8	93.4	94.0	94.0	94.0	94.0	93.8	93.3	
Pb HPM Concentrate	kt	24.9	19.7	11.9	18.7	24.8	22.9	20.2	22.9	27.8	25.9	23.1	18.7	17.3	222.3	
Concentrate Grade	% Pb	28.6	22.4	22.2	23.2	20.2	20.4	16.8	21.2	22.7	21.9	21.2	18.8	8.9	19.9	
Pb Recovery	%	76.8	74.0	73.6	72.8	74.9	75.0	73.5	75.1	75.7	75.5	75.1	74.3	70.6	74.4	
Total Concentrate	kt	219.6	232.9	216.4	216.8	256.6	306.9	309.2	349.1	366.5	378.2	325.4	289.9	272.3	3070.9	
Cont. Metal in Concentrate																
Zinc	kt	64.9	57.9	54.5	55.5	69.4	88.3	78.2	104.6	112.1	92.4	82.7	51.1	50.3	784.6	
Copper	kt	16.0	20.8	19.0	16.4	18.2	21.4	26.0	23.7	23.3	33.1	27.1	32.6	29.7	251.5	
Lead	kt	7.2	4.5	2.6	4.4	5.0	4.7	3.4	4.9	6.3	5.7	4.9	3.5	1.5	44.3	
Gold	koz	51.9	70.2	62.9	40.0	36.1	28.7	23.7	29.1	32.7	34.7	29.7	21.1	14.5	290.3	
Silver	Moz	1.91	1.70	1.68	1.66	1.41	1.19	1.03	1.23	1.63	1.68	1.51	1.38	0.97	13.69	

Note: 2021-2030 based on FM forecast; Totals are from 2021 to 2030; *Zn ore is strictly Zn/Pb/Cu ore and from 2021 will be treated through the sequential flotation circuit producing zinc, copper and HPM concentrates

Mining

Ore mined in 2020 was below budget at 1.44Mt (budget 1.70Mt) but is forecast to ramp up to around 1.6Mtpa from 2022 through to 2030. Production from Scuddles was impacted in 2020 due to a number of factors including fill placement rates and a prohibition order placed on shaft hoisting after an uncontrolled movement. GGPL anticipates that approval to re-commence use of the shaft should be obtained in Q2 2021.

From 2021 to 2030 the mining schedule is based principally on Measured and Indicated resources (approximately 90%), with Inferred resources and unclassified material contributing the remainder. The first ten years of the schedule are based on the mine stope optimiser (MSO) stope designs which have been scheduled in detail and provide a sound basis for the mine plan over this period. Five major zones each contribute in excess of 1Mt over the life of mine period.

BDA notes that there is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing or represent along strike and down dip projections of drill intersections; the level of confidence is not sufficient to classify this material as Inferred without further drilling; in terms of JORC Code classifications this material could be considered an Exploration Target. The potential tonnage and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no

certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

BDA considers that the forecast mine production over the next ten years is achievable, but there are a number of risks including development rates, seismicity and stope filling rates which all have potential to impact on production. Ventilation is a critical aspect of the progress of the deep mine, with increased heat load; GGPL's plan for further cooling capacity is appropriate, but there remains potential for ventilation issues to impact production. In addition, truck haulage to the deeper stoping area needs to be well-managed to ensure heat load at the bottom of the mine is limited and haulage rates are achieved with haulage tonne-kilometres increasing by around 50% over the next five years.

GGPL plans to undertake systematic advance drilling as development progresses in depth to upgrade the resource categories to Measured and Indicated status well before mining. Ongoing resource definition and exploration drilling is required to confirm the availability of mineable ore post 2030.

Processing

The processing plant has essentially been ore-feed constrained since 2016, with resulting lower annual plant throughputs. The Base Case FM projections for plant throughput at approximately 1.6Mtpa are considered achievable and have historically been achieved with the current processing plant. The constraint remains annual ore supply from mining sources. There is potential upside to plant throughput of 2.0Mtpa with relatively modest capital expenditure, as envisaged in the FM Gossan Valley Case.

Metal recoveries to saleable concentrates are based on established metallurgical models, with the most significant influence being metal head grade. The metal recovery projections are considered reasonable, and some upside may exist, dependent upon the effectiveness of the sequential flotation plant upgrade. Likewise, future concentrate tonnage and grade projections are considered reasonable.

Notwithstanding the use of established metallurgical models for projected metal recoveries in the Financial Model, some residual risk remains due to the lack of metallurgical testwork on samples representative of the generally deeper future ore sources. This risk would be mitigated by implementing a metallurgical testwork programme incorporating locked cycle flotation testwork in order to calibrate the existing metallurgical models using future proposed ore samples.

Production Including Gossan Valley

The March 2021 Financial Model also includes an upside case that includes the development of the Gossan Valley resources currently subject to a feasibility study that is due to be completed in Q2 2021; the FM production schedule including Gossan Valley is shown in Table 14.2.

Production from Gossan Valley is scheduled at 400ktpa from 2025, and assumes 2.5Mt of resources with 2.1Mt of zinc ore averaging 7.8% Zn and 0.5Mt of copper ore grading 2.4% Cu.

The addition of Gossan Valley to the mine schedule increases the zinc and copper in concentrates by 18% and 8% respectively. The feasibility study will analyse the impact of the addition of Gossan Valley to the Golden Grove FM. The PFS highlighted that certain improvements were required to the production and cost model for the project to proceed but additional resource drilling has better defined and increased the known resource.

Table 14.2
LOM Production Schedule Including Gossan Valley Forecast for 2021-2030

Item	Unit	Calendar Years										Total
		2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Mined												
Gossan Hill	Mt	1.23	1.29	1.38	1.51	1.56	1.58	1.57	1.53	1.41	1.24	14.30
Scuddles	Mt	0.29	0.33	0.21	0.11	0.06	0.04	0.05	0.09	0.21	0.26	1.65
Gossan Valley	Mt				0.14	0.41	0.40	0.40	0.40	0.40	0.40	2.55
<i>Ore Mined Total</i>	<i>Mt</i>	<i>1.52</i>	<i>1.62</i>	<i>1.59</i>	<i>1.76</i>	<i>2.03</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>1.91</i>	<i>18.5</i>
Milled												
Tonnes Milled - Zn Ore* (Zn/Pb/Cu)	Mt	0.69	1.15	1.05	1.16	1.43	1.57	1.47	1.37	1.20	1.11	12.2
Grade Zn	%	6.4	6.8	9.3	8.4	10.1	9.4	8.5	8.3	6.9	7.4	8.3
Tonnes Milled - Cu Ore	Mt	0.59	0.47	0.54	0.64	0.60	0.45	0.55	0.65	0.82	0.79	6.1
Grade Cu	%	2.4	2.2	2.4	2.4	2.9	2.8	3.1	2.9	3.1	3.2	2.8
Tonnes Milled - CuZn Ore	Mt	0.17										0.17
Grade Cu	%	1.4										1.4
Grade Zn	%	6.9										6.9
<i>Total Ore Milled</i>	<i>Mt</i>	<i>1.48</i>	<i>1.62</i>	<i>1.60</i>	<i>1.80</i>	<i>2.03</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>2.02</i>	<i>1.90</i>	<i>18.51</i>
Concentrate												
<i>Total Concentrate Produced</i>	<i>kt</i>	<i>216.8</i>	<i>256.6</i>	<i>306.9</i>	<i>329.7</i>	<i>412.8</i>	<i>434.7</i>	<i>447.4</i>	<i>388.8</i>	<i>358.5</i>	<i>339.8</i>	<i>3492.0</i>
Contained Metal in Concentrate												
Zinc	kt	55.5	69.4	88.3	87.5	132.4	134.9	112.2	102.6	73.7	72.3	928.8
Copper	kt	16.4	18.2	21.4	26.3	25.4	26.3	36.5	30.4	36.7	34.1	271.7
Lead	kt	4.4	5.0	4.7	3.5	5.1	6.9	6.3	5.4	3.8	1.8	46.9
Gold	koz	40.0	36.1	28.7	24.4	33.7	36.2	37.9	33.3	24.4	17.5	312.2
Silver	Moz	1.66	1.41	1.19	1.06	1.33	1.77	1.85	1.69	1.52	1.09	14.57
Increase in Cont. Metal with GV												
Zinc	%	0	0	0	12	27	20	21	24	44	44	18
Copper	%	0	0	0	1	7	13	10	12	13	15	8

Note: 2021-2030 based on FM forecast; *Zn ore is strictly Zn/Pb/Cu ore and from 2021 will be treated through the sequential flotation circuit producing zinc, copper and HPM concentrates

Conclusions

GGPL is targeting a production rate of 1.6Mtpa for the life of mine. The assumptions for the mine schedule are reasonable and production is considered achievable in the period 2021 to 2030. There are some areas of risk around the ground conditions at deeper levels and the ability of the operation to maintain the required productivities at the lower depth where higher cooling capacity is required, and haulage management is important.

There is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing or represent along strike and down dip projections of drill intersections; the level of confidence is not sufficient to classify this material as Inferred without further drilling; in terms of JORC Code classifications this material could be considered an Exploration Target. The potential tonnage and grade of an Exploration Target is conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources, or that the production target itself will be realised.

The processing plant has essentially been ore-feed constrained since 2016, and the Base Case FM forecasts for plant throughput, concentration production, and metal recovery are considered reasonable. Some residual risk remains on metal recovery due to the lack of metallurgical testwork on future ore, and also in maintenance of plant throughput rates due to the potential for increased downtime and mechanical failures associated with plant deterioration with age.

The development of the Gossan Valley project provides the potential for the Golden Grove operation to ramp up to 2Mtpa should the feasibility study prove positive and the project be approved. The processing plant is considered capable of treating ore at this throughput rate with relatively modest capital cost upgrades.

15.0 CAPITAL COSTS

Total capital costs from the start of 2021 to the end of 2030 as input to the financial model “*Golden Grove Financial Model March 2021.xlsm*” are A\$483.3M and comprise A\$266.4M of capitalised development cost, A\$63.2M of expansion capital, A\$128.6M of sustaining capital and A\$25.1M of exploration capital (Base Case excluding Gossan Valley). Annual forecast expenditures are summarised in Table 15.1.

Table 15.1
FM Capital Cost Summary

Capital Category	2021 ASM	2022 ASM	2023 ASM	2024 ASM	2025 ASM	2026 ASM	2027 ASM	2028 ASM	2029 ASM	2030 ASM	Total ASM
Capitalised Development	34.2	31.6	34.3	31.0	27.6	33.4	21.1	20.5	24.1	8.6	266.4
Expansion	8.4	6.6	11.8	14.3	12.5	6.6	3.0				63.2
Sustaining	16.2	16.2	14.7	8.4	12.7	8.4	12.0	15.0	15.0	10.0	128.6
Exploration	7.4			5.9	5.9	5.9					25.1
Total	66.1	54.3	60.7	59.6	58.6	54.3	36.1	35.5	39.1	18.6	483.3

BDA considers that the capital cost inputs to the financial model are generally reasonable and appropriate being to a large extent based on historical experience. It should be noted that because they relate to an existing operation significant flexibility in scope and timing is available to management. However, BDA suggests that, because some of the expenditure is not to be made for a number of years, there are some uncertainties in the estimates, and it would be prudent to assess the sensitivity of project finances to an increase in capital costs of 10%.

15.2 Capitalised Development

Capitalised development is the cost of underground mine development which is deemed to be of a capital nature. As shown in Table 15.1 above this expenditure is around A\$30M per annum for the next decade.

The costs are estimated from the metres of development in the development schedule discussed in Section 9, applied to unit rates based on contractual rates and historical experience in underground development at Gossan Hill and Scuddles.

15.3 Expansion Capital

Total expansion capital costs for the Life of the Mine from the start of 2021 to the end of 2030 as input to the financial model “*Golden Grove Financial Model March 2021.xlsm*” are A\$63.2M as summarised in Table 15.2.

Table 15.2
FM Expansion Capital Cost Summary

Capital Category	2021 ASM	2022 ASM	2023 ASM	2024 ASM	2025 ASM	2026 ASM	2027 ASM	2028-30 ASM	Total ASM
Mining	2.9		7.0	2.0	2.5	4.0	3.0		21.4
Processing and Tailings	3.2	4.8	3.0	10.6	10.0	2.6			34.2
Maintenance/Power Infrastructure	2.2	1.8	1.8	1.7					7.4
Total	8.4	6.6	11.8	14.3	12.5	6.6	3.0		63.2

The major items of mining expansion capital are:

- vent rise infrastructure estimated at A\$13.5M to be carried out in the period 2023 to 2027; the estimate is based on metres of vent rise taken from the current mining development schedule applied to average historical unit costs
- cooling plant No.2 at the Far North Downcast (FNDC) raise system estimated at A\$9.5M to be carried out in 2022-2024; the estimate is based on preliminary estimates prepared for the FNDC investment decision; although ventilation cooling would normally be considered a mining capital item, in the FM capital schedule (and therefore in Table 15.2 above) it has been included under ‘Processing and Tailings’
- wet fill conversion for paste plant, estimated installation at A\$5.0M, proposed to be installed in 2023; the estimate is based on a proposal from the supplier of selected paste plant
- underground backfill reticulation estimated at A\$3.0M proposed to be installed in 2021; the estimate is based on historical unit costs applied to quantities from preliminary designs.

While the above capital items are categorised as Expansion Capital, they do not relate to an expansion of the 1.6Mtpa operation, but rather to allow extensions to the underground workings to maintain capacity with increasing depth.

The major items of processing and tailings expansion capital are:

- the sequential flotation upgrade project has been completed and commissioning is underway and should be fully operational early in Q2 2021; the allowance in 2021 is for expenditure of A\$3.0M based on forecasts of costs at completion
- SAG mill variable speed drive retrofit estimated at A\$3.2M to be carried out in 2026; the estimate is taken from quotations from equipment suppliers and historical installation costs
- TSF4 construction and installation of an associated tailings thickener, estimated at A\$18.3M to be carried out in the period 2023 to 2025; the estimate is taken from studies completed by the tailings system consultant ATC Williams (ATCW).

The major item of maintenance expansion capital is expenditure of A\$7.2M for a power infrastructure upgrade scheduled to be carried out in the period 2021 to 2024. GGPL advises that the estimate is based on a full listing of required works, recent quotations for equipment and materials and recent quotations for installation works.

Estimates for other minor works have generally been prepared on the basis of quotations from suppliers and contractors and, where the works are to be carried out in-house, on the basis of historical experience.

15.4 Sustaining Capital

Total sustaining capital costs for the Life of the Mine from the start of 2021 to the end of 2030 as input to the financial model “*Golden Grove Financial Model March 2021*” are A\$128.6M as summarised in Table 15.3.

Table 15.3
FM Sustaining Capital Cost Summary

Capital Category	2021 ASM	2022 ASM	2023 ASM	2024 ASM	2025 ASM	2026 ASM	2027 ASM	2028 ASM	2029 ASM	2030 ASM	Total ASM
Mining	6.3	2.8	2.1	2.1							13.3
Processing	7.8	9.7	7.9	0.6	5.1						31.1
Site Services	0.1	2.2	4.3	2.7	7.6	8.4	3.8	1.8	0.8	0.8	32.2
Maintenance	2.1	1.5	0.4								4.0
Environment											
LOM Sustaining				3.0			8.3	13.3	14.3	9.3	48.0
Total	16.2	16.2	14.7	8.4	12.7	8.4	12.0	15.0	15.0	10.0	128.6

Sustaining capital is generally expenditure of a capital nature required to allow production to continue and includes the cost of replacing and upgrading of capital items and the cost of ongoing raising of the operating tailings dams. The estimates are based on quotations from suppliers and contractors or, where relevant, on historical experience.

The mining sustaining capital allows for replacements of secondary fans and refuse chambers as well as ladderway replacement along with ongoing miscellaneous projects.

The FM sustaining estimates are long term forecasts based on average expenditure on sustaining capital in previous years and the more detailed estimates of near-term expenditure.

15.5 Exploration Capital

Exploration capital is the budgeted cost for carrying out resource drilling at Gossan Hill and Scuddles and exploration in the northern and southern leases. Expenditure of A\$7.4M in 2021 (Table 15.1) is largely for resource extension and definition drilling totalling in excess of 50,000m planned for the Xantho Extended, Oizon, South Amity, Hougoumont and Europa orebodies at Gossan Hill and the Cervantes orebody at Scuddles, with a small amount of drilling directed at targets outside the mine area. An allowance of A\$17.7M expenditure in the period 2024-2026 has been made for ongoing resource drilling at Gossan Hill and Scuddles and for exploration in the northern and southern leases.

15.6 Rehabilitation Costs

Allowance is made in the financial model for the expenditure of around A\$10.0M in the period 2021 to 2030 for the progressive rehabilitation of the mine and associated facilities. No details are provided of the breakdown of this expenditure.

The mine closure liability model is reviewed annually by an independent third party and based on the review completed in December 2019, End of Mine Costs were estimated at A\$70.4M. This figure does not appear to have been included in the Financial Model.

15.7 Gossan Valley

No capital costs associated with bringing Gossan Valley into production are included in the Base Case estimates of capital costs described above. The Financial Model Gossan Valley Case includes development of Gossan Valley from 2022 with production ramping up to 400ktpa in 2025.

BDA notes that the Gossan Valley PFS estimates the capital costs for the Gossan Valley project at A\$205M. BDA has been unable to find any reference in the PFS Report to a project contingency allowance being included in this estimate, but some contingency is included in the financial model including A\$1.5M of contingency for surface infrastructure, 15% for backfill installations and 10% for the boxcut excavation. Industry standards for capital cost estimating for resource projects generally require that a significant contingency allowance, of the order of 25% of the estimate before contingency, be included in PFS capital cost estimates.

The Gossan Valley Case Financial Model (*Golden Grove Financial Model March 2021.xlsm*) capital cost estimate from the start of 2021 to 2030 is A\$699.1M, comprising A\$401.2M of capitalised development cost, A\$119.7M of expansion capital, A\$153.1M of sustaining capital and A\$25.1M of exploration capital, an overall increase of A\$215.8M compared with the Base Case model. Annual forecast expenditures are summarised in Table 15.4.

Table 15.4

Gossan Valley Case Financial Model Capital Cost Summary

Capital Category	2021 A\$M	2022 A\$M	2023 A\$M	2024 A\$M	2025 A\$M	2026 A\$M	2027 A\$M	2028 A\$M	2029 A\$M	2030 A\$M	Total A\$M
Capitalised Development	34.2	31.6	34.3	69.5	47.5	54.3	35.9	38.1	39.1	16.7	401.2
Expansion	8.4	10.1	64.8	14.3	12.5	6.6	3.0				119.7
Sustaining	16.2	16.2	14.7	20.4	16.1	11.6	14.0	16.5	16.2	11.2	153.1
Exploration	7.4			5.9	5.9	5.9					25.1
Total	66.1	57.8	113.8	110.2	82.0	78.4	52.9	54.5	55.2	27.9	699.1

The principal areas of increase are Capitalised Development (A\$134.8M), Expansion Capital (A\$56.5M) and Sustaining Capital (A\$24.5M).

Conclusions

BDA considers that the capital cost inputs to the Base Case financial model are generally reasonable being to a large extent based on historical experience; because they relate to an existing operation significant flexibility in scope and timing is available to management. As some of the expenditure is not to be made for a number of years, BDA suggests there are some uncertainties in the estimates of costs, and it would be prudent to assess the sensitivity of project finances to an increase in capital costs of 10% for expenditures beyond 2021. The closure costs included in the financial model are significantly lower than the December 2019 independent estimate of end of mine life closure costs.

16.0 OPERATING COSTS**16.1 Base Case**

The operating costs shown in Table 16.1 comprise the actual costs for 2018 to 2020 and forecast costs from 2021 to 2030 (file *Golden Grove Financial Model March 2021.xlsx*); the forecast costs are based on the mine plan prepared by GGPL for the financial model without the inclusion of Gossan Valley project.

Table 16.1**Base Case Operating Costs - Actual for 2018 to 2020 and Financial Model Forecasts 2021-2030**

Item	Unit	Calendar Years													Total
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Physicals															
Ore Mined	Mt	1.21	1.37	1.44	1.52	1.62	1.59	1.62	1.62	1.62	1.62	1.62	1.62	1.51	15.96
Ore Milled	Mt	1.25	1.29	1.38	1.48	1.62	1.60	1.66	1.62	1.62	1.62	1.62	1.62	1.50	15.96
Payable Copper	Mlbs	29.0	43.0	39.0	34	37.14	42.75	55.80	48.91	47.85	68.54	55.89	67.64	61.60	520.12
Site Op Costs															
Mining	AS\$M	129.9	167.9	188.6	204.3	196.5	195.9	207.7	199.7	202.1	193.4	178.9	169.1	161.8	1909.4
Less Cap Dev	AS\$M	-22.1	-45.9	-48.0	-34.2	-31.6	-34.3	-31.0	-27.6	-33.4	-21.1	-20.5	-24.1	-8.6	-266.4
Mining Op	AS\$M	107.8	122.0	140.7	170.1	164.9	161.5	176.6	172.1	168.7	172.3	158.4	144.9	153.3	1642.8
Mill	AS\$M	22.0	26.4	30.3	31.7	33.2	33.4	33.3	32.6	34.2	33.8	33.3	32.5	30.1	328.1
Maintenance	AS\$M	25.6	31.5	32.8	32.4	32.4	31.9	33.1	32.3	32.3	32.3	32.3	32.3	32.3	323.6
Site Serv, O/heads	AS\$M	20.4	21.7	23.9	26.7	23.8	23.8	24.3	24.3	24.3	24.3	24.3	24.3	24.3	244.4
Port and Transport	AS\$M	9.1	10.5	10.3	11.6	12.5	14.8	15.2	16.9	17.7	18.3	15.8	14.1	13.2	150.1
Total Site Costs	AS\$M	184.9	212.1	238.0	272.5	266.7	265.4	282.4	278.2	277.2	280.9	264.1	248.1	253.2	2688.7
Other Op Costs															
Corp Costs	AS\$M	2.0	2.9	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Realisation Costs	AS\$M	31.0	51.0	75.8	46.9	76.3	81.8	78.3	90.4	91.8	89.4	77.8	64.3	60.9	757.9
Royalty	AS\$M	17.4	20.0	16.1	19.1	18.2	22.0	23.7	25.7	27.0	29.1	24.8	22.9	20.8	233.3
By-product Credit	AS\$M	295.0	357.0	336.0	291.2	306.8	355.4	319.6	412.0	451.0	395.6	351.4	233.4	206.3	3322.7
Total Op Costs	AS\$M	-59.7	-71.0	-2.4	47.2	54.4	13.8	64.9	-17.7	-55.1	3.8	15.4	101.9	128.6	357.2
Unit Costs AS															
Mining (incl Cap Dev)	AS\$/t mined	106.9	122.3	130.8	134.2	121.3	123.2	128.2	123.3	124.7	119.1	110.5	104.4	107.3	119.6
Mining Op	AS\$/t mined	88.7	88.9	97.5	111.8	101.6	101.6	109.0	106.2	104.1	106.1	97.8	89.5	101.6	102.9
Milling (incl Mtce)	AS\$/t milled	38.1	44.8	45.7	43.2	40.5	40.9	40.1	40.1	41.1	40.8	40.5	40.0	41.5	40.8
G&A/Trans/Port	AS\$/t milled	23.6	24.9	24.8	25.8	22.4	24.2	23.8	25.4	25.9	26.2	24.7	23.7	25.0	24.7
Total Site Costs	AS\$/t milled	148.0	164.2	172.5	183.7	164.7	166.4	170.5	171.8	171.2	173.5	163.2	153.3	168.4	168.5
Unit Costs US\$															
Cu - C1 Costs	US\$/lb	-1.90	-1.38	-0.01	0.53	0.71	-0.14	0.54	-0.65	-1.25	-0.27	-0.12	0.85	1.28	0.17
Cu - AISC	US\$/lb	-0.57	-0.20	1.43	2.12	2.01	1.07	1.36	0.34	-0.20	0.39	0.66	1.52	1.74	1.06

Note: Mining Op costs inclusive of grade control and resource drilling; totals are from 2021 to 2030; AISC = All-In Sustaining Cost; Corporate costs from 2021 have been transferred from Site costs into a Corporate account

The overall site operating unit costs, including concentrate haulage and port costs, are estimated at around A\$169/t milled over the next ten years. The forecast C1 unit costs and the AISC are US\$0.17/lb Cu and US\$1.06/lb Cu respectively, as shown in Table 16.1, and are net of zinc, gold and silver by-product revenues, and are shown as US\$/lb of payable copper sold. AISC costs include C1 costs, royalties, sustaining capital, asset corporate costs and capitalised development costs. By-product revenues for 2021-2025 are based on zinc, gold and silver price forecasts and A\$:US\$ exchange rate forecasts as follows:

- Zinc: 2021 = US\$1.20/lb, 2022 = US\$1.12/lb, 2023 = US\$1.19/lb, 2024 = US\$1.20/lb, 2025 = US\$1.20/lb
- Gold: 2021 = US\$1,850/oz, 2022 = US\$1,885/oz, 2023 = US\$1,875/oz, 2024 = US\$1,850/oz, 2025 = US\$1,850/oz
- Silver: 2021 = US\$24/oz, 2022 = US\$22/oz, 2023 = US\$22/oz, 2024 = US\$22/oz, 2025 = US\$23/oz)
- A\$:US\$ 0.73.

By-product revenues for 2026 and beyond assume zinc, gold and silver on a straight-line basis from the 2025 price assumptions.

BDA considers it would be prudent to test a 10% sensitivity increase to all operating costs.

Mining

The forecast mining costs are based on the budget costs for 2021 and include detailed costs to 2030 prepared in late 2020, with an adjustment for the first quarter reforecast in 2021. Unit mining costs based on these costs were applied to the various resource extensions for the financial model. The majority of the mining costs are based on activities undertaken by the mine contractor and rely on similar mine productivities as currently achieved. The contract has a performance payment as part of the monthly claim, representing a form of partnership contract. The mine contract is due for renewal in approximately one and a half years which may change some of the unit costs, but overall BDA considers forecast mining cost based on the current cost structure is a reasonable basis for the FM costs; the recent mine operating costs have shown some increase over the last three years which are reflected in

forecast costs. The changeover from CHF to paste fill should significantly reduce the cement cost with the cement content reducing from 7.6% in CHF to around 4%, and potentially lower, in paste fill.

Overall, the unit mining costs are considered reasonable to 2030.

With increasing depth of the mine there are increased risks including ground conditions and increased travel time to the operations which may impact productivities. The introduction of a new filling system, paste fill, has to be completed adding some uncertainty to the mine cost estimate.

Process Operating and Maintenance Costs

The forecast process operating and maintenance costs are based on the budget costs for 2021 and include detailed costs to 2032 with an adjustment for the first quarter reforecast in 2021.

Milling costs include the costs of supervisory, technical, and operating personnel, processing electric power, process reagents and consumables, laboratory costs, and concentrate road transportation and Geraldton port costs.

Forecast annual mill operating costs remain relatively stable over the period 2021-2030 in the range A\$32.5 - 34.2M. Projected annual maintenance costs also remain relatively stable during this period, in a range of A\$24.5 - 25.4M. There is a slight reduction in annual unit costs for the combined milling and maintenance costs in the period 2021- 30 ranging from approximately A\$40-43/t compared with actual combined milling and maintenance costs for 2020 of A\$43.8/t. The unit cost decrease is primarily due to the increase in annual plant throughput to 1.60-1.62Mtpa during the period.

Process operating costs are based on detailed and well understood unit costs, reagent consumptions, operating consumables, labour schedules, and existing contract rates, and future projections are considered reasonable.

Significant maintenance works on deteriorating fixed plant and infrastructure occurred in 2019 and 2020, and ongoing works will be required; forecast maintenance costs are consistent with expenditure over these last two years. Overall, the forecast maintenance costs are considered reasonable, but evaluation of detailed maintenance costs is problematic, as no breakdown of costs is provided within the financial model, the maintenance costs being presented as a single line item.

Site Services Costs

The site service costs include general management, commercial and infrastructure, health and safety, environment, emergency response, community relations, human resources, IT, and training and development. The largest cost category is commercial and infrastructure, representing approximately 48% of the total cost.

The forecast annual site service costs are in the range A\$23.8-24.3M, consistent with actual costs for 2020 of A\$23.9M. The 2021 site service costs are forecast at A\$26.1M, with no explanation for this increased amount. Notwithstanding this anomaly, the site service unit cost of approximately A\$25/t appears reasonable.

Port and Transport Costs

The forecast port and transport costs relate to road transportation from the mine site to the port of Geraldton, and loading of concentrate to ship. The costs increase proportional to increased concentrate production, and, based on current rates, are considered reasonable.

Other Costs

Corporate costs include Perth administration costs and historically totalled A\$2-4M per year. From 2021 these costs have been transferred from Site costs into a Corporate account.

Treatment costs are based on GGPL contract rates including discounts to the treatment charges where appropriate and spot arrangements outside contract. Spot rates incorporate some escalation of charges over the mine life, including GGPL discounts. Treatment charges are variable and based on individual contract terms, but the following points provide an overall summary:

- *Copper LPM Concentrate* - the copper payable terms are typically 96.5%, subject to a minimum deduction of 1 unit. The average payable achieved from 2017-2020 was 94.7%. The gold payable terms require gold content above 1g/t Au, and are then payable on a sliding scale, increasing for higher grades. The average payable achieved from 2017-2020 was 92.3%. Silver payable terms are 90% payable if silver content is above 30g/t Ag; 90% payable was achieved for all shipments from 2017-2020. The treatment charge is contract-specific per dry metric tonne (dmt); the average treatment charge for 2017-2020 was US\$56.66/dmt. The copper, gold and silver refining charges are also contract specific per payable lb or oz. The average refining charges for the period 2017-2020 were: copper - US\$0.057/lb, gold - US\$5.54/oz, silver US\$0.39/oz.

- *Zinc Concentrate* - the zinc payable terms are typically 85%, subject to a minimum deduction of 8 units. The average payable achieved from 2017-2020 was 83.9%. The gold payable terms are 'deduct 1g/t, pay 70% of the remainder'. The silver payable terms are 'deduct 3oz/t, pay 70% of the remainder'; silver grades in most parcels were not high enough to achieve a payment after the contractual deduction of 3oz/t.
- *HPM Concentrates (Pb and Cu)* - the lead and copper payable terms have been highly variable, with gold grade often the determining factor. Some parcels have been sold with high copper payables and lead not only not payable, but penalised. Conversely, other parcels have been sold with high lead payables and copper payables at modest levels, including several parcels sold with copper paid at the lead price. The highest copper payable has been 95% and the highest lead payable has been 92%. The weighted average payable for copper and lead for 2017-2020 has been 68%. Refining charges are contract specific; for 2017-2020, the charge ranged from: copper - nil to US\$1.00/kg, lead - nil to US\$0.15/kg, gold - US\$5-45/oz, silver - US\$0.45-1.60/oz.

The Western Australian government royalty calculation for concentrates is based on 5% of net smelter return (NSR), allowing for the deduction of treatment and refining charges. Gold and silver royalties are based on 2.5% NSR on payable metal with allowable deductions being refining charges.

The royalties in the financial model, and shown in Table 16.1 are based on the following metal prices: copper - US\$4.04/lb, zinc - US\$1.25/lb, lead - US\$0.90/lb, gold - US\$1,696/oz and silver - A\$25.4/oz.

16.2 Gossan Valley Case

The operating costs shown in Table 16.2 comprise the actual costs for 2018 to 2020 and forecast costs from 2021 to 2030 (file *Golden Grove Financial Model March 2021.xlsx*) based on the Financial Model prepared by GGPL with the inclusion of the Gossan Valley project, ramping up to a 2Mtpa operation.

Table 16.2

Gossan Valley Case Operating Costs - Actual for 2018 to 2020 and Financial Model Forecasts 2021-2030

Item	Unit	Calendar Years													Total
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Physicals															
Ore Mined	Mt	1.21	1.37	1.44	1.52	1.62	1.59	1.76	2.03	2.02	2.02	2.02	2.02	1.91	18.51
Ore Milled	Mt	1.25	1.29	1.38	1.48	1.62	1.60	1.80	2.03	2.02	2.02	2.02	2.02	1.90	18.51
Payable Copper	Mlbs	29.0	43.0	39.0	34	37.14	42.75	56.32	52.33	54.02	75.20	62.57	76.15	70.68	561.16
Site Op Costs															
Mining	ASM	129.9	167.9	188.6	204.3	196.5	195.9	261.7	255.8	254.6	241.6	229.9	217.5	203.6	2261.4
Less Cap Dev	ASM	-22.1	-45.9	-48.0	-34.2	-31.6	-34.3	-69.5	-47.5	-54.3	-35.9	-38.1	-39.1	-16.7	-401.2
Mining Op	ASM	107.8	122.0	140.7	170.1	164.9	161.6	192.1	208.3	200.2	205.7	191.9	178.4	186.9	1860.1
Mill	ASM	22.0	26.4	30.3	31.7	33.2	33.4	34.2	35.0	36.9	36.3	35.8	34.8	32.3	343.6
Maintenance	ASM	25.6	31.5	32.8	32.4	32.4	31.9	33.1	32.3	32.3	32.3	32.3	32.3	32.3	323.6
Site Serv, O/heads	ASM	20.4	21.7	23.9	26.7	23.8	23.8	24.3	24.3	24.3	24.3	24.3	24.3	24.3	244.4
Port and Transport	ASM	9.1	10.5	10.3	11.6	12.5	14.8	16.1	19.9	20.9	21.5	18.8	17.3	16.4	169.8
Total Site Costs	ASM	184.9	212.1	238.0	272.5	266.7	265.4	299.9	319.9	314.7	320.1	303.0	287.1	292.3	2941.6
Other Op Costs															
Corp Costs	ASM	2.0	2.9	3.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Realisation Costs	ASM	31.0	51.0	75.8	46.9	76.3	81.8	84.0	108.3	109.2	106.1	93.7	81.8	78.1	866.2
Royalty	ASM	17.4	20.0	16.1	19.1	18.2	22.0	25.0	30.3	31.5	33.3	29.1	27.8	25.8	262.1
By-product Credit	ASM	295.0	357.0	336.0	291.2	306.8	355.4	350.1	510.5	532.2	467.5	424.8	313.5	283.4	3835.4
Total Op Costs	ASM	-59.7	-71.0	-2.4	47.2	54.4	13.8	58.8	-52.1	-76.9	-8.0	1.0	83.2	112.8	234.2
Unit Costs															
Mining (incl Cap Dev)	AS\$/t mined	106.9	122.3	130.8	134.2	121.3	123.2	148.4	126.0	126.0	119.4	113.8	107.7	106.7	122.2
Mining Op	AS\$/t mined	88.7	88.9	97.5	111.8	101.8	101.6	108.9	102.6	99.1	101.7	95.0	88.3	98.0	100.5
Milling (incl Mtce)	AS\$/t milled	38.1	44.8	45.7	43.2	40.5	40.9	37.4	33.2	34.3	34.0	33.7	33.2	34.0	36.0
G&A/Trans/Port	AS\$/t milled	23.6	24.9	24.8	25.8	22.5	24.3	22.4	21.8	22.5	22.8	21.4	20.6	21.3	22.4
Total Site Costs	AS\$/t milled	148.0	164.2	172.5	183.7	164.7	166.4	166.5	157.7	155.9	158.6	150.1	142.2	153.6	158.9
Unit Costs US\$															
Cu - C1 Costs	US\$/lb	-1.90	-1.38	-0.01	0.53	0.71	-0.14	0.44	-1.15	-1.46	-0.40	-0.33	0.53	0.90	-0.04
Cu - AISC	US\$/lb	-0.57	-0.20	1.43	2.12	2.01	1.07	1.93	0.16	-0.15	0.41	0.65	1.33	1.45	1.03

Note: Mining Op costs inclusive of grade control and resource drilling; totals are from 2021 to 2030; AISC = All-In Sustaining Cost

The operating costs in this case incorporate the Gossan Hill and Scuddles operating costs from the Base Case but add the Gossan Valley operating costs for the additional 0.4Mtpa operation, with all ore fed to the Scuddles processing plant. The mining costs for Gossan Valley including capitalised development are estimated at A\$122/t, slightly above the average costs for the Base Case. Mining operating costs are A\$85/t, somewhat lower than the mining costs for Gossan Hill and Scuddles due to the significantly shallower operations requiring less haulage and travel time, no cooling requirements and less expensive ground support. Note, the 'Totals' (averages) in Table 2.8 comprise the combined costs of the Gossan Hill, Scuddles and Gossan Valley operations.

The Processing and Site Service unit costs are lower, reflecting the impact of the additional tonnage on unit costs.

The overall site operating unit costs, including concentrate haulage and port costs, are estimated at around A\$159/t milled over the next ten years of the FM. The forecast C1 unit costs and the AISC are -US\$0.04/lb and US\$1.03/lb respectively, as shown in Table 16.2, with significant by-product credits contributing to the low copper unit costs. BDA considers a similar approach to the cost escalation and sensitivities recommended for the Base Case would be appropriate.

Conclusions

The forecast mine operating costs generally reflect the contract mining costs and, given the nature of the contract, are considered to provide a reasonable basis for the forecast costs over the first ten years of the FM.

The forecast milling and maintenance operating costs reflect mill throughput and concentrate production and generally reflect existing and well-established unit costs and operating and reagent consumption rates. The combined milling and maintenance unit cost of approximately A\$41/t is considered reasonable, although no detailed maintenance cost breakdown has been reviewed.

The site service unit cost of approximately A\$25/t appears reasonable and consistent with recent costs.

The port and transport costs are proportional to concentrate production and are considered reasonable.

Other costs are made up of the concentrate Treatment and Refining charges, corporate costs and royalty, less reallocation of leasing costs. The concentrate charges are subject to individual contracts and market conditions; the estimates appear generally reasonable, although no allowance has been made for penalties incurred related to penalty elements, despite a history of incurring such penalties in recent years, with an increased frequency in 2020.

BDA considers it would be prudent to test an overall +10% sensitivity to all operating costs.

17.0 IMPLEMENTATION

17.1 Sequential Flotation Plant

The sequential flotation plant upgrade project is essentially complete. The project is being managed by the GGPL management team and is forecast by GGPL to be complete and operational in the second quarter of 2021. Engineering, procurement and construction are being carried out under contracts let by the EMR management team to suitably qualified consultants, suppliers and contractors.

All equipment has been installed, and water commissioning commenced in mid-March 2021. A campaign of copper ore is forecast for the first half of April 2021, after which the circuit is forecast to convert to full sequential flotation operation.

In relation to budget and schedule, recent project monthly reports indicate that the construction and commissioning are on schedule and that the costs are close to budget (approximately A\$70k overrun on budget of around A\$12M).

17.2 Tailings Dam Raisings

GGPL has advised that the engineering, procurement and construction activities for the various tailings dam embankment raisings have proceeded generally in accordance with budget and schedule.

17.3 Gossan Valley Development

The Gossan Valley development project is the subject of feasibility studies and permitting activities which are forecast to be completed in the first half of 2021. Subject to the outcome of the feasibility study, and project approval, pre-production mining works could commence in the second half of 2021. It is proposed that the mine development will be managed by the GGPL management team. Detailed mine design is to be undertaken by specialised consultants and GGPL will prepare, let, administer and supervise a mining contract for the development and operation of the mine. EMR has still to make decision on the start date for developing the Gossan Valley mine. The PFS has determined that the mine can be developed in 12 months from the commencement of the decline development.

Conclusions

GGPL has completed a number of expansion and upgrade projects over the life of the mine and has project management and technical personnel with the necessary experience and expertise to complete the current projects and the future development of the Gossan Valley mine. BDA considers that capital works projects by GGPL are likely to continue to be implemented successfully.

18.0 STATEMENT OF CAPABILITY

This report has been prepared by Mr Malcolm Hancock and Mr John McIntyre, Executive Directors of Behre Dolbear Australia Pty Limited, together with Mr Peter Ingham, General Manager Mining, and Mr George Brech, Mr Tom Gibbons, Mr Richard Frew, Mr Adrian Brett and Ms Janet Epps, Senior Consultants and Associates of BDA. BDA made a site visit to the Golden Grove mine site in January 2021 for the purpose of preparing this independent technical and environmental review.

Behre Dolbear has offices or agencies in Denver, New York, Toronto, Vancouver, London, Sydney, Guadalajara and Santiago. The parent company, Behre Dolbear & Company Inc., was founded in 1911 and is the oldest continuously operating mineral industry consulting firm in North America. The firm specialises in mineral evaluations, due diligence assessments, independent expert reports and strategic planning as well as technical geological, mining and process consulting.

The principal consultants engaged in the review on behalf of BDA are as follows:

Mr Malcolm Hancock (BA., MA., FGS, FAusIMM, MIMM, MMICA, CP (Geol), MAIMVA (CMV), MAIMA (CMA)) is a Principal and Executive Director of BDA. He is a geologist with more than 40 years of experience in the areas of resource/reserve estimation, reconciliation, project feasibility and development, mine geology and mining operations. Before joining BDA, he held executive positions responsible for geological and mining aspects of project acquisitions, feasibility studies, mine development and operations. He has been involved in the feasibility, construction, and commissioning of several mining operations. He has worked in Australia, Africa and South-East Asia, on both open pit and underground operations, on gold, copper, base metal, iron ore and industrial mineral projects, and has been directly involved in the management and direction of the BDA Independent Engineer operations in recent years. Mr Hancock visited the mine site and reviewed the geology, resources and reserves, and exploration potential.

Mr John McIntyre (BEng. (Min) Hon., FAusIMM, CP (Min), MMICA, MAIMVA (CMV), MAIMA (CMA)) is the Managing Director of BDA. He is a qualified mining engineer, with over 40 years of experience in engineering, operations and management of mines and mining projects, in Australia, New Zealand, South East Asia and Africa. His principal fields of expertise include technical audit, project feasibility and development, mine and project evaluation, operating experience in open pit and underground mining of coal, base and precious metals, management review and operations optimisation. He has been a consultant for more than 30 years and has held positions, including General Manager Operations and CEO. Mr McIntyre reviewed the mining and operating cost components of the report.

Mr George Brech (BSc. Geology, MSc. Engineering Geology, FAusIMM) is a Senior Associate of BDA with more than 45 years of experience in exploration and mining as an exploration and mine geologist. He is experienced in management, exploration, project evaluation, mine development, resource and reserve estimation, feasibility studies, open pit mine production, exploration and mine data evaluation, and open pit slope engineering. He has worked in various capacities on a large number of projects providing geological expertise in Australia, southern Africa and Southeast Asia. He is familiar with a wide range of commodities including copper, gold, wolfram, magnesite, iron ore and coal. He has extensive experience in the areas of resource/reserve estimation, reconciliation, independent expert and due diligence reports. Mr Brech reviewed the geology, resources and reserves, and exploration potential.

Mr Peter Ingham (BSc. (Min), M.Sc., DIC, G.Dip.App. Fin. (Sec Inst), CEng, FAusIMM, MIMMM, MAIMVA) is General Manager Mining of BDA and is a graduate mining engineer with more than 40 years in the mining industry in Europe, Africa, Australia and Asia. His experience includes operations management, mining contract management, strategic planning, project assessment and acquisition, cost estimation and operational audits and trouble-shooting. He is experienced in a range of commodities, including gold, copper, nickel, base metals and platinum, in both surface and underground mining. He has extensive experience in assessment of mining contracts. Mr Peter Ingham visited the mine site and covered the underground mining, geotechnical and mining cost aspects of the project.

Mr Tom Gibbons (BSc, FAusIMM, CP (Met)) is a Senior Associate of BDA with more than 30 years' experience as a professional metallurgist. He has held senior process plant operational and management positions across Australia and internationally, as well as metallurgical audit and R&D experience. His experience covers a range of commodities including gold, copper, base metals, iron ore, tin and tungsten, uranium and rare earths. For much of the last 11 years, he has been operating as a consultant metallurgist involved in feasibility studies, testwork and R&D management, productivity improvement studies, due diligence reporting and as a Qualified Person (QP) for NI43-101 reports to stock exchanges.

Mr Richard Frew (BE Civil, MIE Aust) is a Senior Associate of BDA with more than 40 years' experience as a planning, estimation and contracts engineer. He is experienced in contract management, feasibility study review, financial modelling, capital cost estimation, infrastructure, project controls, critical path analysis, project implementation and contract assessment. He has worked on a large number of projects providing management and project services to the owners or financiers, including major projects in Australia, the Philippines, Argentina, Mauritania, New Zealand and Romania. Mr Frew has reviewed the infrastructure, capital costs and cost projections and implementation strategy.

Ms Janet Epps BSc. (Geol), MSc. (Envir.), FAusIMM) is a Senior Associate of BDA with more than 40 years' experience as a specialist in environmental science and community issues management, policy development and regulatory consultancy services. Ms Epps has worked with the UN, World Bank, the IFC and the Multilateral Investment Guarantee Agency (MIGA), providing policy advice to a wide range of governments and other organisations on matters associated with the environmental and community issues management of resource projects. She has also worked extensively with the private sector and is widely experienced in environmental and social/community due diligence, audits and reviews of environmental and social management plans and policies, closure plans, gap analysis, etc. Ms Epps has completed assignments in Australasia, Central, Eastern and South-East Asia (particularly China), Eastern Europe, Western Pacific (particularly Indonesia, Papua New Guinea and Philippines), CIS, Africa (Zambia, Malawi, Namibia, Uganda), Middle East, Caribbean and North and South America. Ms Epps has reviewed the environmental and social aspects of the project.

Mr Adrian Brett (BSc (Hon) Geol., MSc, MEnvir. Law, FAusIMM) is a Senior Associate of BDA with more than 40 years' experience in environmental and geo-science, including the fields of environmental planning and impact assessment, site contamination assessments, environmental audit, environmental law and policy analysis and the development of environmental guidelines and training manuals. He has worked in an advisory capacity with several United Nations, Australian and overseas government agencies. He has completed assignments in Australia, Papua New Guinea, Indonesia, Thailand, Laos, Philippines, Middle East, Africa and South America. Mr Brett has reviewed the project's regulatory approvals, licences, permits and compliance with relevant legislation and consent conditions.

19.0 STATEMENT OF INDEPENDENCE

Neither the principals nor associates of BDA have any material interest or entitlement in the securities or assets of EMR. BDA will be paid a fee for this report comprising its normal professional rates and reimbursable expenses. The fee is not contingent on the conclusions of this report.

20.0 LIMITATIONS AND CONSENT

This assessment has been based on data, reports and other information made available to BDA by EMR and referred to in this report.

BDA has reviewed the data, reports and information provided and has used consultants with appropriate experience and expertise relevant to the various properties. The opinions stated herein are given in good faith. BDA believes that the basic assumptions are factual and correct and the interpretations reasonable.

BDA does not accept any liability other than its statutory liability to any individual, organisation or company and takes no responsibility for any loss or damage arising from the use of this report, or information, data, or assumptions contained therein. With respect to the BDA report and use thereof by EMR and any associated parties, EMR agrees to indemnify and hold harmless BDA and its shareholders, directors, officers, and associates against any and all losses, claims, damages, liabilities or actions to which they or any of them may become subject under any securities act, statute or common law and will reimburse them on a current basis for any legal or other expenses incurred by them in connection with investigating any claims or defending any actions.

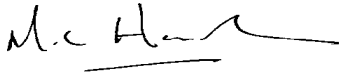
The report is provided to EMR in respect of the proposed transaction. The report is provided for the purpose of assisting the Directors of EMR and prospective investors in assessing the technical issues and associated risks of the project and should not be used or relied upon for any other purpose. The report does not constitute a technical or legal audit. Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA's written consent to the form and context in which it appears.

Independent Technical Review – Golden Grove Mine – WA
Behre Dolbear Australia Pty Limited

April 2021
Page 117

Yours faithfully

BEHRE DOLBEAR AUSTRALIA PTY LTD



Malcolm C Hancock
Executive Director - BDA



John S McIntyre
Managing Director - BDA

APPENDIX I

GLOSSARY

Term/Abbreviation	Description
A\$	Australian Dollar
AAS	Atomic Absorption Spectrometry
AC	Air Core
AER	Annual Environmental Report
Ag	Silver
AHD	Australian Height Datum
AISC	All-In Sustaining Cost
ALS	Australian Laboratory Services
AMC	AMC Consultants Pty Ltd
ANCOLD	Australian National Committee on Large Dams
ANZECC	Australia and New Zealand Environment Conservation Council
As	Arsenic
ASX	Australian Securities Exchange
ATCW	ATC Williams
Au	Gold
BAPL	Byrnecut Australia Pty Limited
BDA	Behre Dolbear Australia Pty Limited
Behre Dolbear	Behre Dolbear & Company Inc.
CDC	Central Downcast Raise
CHF	Cemented Hydraulic Fill
CIK	Categorical Indicator Kriging
CMC	China Minmetals Corporation
CMS	Cavity Monitoring System
CRM	Certified Reference Material
CS2	CS2 Pty Ltd
Cu	Copper
CVR	Catalpa Ventilation Rise
DCS	Distributed Control System
DD	Diamond Drill
DHEM	Downhole Electromagnetic
DMIRS	WA Department of Mines, Industry Regulation and Safety
dmt	Dry Metric Tonne
EMR	EMR Capital
ESG	Environmental, Social and Governance
FM	Financial Model
FMP	Fill Management Plan
FNDC	Far North Downcast Raise
FOS	Factor of Safety
FS	Feasibility Study
FSUC	Far South Upcast Raise
G&A	General and Administration
GCMP	Ground Control Management Plan
GG	Golden Grove
GGF	Golden Grove Formation
GGPL	EMR Golden Grove Pty Ltd
GHD	GHD Pty Limited
GHG	Gossan Hill Group
GJ	Gigajoule
GPS	Global Positioning System
GV	Gossan Valley
ha	Hectare (10,000m ²)
HDPE	High Density Polyethylene
HPM	High Precious Metals
HR	Hydraulic Radius
HSEC	Health, Safety, Environment and Community
HSMS	Health and Safety Management System
ICP-ES	Induced Coupled Plasma-Atomic Emission Spectrometry
ID ²	Inverse Distance Squared
IMS	Institute of Mine Seismology
Intertek	Intertek Australia
IPO	Initial Public Offering
ITE	Independent Technical Expert

GLOSSARY CONTINUED

Term/Abbreviation	Description
ITR	Independent Technical Report
IUCN	International Union for Conservation of Nature
Jacobs	Jacobs Australia Pty Ltd
JORC Code	Joint Ore Reserve Committee (Australasian Resource/Reserve Code)
kL	Kilolitres
kL/d	Kilolitres per Day
km	Kilometre
km ²	Square Kilometre
koz	Thousand Ounces
kPa	Kilopascals
kt	Thousand Tonnes
ktpa	Thousand Tonnes per Annum
ktpd	Thousand Tonnes per Day
kV	Kilovolts
kW	Kilowatt
kWhrs	Kilowatt Hours
L	Litres
lb	Pound
LCC	Land Clearance Certificate
LHD	Load-Haul-Dump (Mining Units)
LHOS	Long Hole Open Stopping
LOM	Life of Mine
LPM	Low Precious Metals
LPMO	Low Profile Medium Output (Modular Paste Plant)
LVA	Local Varying Anisotropy
m	Metre
m ²	Square Metre
m ³	Cubic Metre
m ³ /s	Cubic Metres Per Second
µm	Micron
M	Million
MCP	Mine Closure Plan
MGD	Mine Geology Department
MII	Measured, Indicated and Inferred (Mineral Resources)
Micromine	Micromine Limited
Mlbs	Million Pounds
ML	Mining Leases
MLpa	Megalitres per Annum
MMG	MMG Limited
MMS	Murchison Mining Services Pty Ltd
MOU	Memorandum of Understanding
MRE	Mineral Resource Estimate
MRF	Mine Rehabilitation Fund
MSO	Deswik Mineable Shape Optimiser
Mt	Million Tonnes
Mtkm	Million Tonne Kilometres
Mtpa	Million Tonnes Per Annum
MVR	Main Vent Rise
MW	Megawatt
MWMP	Mineral Waste Management Plan
NAF	Non-Acid-Forming
NNTT	National Native Title Tribunal
NSR	Net Smelter Return
NUC	North Upcast Raise
OK	Ordinary Kriging
OSA	On-Stream Analyser
Oxiana	Oxiana Limited
Oz Minerals	Oz Minerals Limited
PAF	Potentially Acid-Forming
Pb	Lead
P80	80% Passing

GLOSSARY CONTINUED

Term/Abbreviation	Description
Q	Quarter
QA/QC	Quality Assurance /Quality Control
RAB	Rotary Airblast (Drilling)
RC	Reverse Circulation
Redpath	Redpath Australia Pty Ltd
RIM	Radiowave Imagery
RMP	Rockfill Management Plan
ROM	Run-of-Mine
RQD	Rock Quality Designation
S	Sulphur
SABC	SAG Mill-Ball Mill-Crush
SAG	Semi-Autogenous Grinding
SCF	Scuddles Formation
SDC	South Downcast Raise
SDE	Sulphide Dust Explosion
SDR	Stope Design Record
SOW	Scope of Work
t	Tonne (1,000 Kilograms)
tkm	Tonne-Kilometres
tpd	Tonnes per Day
tph	Tonnes per Hour
TARP	Trigger Action Response Plans
TML	Transportable Moisture Limit
TO	Traditional Owners
TRIFR	Total Recordable Injury Frequency Rate
TSF	Tailings Storage Facility
UCS	Unconfined Compressive Stress
US\$	US Dollar
VALMIN	Code for the Technical Assessment and Valuation of Mineral Assets and Securities for Independent Expert Reports
VHMS	Volcanic-Hosted Massive Sulphides
VPA	Vertical Plate (Pressure Filter)
WA	Western Australia
WB	Wet Bulb
WFB	Warriedar Fold Belt
wmt	Wet Metric Tonne
YTD	Year-to-Date
Zinifex	Zinifex Limited
Zn	Zinc

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27 April 2021

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Mr Ed Cooney
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Dear Sirs

**INDEPENDENT TECHNICAL REVIEW AND ASSESSMENT REPORT
CAPRICORN COPPER PROJECT - QUEENSLAND
BEHRE DOLBEAR AUSTRALIA PTY LIMITED**

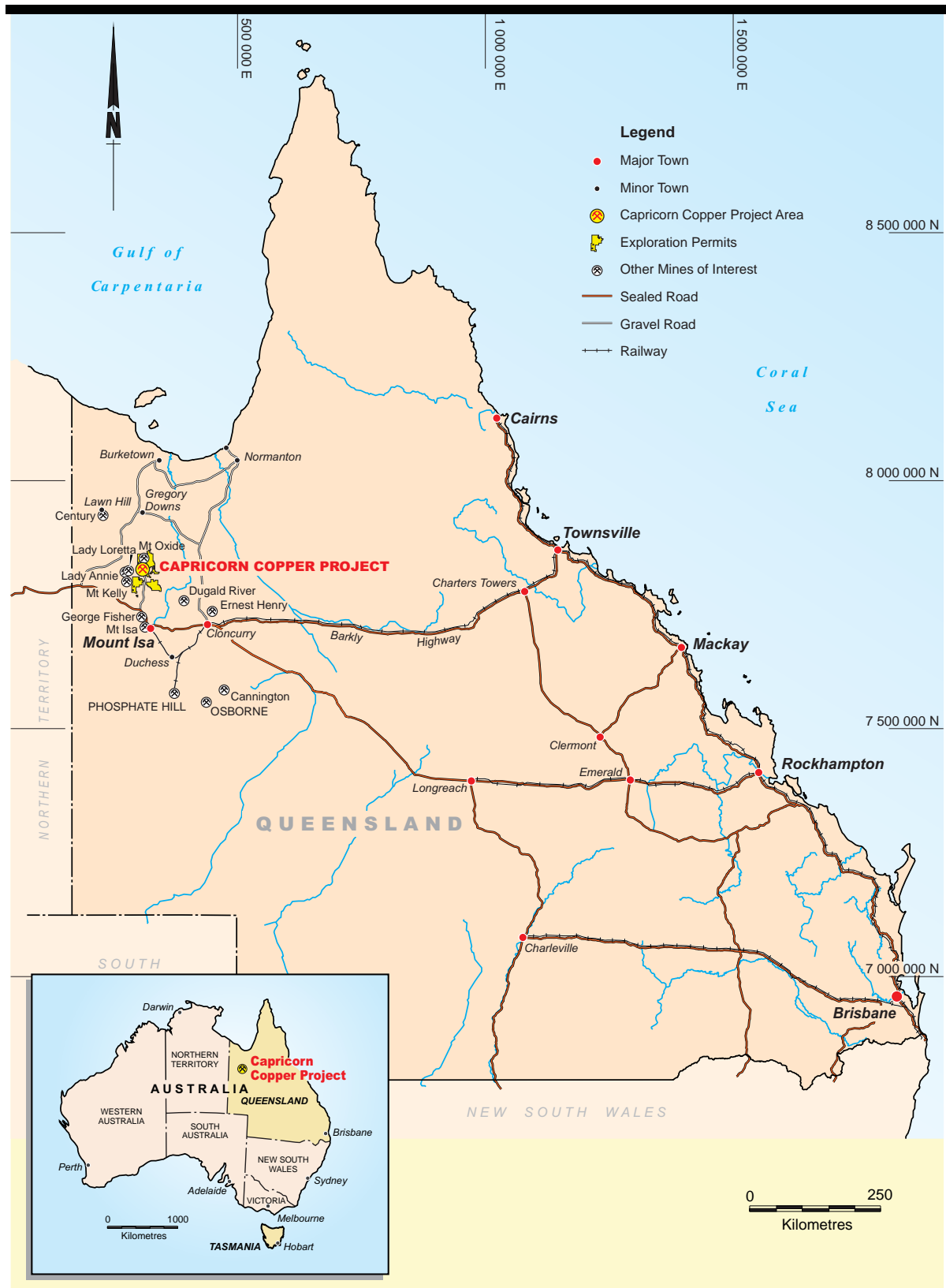
1.0 INTRODUCTION

EMR Capital (“EMR”) has requested that Behre Dolbear Australia Pty Limited (“BDA”) undertake an independent technical due diligence review as Independent Technical Expert (“ITE”) and prepare an Independent Technical Report (“ITR”) of the Capricorn Copper Mine (“Capricorn Copper” or “the project”) near Mt Isa, Queensland. EMR has advised that the ITR may be used to support potential transactions, such as an initial public offering (“IPO”) and listing on the Australian Securities Exchange (“ASX”) (“the Transaction”). The ITR will be relied upon by the potential financiers or prospective investors (jointly “the Financiers”).

The project is owned by Capricorn Copper Pty Limited (CCPL), which is 100% owned by EMR Capital (“EMR”). EMR’s ownership is through its wholly-owned EMR Capital Investment (No.6B) Private Limited.

Capricorn Copper is an operating underground mine with on-site processing operations, on-site and off-site infrastructure, and concentrate transport and sales. The Capricorn Copper operation is located in northwest Queensland, approximately 120 kilometres (“km”) north of the regional city of Mt Isa (Figure 1). The project area comprises 31 granted Mining Leases (“MLs”) with a total area of 7.6 square kilometres (“km²”) (Figure 2) together with four Exploration Permits (Mineral) (“EPMs”). Five significant copper deposits have been discovered and delineated in the project area to date, namely Mammoth (including Mammoth North), Esperanza, Esperanza South, Greenstone and Pluto. Mammoth consists of multiple lenses and has historically been the main source of production. The upper section of the Esperanza orebody was mined from surface as an open pit and is planned to be mined in the future from underground. Capricorn Copper production to date has been from underground operations at Esperanza South, Mammoth, and Greenstone.

The Mineral Resources as at the last update (May 2020) totalled 62.5 million tonnes (“Mt”) at a grade of 1.8% copper (“Cu”) containing 1.13Mt of copper. The project Ore Reserve as at December 2020 totalled 13.4Mt at a grade of 1.79% Cu containing 0.24Mt of copper. Forecast production for 2021 is approximately 21,000 tonnes (“21kt”) of copper in concentrate, forecast to increase to 26kt from 2022. The project has a current projected mine life of around 14 years.

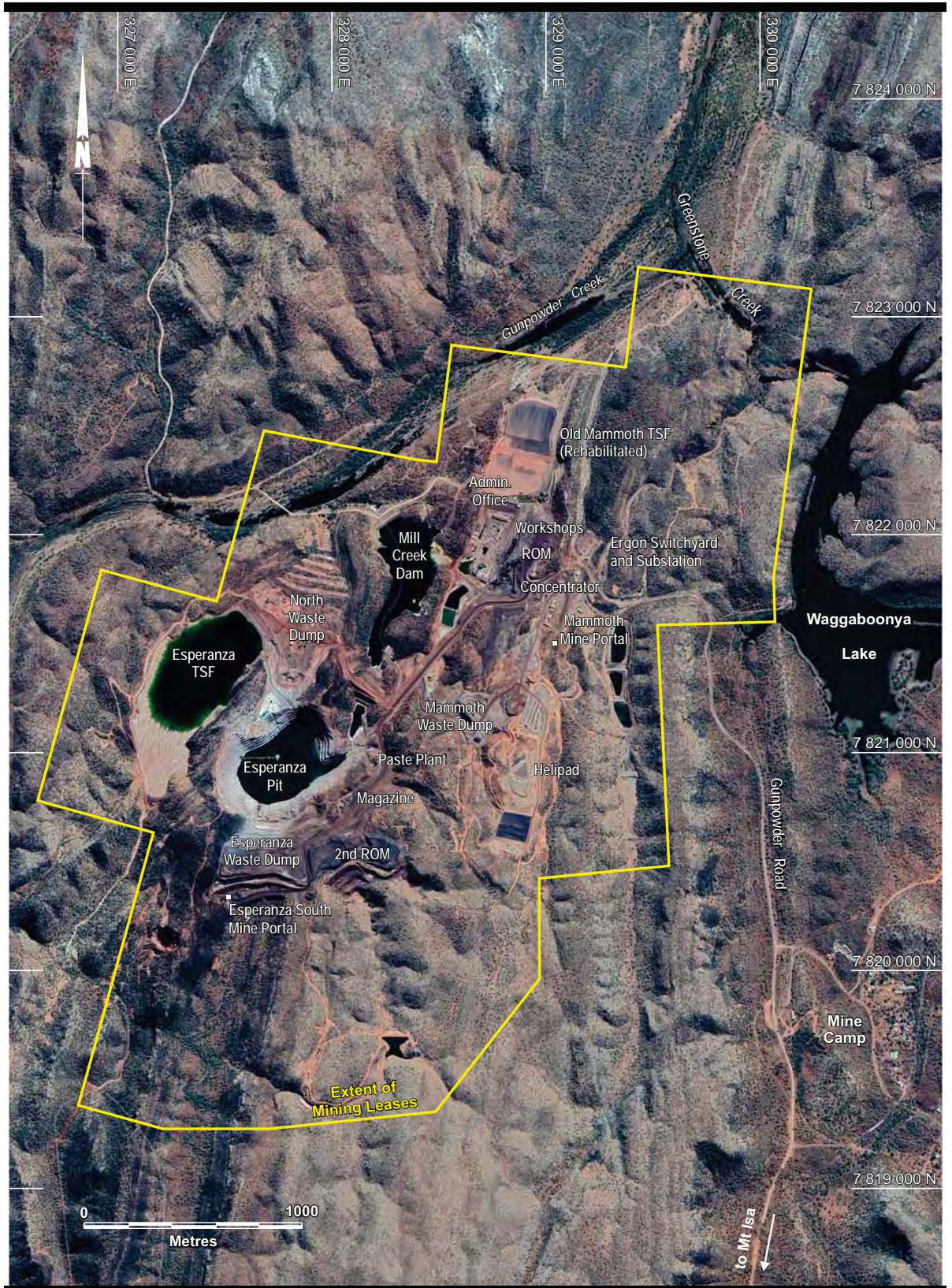


EMR Capital

Capricorn Copper Project

Figure 1

LOCATION MAP



EMR Capital

Capricorn Copper Project

Figure 2

SITE PLAN

CCPL has provided a comprehensive Scope of Work (“SoW”) for the technical due diligence review. This BDA report covers all relevant technical aspects of the project (regional and local geology, exploration potential, geological data, resource/reserve estimation, reserve reconciliation, mining, geotechnical and hydrology aspects, metallurgy, process testwork and plant design, infrastructure and utilities, historical and current mine and plant production, planned life of mine production, development plans, capital and operating costs and project implementation) together with permitting, approvals, environmental and community aspects and occupational health and safety.

BDA is well qualified to undertake the work required. BDA is the Australian subsidiary of Behre Dolbear & Company Inc., an international minerals industry consulting group which has operated continuously worldwide since 1911, with offices or agencies in Denver, Beijing, Chicago, Hong Kong, London, New York, Toronto, Santiago, and Sydney. Behre Dolbear specialises in mineral evaluations, due diligence studies, independent expert reports, independent engineer certification, valuations, and technical audits of resources, reserves, mining and processing operations and project feasibility studies. BDA has been involved in numerous such studies and Independent Engineer/Independent Expert assignments in recent years; BDA has prepared independent technical reports for IPOs and equity fund raising purposes on the ASX and the Hong Kong, Singapore, Toronto and London exchanges.

BDA has substantial background knowledge of the Capricorn Copper mine from visits during 2018, 2019 and 2020, and from previous involvement in the historical Gunpowder and Western Metals’ operations.

BDA has inspected the underground and surface operations and environmental programmes and held discussions with operations’ management, technical staff and principal consultants. CCPL has provided relevant reports, studies and project documentation and data as background for the review.

The project resources and reserves have been reviewed in accordance with Australian industry standards and for compliance with the Code and Guidelines for Reporting Exploration Results, Mineral Resources and Ore Reserves - Joint Ore Reserve Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Minerals Council of Australia - December 2012 (“the JORC Code”). The ITR has been prepared in accordance with the VALMIN Code for the Technical Assessment and Valuation of Mineral Assets and Securities for Independent Expert Reports as adopted by the Australasian Institute of Mining and Metallurgy in 1995 and as amended and updated in 2015 (“the VALMIN Code”).

The mine plans reviewed by BDA for the purposes of this ITR include some material that is in the Inferred resource category and material drilled at a wider spacing that is described as unclassified. There is a low level of geological confidence associated with Inferred resources and there is no certainty that further exploration work will result in the determination of Measured or Indicated resources or that the production target based on such material will be realised. The unclassified material has been drilled at a wide spacing and the Competent Person has determined that the level of confidence is not sufficient to classify it as Inferred without further drilling; in terms of JORC Code classifications this material could be considered an Exploration Target. The potential quantity and grade of Exploration Targets are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of a Mineral Resource, or that the production target based on such material will be realised.

All of BDA’s consultants and associates are Members or Fellows of the Australasian Institute of Mining and Metallurgy or of equivalent professional bodies as required for reporting under the JORC and VALMIN Codes.

This Independent Technical Report has been prepared for the purpose of assisting potential financiers or prospective investors in the assessment of the technical issues and associated risks of the project and should not be used or relied upon for any other purpose. The report does not constitute a technical, environmental or legal audit. The report contains forecasts and projections based on data provided by CCPL. BDA’s assessment of the production schedule, the projected capital and operating costs and the estimates of mine life are based on technical reviews of project data and discussions with technical and management personnel from CCPL and consultants. BDA has reviewed the relevant data to assess the reasonableness of such projections. However, these forecasts and projections cannot be assured and factors both within and beyond the control of CCPL could cause the actual results to be materially different from BDA’s assessments and any projections contained in this report.

Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA’s written consent to the form and context in which it appears.

2.0 EXECUTIVE SUMMARY

2.1 Background

BDA has conducted an independent technical and environmental review of the Capricorn Copper mine in northwest Queensland, based on visits to the project site, review of Company reports as provided in the virtual data room and discussions with management and technical staff and company consultants. EMR is proposing to undertake a potential Transaction and an independent technical due diligence review is required for the purposes of the Transaction.

BDA has reviewed available data relating to the resource and reserve estimates, the mining plans, schedules and mine operations, metallurgical testwork, process flowsheet and plant operations, infrastructure facilities, environmental issues including waste disposal, historical mine production, life of mine production forecasts and capital and operating cost projections.

2.2 Location, Ownership, History

Location

The mine is located in northwest Queensland on the Calton Hills pastoral lease, approximately 120km north from the regional city of Mt Isa via 40km of the sealed Barkly Highway and 80km of secondary gravel roads leading to the mine site (Figure 1). Mt Isa is connected by road and rail to the Port of Townsville on the Queensland east coast, a distance of approximately 900km, and by regular daily flights from Brisbane.

The project comprises both mining and exploration tenements. The mine area topography is rugged and the vegetation sparse and scrubby. The area is on the edge of the north Australian monsoonal belt with the bulk of the annual rainfall occurring from November through March.

Ownership

The project is owned by Capricorn Copper Pty Limited (CCPL), which is 100% owned by EMR Capital Management Limited (“EMR”), with 31 granted Mining Leases (MLs) with a total area of 7.6km² (Figure 2) and four Exploration Permits - Mineral (EPMs) with a combined area of 1,858km². EMR’s ownership is through its wholly-owned EMR Capital Investment (No.6B) Private Limited.

Property History

The mine has an extensive history with more than 500kt of contained copper extracted to date; the project history is summarised below:

- 1882 - mineralisation first discovered
- 1923 to 1960 - discovery of Mammoth deposit; first mining leases pegged (Esperanza leases pegged in 1960)
- 1969 - Survey and Mining Ltd (“SML”) purchases the leases; large scale mining commences with the completion of Lake Waggaboonya (Figure 2) construction
- 1970 - underground mine at Mammoth developed and concentrator commissioned
- 1971 - Consolidated Gold Fields Australia Ltd and Mitsubishi Ltd establish Gunpowder Copper Ltd (“Gunpowder”) and operate the mine through to 1977
- 1978 - Renison Goldfields Consolidated Ltd (“RGC”) introduces heap leaching and in-situ leaching of Mammoth ore to produce cathode copper via solvent extraction/electrowinning (“SX/EW”)
- 1989 - Adelaide Brighton Cement Holdings Limited (“Adelaide Brighton”) purchases the mine and extends the in-situ leach programme producing around 6,000 tonnes per annum (“6ktpa”) copper, expanding to 12ktpa; significant extensions identified to the known resource at depth in Mammoth
- 1996 - Aberfoyle Resources Limited (“Aberfoyle”) acquires the mine; 0.7 million tonnes per annum (“Mtpa”) hydrometallurgical plant constructed with design production capacity of 45ktpa of copper cathode
- 1998 - Western Metals Limited (“Western Metals”) acquires Aberfoyle
- 1999 - Western Metals completes construction and commissioning of the autoclave leach plant and 45ktpa SX/EW plant, based on the open pit mining and processing of the Esperanza chalcocite deposit
- 2003 - Aditya Birla Minerals Limited (“ABM”) purchases the mine and later decommissions the SX/EW circuits to convert the processing operation to a conventional sulphide flotation plant, based primarily on the Mammoth underground ore
- 2013 - ABM puts the operation on care and maintenance

- 2015 - Capricorn Copper Holdings Pty Ltd (“CCH”) acquires Capricorn Copper Pty Ltd from Aditya Birla in an incorporated joint venture owned by EMR Capital and Lighthouse Minerals
- 2016 – re-start execution studies completed, outlining the optimal operational strategy for the mine under CCPL’s management with Definitive Feasibility Study (“DFS”) completed in December 2016
- 2017 - first ore is mined in August and first concentrate is produced in November under the re-start plan
- 2018 - EMR acquires Lighthouse Minerals’ share to consolidate control of CCPL
- 2019 - achieves annualised mining rate of approximately 1.6Mtpa, based on production from three underground deposits, Esperanza South (sublevel cave or “SLC”), Mammoth (open stoping and remnant stope recovery) and Greenstone (open stoping)
- Current – ongoing production from Esperanza South SLC, and Mammoth and Greenstone deposits, targeting mine and mill throughput of approximately 1.8Mtpa.

Production from the Capricorn Copper operation in 2018 totalled 81.1kt (dry) of concentrate, grading 22% Cu, containing 18kt of copper. Production in 2019 totalled 93.5kt of concentrate grading 25% Cu containing 23kt of copper, from the processing of 1.6Mt of ore. Production in 2020 totalled 100.0kt of concentrate grading 22.5% Cu containing 22.5kt of copper, from the processing of 1.8Mt of ore. EMR is targeting an increase to 21kt of contained copper in 2021 and an increase to 26kt through 2022 to 2024 with a further ramp up to around 28-33ktpa from 2025 onwards.

2.3 Technical Data

Geology and Mineralisation

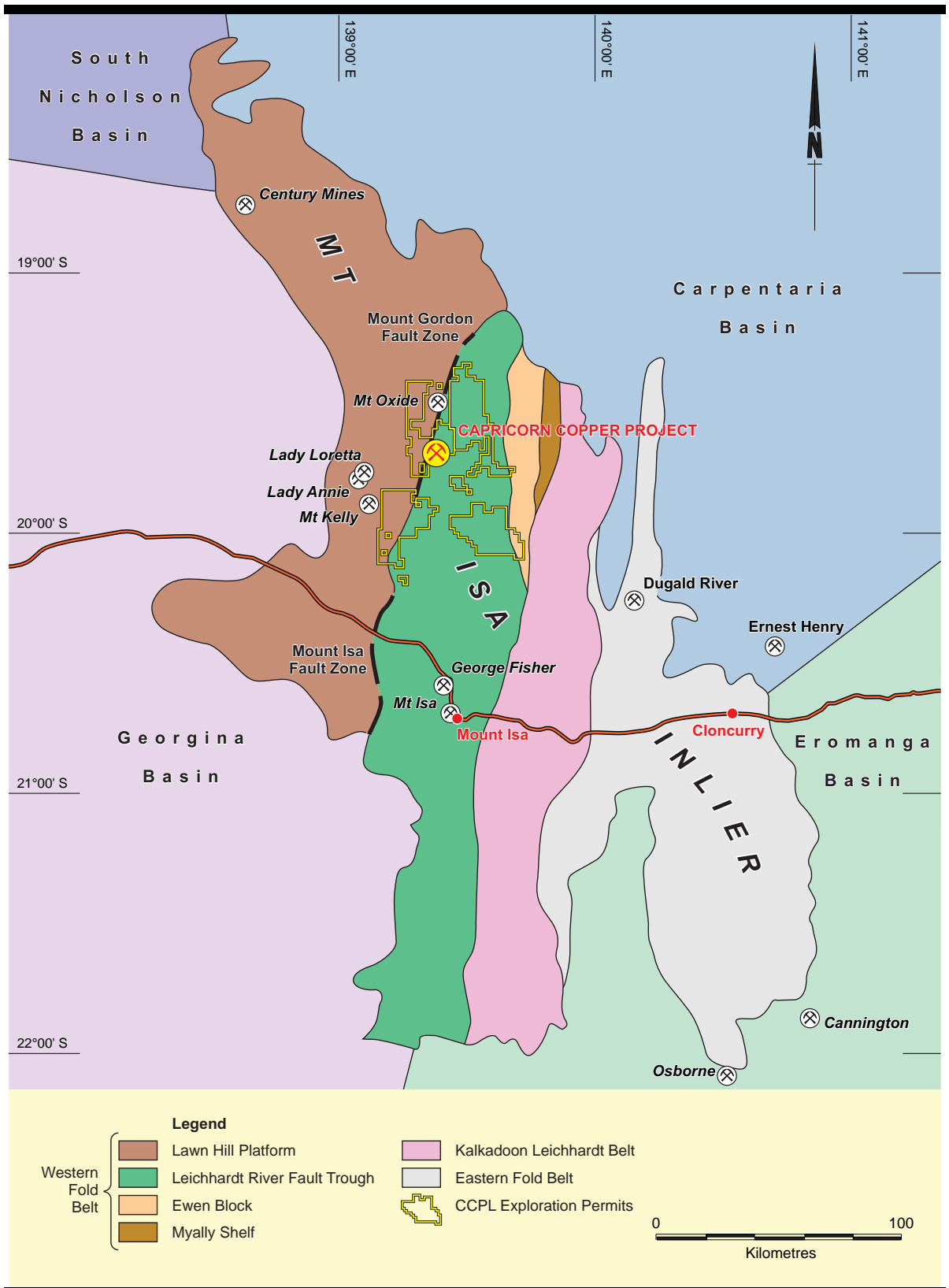
The Capricorn Copper deposits are located in the Mount Isa Inlier which is divided into three north-trending tectonic units: the Western Fold Belt, the Kalkadoon-Leichhardt Belt and the Eastern Fold Belt (Figure 3). The Western Fold Belt is sub-divided into the Lawn Hill Platform, the Leichhardt River Fault Trough (“LRFT”), the Ewen Block and the Myally Shelf. CCPL’s copper mine is located in the western-most part of the LRFT, associated with the Mount Gordon Fault Zone (“MGFZ”). The LRFT is a belt of folded and faulted variably metamorphosed rocks lying between the Lawn Hill Platform to the west and the Kalkadoon-Leichhardt Belt to the east.

The Capricorn Copper area is a well-established copper province with copper mineralisation associated with structural zones related to major faulting. There are five principal known deposits in the Capricorn Copper project area, Esperanza South (“ESS”), Mammoth, Greenstone, Esperanza and Pluto, spread over a strike length of approximately 3,000m (Figure 4). The orebodies are hosted in the Haslingdon Group (Myally Subgroup), the Surprise Creek Formation and the McNamara Group (Esperanza Formation) rocks. The Mammoth and Greenstone orebodies are hosted in quartzites (Whitworth Quartzite) of the Haslingden Group, while Esperanza South, Esperanza and Pluto orebodies are hosted by silicified carbonaceous shales and siltstones of the Esperanza Formation, part of the younger McNamara Group.

Mineralisation occurs as stockwork veins, breccias and replacement of host rocks, associated with structural zones related to major faulting, with mineralising fluids channelled along fault breccias or fault intersections. The principal controlling structures are the Esperanza, Mammoth, Mammoth Extended and Portal faults. CCPL recognises two main styles of deposit at Capricorn Copper – breccia-hosted deposits in quartzite and shear-hosted copper deposits in shale/siltstone. Mammoth, Mammoth North and Greenstone are considered to be predominantly breccia-hosted and Esperanza South, Pluto and Esperanza are shear-hosted. The gross zoning of copper species is generally chalcopyrite at depth with bornite and chalcocite up-dip. This zonation is complicated by oxidation that penetrates down faults resulting in supergene enrichment overprinting primary mineralisation.

Breccia-hosted copper mineralisation in quartzite occurs at Mammoth, Mammoth North and Greenstone and is associated with haematite and distal chloritic alteration. Mineralisation typically forms 10-30m wide breccia zones developed at intersections of major faults and in dilational jogs. Copper mineralisation occurs as breccia infill with primary chalcocite in a central milled breccia zone, and bornite on the margins of the main structural zone typically as crackle breccia. Chalcopyrite is present in the outer zone in veins and crackle breccia. The mineralisation at Mammoth occurs in multiple lenses forming a steeply plunging zone approximately 400m long and 150m wide, and remains open at depth. Mineralisation ranges from massive, adjacent to the main faults, to brecciated mineralisation further away from the faults. Distal mineralisation consists of veining in quartzite, sandstone and siltstone. Copper minerals include chalcopyrite, bornite and chalcocite, with a broad zonation of chalcopyrite and bornite at depth and chalcocite up dip.

Mineralisation in the Greenstone deposit also occurs in multiple lenses and comprises veinlets and breccia-fill bornite, chalcopyrite, chalcocite and pyrite, with a gangue of chlorite-haematite; chalcocite is present closer to surface with chalcopyrite and bornite dominant at depth.

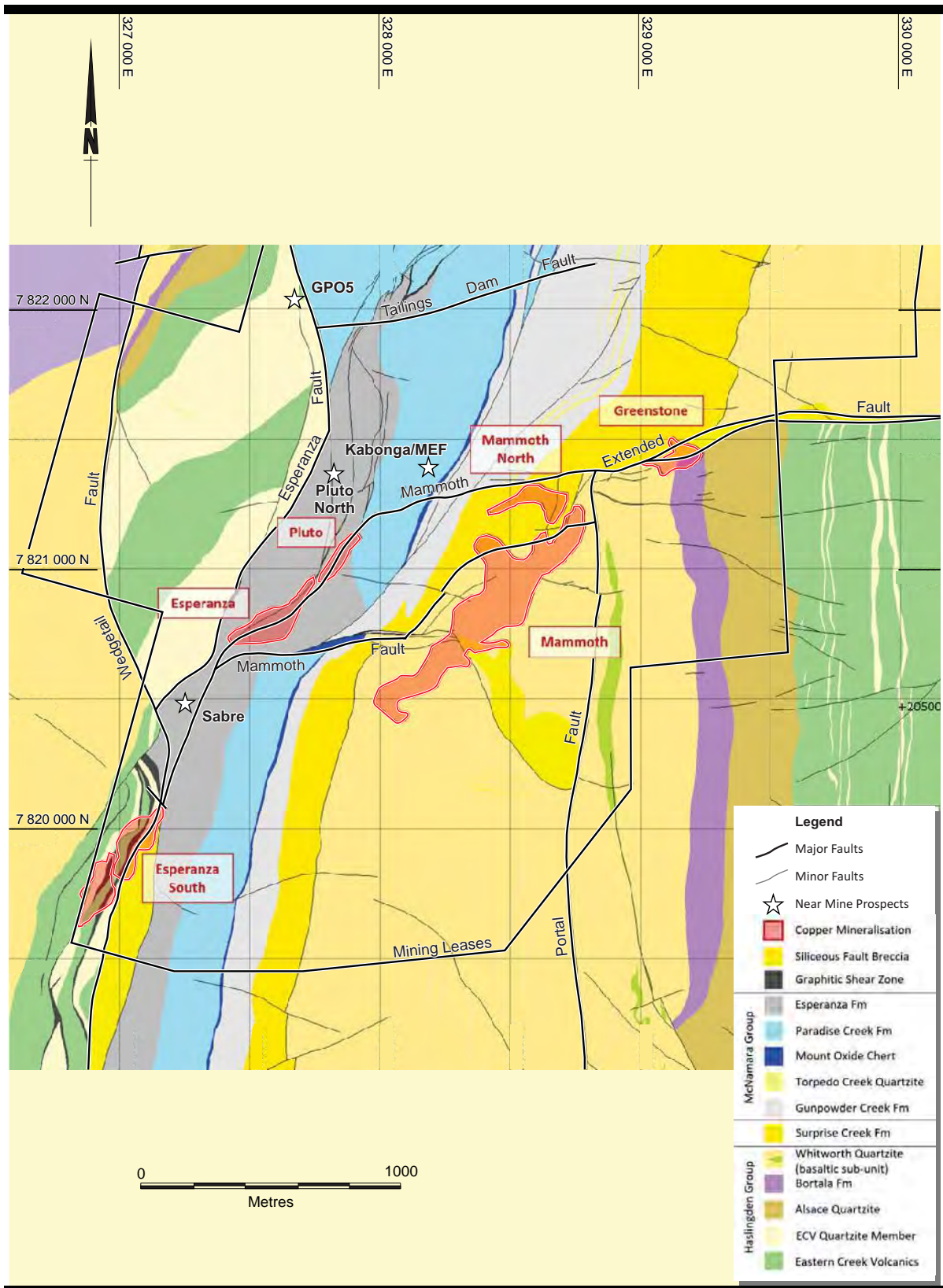


EMR Capital

Capricorn Copper Project

Figure 3

REGIONAL GEOLOGY PLAN



EMR Capital

Capricorn Copper Project

Figure 4

BDA - 214 - 01 - June 2020

LOCAL GEOLOGY

Behre Dolbear Australia Pty Ltd

Mineralisation at Esperanza South, Esperanza and Pluto occurs as shear-hosted mineralisation in shale/siltstone, with chalcocite veins and bornite within the upper levels, transitioning to chalcopyrite-pyrite mineralisation at depth. Copper species include chalcocite, covellite, bornite, chalcopyrite and native copper, and post-date and replace pyrite.

The ESS mineralisation occurs over a 50-75m wide zone in variably silicified siltstones, locally brecciated and plunging steeply south, sub-parallel to the Esperanza fault. Higher grade copper mineralisation occurs in a westerly hangingwall zone and an easterly footwall zone, with stockwork mineralisation between these two zones. Veins and disseminations of chalcopyrite occur with bornite and pyrite, with grades typically 2-3% Cu, but supergene chalcocite can increase grades up to 4% Cu. Mineralisation remains open at depth.

Mineralisation at Esperanza is hosted in graphitic siltstones and consists of a supergene chalcocite blanket with lesser native copper underlying a silicified cap; mineralisation grades into chalcopyrite at depth. Most of the chalcocite blanket was mined by open pit.

The Pluto deposit is highly leached in a zone approximately 200m in strike and 2-30m in width, and contains predominantly supergene chalcocite, cuprite and native copper and is therefore metallurgically distinct compared with the other deposits.

Overall copper grades are typically in the range 1.8-2.0% Cu. Silver grades increase with depth at ESS and Esperanza, with average grades of around 16g/t Ag at ESS and around 10g/t Ag at Esperanza. Minor cobalt, nickel and arsenic are also present, associated with pyrite; more significant arsenic levels occur within some Mammoth lodes, occasionally requiring blending with other deposits to maintain acceptable arsenic levels within concentrate.

Geological Data

Resource definition drilling at Capricorn Copper consists mostly of fully cored diamond drill holes (“DD”) drilled either from surface or underground. The deposits have been defined by 2,307 drill holes totalling around 433,700m, divided into 2,030 holes totalling approximately 358,800m drilled by previous owners of the project prior to CCPL’s acquisition in 2015, and 277 holes totalling approximately 74,900m drilled by CCPL during the period 2016-2020, including 34 drill holes totalling 4,417m drilled at Esperanza South and Greenstone during 2020. Drill hole spacing is generally 20 x 20m or less in the central part of each deposit, increasing to 40-100m towards the periphery.

Core recoveries are generally good. The immediate past owner Aditya Birla Minerals Limited (ABM) reported average recoveries of 94%. CCPL drilling has typically achieved recoveries ranging from 96-99% depending on the host rock and mineralisation style.

Sample preparation and assaying for a standard 12-element suite including copper and silver (payable metals), and cobalt, arsenic, iron and sulphur (modelled elements) is carried out by Australian Laboratory Services (“ALS”) in Mt Isa, Brisbane and Townsville. Quality Assurance/Quality Control (“QA/QC”) protocols are reasonable and indicate that the sampling and assaying data for copper and silver are generally reliable and without material bias.

The drill database was run on a Datashed software platform maintained by an independent database management consultancy, Maxwell Geoservices Pty Limited (“MGL”) until July 2020. It is currently being transitioned to a site-managed system utilising Micromine Pty Ltd Geobank software. The database has been independently reviewed by CCPL’s resource consultant, SRK Consulting (Australia) Pty Limited (“SRK”) on a number of occasions.

BDA considers that the geological evaluation of the Capricorn Copper deposits has been thorough and the drilling, logging, sampling and assaying procedures adopted by CCPL are appropriate and generally in accordance with industry standards. Overall, CCPL’s resource database is considered to form an appropriate and reasonable basis for resource and reserve estimation.

Mineral Resources

The Capricorn Copper Mineral Resources were estimated in-house by CCPL with review by resource consultants SRK and SD2 as of May 2020, and reported in January 2021. This resource estimate included updated resource models for Esperanza South and Greenstone; the 2019 resource models for Mammoth, Esperanza and Pluto previously developed by SRK remain unchanged except for mining depletion. The new May 2020 Mineral Resource Estimate (“MRE”) replaced SRK’s MRE of March 2019.

Separate three-dimensional resource block models were developed for each deposit, incorporating wireframe resource domains for copper mineralisation using a 0.5% Cu cut off except for Greenstone where a 0.25% Cu cut off was used. Co-kriged Ordinary Kriging was used for grade estimation. Domain models were developed with Leapfrog Geo software using implicit modelling techniques including Indicator Kriging. Parent block sizes were: ESS 5 x 5 x 5m (E, N, RL), Mammoth 10 x 10 x 10m, Greenstone 5 x 5 x 5m, Esperanza 5 x 10 x 20m, and Pluto

5 x 20 x 20m. Sub-blocking was carried out for volume estimation within the domain boundaries. Resource categorisation was based on either the Slope of Regression (a calculated geostatistical parameter) or drill hole spacing. CCPL reported the Mineral Resources based on regularised 5 x 5 x 5m block models so that the resource models were suitable for input to mining software used by CCPL on site. Regularisation was carried out using the sub-blocked resource models as a starting point, hence external dilution was included in the regularised models.

BDA considers the methodology and procedures used by CCPL and SRK in the resource modelling and estimation to be generally appropriate and the work to have been competently undertaken. Overall, BDA considers that CCPL's resource estimation provides acceptable global estimates of the in-situ mineralisation in each of the deposits.

The current Mineral Resources for Capricorn Copper are summarised in Table 2.1. The resources are reported at a 1.0% Cu cut-off grade except for Esperanza South which is reported at a 0.8% Cu cut off.

Table 2.1
Capricorn Copper Mineral Resource Summary – May 2020

Deposit	Category	Tonnage Mt	Copper Grade Cu %	Silver Grade Ag g/t	Contained Cu kt
Esperanza South	Measured/Indicated/Inferred	16.9	1.7	16.0	287
Mammoth	Measured/Indicated/Inferred	36.2	1.7	4.0	615
Greenstone	Measured/Indicated/Inferred	2.1	1.8	1.0	38
Pluto	Indicated/Inferred	3.2	2.1	1.0	67
Esperanza	Indicated/Inferred	4.0	2.1	10.0	84
All Deposits	Measured	5.4	1.8	6.0	97
	Indicated	33.8	1.9	8.0	642
	Inferred	23.3	1.6	7.0	373
	Total	62.5	1.8	8.0	1,125

Note: estimate undertaken by CCPL and SRK Consulting; cut-off grade at 1.0% Cu except for Esperanza South at 0.8% Cu; Mammoth includes Mammoth Remnants, Mammoth Deeps and Mammoth North; resource estimates allow for mine depletion to end of May 2020; totals are subject to rounding

Ore Reserves

The Ore Reserve estimate for Capricorn Copper, which is based on the CCPL May 2020 resource estimate, was carried out by Australian Mine Design and Development Pty Limited (“AMDAD”) who worked closely with CCPL's mining and geotechnical staff. The Proved and Probable reserves represent the Measured and Indicated resources within the sublevel cave (SLC) areas, primary and remnant stopes and development planned to be mined.

The 2020 mine planning and reserve estimation were based on transverse and longitudinal SLC for the ESS deposit and Long Hole Open Stopping (“LHOS”) with fill for the Mammoth, Greenstone, Pluto and Esperanza deposits.

AMDAD, as the designated Competent Person, produced an Ore Reserve Statement compliant with the 2012 JORC Code. A summary of the Ore Reserves which CCPL reported in December 2020 is shown in Table 2.2.

Table 2.2
Capricorn Copper Ore Reserve Summary – December 2020

Deposit	Category	Tonnage Mt	Copper Grade Cu %	Contained Cu kt
Esperanza South	Proved & Probable	7.1	1.57	112
Mammoth Remnants	Proved & Probable	2.1	1.90	40
Mammoth Deeps	Proved & Probable	2.0	1.99	39
Greenstone	Proved & Probable	0.5	1.81	8
Pluto	Probable	1.2	2.63	32
Esperanza	Probable	0.5	1.87	9
Stockpile	Proved	0.08	1.45	1
All Deposits	Proved	1.1	1.91	21
	Probable	12.3	1.78	220
	Total	13.4	1.79	241

Note: estimate undertaken by AMDAD and CCPL staff based on CCPL's May 2020 resource estimate; based on a copper price of US\$3 per pound (“lb”); reserve estimates allow for mine depletion to end of November 2020; totals are subject to rounding

Mine Reconciliation

CCPL reports monthly and year to date (“YTD”) reconciliation data in its Monthly Reports to assist in the management and monitoring of mill and mine performance. Three sets of tonnage and grade figures are reported: Ore Mined Claimed, Ore Milled and Ore Mined Reconciled tonnes and grade.

The Ore Mined Claimed tonnes are derived from the Run of Mine (“ROM”) weighbridge or bucket load cells and grade is based on a weighted average of the estimated stope grades or, in the case of the ESS SLC, the modelled draw forecast which is derived from the most recent grade control model. The Ore Milled tonnes and grade are calculated from mill weightometer tonnes, head grade sampling, concentrate production and grade, and the tailings grade. Ore Mined Reconciled tonnes and grade are reconciled against the reported Ore Milled tonnes and grade, allowing for opening and closing stockpile figures.

Prior to August 2019 the Ore Mined grade forecast was estimated from the 2018 MRE models; from August 2019, the forecast grades were derived from the SRK March 2019 MRE models. CCPL has since changed to using Grade Control (“GC”) models for the forecast Ore Mined grades, with ESS starting from September 2019 and Greenstone and Mammoth starting from January 2020.

Table 2.3 shows the results of the annual reconciliations between the Ore Mined Claimed and Ore Milled for 2018, 2019 and 2020 (January to December) and project to date.

Overall, the results indicate acceptable reconciliations for tonnes, grade and contained metal for the project to date period January 2018 to December 2020, with contained copper within 5% of forecasts. Annual variations between the reconciled milled tonnes, grade and contained copper figures and the ore mined figures are within a range of +6% and -5%. However, it should be noted that the Ore Mined Claimed tonnes (as used for reconciliation against milled tonnes) are based on haulage records rather than on resource/reserve forecasts from the resource models.

Table 2.3
Capricorn Copper Ore Mined Claimed to Ore Milled Reconciliation for 2018 – 2020

Item	Tonnes	Copper Grade % Cu	Contained Copper Tonnes
2018			
Ore Mined Claimed (1)	1,257,043	1.79	22,492
Ore Milled (2)	1,326,298	1.70	22,213
Reconciliation (2) vs (1)	106	95	99
2019			
Ore Mined Claimed (1)	1,616,606	1.84	29,754
Ore Milled (2)	1,605,079	1.76	28,316
Reconciliation (2) vs (1)	99	96	95
January - December 2020			
Ore Mined Claimed (1)	1,835,687	1.57	28,838
Ore Milled (2)	1,808,493	1.50	27,090
Reconciliation (2) vs (1)	99	96	94
Jan 2018 – December 2020			
Ore Mined Claimed (1)	4,709,336	1.72	81,084
Ore Milled (2)	4,739,870	1.64	77,619
Reconciliation (2) vs (1)	101	95	95

Note: Ore Mined Claimed figures from the Mine Geology Department; Milled figures are reconciled monthly mill figures from the Process Department

Mining and Mine Production

Five deposits are planned to be mined in the project area, namely Esperanza South (ESS), Mammoth, Greenstone, Pluto and Esperanza of which three (ESS, Mammoth and Greenstone) are currently being mined, while Esperanza and Pluto are still to be developed underground.

Mining first commenced at Mammoth deposit as a small open cut in 1927 with further small-scale underground mining of high grade ore before larger scale open cut and underground open stoping operations from the 1970s. The open stoping method was used without the use of cemented backfill or paste, with voids backfilled with waste rock on selective levels.

When CCPL restarted the mine in 2017, a legacy of stope voids existed in the lower levels of the Mammoth deposit containing minimal, or unconsolidated, material, together with remnant material in partially mined stopes and pillars. At Esperanza, the upper chalcocite-rich portion of the deposit was mined by open pit; the deeper portion below the pit is planned to be mined in the future from underground. No previous ore extraction had been undertaken at Esperanza South, Greenstone or Pluto.

Two separate declines provide access to the two main underground deposits of Mammoth and ESS as shown in Figure 5. At Mammoth, the decline accesses the current and planned production areas of Mammoth Remnants and Mammoth Deeps; in addition, an access drive from the Mammoth decline provides access to the Greenstone deposit. A future decline from the Mammoth decline is planned for access to the Esperanza and Pluto deposits.

Production from ESS is currently the primary source of ore at around 60% of ore mined. The ESS deposit is mined using SLC methods; the sublevel interval is 25m with the decline located in the footwall of the deposit. The mine plan extracts ore from two lenses within the northern (upper) and southern (lower) cave (Figure 5).

Since mining re-commenced in 2017, to the end of the first quarter (“Q1”) 2021, a total of 3.4Mt at 1.5% Cu has been mined from the ESS, mainly from the northern cave. The northern cave is almost complete while the southern cave is currently being established.

CCPL uses Power Geotechnical Cellular Automata (“PGCA”) software for simulating the SLC draw to forecast and optimise production; the simulation modelling is an integral part of managing the dilution risk.

The Mammoth orebody, which was extensively mined prior to the recommencement of the mining operation in 2017, is mined using LHOS with paste fill or rock fill. Since recommencement, to the end of Q1 2021, 0.95Mt at 1.9% Cu has been mined from Mammoth by LHOS, including recovery of remnant ore. Future mining at Mammoth is planned to extend to 1,250m below surface. In-situ stress levels increase from moderate to high as mining progresses in depth.

Recovery of ore from previously partially mined areas (Mammoth Remnants) (Figure 5) utilises LHOS methods; open stopes left from previous operations are filled with paste fill to enable recovery of secondary stopes and pillars. Current mining in Mammoth Deeps is focussed on G Lens (Figure 5) utilising overhand continuous retreat along strike from the limits of the orebody back towards the decline to avoid forming isolated pillars, using mainly waste fill and leaving pillars to control stability of walls and minimise dilution.

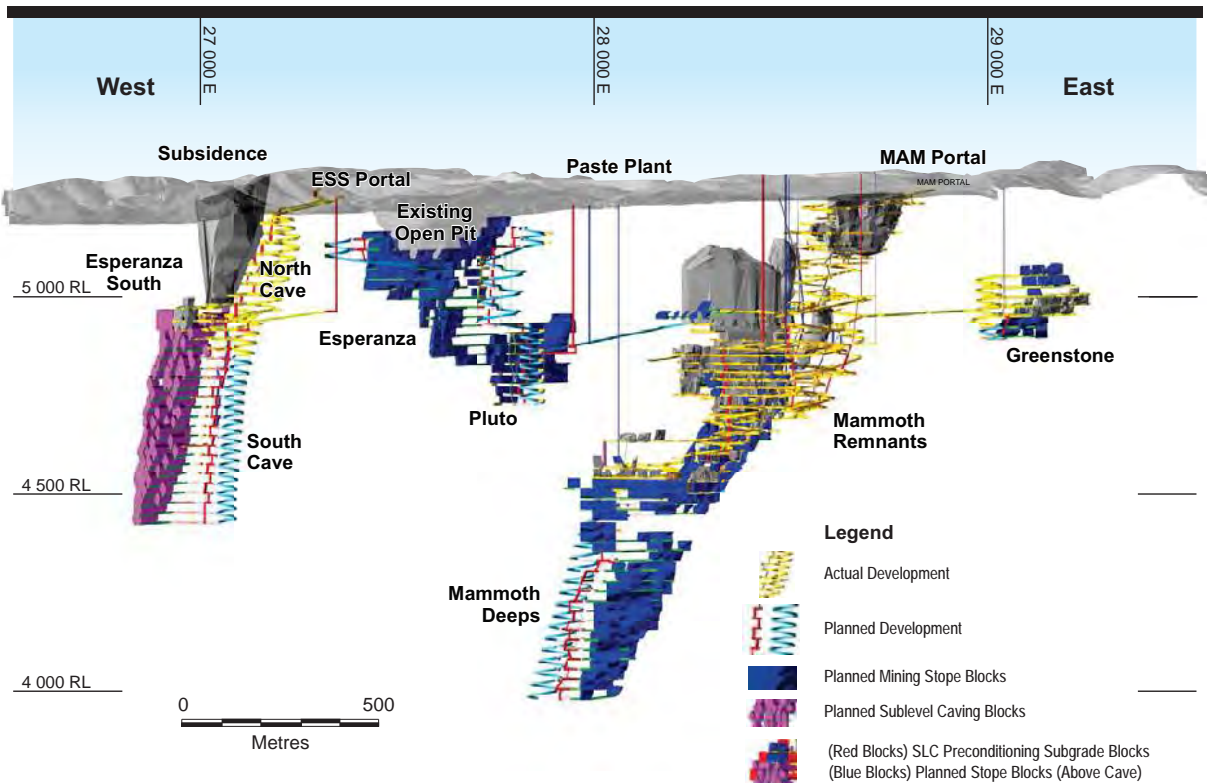
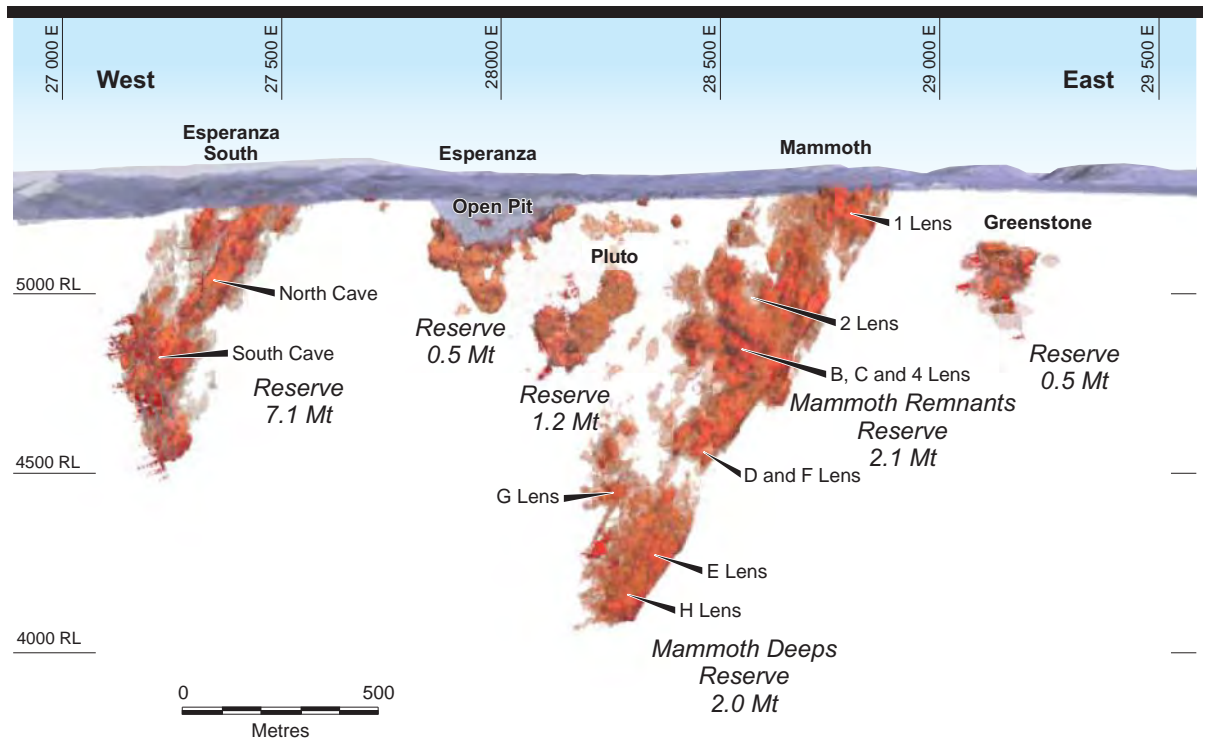
Greenstone has been developed by CCPL as a new orebody accessed from the Mammoth decline. It is also mined with LHOS with rock fill, with the Avoca-style method applied to some stopes incorporating progressive waste rock fill to minimise stope wall exposure and minimise dilution. Since mining commenced in late 2017, to the end of Q1 2021, 0.80Mt at 1.7% Cu has been mined from Greenstone. In 2019 there was a hiatus in Greenstone production due to the loss of a second egress out of the mine located in a return airway, due to deterioration in ground conditions in this return airway. A new escape raise has since been completed and production recommenced in late 2019. Current stoping plans are based on six sublevels and lifts with sublevel intervals of 25m.

The Pluto mine plan is based on LHOS with continuous retreat along strike from the limits of the orebody using paste fill. Preliminary stoping plans are based on four to six sublevels. Further refinement of the stoping method is likely after a more detailed geotechnical assessment is completed prior to mining, due to commence in 2026.

CCPL also plans to mine from underground the Esperanza ore remaining below the Esperanza open pit. The open pit is currently used for tailings storage but a 50m pillar is planned to be left between the base of the pit and the planned stoping areas. Further geotechnical assessment will be required prior to finalisation of the mine designs.

The mine production rate ramped up to 1.8Mtpa in 2020, from 1.6Mt in 2019 and 1.3Mtpa in 2018. A number of initiatives were put in place to achieve the higher rate including increased mine contractor resourcing and equipment, increase in active production sublevels at ESS, optimising the ESS caving strategy, and modifications to the blast firing patterns to reduce hang-ups/dilution. In March 2021, a pillar failure in the Mammoth Remnants area led to the temporary closure of the Mammoth decline and suspension of mining at Mammoth and Greenstone; production from Mammoth Deeps and Greenstone recommenced in mid-April. Further review of the Mammoth Remnants mining sequence and impact of stope voids is to be completed before production recommences in this area, but initial assessment indicates that there will be limited or no reduction in the available mining inventory, though there are likely to be some sequencing changes.

LOM mine production is based on a mineral inventory of 24.3Mt at 1.9% Cu, comprising Measured, Indicated, and Inferred resources, together with a small quantity (1.4Mt) of unclassified mineralisation, effectively, in terms of the JORC Code, an Exploration Target. EMR has provided BDA with a range of estimates for the unclassified material included in the LOM plan, from 1Mt at 1.3% Cu to 1.8Mt at 1.6% Cu with a most likely tonnage of around 1.4Mt at 1.5% Cu. Ranges of $\pm 30\%$ for tonnes and $\pm 10\%$ for grade were used to develop the Exploration Target. Subsequent tables and discussions in this report are based on the most likely figure which represents around 6% of the total mineral inventory. The resource estimates have been independently prepared by specialist resource consultant SRK and BDA has accepted these as a reasonable guide to the likely Measured, Indicated and Inferred resources and to the peripheral unclassified exploration target tonnes and grade.



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Figure 5

SCHEMATIC LONG SECTION OF DEPOSITS

By deposit, the contributions are 11.9Mt from ESS, 7.8Mt from Mammoth, 0.6Mt from Greenstone, 1.5Mt from Pluto and 2.5Mt from Esperanza (49%, 32%, 2%, 6% and 10% respectively). Based on current reserves, Greenstone production is planned to be completed in 2022, with the ore sources reduced to just ESS and Mammoth for a three-year period. In 2026 Pluto will commence ore production, initially from development, and Esperanza will commence a year later in 2027.

Around 68% of ore production for the first five years of the LOM plan from 2021 is based on Measured and Indicated resources with 32% of material coming from Inferred resources and unclassified mineralisation. The contribution of Measured + Indicated resources drops to 56% for the remainder of the LOM (2026 to 2034). The quantity of Inferred resources and unclassified mineralisation in the LOM schedule does impose additional risks, but CCPL plans to mitigate these risks with additional advance drilling as development progresses in depth. CCPL advises that it intends to conduct ongoing infill drilling on a rolling basis targeting mineral inventory that is either based on Inferred resources or unclassified exploration targets to be mined within the subsequent two-year time frame.

BDA considers the main short-term risk to mine production relates to the transition from the northern ESS SLC to the southern SLC, with the establishment of a new cave front, as ESS is the main producer in the LOM plan. BDA has reviewed the main inputs to the mine scheduling and these are considered appropriate and achievable but increasing depth of operations at both ESS and Mammoth may reduce productivity and impact both development and production rates, though allowance has been made for these factors, including additional trucks and increased ventilation. Pluto and Esperanza are at shallower depth and will moderate the overall average depth of production from 2026. Overall development requirements progressively reduce from 2021 onwards.

As part of the re-start of operations, CCPL constructed a paste fill plant to facilitate the paste filling of Mammoth historical stope voids to allow extraction of pillars and remnant material and to be used in the ongoing open stoping. The plant is currently operated by Outotec Pty Ltd (“Outotec”). Paste filling rates are scheduled around 300,000m³ per annum in line with the plant capacity. Currently the fill operations are based on waste rock fill due to fill reticulation issues with paste that CCPL anticipates being rectified by the second half of 2021.

A mine contractor, Byrnegut Australia Pty Ltd (“BAPL”) carries out mine development and all production drilling, blasting, loading and hauling. CCPL provides technical oversight including grade control, mine planning and geotechnical engineering. BDA understands that BAPL is generally performing well.

Geotechnical and Hydrological Aspects

The geotechnical aspects of the mine are managed by the CCPL technical department which includes geotechnical engineering staff. The mine has prepared a Ground Control Management Plan (“GCMP”) in line with the industry requirements to ensure ground control is appropriately managed and mine designs are properly assessed geotechnically. Routine QA/QC is carried out on installed ground support and CCPL has trigger action response plans (“TARP”) for seismic events, air blasts, draw point mud rushes and rainfall events.

The key geotechnical issues that CCPL manages are:

- safe productive caving of ESS cave
- safe productive stoping geometry in Mammoth and Greenstone
- interactions with open voids during remnant mining in Mammoth
- rehabilitation to maintain key Mammoth infrastructure and to access remnant stoping.

As part of the management of these geotechnical issues CCPL has established:

- routine rock-bolting, meshing and shotcrete of development
- a seismic system to monitor the ESS cave
- time-domain reflectometer (“TDR”) surveys for void monitoring and cave propagation
- Mammoth void monitoring and surveying
- plans for Smart Cave Markers for cave flow monitoring.

The ESS SLC cave management plan addresses the technical aspects of the sublevel cave, including cave related hazards and risk identification, draw control strategy, production scheduling, and mine design and sequencing.

Experience to date has indicated low rock permeabilities with only minor dewatering required of the order of 2 litres per second (“L/s”) or 0.2 megalitres per day (“ML/d”). Recharge of the water table occurs by direct infiltration of rainwater and surface water into rock fractures. The current staged pumping system adequately manages the dewatering requirements.

Processing

The Capricorn Copper process plant (Figure 6) comprises jaw crushing, crushed ore stockpiling, two stage grinding in a semi-autogenous grinding (“SAG”) mill/ball mill circuit with total installed grinding power of 5.4 megawatts (“MW”) to produce a circuit product which is around 80% passing (“P80”) 106 microns (“µm”), and flotation in a sulphide flotation plant including a high intensity vertical regrind (“HIG”) mill and two stages of cleaning. Flotation concentrate is thickened and then filtered in a plate-and-frame pressure filter prior to being transported by truck from site to Mt Isa or to Cloncurry for rail transport to Townsville. Tailings are pumped to the Esperanza open pit for storage.

The process plant has a capacity of around 2.1Mtpa, equivalent to approximately 260 tonnes per hour (“tph”) at a plant availability of 91.3%. In 2020, the plant milled 1.81Mt at a grade of 1.5% Cu, producing 99,900kt of concentrate at a grade of 22.5% Cu and 58g/t Ag. As of end March 2021, 0.412Mt of ore had been processed at a grade of 1.3% Cu, producing 19.7kt of concentrate at a grade of 22.4% Cu containing 4.41kt of copper.

Future concentrate production is scheduled to be in the range 100-119ktpa containing 26% Cu and averaging 120g/t Ag and 0.54% As from 2022 to 2026, and 122-155ktpa concentrate containing 21.5% Cu and averaging 87g/t Ag and 0.5% As from 2027 to 2034. These arsenic levels in concentrate are above the penalizable level (generally 0.2% As). A grade of 0.5% As would incur extra treatment charges of US\$7.5 per tonne of concentrate. The arsenic level in feed sources is variable; and so scheduling and blending of feed to manage the variation of As in concentrate is important to stay within acceptable limits for marketing. Concentrate is generally sold to overseas smelters (shipped through the port of Townsville) or to Glencore Australia’s Mt Isa copper smelter.

Many improvements have been made to the former ABM plant and processing circuit since the restart of the operation in 2018. Among the more significant changes have been redesign of the SAG mill liner system, fitting of a retaining ring on the ball mill discharge to allow the charge to be increased, modifications to the filter feed thickener to increase the density of the feed to the filter, control systems for addition, control and monitoring of reagents, improved automation of flotation operations, and a range of modifications to stabilise flowrates in the flotation circuit.

Since December 2018 the plant management has been outsourced to Ausenco; this has significantly improved the standard of management in the area of plant operation and provides access to Ausenco’s Brisbane-based processing expertise.

The mineralogy of the ore processed at Capricorn Copper is complex, with 14 different metallurgical domains identified. The metallurgical performance (concentrate grade and recovery) varies widely between these domains and plant performance in any period is highly dependent on the feed blend processed. The different domains have been well categorised, and this knowledge is used to inform mine scheduling and metallurgical forecasting, however the sublevel caving mining method used in Esperanza South does not readily allow control of domain segregation within that deposit.

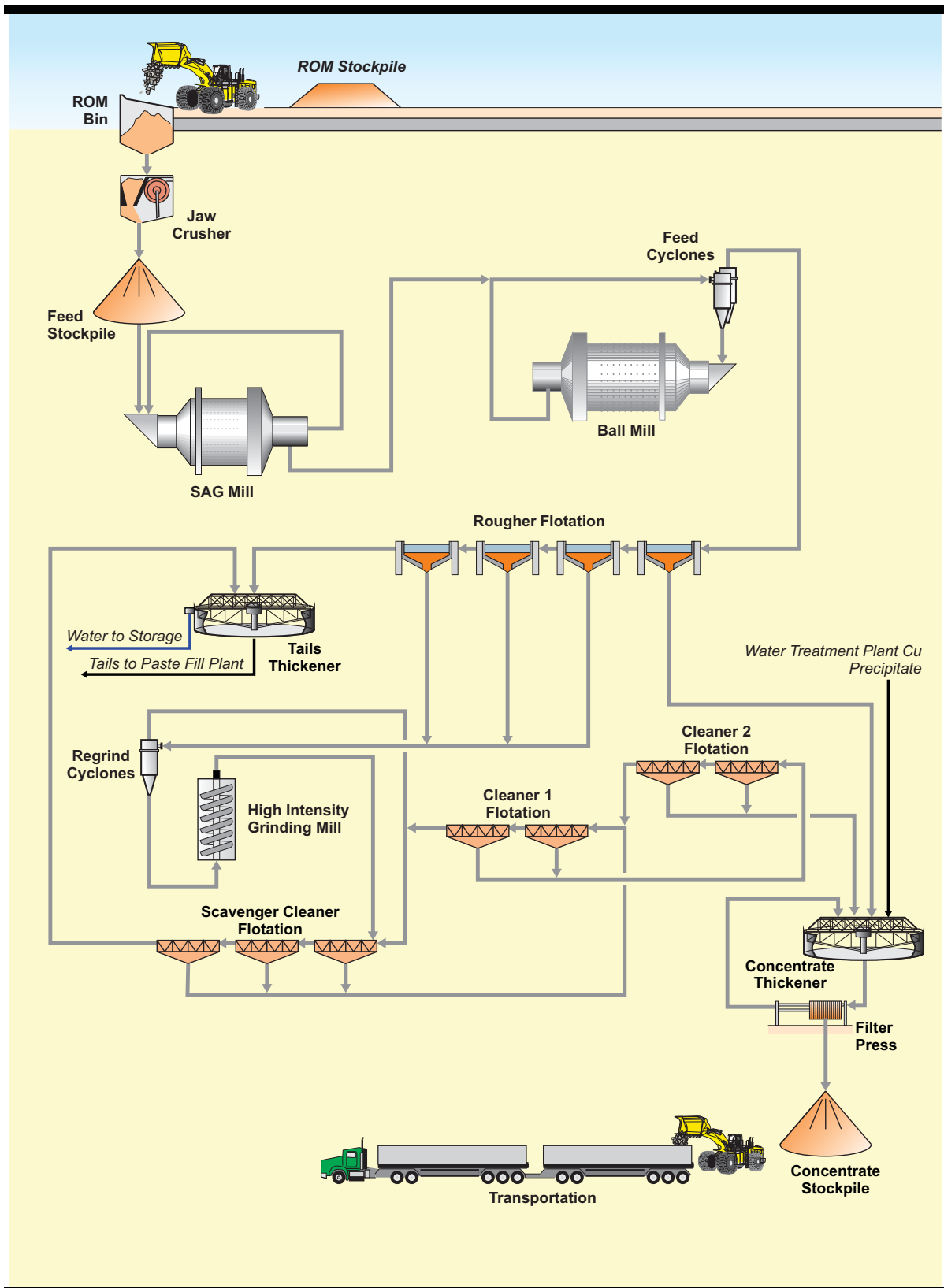
Most ore can be processed in the existing process plant, but Pluto ore (scheduled to commence in February 2026) is likely to require a gravity circuit to recover metallic copper, and controlled potential sulphidisation (“CPS”) flotation may be needed to treat some domains. Gravity separation and CPS are well-understood technologies and provision has been made for the necessary plant modifications in the capital programme.

Infrastructure

The Capricorn Copper operation lies approximately 120km north of Mt Isa and is accessed by road from Mt Isa via the Barkly Highway and a mostly unsealed local road which runs northwards to the mine site from a point on the Barkly Highway about 40km northwest of Mt Isa (Figure 1). The local access road has a number of creek crossings with concrete causeways which are subject to flooding during and immediately after wet-season rainfall, but any restrictions on access to the site are usually short-lived.

Water supply for the operation is sourced from Lake Waggaboonya, an established reservoir with a capacity of around 5.8 gigalitres (“GL”) which is located about 2km east of the mine site (Figure 2). The concrete arch dam was constructed in 1969 by Survey and Mining as part of the capital works carried out prior to commencement of operations in 1970. Significant storage on site for process water also exists in the Mill Creek Dam and in the Esperanza open pit.

Electricity is supplied to the operation via a high voltage transmission line from the 302 megawatt (MW) capacity Diamantina power station located in Mt Isa. The transmission line was constructed prior to the operation of the solvent extraction/electro winning (“SX/EW”) process for cathode production in the late 1990s.



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Figure 6

PROCESS FLOWSHEET

An accommodation camp for employees is located around 4km southeast of the mine-site (Figure 2). The camp comprises single rooms with attached bathrooms, messing facilities and a bar and gym. The camp is considered adequate for the scale of the operation and could be readily expanded if necessary.

A sealed airstrip is located around 10km south of the mine site, adjacent to the access road to the mine. Charter flights are currently operated by Byrncut for employees who reside in Townsville and Cairns. BDA understands that most CCPL employees and other contractors access the operation by road from Mt Isa (company transport is co-ordinated with commercial flights into Mt Isa).

2.4 Approvals, Permits, Health and Safety, Environmental and Social

Approvals and Permits

BDA has not undertaken legal due diligence on statutory approval or licensing issues and has relied on information provided by CCPL. However, from the statutory approval information provided, BDA is of the opinion that all necessary approvals, permits and licences are in place for current mining and processing operations.

CCPL has been subject to various historical Court Orders and regulations regarding water levels within the Esperanza pit, and discharge of water from the site. Discharged water is subject to quality criteria, and discharge is only permitted when waterflows in the adjacent Gunpowder Creek (Figure 2) reach certain levels. Water levels are also controlled by a system of blowers/evaporators along the pit perimeter, and the use of water treatment and Reverse Osmosis (“RO”) plants. CCPL is in ongoing collaborative discussions with the Department of Environment and Science (“DES”) to consolidate requirements into a workable system that will allow appropriate discharge and the sustainable reduction of water levels in the Esperanza pit. A December 2019 Environmental Protection Order (“EPO”) was officially closed out in June 2020; under the terms agreed with DES, a new EPO was issued on 18 September 2020, focused on actions required to move the volume of water stored on site to below Design Storage Allowance (“DSA”) by 1 November 2022. The parties, by consent, then secured an order from the Queensland Planning and Environment Court vacating the historic Court orders on 21 September 2020.

Mining is an accepted and historic part of the District’s history, bringing employment opportunities to the local population and significant revenue to the government through state royalties and taxation. The site has historic environmental legacies from former operations, but CCPL is progressively addressing these during operations; the historic Mammoth TSF is currently being rehabilitated. The approvals achieved since CCPL ownership and endorsement of the Plan of Operations and Environmental Management Plan, appear appropriate for the ongoing mining operations.

Environment, Social, Health and Safety

CCPL has the required environmental approvals and adequate waste rock and tailing storage facilities necessary for its operations. Managing excess volumes of site waste-water discharge is the key issue demanding ongoing attention, management plans and co-operation with authorities, and this process is ongoing with CCPL to submit updated proposals to the DES. The cost to rehabilitate the currently disturbed areas of Capricorn Copper’s mine site has been estimated by the Company at approximately A\$36M; ongoing rehabilitation work should have a positive impact on the existing cost allocation.

Occupational Health and Safety

CCPL operates under a Health, Safety, Environment and Community (“HSEC”) Management System, which provides a major risk control framework focussing on action management and accountability for line management, hazard reporting and awareness, independent safety audits (including contractor safety management systems), continuous improvement, collaboration on implementing solutions to reduce at-risk behaviour, and training. Coronavirus COVID-19 audits were added in 2020. The overall objective of the HSEC Management System is to create a Zero Harm culture, focusing on the need to identify and effectively manage high risk activities on site.

2.5 Production

Actual production data from 2018 to 2020 and projected production data from the LOM schedule, which extends from 2021 to 2034, are shown in Table 2.4. The future production forecasts are based on the CCPL LOM plan and financial model (file: *02.10.02 210322 Cyprus IPO Model_vBDA.xlsx*) with 2021 forecast update (file: *20210426 Project Cyprus - BDA Update_vSent.xlsx*). LOM production by mine source and resource category is shown in Fig 7.

Table 2.4
LOM Production Schedule - Actual for 2018 to 2020 and Forecast for 2021-2034

Item	Unit	Calendar Years													
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	30-34	Total
Ore Mined	Mt	1.30	1.58	1.85	1.75	1.83	1.81	1.81	1.80	1.82	1.87	1.86	1.83	7.78	24.17
Ore Milled	Mt	1.33	1.61	1.81	1.74	1.84	1.82	1.82	1.81	1.81	1.88	1.86	1.83	7.78	24.19
Cu grade	%	1.70	1.76	1.50	1.51	1.70	1.72	1.70	1.84	1.97	1.90	2.01	2.16	2.04	1.90
Ag grade	g/t	na	na	na	6.48	8.71	10.73	11.10	10.92	11.42	11.30	11.59	12.34	9.6	10.24
Cu contained	kt	22.2	28.3	27.1	26.28	31.2	31.3	30.9	33.2	35.6	35.8	37.3	39.6	158.9	460.1
Ag contained	koz	na	na	na	362.6	514.2	628.1	649.5	634.6	663.6	683.0	691.8	726.5	2405.1	7,959.0
Cu recovery	%	79.3	82.4	82.9	83.2	86.8	86.9	87.1	87.5	86.7	85.9	84.5	83.9	85.6	85.7
Ag recovery	%	na	na	na	70	70	70	71	69	68	70	69	69	63	67.5
Cu in concentrate	kt	17.6	23.3	22.5	21.9	27.1	27.2	26.9	29.1	30.8	30.8	31.5	33.2	136.0	394.5
Ag in concentrate	koz	108	235	249	254	361	443	463	439	454	475	480	499	1507	5,375
Concentrate production	kdmt	81.1	93.5	99.9	84.1	104.2	104.6	103.6	111.8	118.6	143.1	146.4	154.6	632.7	1,704
Cu concentrate grade	%	21.7	24.9	22.5	25.2	26.0	26.0	26.0	26.0	26.0	21.5	21.5	21.5	21.5	22.1
Ag concentrate grade	g/t	42	78	66	91	108	132	139	122	119	103	102	100	74	98
Payable Cu production	kt	16.9	22.4	21.5	21.2	26.1	26.1	25.9	28.0	29.7	29.3	30.0	31.7	129.7	377.6

Note: 2021-2034 based on LOM forecast; Totals are from January 2021 to 2034; na = not available

Ore mined in 2020 was slightly ahead of budget at 1.85Mt; production in the H2 2020 was 13% above budget with resolution or partial resolution of a number of earlier issues including significant storm events, the north to south cave transition at Esperanza South SLC and poor availability of remote loaders; however, the ore grade delivered to the mill was below budget.

Production is likely to dip in 2021 (forecast at 1.75Mt) due to the recent pillar failure in March 2021 leading to the temporary closure of the Mammoth decline impacting production at Mammoth and Greenstone; ore mined in Q1 2021 was 415kt at a grade of 1.3% Cu which is close to budget tonnage but 27% below budget grade due to lower tonnages from Mammoth and Greenstone. Mammoth Deeps and Greenstone re-commenced operations in mid-April 2021 and Mammoth Remnants is likely to re-commence after further stope sequence and void review. From 2022 through to 2031 production is forecast to remain around 1.8Mtpa, with reducing tonnages in the last two years of the LOM.

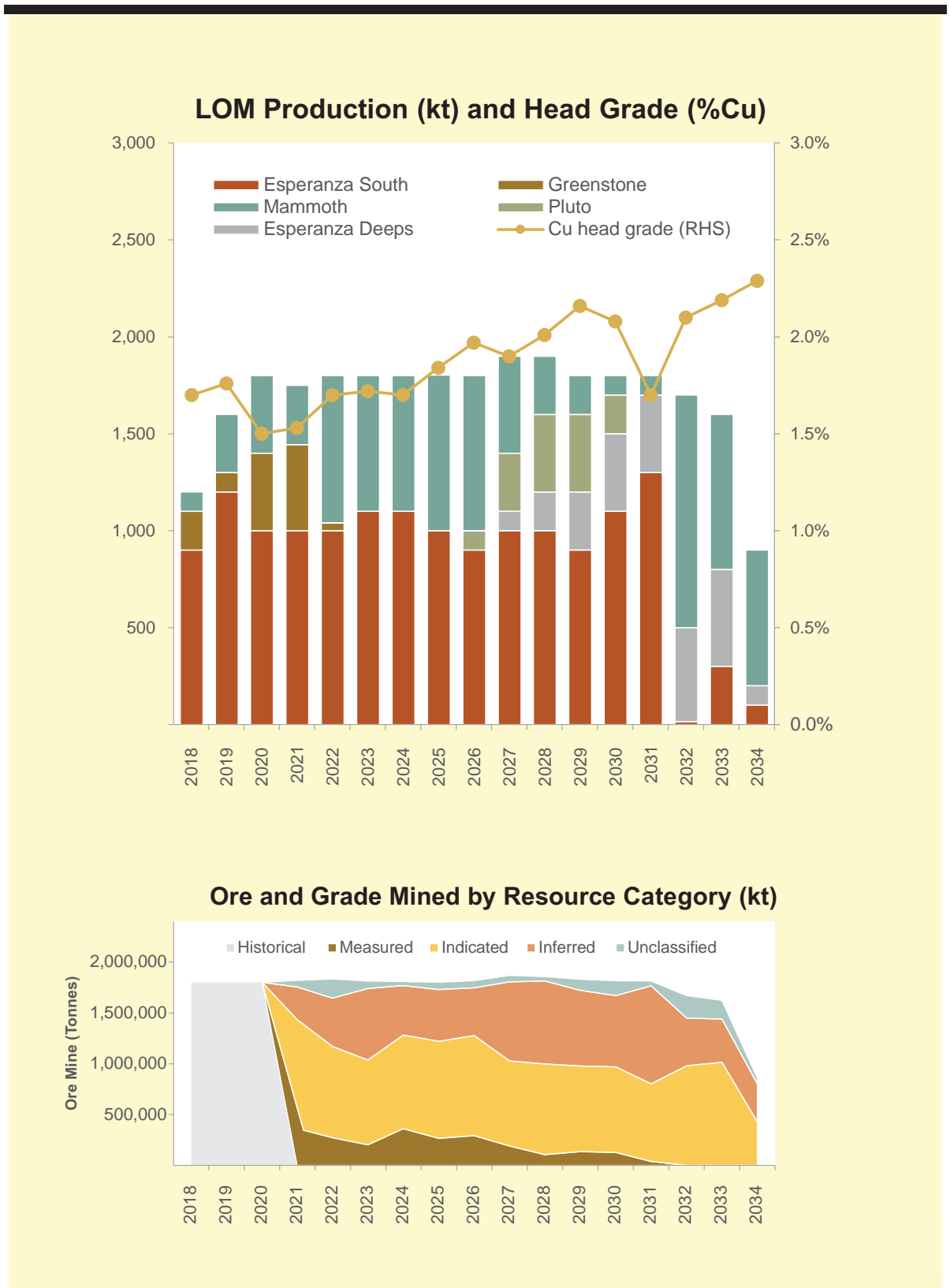
BDA considers there is potential for some delays in establishing the new cave front in the southern cave of ESS in 2021 but the recent ongoing ground fall-off, filling the slot established for initiating the cave, is encouraging. CCPL continues with appropriate steps to mitigate the cave initiation risks, including detailed monitoring and scheduling production from the upper levels of the southern cave to ensure the SLC achieves the planned tonnes and grade, although some variation to schedule has had to be imposed during the Mammoth and Greenstone production hiatus.

Based on recent history, the proposed LOM production schedule appears achievable, assuming the contractor maintains appropriate equipment and capacity to enable development and production targets to be met, but there are some potential risks. The contractor performance has been generally satisfactory and extra production capacity has been added to meet the schedule.

While the inclusion of a significant tonnage of Inferred resources (34%) and a minor amount of unclassified material (6%) in the LOM plan (approximately 40% in total) reduces the confidence level in the LOM schedule, BDA recognises that much of this material relates to later years, and CCPL has established robust mine design protocols to ensure there is reasonable infill drilling and ore delineation of the mineable blocks before stope designs are prepared and implemented. CCPL has three production drill rigs available that allow the Mine Geology Department to systematically drill out and define grade boundaries prior to the mine designs being finalised. A detailed split of the reserve/resource contribution to the LOM plan is presented in Section 9.6. Overall, BDA considers that the forecast mine production is realistic and achievable, but notes that maintaining a consistent 1.8Mtpa of ore milled at the budgeted grade is still to be achieved.

Nevertheless, there is a low level of geological confidence associated with Inferred Mineral Resources and Exploration Targets (unclassified material). In terms of Inferred resources, there is no certainty that further exploration work will result in the determination of Measured or Indicated Mineral Resources, and in terms of the Exploration Targets, the tonnage and grade are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources. In both cases there is no certainty that the production target itself will be realised.

Copper recovery was 79.5% in 2018 (the year of recommissioning) and has improved to around 82-83% since then. A further increase to 86-87% by 2022 is forecast. Concentrate grade increased from around 21% Cu in 2018 to around 25% in 2019 and H1 2020, but has averaged around 22.5% since then. It is forecast to increase to 26% for the period 2022 to 2026, then drop to 21.5% from 2027 to 2033. Silver recovery is forecast to be around 70% for most of the LOM.



EMR Capital

Capricorn Copper Project

Figure 7

PRODUCTION SCHEDULES

BDA notes that a significant proportion of future ore production will be from the Esperanza South orebody. This orebody was identified as having three different metallurgical domains with widely variable performance. Generally copper recovery can be maintained above 80% with the variability affecting concentrate grade. The reduction in concentrate grade since H1 2020 may reflect a higher proportion of the more difficult domains. The forecast grade of 26% Cu from 2021 to 2026 will require an improved domain mix with a higher proportion of chalcocite and bornite in the feed, and ongoing plant improvements. The sub-level caving mining technique used in Esperanza South does not allow precise control over domain blend.

2.6 Capital Costs

The LOM plan shows capital expenditure totalling A\$268.3M (Table 2.5) including Mine Development costs of A\$161.9M and Mine Closure costs of A\$25.9M.

Table 2.5
Capital Projects - LOM Summary

Capital Projects	2021 ASM	2022 ASM	2023 ASM	2024 ASM	2025 ASM	2026 ASM	27-34 ASM	Total ASM
Exploration	2.77	2.00	1.70	1.70	1.70	1.70	3.40	14.97
Mine Development	25.65	17.97	15.58	15.62	19.96	14.09	53.03	161.90
Mine Growth and Sustaining	2.31	2.47	1.29	0.78	2.66	6.06	0.79	16.36
Processing incl. Maintenance	2.98	4.97	3.13	1.89	6.33	5.63	9.92	34.85
Site Support	5.84	0.50	0.20	4.00	0.60	0.20	3.00	14.34
Mine Closure	0.00	0.00	0.00	0.00	0.00	0.00	25.90	25.90
Total	39.56	27.91	21.89	23.99	31.24	27.68	96.04	268.33

In the LOM capital estimate there is an allowance of A\$15M for Exploration. The expenditure forecast is based on planned near-mine exploration, statutory tenement commitments for the four surrounding EPMs and ongoing exploration in the EPMs.

The LOM Mine capital cost of A\$16.4M covers sustaining capital and growth capital and includes allowance for ventilation requirements at Pluto, extensions to the ladderways at ESS and Mammoth and extension of the paste fill network.

The LOM Mine Development cost is estimated at A\$161.9M which reflects the planned development at the current mine contractor unit rates for the various development activities.

Overall, the mining capital budget is considered reasonable based on historical cost estimates and the mine development quantities reflect the current mine plans; however, no specific contingency has been added to the estimate. BDA notes that given the inclusion of a quantity of Inferred resources in the LOM mine plan there is some risk of variation in the development plans as knowledge of the resources improves and designs are refined.

The Processing and Maintenance capital costs in the LOM model total A\$34.9M and Site Support costs total A\$14.3M including TSF and Esperanza pit design and construction as well as the diversion of the Esperanza South Creek in 2021 around the subsidence zone to minimise water flow into the workings during rain events.

2.7 Operating Costs

The operating costs shown in Table 2.6 comprise the actual costs for 2018 to 2020 and forecast costs from 2021 to 2034; the latter are based on the LOM plan prepared by CCPL (file: 02.10.02 210322 Cyprus IPO Model_vBDA.xlsx) with 2021 forecast update (file: 20210426 Project Cyprus - BDA Update_vSent.xlsx).

The overall site operating costs are estimated at a C1 Cash Cost of around A\$3.25/lb Cu (US\$2.41/lb) over the next four years and A\$2.92/lb (US\$2.13/lb) for the LOM; all in sustaining cost ("AISC") for the LOM is US\$2.51/lb. These unit costs are below the costs of A\$3.16/lb Cu for 2020 reflecting the forecast increase in copper production in 2022 and beyond.

The forecast mining costs are based on the actual costs for 2019; the main drivers in the mining area reflect contract rates for the main mine contractor, BAPL. The unit costs for each deposit over the LOM range from A\$21/t at Greenstone to A\$30/t at Mammoth with the main production unit, ESS, having a unit cost of A\$24/t. In addition to these unit costs there are mining overhead costs, including technical services and unallocated contractor costs, which average A\$21/t or A\$37Mpa. The overhead costs vary somewhat each year which is largely a feature of cost allocation, with annual mining costs reasonably consistent over the LOM.

Table 2.6
LOM Operating Costs - Actual for 2018 to 2020 and Forecast 2021-2034

Item	Unit	Calendar Years													Total
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	30-34	
Physicals															
Ore Mined	Mt	1.30	1.58	1.85	1.75	1.83	1.81	1.81	1.80	1.82	1.87	1.86	1.83	7.78	24.17
Ore Milled	Mt	1.33	1.61	1.81	1.74	1.84	1.82	1.82	1.81	1.81	1.88	1.86	1.83	7.78	24.19
Payable Cu Productn	kt	16.9	22.4	21.5	21.2	26.1	26.1	25.9	28.0	29.7	29.3	30.0	31.7	129.7	377.6
Payable Cu Productn	Mlbs	37.3	49.3	47.4	46.7	57.4	57.6	57.1	61.6	65.4	64.7	66.2	69.9	285.9	832.5
Site Op Costs															
Mining	A\$M	60.8	70.8	68.8	85.7	90.6	94.1	94.3	92.7	88.9	85.0	84.0	79.8	340.3	1,135.3
Mill	A\$M	33.1	33.0	31.6	33.0	33.4	33.4	32.6	32.5	32.5	32.8	32.7	32.6	156.1	451.6
Maintenance	A\$M	11.6	13.8	13.8	13.9	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	66.1	185.8
Site Serv, Overheads	A\$M	12.4	13.4	16.9	21.5	20.0	19.6	19.5	19.5	19.6	19.6	19.6	19.6	97.9	276.2
Total Site Costs	A\$M	117.9	130.9	127.9	154.0	157.1	160.3	159.6	157.9	154.1	150.6	149.5	145.2	660.4	2,048.8
Other Op Costs															
Corporate Costs	A\$M	18.0	11.7	-0.4	-	-	-	-	-	-	-	-	-	-	-
Realisation Costs	A\$M	9.8	28.0	28.6	23.8	32.3	33.1	33.0	36.0	38.3	43.8	44.1	46.7	198.1	529.1
Royalty	A\$M	6.0	8.3	8.9	11.9	13.5	13.0	12.8	13.7	14.5	14.3	14.7	15.5	62.6	186.4
Ag By-product Credit	A\$M	4.4	6.5	7.2	7.5	9.6	12.0	12.6	12.2	12.6	13.2	13.3	13.9	41.1	147.9
Total Op Costs	A\$M	147.4	172.5	157.8	182.2	193.5	194.4	192.7	195.4	194.3	195.5	195.0	193.5	880.0	2,616.5
Unit Costs															
Mining	A\$/t mined	46.7	44.7	36.2	48.8	49.4	51.9	52.2	51.4	48.9	45.4	45.2	43.6	43.7	47.0
Milling (incl Mtce)	A\$/t milled	33.7	29.1	24.7	26.9	25.4	25.6	25.2	25.3	25.3	24.5	24.7	25.0	28.5	26.4
Site Services	A\$/t milled	9.4	8.3	9.3	12.3	10.9	10.8	10.7	10.8	10.8	10.4	10.5	10.7	12.6	11.4
Total Site Costs	A\$/t milled	88.9	81.6	70.0	88.5	85.6	88.0	87.7	87.4	85.3	80.1	80.5	79.3	84.9	84.7
C1 Cash Costs	A\$/lb Cu	3.31	3.12	3.16	3.65	3.13	3.15	3.15	2.95	2.75	2.80	2.73	2.55	2.86	2.92
C1 Cash Costs	US\$/lb Cu	2.32	2.17	2.19	2.81	2.29	2.30	2.30	2.15	2.01	2.04	1.99	1.86	2.09	2.13
AISC Costs	US\$/lb Cu	na	2.73	2.83	3.63	2.79	2.73	2.76	2.68	2.47	2.44	2.40	2.24	2.27	2.51

Note: 2021-2034 based on LOM forecast; Totals are from 2021 to 2034; Corp Costs (Actuals) include some inventory and accounting adjustments, particularly in 2020; AISC = All In Sustaining Costs; from 2021 Corporate Costs have been transferred from site costs to a corporate account

Milling costs include the costs of supervisory, technical, operating and maintenance personnel, electric power, process consumables and reagents, and maintenance spares. Future unit milling costs are forecast to be around A\$25/t when processing 1.8Mtpa, increasing to A\$29/t at the lower rates after 2032. The forecast cost is consistent with the A\$25/t demonstrated in 2020 when throughput was 1.8Mtpa. The operating efficiency improvements from 2018 to 2020 reduced unit cost, and some further gains are expected. However, this could be offset by reagent changes to improve flotation pulp chemistry; overall BDA considers the LOM estimate to be reasonable and achievable.

Future Site Services costs, comprising administration, environmental and site accommodation costs, are forecast to remain around A\$11/t milled over the next ten years increasing slightly towards the end of mine life.

3.0 RISK SUMMARY

3.1 Project Risk Summary

When compared with many industrial and commercial operations, mining is a relatively high-risk business. Each orebody is unique. The nature of the orebody, the occurrence and grade of the ore, and its behaviour during mining and processing can never be wholly predicted. Estimations of the tonnes, grade and overall metal content of a deposit are not precise calculations but are based on interpretation and on samples from drilling which, even at close drill hole spacing, remain a very small sample of the whole orebody. There is always a potential error in the projection of drill hole data when estimating the tonnes and grade of the surrounding rock. Mine production is subject to geotechnical and hydrological factors. Comprehensive metallurgical testwork can reduce the processing risks, but the questions of representivity and scale-up remain. Estimations of project capital and operating costs are rarely more accurate than ± 10 -15%. Mining project revenues are subject to variations in metal prices and exchange rates.

In reviewing the Capricorn Copper mine, BDA has considered areas where there is perceived technical risk to the operation, particularly where the risk component could materially impact the project's cashflow. BDA has also taken account of the established operation and the production history. The risk assessment is necessarily subjective and qualitative. Risk has been classified from low through to high. In Section 3.2 BDA has considered factors which may ameliorate some of these risks.

Risk Component	Comments
Geology/Resources/Reserves <i>Low/Medium Risk</i>	<p>The geology of the Capricorn Copper deposits is reasonably complex with mineralisation predominantly structurally controlled, with some additional lithological control. Although the geology and mineralisation controls are well understood due to the long mining history, the deposits have complex geometries and require close-spaced drilling in order to define Measured and Indicated resources. Drilling has been undertaken from surface initially but due to the generally steep dips, surface drilling has depth limitations with respect to obtaining optimal intercepts through the orebodies. Underground drilling is therefore required to define the orebodies ahead of mining and this has been challenging at times due to lack of mine development and suitable drilling locations. This situation has resulted in the inclusion of Inferred resources and unclassified material, effectively an Exploration Target, in the LOM plan and has therefore increased the overall risk attached to the current mining inventory. However, infill underground drilling is planned whenever suitable sites are available.</p> <p>SRK's resource modelling for all five deposits in March 2019 focussed on eradicating the smearing of grades into internal waste zones and beyond the last drill holes that was a feature of previous resource models. This was primarily achieved by modelling indicator domains at 0.5% Cu cut off and using predominantly hard domain boundaries for estimation. CCPL incorporated 2020 infill drilling into updated models for the Esperanza South and Greenstone deposits for the May 2020 MRE. BDA considers the resource estimates provide improved global estimates of the resources in each of the deposits.</p> <p>However, detailed estimates of tonnes and copper grade for the cave and stope designs for short and long term mine planning, which are based on the MRE local block estimates, remain subject to some uncertainty which can only be reduced by additional grade control drilling, sampling data and modelling. The previous lack of usable grade control (GC) models has now been remedied with the establishment of GC models for ESS, Greenstone and Mammoth Deeps.</p> <p>The Mine Geology Department has greatly improved GC procedures since mid-2019 and is now producing regular updates to the GC models and reconciliations against the MRE models. The latest reconciliations for the ESS, Greenstone and Mammoth GC models (March 2021) indicate a reasonable reconciliation, with the contained copper in GC models slightly higher (in the range 2-8%) than the MRE model forecasts. Variations from the MRE models can be expected and underline the importance of the dynamic GC modelling in minimising risk associated with medium to long term planning.</p> <p>The mine reconciliation of the Ore Mined Claimed against the Reconciled Ore Milled tonnes and grade for the period January 2018 to December 2020 indicates an acceptable result with a 5% lower milled grade than forecast but 1% higher tonnes, resulting in 5% lower contained metal. However, BDA notes that monthly and YTD date reconciliations are not yet undertaken against the original resource models.</p>

Risk Component	Comments
Mining <i>Medium Risk</i>	<p>The mining operation is well established with the mine contractor (BAPL) appropriately equipped and staffed to meet the requirements of the contract. CCPL has a sound technical services team supported by consultants. There are typically a number of risks associated with underground operations but at Capricorn Copper there is some mitigation of production risk from having a number of mining locations and production stopes and drawpoints. This has been borne out with the recent suspension of operations at Mammoth and Greenstone with many resources switched to ESS during the suspension.</p> <p>The new cave front in the southern ESS cave has not yet been established, but progress is being achieved with the slot for initiating the cave becoming filled with fall off from the backs. CCPL continues to take the necessary steps to mitigate the risks including cave monitoring, with plans for drilling inspection holes, and scheduling production from the upper levels of the southern cave to ensure the SLC achieves the planned tonnes and grade. CCPL has drawn on the expertise of external consultants to assist in managing the risks associated with the SLC.</p> <p>With the deepening cave at ESS there is some potential for the cave to encroach on existing mine infrastructure, however, the caving angle is less than predicted on the footwall of the deposit where infrastructure is located; CCPL is systematically monitoring the cave and its proximity to the mine decline and other infrastructure.</p> <p>Mammoth remnant mine production is partially dependent on the paste fill plant delivering fill when required; there have been some initial issues with the operation of the paste plant, largely related to bore hole blockages and paste delivery. There is some risk that the mine production schedule could be impacted by issues in delivery of paste fill, however, installation of new casing should improve reliability and a number of areas formerly planned for paste fill are now successfully using waste rock fill.</p> <p>Ground conditions are generally being managed appropriately, but ground conditions always represent a risk area to underground mining, and there have been some disruptions to operations from weak ground, notably at Greenstone. In addition the recent pillar collapse within Mammoth Remnants has highlighted the need for managing the mine sequence around known voids and filling of voids to limit ground movement risk.</p> <p>Mining conditions within the Pluto and Esperanza deposits will require further detailed work before the mine plans are finalised; it will also be important to ensure the stability of the overlying Esperanza pit and contained tailings.</p> <p>The LOM plan requires sustained ongoing development to facilitate achievement of ore production targets; current rates are generally in line with forecast and in recent months development advance has exceeded forecasts.</p> <p>Planned production rates have been achieved in the latter part of 2020 and, apart from the recent hiatus of production from Mammoth and Greenstone, the mining rate of 1.8Mtpa is being achieved though the mine grade has been significantly below target. Production from the ESS SLC in terms of both tonnes and grade will be critical to the meeting of the LOM targets.</p>
Processing <i>Medium Risk</i>	<p>The long history of processing ores at this site has accumulated a sound understanding of metallurgical characteristics. Since the restart of the operation in 2017, a range of improvements have been made to the processing plant. Throughput rate and stability have improved, and the plant has demonstrated capacity to maintain the forecast production rate. The flowsheet is appropriate for current ores and appropriate additions are planned in 2025 and 2026 for Pluto (gravity separation) and for parts of Esperanza (controlled potential sulphidisation).</p> <p>BDA considers there is low risk that production rates, reasonable recovery and saleable concentrate grade will not be maintained. However, the forecast performance from 2022 to 2026 (around 26% Cu concentrate at 87% recovery) is higher than results achieved in the nine months from June 2020 to February 2021 (around 22.5% Cu at 82.5% recovery). The ore is complex with wide variability between domains, and SLC mining at ESS does not allow for ready segregation of domains. Metallurgical performance will vary depending on the domain mix processed in any period.</p>

Risk Component	Comments
Processing (Continued) <i>Medium Risk</i>	<p>CCPL is undertaking well-directed and expertly managed programmes to improve performance on the difficult domains. However, until success is demonstrated, BDA considers there is high risk that concentrate grade and recovery will not average the LOM forecast for 2022 to 2026; rather that it is more likely to be somewhere between recent results and the forecast.</p> <p>Treatment charge penalties on arsenic in concentrate are likely to continue to be incurred at levels similar to recent years; currently there is not sufficient detail on arsenic distribution in the domains to accurately estimate future arsenic levels in concentrate.</p>
Infrastructure, Services and Utilities <i>Low/Medium Risk</i>	<p>The project is adequately serviced with necessary infrastructure.</p> <p>Road access is via an 80km mostly gravel road from the Barkly Highway, with overall distance from Mt Isa being approximately 120km. Access can be cut during the wet season and some interruption to operations can result. For this reason the risk in this area has been upgraded from Low to Low/Medium, though BDA notes that the site inventory level of critical consumables has been increased in 2020 to counter any site access issues.</p> <p>A sealed airstrip is located 10km south of the mine site.</p> <p>Power is supplied to the operation via a high voltage transmission line from the supplier in Mt Isa; the supply has proved to be reliable. There is potential from 2024 onwards for the mine to source power from the planned “Copper String” development, which could significantly reduce the mine’s power costs.</p> <p>Accommodation on site is provided in a 325-person camp located round 4km from the mine site and serviced by an experienced catering contractor.</p> <p>Water is supplied to the project from an established reservoir within 5km of the mine site.</p>
Tenements, Approvals and Permits <i>Low/Medium Risk</i>	<p>BDA has not undertaken a title search or legal due diligence on the status of the tenements or regulatory approvals held by CCPL. CCPL has advised BDA that there are no material tenement title issues for any of CCPL’s mineral tenement assets.</p> <p>From the statutory approval, permit and licence information provided by CCPL, BDA is of the opinion that all necessary approvals, permits and licences are in place for CCPL’s current mining and processing operations.</p> <p>Compliance with water storage levels in the Esperanza pit and water discharge have been subject to various historical Court Orders and regulations. CCPL is working with the DES to maintain a workable administrative and physical infrastructure regime.</p> <p>The site has a complex history with associated environmental legacies. CCPL is working to progressively undertake rehabilitation activities.</p> <p>Overall, the approvals achieved since CCPL ownership, regulatory endorsement of the Plan of Operations and Environment Action Plan, and additional plans currently in progress, appear appropriate for the ongoing mining operations.</p>
Environmental Issues <i>Low/Medium Risk</i>	<p>BDA considers that the environmental management and monitoring programmes are appropriate for the location, nature and scale of the project. Statutory environmental monitoring programmes are being undertaken and appropriate mitigation measures are in place to reduce potential environmental impacts.</p> <p>CCPL is in compliance with most of its environmental conditions and regulations, however, managing excess volumes of site waste-water discharge is the key issue demanding ongoing attention, management plans and co-operation with authorities. Effectively managing excess water also has implications for maintaining regulatory approval for planned tailings storage capacity.</p> <p>BDA concludes that the risks associated with the potential for off-site water contamination via site run-off, waste rock leachate seepage, or tailings seepage, are low/medium risk, measures for which are currently being addressed in conjunction with the authorities under appropriate Action Plans.</p>

Risk Component	Comments
Occupational Health and Safety <i>Low Risk</i>	<p>CCPL is operating under a Health, Safety, Environment and Community (HSEC) Management System, which provides a major risk control framework that focuses on action management and accountability for line management, hazard reporting and awareness, independent safety audits (including contractor safety management systems), continuous improvement, collaboration on implementing solutions to reduce at-risk behaviour, and training. Coronavirus COVID-19 controls were added during 2020.</p> <p>The overall objective of the HSEC Management System is to create a Zero Harm culture, focusing on the need to identify and effectively manage high risk activities on site.</p>
Community Issues <i>Low Risk</i>	<p>Mining is an accepted and historic part of the District’s history, bringing substantial employment opportunities to the local population and significant revenue to the government through state royalties and taxation. CCPL appears to have a good working relationship with the Calton Hills pastoral lease holders and the Kalkadoon Aboriginal Council. Provided the water management issues are appropriately managed, BDA considers community issues to be low risk.</p>
Production Forecast <i>Medium Risk</i>	<p>The targeted mine production rates are considered medium risk. While mining productivity achieved the target 1.8Mtpa production rate in 2020 the mine grade was below target. There is some uncertainty how quickly the ESS south cave can be fully established, which may affect shorter term production targets. The requirement to review the stope schedule in Mammoth Remnants has the potential to impact short term production targets.</p> <p>The schedule has some reliance on lower confidence resources (Inferred and unclassified) being further defined and upgraded prior to mining. Production tonnages will become increasingly dependent on deeper operating levels at ESS and Mammoth; any shortfall in these resources or development delays may affect production but the multiple ore sources will mitigate the risk, and potential remains for material extensions to be defined to the resources at depth. Once the southern cave is established and with multiple sublevels becoming available for production, ESS should have ample capacity to meet the proposed production rates.</p> <p>Copper concentrate grade and recovery will vary depending on domain mix and feed grade. Until there is demonstrated success from metallurgical programmes and further information on domain mix, BDA considers concentrate grades and recoveries between 2022 and 2026 are likely to average somewhere between recent performance and the LOM forecast.</p>
Capital Costs <i>Low Risk</i>	<p>Estimates of capital are generally based on historical costs and data and methodology which are considered appropriate for budgeting for an operating mining project. The major capital items relate to the development of new areas of the underground workings along with ventilation fans and upgrades. The development costs are reasonably well defined by the mine contractor unit rates and estimates of sustaining and plant upgrade capital. Overall the capital costs are considered relatively low risk</p>
Operating Costs <i>Low/Medium Risk</i>	<p>The mine operating costs have been prepared on the basis of the current mining contract and the recent historical technical and service costs. The LOM mining costs assume achieving steady state at 1.8Mtpa; there is potential for increased unit costs if production targets are not achieved.</p> <p>Process operating cost estimates are based on recent actual costs and are considered reasonable and achievable. The forecast unit cost was achieved in 2020 at the LOM production rate of 1.8Mtpa. The G&A costs are reasonably well established after two-three years of operation.</p>

3.2 Risk Mitigation Factors

There are a number of factors which combine to reduce some of the identified risks. Principal amongst these are:

- The Capricorn Copper area has a long mining history and the geology and mineralisation controls are reasonably well defined and understood.
- Significant improvements have been made with grade control procedures since mid-2019 with increased staffing; this has allowed an increase in GC sampling including on night shift. Grade control models based on CCPL's 2020 MRE models and incorporating all GC drill hole and sampling data have been developed for the three producing mine areas and are being used for short term mine planning, production forecasting and mine reconciliation. Mining stope reconciliations are being conducted with plans to complete these on a regular basis to provide feedback for use in refining the GC modelling.
- The LOM plan is based on ore production being derived from a number of ore sources, giving some flexibility to maintain overall target levels should one area experience production delays.
- Mine production and development operations are undertaken by an experienced Mine Contractor, BAPL, who has generally performed well and achieved targeted levels.
- There is a long history of processing these ores. The metallurgical characteristics and variability are understood. CCPL has improved plant operating stability, efficiency and control, and has a sound plan to continue this.
- CCPL is undertaking well-directed programmes with highly regarded experts to develop better processing strategies for difficult domains. These programmes are likely to assist in improving performance, though the geo-metallurgical mix is likely to remain challenging.
- Off-site generation of power and use of a high voltage transmission line eliminates the likelihood of wet season power shortages due to possible reduced road access and diesel supply for an on-site power station.
- CCPL has a relatively small ongoing capital requirement other than regular mine development capital and has experience in completing mine capital development projects comparable to those included in the budget and LOM plan. The risks of significant overruns in capital costs are considered relatively low. Contracts are in place providing relative certainty for many of the major cost items and power costs.
- CCPL has the required environmental approvals and adequate waste and tailing storage facilities necessary for its current operations and is working with regulators to ensure further approvals can be secured as required.
- CCPL has implemented health, safety and environment (HSEC) measures which have resulted in significant improvements in safety and safety statistics in recent years.

4.0 SOURCES OF INFORMATION

BDA has undertaken a number of visits to the project through 2018, 2019 and 2020, principally to review operations on behalf of the project financiers. BDA also visited site as Independent Engineer to the financiers during the Western Metals Esperanza open pit and SX/EW operations. Members of the BDA team also have experience of the earlier Adelaide Brighton and RGC operations.

Discussions were held with technical and management staff in Brisbane and Melbourne and on site. Resource and reserve estimates, mining schedules, processing and operations reports and forecasts, tailings disposal plans and environmental and social issues have been reviewed. The principal technical reports and documents reviewed are listed below:

4.1 Reference Material

- Metallurgical Testwork Summary Presentation - University of Queensland, October 2010
- Queensland Department of Environment and Resource Management – Water Licences (43671J, 43672J, 43804J, 102498), February 2011
- Queensland Planning and Environment Court Order between Birla Mt Gordon Pty Ltd and Department of Environment and Heritage Protection, August 2015
- Capricorn Copper Mining Feasibility Study - Mining Plus Pty Ltd, November 2016
- Underground Mining Services Contract - Capricorn Copper Pty Limited and Byrnescut Australia Pty Limited, December 2016
- Definitive Feasibility Study - Capricorn Copper Pty Limited, December 2016
- Greenstone Geotechnical Assessment Summary - Capricorn Copper Pty Ltd, July 2017
- Pluto Geotechnical Assessment Summary - Capricorn Copper Pty Ltd, July 2017
- Mammoth Geotechnical Assessment Summary - Capricorn Copper Pty Ltd, July 2017
- Capricorn Copper 2017 Ventilation Review - Ozvent Consulting Pty Ltd, December 2017
- Capricorn Copper Plan of Operations (1 June 2018 – 31 May 2021) - Capricorn Copper Pty Limited , May 2018
- Stress Modelling in ESS Lower Cave - Capricorn Copper Pty Ltd, December 2018
- Report on 2018 Drilling Programme - Capricorn Copper Pty Ltd, December 2018
- Analysis of Cavability 4990L Lower South Cave Case C2B - Capricorn Copper Pty Ltd, January 2019
- CCPL LOM Development Designs - Mining Plus Pty Ltd, June 2019
- Ground Control Management Plan - Capricorn Copper Pty Ltd, March 2019
- Capricorn Copper Esperanza TSF Management and Operation Review (2018 – 2019) - Capricorn Copper Pty Limited , June 2019
- Site Visit Report - Lawrence Consultants, June 2019
- Report on Pyrite Activation at Capricorn Copper - MZ Minerals, July 2019
- Independent Mineral Resource Estimate - SRK Consulting, July 2019
- Ore Reserves Statement - AMDAD, September 2019
- Ventilation Provision Comparison – Life of Mine 2019 - Capricorn Copper Pty Ltd, September 2019
- Circuit and Carbonaceous Pyrite Mineralogy Report - XPS, October 2019
- Capricorn Copper 2020 Budget and October 2019 LOM – No Debt Case - Capricorn Copper Pty Ltd, November 2019
- Capricorn Copper CCPL Environmental Compliance Action Plan - GHD, November 2019
- Various Daily Paste Plant Cost Reports by Month - Capricorn Copper Pty Ltd, July 2018 to November 2019
- Operations Overview Geology and Exploration - Capricorn Copper Pty Limited , November 2019
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5.0 CAPRICORN COPPER PROJECT

5.1 Location, Topography and Climate

The Capricorn Copper mine is located in northwest Queensland on the Calton Hills pastoral lease, approximately 120km north of the regional city of Mt Isa. Access from Mt Isa is via 40km of the sealed Barkly Highway and 80km of secondary gravel roads leading to the mine site (Figure 1). Mt Isa is connected by road and rail to the Port of Townsville on the Queensland east coast, a distance of approximately 900km, and by regular daily flights from Brisbane.

The project comprises both mining tenements and exploration permits. The mine area topography is rugged and the vegetation sparse and scrubby. The project is located in a range of hills in the headwaters of Gunpowder Creek, a major tributary of the river system flowing north to the Gulf of Carpentaria.

The area is on the edge of the north Australian monsoonal belt with the bulk of the annual rainfall occurring from November through March. Intermittent cyclonic events can bring heavy rainfall that can lead to occasional flooding and road closures. Rainfall averages around 460 millimetres (“mm”) per annum and mean temperatures range from 18-32°C.

5.2 Ownership

The project is owned by Capricorn Copper Pty Limited (CCPL), which is 100% owned by EMR, with 31 granted contiguous Mining Leases (MLs) covering an area of 7.6km² (Figure 2) and four Exploration Permits - Mineral (EPMs) with a combined area of 1,858km². EMR’s ownership is through its EMR Capital Investment (No.6B) Private Limited.

5.3 History

The Capricorn Copper deposits have a rich history, with more than 500kt of contained copper extracted to date. Copper mineralisation was discovered in the area in the 1880s. In the 1920s small open cuts and some underground workings were worked intermittently, and this continued for the next 40-50 years. In 1969 Survey and Mining Ltd (SML) purchased the lease and large scale underground development was commenced on the Mammoth deposit, a concentrator was built and copper concentrate produced. In 1971 the project (then known as Gunpowder) was purchased by Consolidated Gold Fields Australia and Mitsubishi. The operation was closed down in 1977 due to low copper prices and to difficulties marketing the relatively high arsenic concentrates.

Operations recommenced in 1978 under Renison Goldfields Consolidated (RGC) with a continuation of mining at Mammoth, but with the introduction also of heap leaching and in-situ leaching of Mammoth stoping material (in situ leaching of blasted stope ore). In 1989 Adelaide Brighton Cement Mining Limited (Adelaide Brighton) purchased the Gunpowder leases, continuing and extending the in-situ leach operation and the SX/EW production of cathode copper. Plant capacity was progressively upgraded to around 12,000tpa of cathode copper.

In 1995 Aberfoyle Limited acquired the operation from Adelaide Brighton. Aberfoyle undertook a detailed drilling programme on the Esperanza deposit and confirmed the presence of a relatively shallow, high grade, chalcocite copper resource. A 200m deep open pit was designed containing 4.5Mt of mainly chalcocite mineralisation grading around 7% Cu. A 0.7Mtpa process plant was constructed, based on a ferric leach of the chalcocite ore at elevated temperature and pressure, with a design production capacity of around 45,000tpa of cathode copper.

Western Metals acquired the operation following the successful takeover of Aberfoyle in mid-1998 and re-named the project Mt Gordon. Western Metals operated the project until 2003 when it was acquired by ABM.

The Esperanza pit had been mined to its design limits by Western Metals and ABM reverted to production of a copper concentrate, predominantly from underground ore mined from the Mammoth mine. The ore was processed in a sulphide flotation plant and the copper sulphide concentrate was exported through the port of Townsville to smelters owned by ABM’s major shareholder, Hindalco, in India.

ABM placed the project on care and maintenance in April 2013, and in 2015 it was acquired by joint venture company Capricorn Copper Holdings, owned by EMR Capital and Lighthouse Minerals. In 2018 EMR acquired Lighthouse Mineral’s share and became the sole owner of CCPL.

Following detailed studies on re-commencement of the operation through 2015 and 2016, mining recommenced in 2017, based on development of the Esperanza South deposit and re-habilitating and re-opening the Mammoth underground. An access was also developed from the Mammoth decline to the Greenstone deposit. These three deposits remain the current sources of project ore feed.

A brief summary of the project history is provided below:

- 1882 - mineralisation first discovered
- 1923 to 1960 - discovery of the Mammoth Deposit and first mining leases pegged including Esperanza lease in 1960
- 1969 - SML purchases the leases; large scale mining commences and construction of Lake Waggaboonya completed as a source of water
- 1970 - underground mine at Mammoth developed and concentrator commissioned
- 1971 - Consolidated Gold Fields Australia Ltd and Mitsubishi Ltd establish Gunpowder Copper Ltd, acquire the project and operate through to 1977
- 1978 - RGC re-commences operations and introduces heap leaching and in-situ leaching of Mammoth ore to produce cathode copper via SX/EW
- 1989 - Adelaide Brighton purchases the mine and extends the in-situ leach programme producing around 6ktpa copper, expanding to 12ktpa; significant extensions to the known resource at depth in Mammoth identified
- 1996 - Aberfoyle acquires the mine with plans to develop the Esperanza deposit; 0.7Mtpa hydrometallurgical plant constructed with design capacity of 45ktpa copper cathode
- 1998 - Western Metals acquires Aberfoyle
- 1999 - Western Metals completes construction of autoclave leach plant and 45,000tpa SX/EW plant commissioned; Esperanza high grade chalcocite deposit, mined by open pit, provides ore source for the plant
- 2003 - ABM purchases the mine and later decommissions the SX/EW circuits to convert the processing operation to a conventional sulphide flotation plant; primary ore source is Mammoth underground
- 2013 - ABM puts operation on care and maintenance
- 2015 - Capricorn Copper Holdings acquires Capricorn Copper Pty Ltd (CCPL) from ABM in an incorporated joint venture owned by EMR Capital and Lighthouse Minerals
- 2016 - Re-start execution studies completed outlining the optimal operational strategy for the mine under CCPL's management with a Definitive Feasibility Study report completed in December 2016
- 2017 - First ore mined in August and first concentrate produced in November under the restart plan
- 2018 - EMR acquires Lighthouse Minerals' share to take complete control of CCPL
- 2019 - CCPL achieves annualised mining rate of approximately 1.6Mtpa
- Current - production from Esperanza South (ESS) SLC, Mammoth and Greenstone deposits, targeting approximately 1.8Mtpa mine and mill throughput.

Production from the Capricorn Copper operation in 2018 totalled 81.1kt (dry) of concentrate, grading 22% Cu, containing 18kt of copper. Production in 2019 totalled 93.5kt of concentrate grading 25% Cu containing 23kt of copper, from the processing of 1.6Mt of ore. Production in 2020 totalled 100.0kt of concentrate grading 22.5% Cu containing 22.5kt of copper, from the processing of 1.8Mt of ore. EMR is targeting an increase to 26kt of contained copper in 2021 and 27kt through to 2024 with a further ramp up to around 29-33ktpa from 2025 onwards.

While there has been a steady ramp up in operating performance since the Capricorn Copper operation re-started, a number of factors in 2020 and 2021 have impacted on current targets, namely:

- rain events in Q1 2020 temporarily shut down production
- loader availability was low in March and April 2020 due to two events where loaders were caught by rilling material in remote bogging stopes
- drill and blast performance in the Greenstone operation fell behind schedule
- the transition zone between the north and south caves at Esperanza South has proved lower grade than anticipated, and the southern cave has been slow in propagating, which has impacted on productivity and has also required various measures to help induce the cave
- the pillar failure and subsequent fill collapse in the Mammoth Remnant area in early March 2021 resulted in the temporary closure of the Mammoth Decline and hence a temporary halt to the higher grade production areas in Mammoth Deeps and Greenstone.

The ESS cave has limited drawpoints available due to the narrow orebody geometry as the cave transitions through the relatively narrow and lower grade zone between the upper north and lower south caves. As the ESS southern cave progresses and increased sublevels become available scheduling flexibility will increase, but in the meantime

ESS lower grade material and, during the temporary closure of the Mammoth ramp, lack of higher grade ore from Mammoth Deeps and Greenstone, has impacted on 2021 Q1 production.

5.4 Tenements and Land Ownership

BDA has not undertaken a title search or legal due diligence on the status of the tenements or regulatory approvals held by CCPL. CCPL has advised BDA that there are no material tenement issues relating to title regarding any of CCPL's mineral assets (see Section 12 - Regulatory Approvals, Licences and Permits).

The Capricorn Copper mining operations are located entirely on the Calton Hills pastoral lease which is owned by the Kalkadoon Aboriginal Council.

CCPL holds 31 contiguous mining leases under the *Minerals Resources Act 1989* covering all the project deposits, processing plant, stockpiles, tailings storage facilities and other project facilities (Figure 2). The total land area covered by the leases is 7.6km². Details of areas and facilities located on each lease area are given in Table 5.1. Mining Lease renewal applications are pending for two MLs that expired on 30 June 2017.

Table 5.1
CCPL Tenements

Mining Lease	Lease Name	Expiry Date
ML 5407	-	31/03/2030
ML 5412	Pluto	31/03/2028
ML 5413	Mammoth	31/03/2027
ML 5418	Kabunga	31/03/2027
ML 5419	Mammoth Extended	31/03/2027
ML 5420	Kabunga No. 3	31/03/2027
ML 5429	Pluto North Extended	31/03/2032
ML 5430	Pluto West	31/03/2030
ML 5441	Esperanza No. 1	31/03/2030
ML 5442	Esperanza No. 2	31/03/2030
ML 5443	Esperanza No. 3	31/03/2030
ML 5444	Kabunga North	31/03/2030
ML 5451	South Mammoth	31/03/2030
ML 5454	Greenstone Mine	31/03/2028
ML 5457	Esperanza No. 4	31/03/2028
ML 5459	Esperanza No. 5	31/03/2028
ML 5467	Mammoth Extended No. 2	31/03/2028
ML 5469	Chinda Mine 2	31/01/2026
ML 5470	Chinda Mine 2	31/01/2026
ML 5485	Mammoth West Extended	31/03/2026
ML 5486	Mammoth West Ext 1	31/03/2027
ML 5489	Mammoth North Ext 1	31/03/2027
ML 5500	Kabunga South	31/03/2026
ML 5548*	Mammoth South Extended	30/06/2017*
ML 5549	Small Triangle	31/03/2029
ML 5550*	Mammoth Northeast Extended	28/02/2017*
ML 5562	New Tailings Dam	31/10/2023
ML 5563	Pluto North	31/01/2024
ML 90180	Mount Gordon South No. 1	31/01/2033
ML 90181	Mount Gordon South No. 3	31/01/2033
ML 90182	Mount Gordon South No. 2	31/01/2033
Exploration Permits		
EPM 26421	Capricorn Copper Northwest	07/12/2022
EPM 26422	Capricorn Copper Southeast	07/12/2022
EPM 26423	Capricorn Copper Northeast	07/12/2022
EPM 26424	Capricorn Copper Southwest	07/12/2022

Note: * denotes ML renewal is pending (matters delaying grant of renewal application are currently being addressed).

The residential facilities provided for employees and contractors, along with Lake Waggaboonya, are located on a Special Use lease (14.9km²) adjacent to the MLs. CCPL also holds four Exploration Permits (EPMs 26421, 26422, 26423 and 26424) covering an area of 1,858km² (Figure 3).

Third Party Infrastructure

Third party infrastructure which is located on CCPL's tenements include:

- Lady Annie water pipeline
- Ergon power lines and site electricity switch yard
- Gunpowder Road
- Lake Waggaboonyah Dam.

Native Title - Mining Leases

Capricorn Copper operations are located on Calton Hills pastoral lease owned by the Kalkadoon Aboriginal Council. On 12 December 2011, the Federal Court of Australia made a determination order recognising the existence of native title over most of the tenure held by CCPL, in favour of the Kalkadoon People. The mining leases are wholly within the determined native title claim of the Kalkadoon People.

However, CCPL's granted mining leases were granted prior to the commencement of the Native Title Act and therefore constitute valid 'past acts' under the Act. Consequently, their grant is valid as against native title, notwithstanding that their grant may have occurred without regard to native title rights and interests.

BDA is advised that all CCPL mining leases are exempt from native title and there are no known significant aboriginal cultural heritage sites on the mine leases.

Native Title - Exploration Leases - Indigenous (Kalkadoon) Peoples Heritage Agreement

CCPL's granted exploration permits were granted after the commencement of the Native Title Act, in compliance with the 'future act' provisions of the Act. A Heritage Agreement which covers EPMs 26421, 26422, 26423 and 26424 has been executed between Kalkadoon Native Title Aboriginal Corporation RTNBC ICN 7639 and CCPL. A Cultural Heritage Items Register is maintained by CCPL which documents the items identified by cultural heritage clearance surveys conducted on the EPMs.

CCPL advises that relations with the Kalkadoon Aboriginal Council are good. All proposed exploration sites on the EPMs are surveyed by representatives of the Kalkadoon People prior to any disturbance activities occurring.

Queensland State Royalties

The Queensland government base metals royalty rate varies between 2.5% up to 5% of gross revenue (after deducting certain permitted expenses), depending on metal price. The rates for each return period are published Quarterly and Annually. Allowance is made for a processing discount, and certain permitted expenses are deductible; a royalty-free threshold applies.

Private Royalty

CCPL advises that a private royalty appears to exist over MLs 5441, 5442, 5443, 5457 and 5459 (the Esperanza tenements). There is some uncertainty regarding the current identity, location and existence of the royalty holders, their successors and assigns. The original royalty agreement dated 1968 does not include any express notification or consent obligations in relation to assignment by a holder. CCPL advises that enquiries in respect of two potential corporate holders show one holder has been deregistered and no record of the other is recorded in the Australian Securities and Investments Commission's ("ASIC's") register of organisation and business names. Under the terms of the original agreement, the royalty is payable upon earning taxable income from the Esperanza Tenements. The royalty is 5% of the amount in dollars that represents the taxable income of the grantor prior to deduction of income tax attributable to exploration, development, production, treatment, manufacture, fabrication, marketing and sale by the Company of any minerals, metals or other materials from the relevant tenements calculated in accordance with the Income Tax Assessment Act 1936 (Commonwealth) as amended. Given the above uncertainties, CCPL advises that it's LOM model does not include any private royalty in its cash flow projections.

Conclusion

Mining and processing operations at Capricorn Copper have an extensive history. The Mammoth deposit has been the primary ore source and a sulphide copper concentrate has been the principal product, but cathode copper has also been produced via SX/EW operations, and the Esperanza chalcocite deposit was the primary source in the late 1990s and early 2000s.

The CCPL operation is focussed on production of a copper concentrate, with Esperanza South a new primary ore source, supplemented by the Mammoth and Greenstone lodes; other nearby deposits are also planned to be mined later in the mine life.

BDA has completed a review of CCPL's tenements and permits from the documentation provided by CCPL. The process for gaining variations and amendments to regulatory permits appears relatively straightforward. Relations with the local pastoral leaseholders and Kalkadoon People (Native Title holders) appear good. BDA can foresee no reason why any future mine development applications or variation to permits and statutory instruments would not be forthcoming.

6.0 GEOLOGY AND MINERALISATION

6.1 Regional Geology

The Mount Isa Inlier Proterozoic rocks are endowed with a variety of ore deposits, including the Mount Isa lead-zinc-silver (“Pb-Zn-Ag”) and copper deposits, the Century Pb-Zn-Ag deposit, the Dugald River Pb-Zn-Ag deposit, the Cannington Pb-Zn-Ag deposit and the Osborne and Ernest Henry copper-gold deposits.

The Mount Isa Inlier is divided into three north-trending tectonic units: the Western Fold Belt, the Kalkadoon-Leichhardt Belt and the Eastern Belt (Figure 3). The Western Fold Belt is sub-divided into the Lawn Hill Platform, the Leichhardt River Fault Trough (LRFT), the Ewen Block and the Myally Shelf. The LRFT is a belt of folded and faulted variably metamorphosed rocks lying between the Lawn Hill Platform to the west and the Kalkadoon-Leichhardt Belt to the east.

The Capricorn Copper deposits (formerly known as the Gunpowder or Mt Gordon deposits) are located in the western-most part of the LRFT, associated with the Mount Gordon Fault Zone (MGFZ) which is a major regional scale northeast-trending dextral strike-slip fault, separating tightly-folded metasedimentary rocks of the LRFT Haslingden Group from younger gently-folded Lawn Hill Platform McNamara Group meta-sediments to the west. The MGFZ comprises steeply dipping north-northeast trending faults with variably dipping east-northeast cross-faults to form a major braided fault array. Mineralisation is commonly localised along breccia and replacement zones associated with these cross faults.

The Capricorn Copper deposits are hosted within Early and Middle Proterozoic cherts, dolomites, shales and quartzites dated around 1870-1600 million years (“Ma”). Copper mineralisation is associated with faulting, brecciation and the inflow of mineralising fluids during the Isan Orogeny, dated around 1590-1500Ma.

6.2 Local Geology

The Capricorn Copper area is a well-established copper province with copper mineralisation associated with structural zones related to major faulting.

There are five principal known deposits in the Capricorn Copper project area, Esperanza South, Mammoth, Greenstone, Esperanza and Pluto, spread over a strike length of approximately 3,000m (Figure 4). The orebodies are hosted in the Haslingdon Group (Myally Subgroup), the Surprise Creek Formation and the McNamara Group (Esperanza Formation) rocks. The stratigraphic relationships are summarised in Table 6.1.

The Mammoth and Greenstone orebodies are hosted in quartzites (Whitworth Quartzite) of the Haslingden Group (1740Ma). The Esperanza South, Esperanza and Pluto orebodies are hosted by silicified carbonaceous shales and siltstones of the Esperanza Formation, part of the younger McNamara Group (1650Ma).

Table 6.1
Capricorn Copper Deposits – Local Stratigraphy

Group/Formation	Formation/Member	Lithology	Deposits
McNamara Group	Esperanza Formation	Shale, siltstone (brecciated, carbonaceous, dolomitic), siliceous stromatolites	Esperanza, Esperanza South, Pluto
	Paradise Creek Formation	Dolomitic siltstone, sandstone, siliceous algal units	
	Torpedo Creek, Gunpowder Creek, Mt Oxide Formations/Members	Quartzites, siltstones, cherts	
Surprise Creek Formation	Surprise Creek Formation	Siltstone, sandstone, quartzite, basal conglomerate	Mammoth North
Haslingdon Group	Myally Subgroup (incl. Whitworth Quartzite)	Quartzite, sandstone, siltstones	Mammoth, Greenstone
	Eastern Creek Volcanics (ECV)	Metabasalts and interlayered metasediments	

Note: unconformity between Haslingdon Group and Surprise Creek Formation and between Surprise Creek Formation and McNamara Group

Mineralisation occurs as stockwork veins, breccias and replacement of host rocks, associated with structural zones related to major faulting, with mineralising fluids channelled along fault breccias or fault intersections. The principal controlling structures are the Esperanza, Mammoth, Mammoth Extended and Portal faults (Figure 4). The Esperanza fault is a major north-northeast trending fault while the Mammoth and Mammoth Extended faults are east-northeast trending cross structures. The Portal fault also trends north-northeast. The Esperanza, Mammoth and Mammoth Extended faults all intersect near the southern termination of the Esperanza orebody.

Four deformation phases have been identified within the Isan Orogeny (1590-1500Ma), with the main mineralisation event associated with D₃, an east-northeast - west-southwest compression phase forming or reactivating major faulting, with dextral movement on the Mammoth and Mammoth Extended faults.

The Mammoth fault trends northeast, dipping at 70° to the southeast, and in conjunction with the Portal fault, forms the main controlling structure for the Mammoth deposit. The Mammoth fault is represented by a zone of fracturing and shearing with abundant quartz veining and haematite-filled vugs and veinlets, typically 2-3m wide. A chloritic, puggy, shear zone occurs on the footwall. The Mammoth fault also controls the western extent of the Esperanza deposit where it merges with the Mammoth Extended fault.

The north-trending Portal fault dips at 45-60° to the west and is a distinctive planar structure with a 2-3cm haematite-rich pug zone. In the north, the Portal fault can occur as a broader fault zone.

The Mammoth Extended fault strikes east-northeast and dips steeply to the south. The fault is the main controlling structure for the Esperanza and Pluto deposits and also partly controls the Mammoth deposit. The fault is marked by a silicified zone with minor brecciation and shearing. East of the Portal fault, the Mammoth Extended fault forms a broad fault zone up to 75m wide with two major sub-parallel structures which bound the Greenstone deposit.

The Esperanza fault is a reverse fault, dipping at 60-85° to the west, with older Eastern Creek Volcanics in the west thrust over younger McNamara Group Esperanza Formation sediments in the east. The Esperanza fault is the controlling structure for the Esperanza South deposit and varies from a narrow zone of pug and broken core to a broad sheared zone along the contact of the Esperanza Formation and the Eastern Creek Volcanics.

CCPL recognises two main styles of deposit at Capricorn Copper – breccia-hosted deposits in quartzite, and shear-hosted copper deposits in shale/siltstone. Mammoth, Mammoth North and Greenstone are considered to be predominantly breccia-hosted and Esperanza South, Pluto and Esperanza are shear-hosted. The copper deposits with their dominant copper mineral species are listed in Table 6.2.

CCPL production since 2017/18 has been from Esperanza South, Mammoth, and Greenstone. Western Metals production was primarily from Esperanza open pit.

Table 6.2
Capricorn Copper Deposits

Deposit/Lode	Mineralisation	Comment
Mammoth		
No 1	Chalcocite	Upper levels - mostly mined out
B Lens	Chalcocite	Mammoth Remnants -mostly mined out
C Lens	Chalcocite	Mammoth Remnants - mostly mined out
No 2 Lens	Chalcocite	Mammoth Remnants - mostly mined out
No. 4 Lens	Chalcocite/Chalcopyrite	Mammoth Remnants - remnant mining
D Lens	Chalcocite/Chalcopyrite	Mammoth Remnants - remnant mining
E Lens	Chalcocite/Chalcopyrite	Mammoth Deeps - future mining
F Lens	Chalcocite/Chalcopyrite	Mammoth Remnants - remnant mining
G Lens	Chalcopyrite/Bornite	Mammoth Deeps - current open stoping
H Lens	Chalcopyrite/Bornite	Mammoth Deeps - future mining
Mammoth North	Chalcocite/Chalcopyrite	No current mining plans
Greenstone		
Multiple Lenses	Chalcocite and chalcopyrite/bornite	Current open stoping multiple lenses
Esperanza South		
North and South Cave	Chalcocite and chalcopyrite/bornite	Current major producer, sublevel cave mining, open at depth
Pluto		
	Chalcocite and native copper	Potential for strike and depth extensions
Esperanza	Chalcocite (minor chalcopyrite at depth)	Mined within Esperanza pit; mineralisation below base of pit planned to be recovered underground

Mammoth

The Mammoth deposit, which comprises a series of steeply west-dipping, en-echelon lodes, was formerly mined both by open pit and underground methods. The Mammoth deposit was the principal orebody mined through most of the historical (Gunpowder) and more recent (ABM) mining periods.

The Mammoth mineralisation comprises a number of steeply dipping lodes within quartzites and breccias of the Whitworth Quartzite formation, a massive, pink, medium to coarse grained, feldspathic unit. The sequence strikes north-northeast and dips at 65-85° to the west. The Mammoth North mineralisation is hosted within and adjacent to the basal conglomerate of the overlying Surprise Creek Formation.

Mineralisation is associated with the intersections of the east-west Mammoth and Mammoth Extended faults with the north-south Portal fault; it is interpreted that the intersection of these faults has formed a dilation zone allowing

the influx of mineralising hydrothermal fluids. The Mammoth fault dips to the south and the Portal fault dips to the west, giving a 60° southwesterly plunging intersection. Mineralisation occurs primarily on the footwall (to the north) of the Mammoth fault, with en-echelon lodes stepping down to the south and west at progressively increasing depths. However, the No 2 lode and the G lode both lie on the hangingwall (to the south) of the Mammoth fault. The Mammoth Deeps mineralisation remains open at depth.

The Mammoth North deposit lies 150m to the north of the Mammoth lenses as a discrete fault-bounded breccia and stockwork zone and has not been mined to date.

Greenstone

Greenstone lies 1km northeast of the Esperanza pit and is centred about the east-northeast steeply south-dipping Mammoth Extended fault. Mineralisation occurs from a depth of around 100m within slices of Whitworth Quartzite bounded by a northern and southern strand of the Mammoth Extended fault. Six sub-parallel lodes have been defined to date, extending over a 100m wide zone with a combined strike extent of approximately 120m and a down dip extent of approximately 170m. The fault zones are several metres wide with intense silicification and quartz veining. The deposit remains open down plunge.

Esperanza South (ESS)

The Esperanza South deposit lies 1-2km to the southwest of the Esperanza open pit, and is a steeply west-dipping zone of mineralisation constrained between the north-south trending footwall and hangingwall margins of the Esperanza fault zone. The footwall fault is represented by a broad zone of shearing, broken ground and intense quartz veining. The hangingwall fault zone is commonly narrower and less well defined. Within the overall fault zone, higher grade mineralisation tends to occur in two sub-parallel lodes adjacent to the footwall and hangingwall faults. The intermediate zone is commonly lower grade, but in well-mineralised sections mineralisation is relatively continuous from hangingwall to footwall.

The ESS mineralisation is hosted by the McNamara Group Esperanza Formation shales interbedded with laminated stromatolitic siliceous siltstones, commonly brecciated and haematite altered; the shales can be strongly graphitic. Dolomitic siltstones and sandstones of the Paradise Creek Formation lie conformably below the Esperanza Formation to the east.

Esperanza South is a major ore source through most of the CCPL LOM plan. To date the upper northern portion of the zone has been mined. At current levels (around 5000mL) the northern zone weakens and there is a transition to a southern zone of mineralisation (Figure 5), around 100m south of the northern zone, which then continues at depth with a number of discrete mineralised zones and intervening waste zones. The transition zone is relatively low grade; current mining is completing the lower levels of the northern cave and commencing the development of the upper levels of the southern mineralised block. The deposit remains open down plunge.

Esperanza and Pluto

These two deposits are located at the junction of the Mammoth and Mammoth Extended faults; a third north-south trending fault, named Foschi, separates the deposits with Esperanza to the west and Pluto to the east of this fault.

The Esperanza deposit was mined as an open pit by Western Metals from 1999 to 2003 to a depth of approximately 200m. The orebody comprised massive pyrite-chalcocite mineralisation, extending 400m in strike and up to 100m wide, overlain by 70-100m of brecciated chert. Approximately 90m below the chert/chalcocite interface the orebody narrows and passes into dominantly chalcopyrite mineralisation. The down-dip extent is constrained by the intersection of the steeply dipping Mammoth and Mammoth Extended faults. Significant cobalt is associated with the copper mineralisation.

The Esperanza open pit was designed to extend to the base of the main chalcocite zone. Localised deeper high grade pockets of chalcocite and the deeper chalcopyrite zone remain beneath the pit and represent targets for future extraction from underground.

Pluto lies 750m northeast of the Esperanza pit bounded on the north by the Mammoth Extended fault and to the south by the Mammoth fault. Mineralisation occurs to the east of the convergence of the two faults, within a broad brecciated zone of Esperanza shales and siltstones, and dips steeply southeast parallel to the dip of the Mammoth fault. The deposit is highly leached and contains predominantly native copper and chalcocite and is therefore metallurgically distinct compared to the other deposits. Cobalt mineralisation is also present as cobaltite and cobaltiferous pyrite.

6.3 Mineralisation

Mineralisation controls at Capricorn Copper are complex with a combination of structural and host-rock controls. CCPL recognises two broad mineralisation styles – breccia-hosted and shear-hosted mineralisation. The gross zoning of copper species is generally chalcopyrite at depth with bornite and chalcocite up-dip. This zonation is complicated by oxidation that penetrates down faults resulting in supergene enrichment overprinting primary mineralisation.

Breccia-hosted Mineralisation

Breccia-hosted copper mineralisation in quartzite occurs at Mammoth, Mammoth North and Greenstone and is associated with haematite and distal chloritic alteration. Mineralisation typically forms 10-30m wide breccia zones developed at intersections of major faults and in dilational jogs. Copper mineralisation occurs as breccia infill with primary chalcocite in a central milled breccia zone, and bornite on the margins of the main structural zone typically as crackle breccia. Chalcopyrite is present in the outer zone in veins and crackle breccia.

Mammoth

Ten separate lenses (No.1, B, C, No.2, No.4, D, E, F, G, H) have been identified to date, and these are summarised in Table 6.2. The mineralisation forms a steeply plunging zone approximately 400m long, 150m wide and is open at depth. No 2 lens and G lens are unusual in that mineralisation occurs on the hangingwall of the Mammoth fault. The remainder of the lenses occur on the footwall, generally at or around the intersection with the Portal Fault. Mineralisation ranges from massive adjacent to the main faults to brecciated mineralisation further away from the faults. Distal mineralisation consists of veining in quartzite, sandstone and siltstone. Copper minerals include chalcopyrite, bornite and chalcocite, with a broad zonation of chalcopyrite and bornite at depth and chalcocite up dip.

Greenstone

Mineralisation occurs in a series of sub-parallel lodes and comprises veinlets and breccia-fill bornite, chalcopyrite, chalcocite and pyrite, with a gangue of chlorite-haematite; chalcocite is present closer to surface with chalcopyrite and bornite dominant at depth.

Shear-hosted Mineralisation

Shear-hosted mineralisation in shale/siltstone is found at Esperanza South, Esperanza and Pluto. Mineralisation occurs as chalcocite veins with lesser bornite within the upper part, transitioning to chalcopyrite-pyrite mineralisation at depth. Copper species include chalcocite, covellite, bornite, chalcopyrite, and native copper, and post-date and replace pyrite. Copper grades are typically in the range 1.8-2.0% Cu. Silver grades increase with depth at ESS and Esperanza, with average grades of around 16g/t Ag at ESS and around 10g/t Ag at Esperanza. Cobalt, nickel and arsenic are also present, associated with pyrite. CCPL plans to review the potential for recovery of cobalt in the future. Cobalt grades range up to 1.4% Co in ESS, 1.3% Co in Esperanza and 3.1% Co in Pluto.

Esperanza South

The ESS mineralisation occurs over a 50-75m wide shear zone in variably silicified siltstones, locally brecciated and plunging steeply south, sub-parallel to the Esperanza fault. Higher grade copper mineralisation occurs in a westerly hangingwall zone and an easterly footwall zone, with stockwork mineralisation between these two zones. Veins and disseminations of chalcopyrite occur with bornite and pyrite; grades are typically 2-3% Cu, but supergene chalcocite can increase grades up to 4% Cu. Graphite is commonly present in the shear zones.

Esperanza and Pluto

Mineralisation at Esperanza is hosted in graphitic siltstones and consists of a supergene chalcocite blanket with lesser native copper underlying a silicified cap; mineralisation grades into chalcopyrite at depth. Most of the chalcocite blanket was mined in the Esperanza open pit. A steeply dipping high grade copper lens is present immediately below the base of the open pit; CCPL reports that an exploration drive accesses this high grade lens but no mining has taken place due to geotechnical constraints.

The Pluto deposit is highly leached in a zone approximately 200m in strike and 2-30m in width, and contains predominantly supergene chalcocite, cuprite and native copper and is therefore metallurgically distinct compared to the other deposits.

6.5 Exploration Potential

Even though mining first took place in the Capricorn Copper area over 70 years ago, the area has significant potential for new discoveries. BDA anticipates that additional mineralised bodies remain to be defined. However, not all of these will necessarily be of sufficient size and grade to justify development and mining.

CCPL holds four exploration tenements (EPMs 26421, 26422, 26423 and 26424) which cover an area of 1,858km² (Figure 8). Any mineralisation defined within the EPMs would potentially be within trucking distance of the existing Capricorn Copper concentrator.

CCPL was granted the EPMs in December 2017 and since that time has carried out exploration in all four tenements including geological mapping, soil geochemical sampling and reprocessing of existing airborne magnetic and radiometric geophysical data sets. A number of known prospects, located by previous holders of the area, have been subjected to prospect-scale geophysical surveys including Induced Polarisation (“IP”) and Sub-Audio Magnetics (“SAM”), and diamond drilling.

Near-Mine Prospects

CCPL is evaluating a number of near-mine prospects including Sabre, Pluto North, GP05, Kabunga/MEF (Figure 4), and Magazine and GP03 (Figure 8). Other than GP03, all prospects are within the mine lease area and have been targeted by CCPL for further evaluation.

The Sabre prospect is located at the intersection of the Esperanza and Wedgetail faults, immediately north of the ESS deposit. Historical drilling has intersected narrow, high grade copper mineralisation. CCPL completed three drill holes in 2018 and obtained encouraging ore-grade intercepts. Further north along the Esperanza fault, sparse historical drilling has indicated copper mineralisation exists at Pluto North and GP05 prospects, with the latter associated with the intersection of the Esperanza and Tailings Dam faults.

To the north-northeast of the Mammoth deposit, the Magazine prospect is a possible repeat of the Mammoth mineralisation associated with the Tailings Dam fault; two drill holes completed by CCPL intersected brecciated Whitworth Quartzite with minor chalcocite mineralisation. Patchy but high grade copper mineralisation has also been intersected by historical drilling at Kabunga which is located on the Mammoth Extended fault.

The GP03 prospect is located 1.7km south of the ESS deposit in EPM 26421 and is associated with two parallel northwest trending faults that appear to offset the Esperanza fault. The area contains intense haematite alteration, silicification and brecciation. In 2018 CCPL drilled two holes at the prospect which intersected substantial brecciation and significant leaching which could indicate mobilisation of copper mineralisation.

Other Prospects in EPMs

Seven prospects within the four EPMs have been given priority for follow-up exploration, South Pass in EPM 26421, the Crystal Creek area including Wild Dog and Mt Robert prospects, and the Bowerbird prospect in EPM 26422, the Surprise Creek area including the Mt John and Gordon Creek prospects in EPM 26423, and Bluff, Moose Hill, Grey Ghost and Eagle Nest prospects in EPM 26424. The Bluff prospect has been explored with 27 historical drill holes and one hole drilled by CCPL and appears to have potential for delineation of mineralisation in excess of 2Mt at 1% Cu.

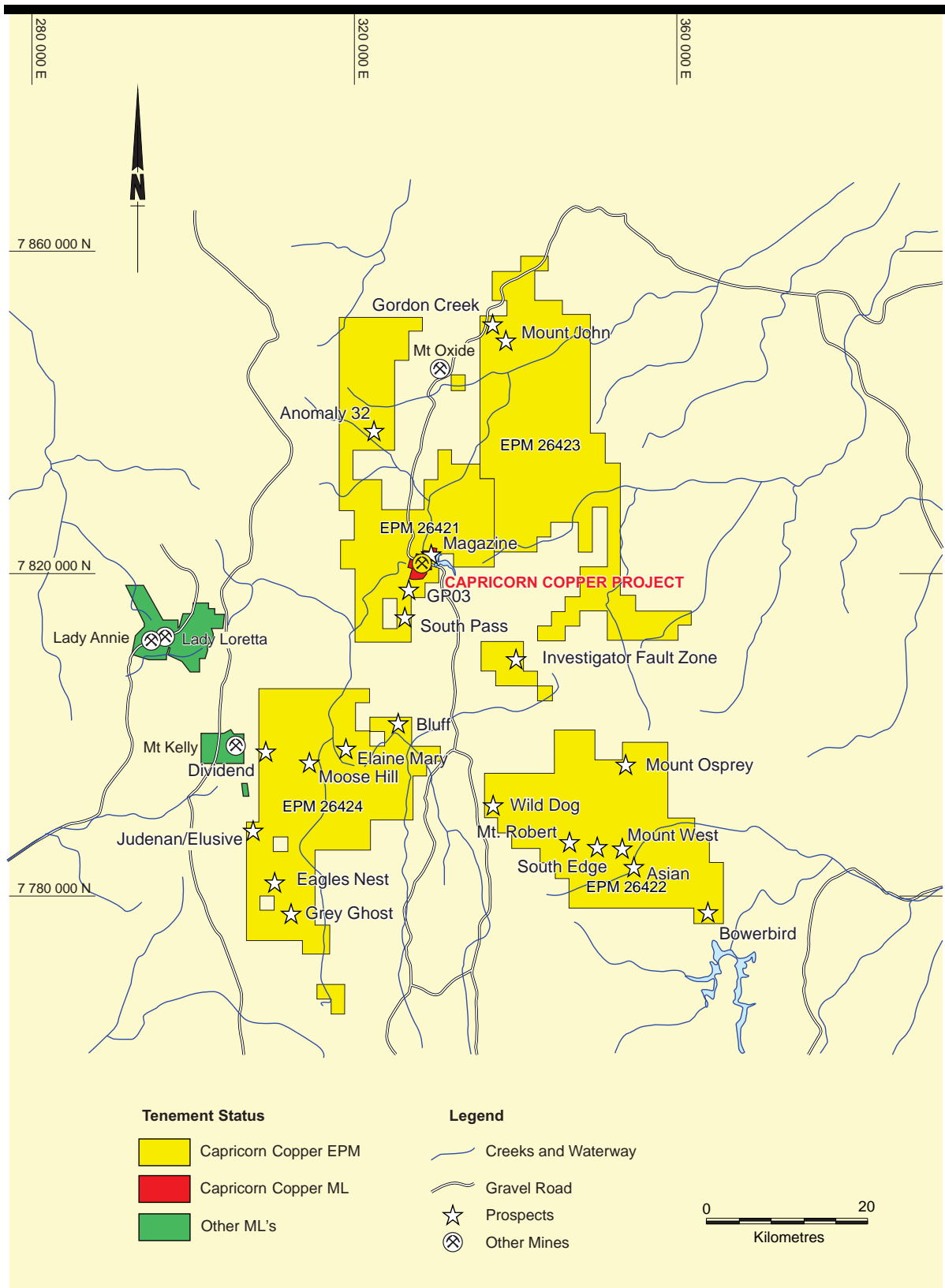
Conclusions

The geology and mineralisation controls at Capricorn Copper are well understood, and the interpreted geological models of the deposits appear reasonable and appropriate for resource modelling, although Pluto and Esperanza require additional infill resource drilling and both Esperanza South and Mammoth require additional drilling at depth where mineralisation remains open.

The known deposits all have a strong component of structural control, and are principally associated with the Esperanza, Mammoth, Mammoth Extended and Portal faults. The strike and down-dip extent of these faults and their intersections remain as significant targets for additional mineralisation, in particular depth extensions to Esperanza South and Mammoth Deeps.

Copper mineralisation principally comprises chalcocite, bornite and chalcopyrite, with relatively high grade chalcocite and bornite typically occurring in the core breccia zones and upper zones with chalcopyrite in the more distal areas and at depth.

In BDA's opinion the Capricorn Copper near-mine area and the area covered by CCPL's four EPMs have significant exploration potential, though it is recognised that mineralisation in some prospects may be either too limited in tonnage or too deep to justify mine development and trucking of ore to the existing copper concentrator.



EMR Capital

Capricorn Copper Project

Figure 8

EXPLORATION TENEMENTS AND PROSPECTS

7.0 GEOLOGICAL DATA

7.1 Overview

BDA has not undertaken an audit of the resource database as part of this review. The following information is based on discussions with CCPL staff, senior management and resource consultant SRK, and review of geological reports. BDA has visited the site in 2018 and 2019 with the most recent visit being in July 2020. BDA has reviewed the geological logs, drill core, sampling and assaying processes and procedures.

Data collection and database management for Capricorn Copper are well organised and well documented. Procedures generally follow standard international mining industry practice.

SRK has been involved with reviews of drilling, sampling and database QA/QC for CCPL since 2016. Mr Mark Noppe of SRK visited site on a number of occasions during the period March 2016 to October 2018. Mr Stuart Munroe and Mr Ben Jupp of SRK visited site in January 2019.

7.2 Drilling and Survey

Drilling

The Capricorn Copper deposits have been drilled using mostly fully-cored diamond drill holes (DD), with a small amount of historical drilling using either reverse circulation (“RC”) or percussion drilling. The deposits have been defined by 2,307 drill holes totalling 433,749m, divided into 2,030 holes totalling 358,806m drilled by previous owners of the project prior to CCPL’s acquisition in 2015, and 277 holes totalling 74,943m drilled by CCPL during the period 2016-2020. A summary of drilling is shown in Table 7.1.

Table 7.1
Capricorn Copper - Resource Drilling

Deposit	Year	Drill Type	No of Holes	No of Metres
Esperanza South	Pre-2016	DD	109	27,466
	Pre-2016	RC	10	1,150
	2016-2020	DD	99	32,740
	2016-2019	RC	2	204
<i>Subtotal</i>			<i>195</i>	<i>61,560</i>
Mammoth	Pre-2016	DD	1,502	251,587
	Pre-2016	RC	63	2,339
	Pre-2016	Other	10	3,407
	2016-2019	DD	46	13,150
<i>Subtotal</i>			<i>1,621</i>	<i>270,483</i>
Greenstone	Pre-2016	DD	48	17,151
	2016-2020	DD	103	15,607
<i>Subtotal</i>			<i>142</i>	<i>32,758</i>
Pluto	Pre-2016	DD	31	15,229
	Pre-2016	RC	1	42
	2016-2019	DD	21	11,168
<i>Subtotal</i>			<i>53</i>	<i>26,439</i>
Esperanza	Pre-2016	DD	206	38,524
	Pre-2016	Other	50	1,911
	2016-2019	DD	5	2,110
<i>Subtotal</i>			<i>261</i>	<i>42,545</i>
Total	Pre-2016	All	2,030	358,806
	2016-2020	All	277	74,943
			2,307	433,749

The immediate past owner Aditya Birla Minerals Limited (ABM) compiled and validated the historical drill hole database. Subsequently, CCPL audited and verified the ABM database and re-logged 364 DD holes totalling 40,095m, with assistance from SRK, in order to understand the mineralisation controls and to assist with geological modelling of the deposits.

In 2016, CCPL completed a drilling programme (from surface and underground) consisting of 62 holes totalling approximately 20,900m, divided between ESS, Mammoth, Mammoth North, Greenstone and Esperanza. This programme was directed at resource infill and extension and also to obtain samples for metallurgical testwork.

A similar programme of resource infill and extension drilling was carried out in 2018, with completion of 76 holes totalling 18,000m, including drilling at ESS, Mammoth and Greenstone. The programme included a small amount of drilling at the near-mine prospects of Sabre, Magazine, GPO3 and Bluff, and additional metallurgical drill holes at Pluto and Esperanza. In addition, CCPL completed an underground grade control drilling programme at Greenstone consisting of 45 holes totalling 1,525m.

Surface drill holes completed by CCPL are normally collared PQ3 size (83.1mm diameter) using triple tube core barrels, then reduced to HQ3 (61.1mm) to the end of the hole unless ground conditions dictate a further reduction to NQ3 (45.1mm). For underground drilling, holes are completed using NQ3, reducing to BQ (36.4mm) where necessary, or using LTK60 (44mm) coring equipment. The hole inclinations range from horizontal to $\pm 90^\circ$ depending on the drill site and target location.

All HQ3, NQ3 and LTK60 core has been orientated where possible using an industry standard orientation tool.

Core recoveries are generally good. ABM reported average recoveries of 94%. CCPL drilling has typically achieved recoveries ranging from 96-99% depending on the host rock and mineralisation style. The high core recovery in mineralised zones suggests there is no significant sampling bias due to loss of material from the core.

Recent and Planned Resource Infill Drilling

In mid-2019 CCPL began planning resource infill drilling, designed to target areas that require additional drilling one to two years prior to scheduled mining in order to allow for further grade control drilling if required and for any mine redesign. Areas targeted included the ESS South Cave, upper sections of Greenstone and the G-Lens splay in Mammoth.

A resource infill drilling programme commenced in April 2020 which targeted areas in the ESS and Greenstone deposits. Drilling consisted of 25 holes totalling 3,485m at ESS and 9 holes totalling 933m at Greenstone.

CCPL advises that a further 11,400m of infill resource drilling is planned for 2021 including 5,600m at ESS, 4,300m at Mammoth and 1,500m at Greenstone. The ESS drilling is designed to be carried out from a dedicated drill drive and will target 2022 development areas. The Mammoth drilling will target remnant areas and G Lens while the primary focus at Greenstone will be to delineate the depth extension of the North Lens.

Survey

Collar locations are surveyed by CCPL or contract surveyors using a global positioning system (“GPS”) instrument for surface holes and a total station survey for underground. Down hole surveys are performed on all holes by the drilling contractor under geological supervision using electronic survey instruments, either a REFLEX Multi-shot or a Champ Gyro gyroscopic tool; down hole surveys are carried out typically at 15m, 30m and then at 30m intervals to the end of the hole.

Topographic control at the mine site uses a local Mammoth Mine Grid (MAM Grid) which is based on the AGD84 Zone 54 UTM datum with truncated eastings and northings and with 5,000m added to the Australian Height Datum (“AHD”) to produce positive mine RLs for surface and underground.

Topographical surface control is provided by aerial site surveys and drill hole collar surveys. Underground control is taken from known datums.

7.3 Logging, Sampling and Assaying

Logging

All CCPL holes are systematically logged, recording lithology, stratigraphy, mineralisation, bedding, alteration, geological structures and geotechnical parameters including rock quality designator (“RQD”), rock strength and fracture frequency. Magnetic susceptibility was recorded for the 2016 drilling programme but was discontinued in 2017.

Geotechnical logging is completed on core runs in order to compare core recoveries against the driller’s log before the core is marked up in one metre sections in preparation for geological logging. Both surface and underground cores are photographed, wet and dry, prior to sampling.

Sampling

Drill core sampling is based on visual identification of the main lithologies hosting mineralisation. Drill core is nominally sampled at one metre intervals, while honouring lithological contacts; maximum and minimum sample lengths are set at 1.5m and 0.5m respectively. Diamond drill core is sawn in half through the mineralised zone, with half core submitted for sample preparation and analysis. The remaining core is retained for reference and additional sampling if required. Core for metallurgical testwork is cut to retain quarter core with three quarters of the core sent for testwork.

Pre-2016 drill core was subjected to similar logging and sampling procedures. There is no documentation on sampling methods for the historical RC samples; these RC holes are generally located in areas that have been mined out and therefore have little or no impact on SRK’s recent resource modelling.

Sample Preparation and Analysis

Sample preparation of CCPL drill samples is conducted off-site at the Australian Laboratory Services (ALS) facility in Mount Isa and geochemical analyses are undertaken at ALS Townsville. CCPL's on-site laboratory is used only for sample preparation and analysis of mine grade control and production samples. CCPL contracted the SGS laboratory in Townsville to act as an independent umpire laboratory for inter-laboratory check samples.

The current sample preparation procedure for CCPL drill core samples is as follows: core samples of around 2-3kg are dried and fine crushed to -2mm using a jaw crusher and then pulverized to 90% passing 75 microns (μm). After pulverizing, a 500g pulp is taken for dispatch to the laboratory in Townsville.

Drill samples prior to 2016 were subjected to a similar preparation procedure.

A standard 12-element analytical suite includes Cu and Ag (payable metals), Co, As, Fe, S (modelled elements), and Bi, Mg, Mo, Ni, Pb and Zn. Analysis uses a four-acid digest followed by inductively coupled plasma-atomic emission spectroscopy ("ICP-AES"). Any CCPL samples with over-range Cu ($>10,000\text{ppm}$ or 1% Cu) and Ag ($>100\text{g/t}$ Ag) are re-analysed using a standard ore grade method utilising a volumetrically precise four-acid digest and ICP-AES finish. Gold was determined for 1 in 20 samples using a 30g fire assay with atomic absorption spectrometry ("AAS") finish.

Prior to 2016, Cu and Ag analyses were by aqua regia digest and inductively coupled plasma emission spectroscopy ("ICP-ES").

7.4 Quality Assurance/Quality Control (QA/QC)

QA/QC protocols used by CCPL, and previously by ABM, generally meet standard mining industry practice. Prior to 2003 when ABM acquired the project, the QA/QC protocols are not well documented.

CCPL's QA/QC includes insertion of certified reference material ("CRM"), blanks, coarse duplicates (taken after fine crush at -2mm), pulp duplicates and inter-laboratory pulp replicates. ABM used three CRMs ranging from 0.43% Cu to 6.72% Cu; CCPL has expanded the CRMs to twelve of varying grade from 0.12% Cu to 7.29% Cu. CRMs were sourced from two Australian companies, Ore Research and Exploration Pty Limited ("OREAS") or from GeoStats Pty Limited ("GeoStats"). Material for insertion as blank samples was barren quartz sand.

Both ALS and SGS run extensive internal control protocols including internal repeats, splits, blanks and standards. The laboratories also participate in a monthly round-robin inter-laboratory check analysis.

The chain of custody of drill hole samples from the core shed through to the Townsville laboratory and results from the laboratory to the assay database is considered satisfactory and secure.

CCPL's QA/QC protocols ensure that on average, 1 in 10 samples is either a CRM, blank or coarse duplicate sample, with insertion of one of each type of control sample for every batch of 30 samples. Duplicate pulps equivalent to approximately 5% of all sample pulps are also submitted for check analysis to the primary laboratory and the umpire laboratory.

In addition, a suite of samples from the ESS deposit containing high silver grades above 20g/t Ag underwent an inter-laboratory check; results showed acceptable repeatability between ALS and SGS. Where native copper is present in the Pluto deposit, check copper analysis by metallic screen fire assay on reject pulp samples confirmed the precision of the ICP-AES copper analysis.

Overall, results of CCPL's QA/QC control samples show acceptable performance. Coarse duplicate and pulp duplicate inter-laboratory checks between ALS and SGS showed good repeatability for Cu and Ag and suggests there is good analytical precision. There is no evidence of a consistent bias in any of the sampling or assay data used for resource estimation.

Review by CCPL of the ABM database has not identified any significant errors or bias compared to the more recent CCPL drill hole results, and overall the historical data is considered suitable for use in resource estimation.

Database

All drill hole collars, down hole surveys, geology, geotechnical and mineralisation data is stored and validated within a DataShed SQL database which was maintained by Maxwell Geoservices Pty Limited (MGL), a data management consultancy until July 2020. The database is currently transitioning to a site-managed system using the Micromine Pty Ltd Geobank platform.

Drill hole traces are reviewed in 3D to check the validity of the surveys. Analytical results are electronically received from ALS and SGS laboratories and MGL has remote access for importing new data into the database. QA/QC data is continuously monitored and reported. Only the original sample values are used for resource estimation unless QA/QC results indicate a requirement for re-analysis of a sample batch.

Independent Reviews

SRK completed a review of logging procedures, QA/QC protocols and data management procedures in 2016-2017. SRK reviewed the ALS sample preparation laboratory in Mount Isa in 2017 and again in October 2018. In January 2019, SRK reviewed analytical procedures at the ALS laboratory in Townsville. None of SRK's reviews revealed any material errors or issues relating to CCPL's procedures or its drill hole database. SRK also ran validation checks on the database prior to resource estimation in 2019 and again in 2020.

7.5 Bulk Density

For all CCPL drilling, 10-30cm lengths of core are selected for bulk density determination. Core samples are taken every 2m down the hole in high grade material, at 5m intervals in moderate to low grade material and every 10m in waste rock. Density of the core samples is determined using the water immersion method.

As a check on the core sample bulk density results, bulk density was also measured using the whole tray method (weight of core in a tray and calculated core volume based on diameter and length of core). The core tray densities generally compared well with the small core samples, with an average difference of less than 10% between the two data sets. The small core sample data set was used by SRK for estimating bulk density in the resource models.

The number of core samples tested in each deposit is variable. Table 7.2 shows the sample composites available to SRK for modelling the bulk density and the mean composite bulk density values in each resource domain.

Table 7.2
Bulk Density Values for Capricorn Copper

Deposit and Domain	Number of Composites	Bulk Density (t/m ³)
Esperanza South		
Copper	1,400	2.93
Cobalt	1,633	2.96
Mammoth		
Core	3,427	2.82
Portal	1,836	2.81
Deeps	444	2.98
South	1,552	2.69
G Lens Splay	76	2.71
Sub-Portal	42	2.81
Greenstone		
Upper	644	2.66
Lower	316	2.65
Pluto		
Core	72	2.40
East	32	2.54
West	48	2.46
West-West	14	2.43
Esperanza		
Copper	75	3.03
Cobalt	285	2.75

Note: 2m composites were used for Esperanza South, Greenstone, Pluto and Esperanza and 5m composites for Mammoth

Conclusions

BDA considers that the geological investigations carried out by CCPL (and, as far as can be determined, by its predecessors) have been thorough, and the drilling, logging, sampling and assaying procedures adopted are appropriate and in accordance with industry standards. QA/QC results are generally satisfactory with good repeatability and no significant bias. The database is well managed and has been independently reviewed by SRK on a number of occasions.

Overall, BDA considers the current Capricorn Copper resource database forms an appropriate and reasonable basis for resource and reserve estimation.

8.0 RESOURCES AND RESERVES

8.1 Standards and Definitions

The CCPL resource and reserve estimates have been reported under the JORC Code.

A Mineral Resource is defined in the JORC Code as a concentration or occurrence of solid material of economic interest in or on the earth's crust in such form, grade, quality and quantity that there are reasonable prospects for eventual economic extraction. Resources are classified as Measured, Indicated or Inferred according to the degree of confidence in the estimate.

A Measured Mineral Resource is one for which quantity, grade, densities, shape and physical characteristics are estimated with sufficient confidence to support mine planning and evaluation; geological evidence is derived from detailed sampling and testing sufficient to confirm geological and grade continuity; a Measured Mineral Resource may be converted to a Proved Ore Reserve.

An Indicated Mineral Resource is one for which quantity, grade, densities, shape and physical characteristics are estimated with sufficient confidence to support detailed mine planning and final evaluation; geological evidence is derived from adequately detailed sampling and testing sufficient to assume geological and grade continuity; an Indicated Mineral Resource may be converted to a Probable Ore Reserve.

An Inferred Mineral Resource is one for which quantity and grade are estimated on the basis of limited geological evidence and sampling; geological evidence is sufficient to imply but not verify geological and grade continuity; an Inferred Mineral Resource is not known with sufficient confidence to be converted to an Ore Reserve, but it is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated status with continued exploration.

An Ore Reserve is defined in the JORC Code as the economically mineable part a Measured or Indicated Resource. It includes diluting materials and allowances for losses which may occur when the material is mined or extracted, and is defined by studies at Pre-Feasibility or Feasibility level that include the application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified. Proved and Probable Reserves are based on Measured and Indicated Resources respectively. Under the JORC Code, Inferred Resources are deemed to be insufficiently delineated to be transferred into a reserve category. In this report, and in the public reporting of resource and reserve data by EMR, resources are inclusive of reserves.

8.2 Mineral Resource Estimation

CCPL completed its initial Mineral Resource Estimate (MRE) for Capricorn Copper in 2016. The Measured Indicated and Inferred ("MII") 2016 MRE, at a 1% copper cut off, was 62Mt at 1.93% Cu with contained copper metal of 1,200kt. This MRE was based on new CCPL models for ESS, Mammoth Deeps and Mammoth North, and ABM models for Mammoth Remnants, Greenstone, Pluto and Esperanza, and formed the basis for CCPL's DFS completed in December 2016.

CCPL completed an updated MRE in 2018 on ESS, Greenstone and Pluto with Mammoth remaining unchanged and Esperanza excluded. This MRE totalled 59Mt at 1.85% Cu with contained copper of 1,090kt, but was not publicly reported.

In 2019, CCPL commissioned SRK Consulting to produce a new MRE for ESS, Mammoth (North, Remnants and Deeps), Greenstone, Pluto and Esperanza. Resources were estimated progressively during the first half of 2019, with allowance for mining depletion to the end of March 2019. SRK's final resource report was issued in July 2019.

In 2020 CCPL, with SRK in a review role, updated the ESS and Greenstone resource models. SRK's Mammoth, Esperanza and Pluto resource models which were completed in March 2019 were not updated. Resources were depleted for mining to the end of May 2020. The updated resource estimates were independently reviewed by Scott Dunham of SD2 Consultants.

CCPL's 2020 MRE formed the basis for a new Ore Reserve estimate completed in December 2020 by mining consultant AMDAD in conjunction with CCPL staff. This reserve estimate forms the basis for the current LOM plan.

Resource Modelling and Estimation

The approach taken by both CCPL and SRK for resource estimation was essentially the same for each deposit, with some variation between deposits for certain parameters, for example block size and grade top cuts. The methodology and parameters used are summarised below.

- CCPL's Mine Geology Department ("MGD") produced the new resource domain models for ESS and Greenstone, with SRK reviewing all stages of the estimation process including a high-level review of the database which included data from new infill drill holes. Domains were modelled using a combination of a 0.5% Cu cut-off grade (Greenstone 0.25% Cu cut off) and a 200ppm Co cut off for cobalt domains. Leapfrog software was used to define mineralised domains using implicit modelling with Indicator Kriging at the grade thresholds and using known bounding structures and mineralisation trends.
- Separate resource domains were modelled for copper, copper plus cobalt, and cobalt where appropriate. Correlation matrices between Cu, Co, Ag, As, Fe, S and density were used to assist with the grade estimation. The sulphur database is generally numerically smaller than for the other elements.
- Top-cuts were applied to a small number of outlier values for all elements; in the case of copper and cobalt, a limit was imposed on the range of influence of the high grade composites, in the range 5-15m, rather than specifically cutting to a lower fixed grade. Fixed top grades were applied to other elements including silver. Variography was carried out after top-cutting.
- Parent block sizes were 5 x 5 x 5m (E, N, RL) for both ESS and Greenstone; parent block size for SRK's models were for Mammoth 10 x 10 x 10m, Esperanza 5 x 10 x 20m and Pluto 5 x 20 x 20m. Sub-blocking was carried out for volume estimation within the domain boundaries.
- Grade estimation was carried out using co-kriged Ordinary Kriging for Cu, Co, Ag, Fe, As, S and bulk density for all deposits, with As and S also estimated for metallurgical purposes. Co-kriging uses the correlations of the primary element, in this case copper, with other elements (primarily silver in the case of copper) to improve the grade estimation.
- Grade estimation was carried out in one pass utilising a large search dependent on deposit variography and ranging from 200 x 200 x 50m for ESS to 100 x 100 x 50m for Esperanza.
- Resource categorisation for ESS and Greenstone was based on the kriged block indicator value of the 0.5% Cu indicator variogram in combination with the block kriging variance. The matrices formed by these two values were used to assign resource categories with a Measured category assigned to blocks with high indicator values and low kriging variance values. Categorisation for SRK's Mammoth, Esperanza and Pluto models was based primarily on the slope of regression which is a reflection of the drilling density and to a lesser extent the deposit variography. Slope of regression in the range 0.4-0.8 was used for an Indicated category, with Measured >0.8 and Inferred <0.4. Data quality and resource domaining were also taken into consideration in the categorisation.
- CCPL reported the resources for all deposits based on regularised 5 x 5 x 5m block models so that resource models were suitable for input to mining software used by CCPL on site. Regularisation was carried out using the sub-blocked resource models as a starting point. Regularising blocks close to domain boundaries resulted in inclusion of external dilution, referred to as geological dilution by CCPL. Cut-off grades applied to the regularised blocks were 1.0% Cu for all deposits except ESS where 0.8% Cu was applied. These cut offs were set slightly lower than the prevailing mining cut-off grades used by CCPL for mine production.

The resource models for each deposit are described in the following sections.

Esperanza South

CCPL defined separate domains for copper-cobalt, copper-low cobalt, cobalt-low copper and background low copper and cobalt. Domain boundaries were defined by 0.5% Cu and 200ppm Co cut offs and by structural trends based on the geological understanding of the controls to mineralisation. Domain modelling was improved by the inclusion of data from 25 infill drill holes totalling 3,485m.

All domain boundaries were treated as hard boundaries for grade estimation. Samples were composited to 2m and top-cuts were applied to a small number of composites with thresholds based on probability plots. A single estimation pass was used for estimation for all elements with search dimensions of 200 x 200 x 50m. Sulphur and density were estimated by regression with Fe where kriging failed to populate block values. Parent blocks were 5mE x 5mN x 5mRL.

Resource categorisation was as described above. CCPL advised that all resources below 4875RL (which is the level below which infill drilling has yet to be completed) that were previously categorised as Measured were

downgraded to Indicated resources. The MRE is reported using a cut off of 0.8% Cu applied to regularised 5m x 5m x 5m blocks and does not include broken stock within the SLC cave.

The cobalt-only material is not currently reportable as a JORC-compliant Mineral Resource as there are no demonstrated prospects for eventual economic extraction.

Greenstone

The Greenstone resource estimate is based on five separate mineralised lenses defined by a combination of surface and underground drilling. Resource domain definition was improved by the inclusion of data from nine new drill holes totalling 933m.

CCPL modelled mineralised domains using Leapfrog implicit modelling with an Indicator copper cut off of 0.25% Cu and trend surfaces defined using both resource drilling and grade control data sets. The deposit is divided into upper and lower domains by a moderately dipping fault. The resource estimation was carried out using 2m composites and 5mE x 5mN x 5mRL parent blocks with sub-blocking to 2 x 2 x 2m for volume calculation. Top-cuts were applied to a small number of composites with thresholds based on probability plots. A single estimation pass was used for estimation for all elements. Resource categorisation used the same methodology as used for Esperanza South and resources were reported at a 1.0% Cu cut off.

Mammoth

In 2019 SRK modelled three broad areas of the Mammoth orebody, North, Remnants and Deeps, and did not attempt to create a new overall model aligned with the historical domain models and mining areas. Domain boundaries, defined by a 0.5% Cu shell, were modelled using all resource drilling and underground grade control sampling, however the latter data was excluded from the grade estimation due to quality issues.

SRK identified eight mineralisation trends which were either fault-controlled or high grade mineralisation shoots and five 'fault' blocks to assist with structural control of the 0.5% Cu shell using Leapfrog software. Ultimately, SRK defined six estimation domains referred to as: *Core* with a sub-vertical dip, *Portal Trend* with a 60° dip to the west, *Deeps* with a sub-vertical dip, *South* with a dip 75° to the south, *G Lens Splay*, and *Sub-Portal Trend*.

Samples were composited to 5m in all six estimation domains but each domain was treated as a separate resource model with variations in variography and different grade estimation parameters. Copper grades from 5-20% Cu depending on domain were limited to a 10m range for grade estimation, and high silver grades were cut to 10-20g/t Ag in some domains. The parent block size of 10mE x 10mN x 10mRL was common to all domains, with sub-blocking for volume calculation set at 2.5 x 2.5 x 2.5m. A single estimation pass was used for grade estimation for all elements, however search dimensions varied between domains, ranging from 20 x 100 x 100m to 60 x 150 x 150m. Domain boundaries were treated as soft boundaries for grade estimation. Sulphur and arsenic were estimated by regression with Fe where kriging failed to populate block values.

Resource categorisation was based on slope of regression with >0.95 categorised as Measured, 0.4-0.95 as Indicated and <0.4 Inferred. All domain models were depleted for stope and development mineralisation mined to date. The resource estimates exclude a 10m buffer around the larger historical caved stopes that will not be paste filled, whereas material around the smaller stopes has been included with the assumption that the stopes will be paste-filled. In addition, mineralisation between the surface and the uppermost cave stope has been excluded as unrecoverable.

SRK also reported that there was approximately 10Mt at 1.7% Cu (at a 1% Cu cut off) of unclassified material on the margins of the Mammoth deposit, mainly occurring in the Portal and Sub-Portal domains. This material comprises blocks with estimated grades which are associated with isolated drill hole intercepts that were excluded from Inferred resources, and could be categorised as an Exploration Target.

Pluto

Location of surface drill hole collars for Pluto have been constrained by the Esperanza open pit to the west and a topographic ridge to the east, consequently many of the current surface drill holes intersect the ore zone at steeper than optimum angles, resulting in ore intercepts at acute angles to the dip of the ore zone. Drill hole spacing varies from 40-100m.

The 2019 SRK resource model consists of four steeply dipping mineralised lenses which are defined by a 0.5% Cu envelope. SRK reports that domain modelling was problematic due to the acute angle of many of the drill hole intercepts. A large cobalt halo around the copper mineralisation was also modelled using a 200ppm Co cut off.

All domain boundaries were treated as hard boundaries for grade estimation. A single estimation pass was used for estimation for all elements with search dimensions of 30 x 150 x 150m. There was no copper top cut or range restriction. Parent blocks were 5mE x 20mN x 20mRL, with sub-blocking for volume calculation set at 0.625 x 2.5 x 2.5m. Resource categorisation was based on slope of regression and drill hole spacing; geological uncertainty

in the model precluded SRK from categorising any Measured resource. The slope of regression categorisation notionally relates to a 40m drill hole spacing for Indicated resources and 80m spacing for Inferred resources.

Esperanza

SRK used all data above and below the pit bottom for the 2019 Esperanza resource estimation. Resource domain boundaries were modelled using a 0.5% Cu cut off and structural controls following the Mammoth, Mammoth Extended and Foschi faults. Four domains were modelled, copper, high grade copper (5% cut off), oxide/leached and cobalt, with the latter defined by 200ppm Co and forming a halo around the copper mineralisation. Ultimately, SRK did not use the high grade copper domain as a separate domain in the grade estimation.

The resource estimation was carried out using 2m composites and 5mE x 10mN x 20mRL parent blocks with sub-blocking to 2.5 x 1.25 x 5m for volume calculation. Copper composites above 15% Cu were restricted to a range of influence of 5m and silver was cut to 75g/t Ag. Due to a lack of bulk density values, density was estimated by regression with Fe. A single estimation pass was used for estimation for all elements with search dimensions of 50 x 100 x 100m. Resource categorisation was based on slope of regression and drill hole spacing. SRK did not categorise any of the resource as Measured; areas with a slope of regression >0.5 were categorised as an Indicated resource, with the remainder categorised as Inferred. Notional drill hole spacing is 20m for Indicated resources and 50m for Inferred resources. The resource estimate includes all mineralisation below the pit, with no allowance for a crown pillar.

8.3 Reported Mineral Resources

The Mineral Resource estimates for each of five deposits are summarised in Table 8.1. The resources are reported at a 1.0% Cu cut-off grade except for Esperanza South which is reported at a 0.8% Cu cut off. The total Measured, Indicated and Inferred resource estimate is 62.5Mt at 1.8% Cu with contained copper of 1.13Mt. The percentage of Measured and Indicated resources available for conversion to Ore Reserves is 63% or 39.2Mt at 1.9% Cu with contained copper of 0.74Mt.

Table 8.1
Capricorn Copper Mineral Resource Estimate – May 2020

Deposit and Cut-Off Grade	Category	Tonnage Mt	Copper Grade Cu %	Silver Grade Ag g/t	Contained Copper kt
Esperanza South (0.8% Cu)	Measured	0.6	2.0	19	12
	Indicated	8.7	1.8	18	157
	Inferred	7.5	1.6	14	120
	<i>Subtotal</i>	<i>16.9</i>	<i>1.7</i>	<i>16</i>	<i>287</i>
Mammoth (1.0% Cu)	Measured	4.4	1.7	5	75
	Indicated	18.8	1.8	4	338
	Inferred	13.0	1.5	4	195
	<i>Subtotal</i>	<i>36.2</i>	<i>1.7</i>	<i>4</i>	<i>615</i>
Greenstone (1.0% Cu)	Measured	0.4	1.8	1	7
	Indicated	1.2	1.9	1	23
	Inferred	0.5	1.5	1	8
	<i>Subtotal</i>	<i>2.1</i>	<i>1.8</i>	<i>1</i>	<i>38</i>
Pluto (1.0% Cu)	Measured	-	-	-	-
	Indicated	2.3	2.3	1	53
	Inferred	0.9	1.6	1	14
	<i>Subtotal</i>	<i>3.2</i>	<i>2.1</i>	<i>1</i>	<i>67</i>
Esperanza (1.0% Cu)	Measured	-	-	-	-
	Indicated	2.7	2.3	11	62
	Inferred	1.3	1.7	9	22
	<i>Subtotal</i>	<i>4.0</i>	<i>2.1</i>	<i>10</i>	<i>84</i>
Total Resource	Measured	5.4	1.8	6	97
	Indicated	33.8	1.9	8	642
	Inferred	23.3	1.6	7	373
	Total	62.5	1.8	8	1,125

Note: Resource estimates as reported by SRK Consulting in July 2019 with resources depleted for mined voids from both underground and open pit mining at end of March 2019; tonnes and grade based on a 5 x 5 x 5m post-estimation regularised block model, including external dilution across resource domain boundaries; Mammoth resources include Mammoth Remnants, Mammoth Deeps and Mammoth North; totals are subject to rounding

Overall, BDA considers that the resource estimation approach used by CCPL for ESS and Greenstone and SRK's estimates for Mammoth, Esperanza and Pluto have produced improved local block estimation with less grade smearing and better definition of mineable waste zones between ore lenses, compared with earlier models.

A comparison of CCPL's May 2020 resource estimates for ESS and Greenstone with SRK's March 2019 resource estimates (allowing for mining depletion from April 2019 to May 2020) indicates that for ESS, the resource tonnage

has decreased by approximately 15%, grade by 7% and contained copper by 21%. The reduction in resources is primarily a result of narrower mineralised zones in the South Cave indicated by the infill resource drilling completed in 2020. In Greenstone, the resource tonnage decreased by 15% but grade increased by 12% which results in a slight decrease in contained copper (1%).

Both CCPL's 2020 estimates for ESS and Greenstone and SRK's 2019 estimates for Mammoth, Esperanza and Pluto are reported using regularised 5 x 5 x 5m block models. This results in the inclusion of external dilution incurred as a result of regularising sub-blocks close to the domain boundaries to 5 x 5 x 5m blocks and results in a decrease in tonnes and grade compared to the underlying sub-block models. The reduction in tonnes is primarily a result of selectivity of the regularised blocks at the 1% Cu or 0.8% Cu cut off where the diluted block grade of some regularised blocks fell below the cut-off grade. The reported resource estimate is regarded as providing a reasonably conservative estimate of the tonnes and grade for the five deposits at Capricorn Copper.

BDA accepts the convenience of the regularised block model in terms of future mine planning processes, but nevertheless considers it would be more appropriate to report resource estimates for the estimated parent blocks within the interpreted resource domains, i.e. the sub-blocked models. As such, any further manipulation of the resource models would be the preserve of the reserve estimation stage, based on modifying factors, including ore losses, dilution and regularising the resource models. This approach would preserve the distinction between resources and reserves, and would allow a clearer reconciliation between future ore mined production and the resource and reserve estimates. However, BDA accepts that the variation between the two sets of figures is generally not material.

8.4 Ore Reserve Estimation

CCPL commissioned Australian Mine Design and Development Pty Limited (AMDAD) in 2020 to work closely with CCPL's mining and geotechnical staff to update the September 2019 reserve estimation and LOM plan. On completion of the update, AMDAD, as the designated Competent Person, was asked to produce an Ore Reserve Statement compliant with the 2012 JORC Code.

The update of the LOM plan and reserve estimate was based on CCPL's May 2020 resource estimate. CCPL reported the new Ore Reserves in December 2020.

The 2020 LOM mine plan and reserves are based on transverse and longitudinal Sublevel Caving (SLC) for the ESS deposit and Long Hole Open Stopping (LHOS) with fill for the Mammoth, Pluto and Esperanza deposits and LHOS with waste rock fill for Greenstone.

The parameters used for reserve estimation are summarised below and discussed in detail in Section 9.

- AMDAD calculated cut-off grades applicable to the ESS SLC and stope designs for the other deposits based on the following economic and metallurgical modifying factors:
 - a copper price of US\$3/lb and an exchange rate of A\$/US\$ 0.73
 - the Queensland royalty payment of 4.94%
 - the average smelter percentage copper payable of 96.4%
 - a smelting charge of US\$69.42/t of concentrate and a refining charge of US\$0.069/lb of copper
 - the estimated average LOM metallurgical copper recovery of 85.8%
 - mining, ore processing and general mine administration operating costs.
- Calculated stope design cut offs (assuming 10% grade dilution) were Mammoth 1.41% Cu, Greenstone 1.22% Cu, Pluto 1.46% Cu and Esperanza 1.28% Cu; the ESS SLC cut off, including dilution, was calculated at 1.22% Cu.
- Lower cut offs were calculated for broken ground including development; cut offs, allowing for 5% dilution, were ESS 0.63% Cu, Greenstone 0.57% Cu and Mammoth 0.58% Cu.
- All cut offs are simple economic cut offs and do not take into consideration any silver credits, variable recoveries or variable haulage costs with increasing depth.
- CCPL used Deswik Mine Shape Optimiser (MSO) software to determine the economic mining shape for the ESS SLC from the resource block model, using a diluted cut-off grade of 1.22% Cu. PGCA software was then used for simulation of the SLC draw and dilution entry, using a draw shutoff grade of 1.02% Cu, to provide an estimate of the tonnes and grade extracted at each level.
- MSO software was also used to interrogate the resource block models to define stope blocks for the Mammoth, Greenstone, Pluto and Esperanza deposits.

- Mining factors, based on production stope reconciliation for 2020, of 0.9 for tonnes (ore recovery) and 0.952 for grade (ore dilution at zero grade) were applied to the MSO stope output; a factor of 0.95 was applied to the grade of development ore.
- Inferred resources were included in the PGCA simulation and in the MSO stope designs, with a limit of 30% Inferred resource within any stope. MSO software was used to define reserves within the mine footprint of the ESS SLC by modelling a wireframe boundary between Indicated and Inferred resource blocks. CCPL compiled two separate inventories, one based on the economically mineable Measured and Indicated resources and a second full mining inventory which included Inferred resources; the former inventory was reported as the Ore Reserves and the latter constituted the mining inventory which forms the basis for CCPL's updated LOM plan.

8.5 Reported Ore Reserves

The Proved and Probable reserves for Capricorn Copper represent the Measured and Indicated resources within the SLC, stopes and development planned to be mined. The December 2020 Ore Reserve estimate, which is based on the CCPL May 2020 MRE, is shown in Table 8.2.

Table 8.2
Capricorn Copper Ore Reserve Estimate – December 2020

Deposit	Category	Tonnage Mt	Copper Grade Cu %	Contained Cu kt
Esperanza South	Proved	0.2	1.76	3
	Probable	7.0	1.56	109
	<i>Subtotal</i>	<i>7.1</i>	<i>1.57</i>	<i>112</i>
Mammoth Remnants	Proved	0.8	1.98	15
	Probable	1.3	1.85	25
	<i>Subtotal</i>	<i>2.1</i>	<i>1.90</i>	<i>40</i>
Mammoth Deeps	Proved	0.0	2.51	0
	Probable	2.0	1.98	39
	<i>Subtotal</i>	<i>2.0</i>	<i>1.99</i>	<i>39</i>
Greenstone	Proved	0.1	1.98	2
	Probable	0.3	1.75	6
	<i>Subtotal</i>	<i>0.5</i>	<i>1.81</i>	<i>8</i>
Pluto	Proved	-	-	-
	Probable	1.2	2.63	32
	<i>Subtotal</i>	<i>1.2</i>	<i>2.63</i>	<i>32</i>
Esperanza	Proved	-	-	-
	Probable	0.5	1.87	9
	<i>Subtotal</i>	<i>0.5</i>	<i>1.87</i>	<i>9</i>
Stockpile	Proved	0.08	1.45	1
All Deposits	Proved	1.1	1.91	20
	Probable	12.3	1.78	220
	Total	13.4	1.79	240

Note: estimate undertaken by AMDAD and CCPL staff based on CCPL's May 2020 resource estimate; based on a copper price of US\$3/lb; reserve estimates allow for depletion due to mining to end of November 2020; totals are subject to rounding

The LOM plan, from January 2021 to 2034, is based on a Mining Inventory of 24.2Mt at 1.93% Cu which is made up of Ore Reserves totalling 13.4Mt and resources (mainly Inferred resources) totalling 10.8Mt. The Mining Inventory is discussed in more detail in Section 9.

8.6 Grade Control Procedures and Modelling

CCPL Mine Geology Department (MGD) collects grade control sludge drilling assay data and data from face sampling and drawpoint sampling on a routine basis. Prior to mid-2019 the use of this data was limited to short term mine planning for grade forecasting on a local level and was not used, in conjunction with the resource model, for forecasting the ore mined grade for longer term mine planning.

Since mid-2019, the MGD has been developing dynamic grade control (GC) models, initially based on SRK's July 2019 MRE models and more recently on CCPL's May 2020 MRE models. An experienced resource geologist was recruited to take charge of the development of new grade control models and to maintain both the resource and GC models on site. Face sampling and sludge drilling results are systematically plotted on level plans to guide development and stoping and drawpoint sampling assists in controlling and managing the draw from the stope and SLC drawpoints.

CCPL advises that implementation of a site-managed secure database and sample tracking system using Geobank software is in progress. This database will capture all grade control data and supersede the previous Microsoft Access database. Since August 2019, overall quality of the GC sample data has improved. Increased staffing has

allowed an increase in the number face samples taken and has enabled introduction of night shift coverage. New face map plans have been developed, QA/QC protocols on GC samples have been introduced, and level plans are drafted for future use in modelling.

GC models have been developed for ESS, Greenstone and Mammoth and these models are now being updated with new GC data on approximately a quarterly basis. The ESS and Greenstone models cover the whole of the deposits whereas the Mammoth GC model is a local model covering only the areas currently being mined.

An ESS GC model has been used for monthly ore mined grade forecasts and reconciliations since September 2019. Similarly, the Mammoth and Greenstone GC models have been used on a monthly basis since January 2020.

GC models are based on the CCPL sub-block models with any new diamond drilling results added as well as copper grades from face and wall samples and sludge drilling samples. Modelling techniques follow the CCPL methodology with 0.5% Cu indicator domains for ESS and 0.25% Cu indicator domains for Greenstone. The Mammoth GC model is based on SRK's March 2019 model with new GC data added. Grade estimation for the GC models is undertaken using Ordinary Kriging.

Grade Control Model Reconciliation

CCPL MGD has implemented regular reconciliations between current GC models and the CCPL 2020 resource models. Recent reconciliations of the GC sub-block models for ESS, Greenstone, Mammoth G Lens and Mammoth Remnants with the comparable 2020 MRE models are summarised in Table 8.3. The ESS reconciliation has been carried out at the diluted cut-off grade of 1.22% Cu which is used for the ESS PGCA cave design; reconciliations for Greenstone and Mammoth are at the undiluted stope design cut-off grades of 1.35% Cu and 1.56% Cu respectively.

The ESS GC and MRE models incorporate resources from 5040RL to 4800RL; the Greenstone models extend from 5025RL to 4900RL, Mammoth G Lens from 4520RL to 4470RL and the Mammoth Remnants models from 4655RL to 45050RL. Estimation methodology between the two sub-block models is comparable and reconciliations are for Measured, Indicated and Inferred resources. CCPL has developed additional GC models for Mammoth 2 Lens and D Lens but only the G Lens and Mammoth Remnants are tabulated here.

Table 8.3
Reconciliation of Grade Control Models and Mineral Resource Models March 2021

Item	Tonnes	Copper Grade % Cu	Contained Copper Tonnes
ESS Cut Off 1.22% Cu			
MRE Model	3,917,945	2.25	88,007
GC Model	4,142,772	2.28	94,323
Reconciliation GC vs MRE	106	101	107
Greenstone Cut Off 1.35% Cu			
MRE Model	1,489,905	2.20	32,758
GC Model	1,569,394	2.25	35,313
Reconciliation GC vs MRE	105	102	108
Mammoth G Lens Cut Off 1.56% Cu			
MRE Model	837,177	1.92	16,078
GC Model	557,986	2.94	16,384
Reconciliation GC vs MRE	67	153	102
Mammoth Remnants Cut Off 1.56% Cu			
MRE Model	2,672,961	2.29	61,085
GC Model	2,588,272	2.47	63,942
Reconciliation GC vs MRE	97	108	105

Overall the reconciliation between the GC models and the MRE models are reasonable except for the Mammoth G Lens tonnes and grade where tonnage estimates have reduced substantially, but given the higher grade estimate contained copper remains close to the MRE forecast. The contained copper for ESS, Greenstone and Mammoth Remnants is within a range of 5-8% above the MRE forecasts.

8.7 Mine Reconciliation

CCPL reports monthly and year to date (YTD) reconciliation data in its Monthly Reports to assist in the management and monitoring of mill and mine performance. Three sets of tonnage and grade figures are reported, Ore Mined Claimed, Ore Mined Reconciled and Ore Milled.

The Ore Mined Claimed tonnes are derived from the ROM weighbridge or bucket load cells; grade is based on a weighted average of the estimated stope grades directly from the resource block models (after applying ore recovery and dilution factors) or in the case of the ESS SLC, the modelled draw forecast which is derived from the resource block model.

Prior to August 2019 the ore mined grade forecast was estimated from the 2018 MRE models; from August 2019, the forecast grades were derived from the SRK March 2019 MRE models and from September 2019 for ESS and January 2020 for Greenstone and Mammoth, CCPL has used the GC model estimated grades as the basis for the Mine Claimed grades.

The Ore Milled tonnes and grade are calculated from mill weightometer tonnes, head grade sampling, concentrate production and grade and the tailings grade.

Ore Mined Claimed tonnes and grade are reconciled against the reported Ore Milled tonnes and grade to derive the Ore Mined Reconciled tonnes and grade which are reported monthly and YTD. Adjustments are applied to the Ore Mined Claimed figures for opening and closing stockpiles and the reconciliation figures are factored back to the tonnes and grade figures from each ore source.

Ore Mined Claimed against Ore Milled

Table 8.4 shows the results of the annual reconciliations between the Ore Mined Claimed and Ore Milled for the period January 2018 to December 2020. Overall, the results indicate acceptable reconciliations for tonnes, grade and contained metal, with contained copper within 5% of forecasts. Annual variations between the actual reconciled milled tonnes, grade and contained copper figures and the ore mined claimed figures are within a range of +6% and -5%.

Although the Ore Mined Claimed tonnes are close to the mill reported tonnes, the tonnage figures are not evaluating the accuracy of the production forecast tonnes from the planned stopes or in the case of ESS, the forecast draw from the SLC based on the resource/reserve or GC models, but are simply comparing mine measurements of tonnage based on weighbridges and load cells with mill estimates based on the mill weightometers. The Ore Mined Claimed grade comparisons are somewhat more useful as these are based on the resource model, or more recently the GC model, estimates within the mined shapes and so do provide some comparative assessment of the reliability of the modelled grades.

Table 8.4

Capricorn Copper Ore Mined Claimed to Ore Milled Reconciliation for 2018 – 2020

Item	Tonnes	Copper Grade % Cu	Contained Copper Tonnes
2018			
Ore Mined Claimed (1)	1,257,043	1.79	22,492
Ore Milled (2)	1,326,298	1.70	22,213
Reconciliation (2) vs (1)	106	95	99
2019			
Ore Mined Claimed (1)	1,616,606	1.84	29,754
Ore Milled (2)	1,605,079	1.76	28,316
Reconciliation (2) vs (1)	99	96	95
January - December 2020			
Ore Mined Claimed (1)	1,835,687	1.57	28,838
Ore Milled (2)	1,808,493	1.50	27,090
Reconciliation (2) vs (1)	99	95	93
Jan 2018 – December 2020			
Ore Mined Claimed (1)	4,709,336	1.72	81,084
Ore Milled (2)	4,739,870	1.64	77,619
Reconciliation (2) vs (1)	101	95	95

Note: Ore Mined Claimed figures from the Mine Geology Department; Milled figures are reconciled monthly mill figures from the Process Department

Mined Stope Reconciliation

CCPL also carries out estimation of the tonnes and grade of mined stopes, with tonnes estimated using a Cavity Monitoring System (“CMS”) void survey which allows assessment of broken tonnage and any overbreak or underbreak. Grades are estimated from either the MRE or GC models.

CCPL refers to these mined tonnes and grade estimates as Actual Break tonnes and grade and these are estimated for all mined stopes and combined with the ESS cave draw estimates for both the latest MRE and GC models. The estimates are reconciled against the Ore Mined Reconciled tonnes and grade. Reconciliations for the 2020 MRE models and GC models generally appear to be reasonable however BDA has not reviewed the reconciliations in detail.

Conclusions

BDA has not undertaken an audit of the Mineral Resource or Ore Reserve estimates. BDA has reviewed the methodology and procedures used by CCPL and specialist consultants SRK and AMDAD on the modelling and estimation of the resources and reserves, and discussed processes and procedures with CCPL staff and the consultants.

BDA considers the resource estimation approach used by CCPL in 2020 on Esperanza South and Greenstone and by SRK in 2019 on Mammoth, Esperanza and Pluto has produced models with mineralisation domains that are better constrained than previous models and which should result in improved local block estimation. Overall BDA considers the resource methodology to be generally appropriate and the work to have been competently undertaken.

Estimation of Ore Reserves has been achieved through close collaboration between CCPL mining staff and AMDAD. Reserve parameters and modifying factors applied to the resource models are considered appropriate for the cave and stope designs.

Grade control procedures have continued to improve during 2020 with instigation of regular updates to grade control models for Esperanza South, Mammoth and Greenstone; GC models are currently being used for ore mine forecasts and monthly reconciliations of copper grade. Grade control sampling has been increased to include face, sludge drilling and drawpoint sampling and night shifts; QA/QC of samples and database management has also improved.

Reconciliation of the ore mined claimed and actual mill data for 2018-2020 shows an acceptable outcome with tonnage and grade within a range of +6% to -5% on an annual basis for the period since 2018, with actual contained metal project to date within 5% of mine claimed. However, BDA notes that the tonnage reconciliations are based on haulage records rather than on stope or cave model forecasts and considers there is still a requirement to report YTD resource depletion tonnes and grade figures that can be compared directly with Ore Milled figures.

CCPL is now undertaking quarterly reconciliations against GC models and MRE models; these reconciliations indicate that MRE models are generally conservative in both tonnage and grade forecasts compared with the GC models. CCPL has also introduced reconciliations of the tonnage and grade from mined stopes against both MRE and GC models which also appear to be giving reasonable reconciliations.

9.0 MINING

9.1 Overview

Background

The Mammoth deposit was the primary focus of mining at Capricorn Copper until the late 1990s. Mining first commenced at Mammoth in the 1920s with a small open cut over the near-surface sub-outcrop. Further small scale mining of high grade ore was undertaken from underground with the development of two shallow shafts. Larger-scale development took place in the 1970s and 80s with mining of a larger open cut and underground open stoping operations. Exploration identified a number of significant lodes, dipping steeply along the Mammoth and Portal faults. Some sublevel caving (SLC) was trialled, but generally open stoping was the main mining method. Mass blasting with in-situ leaching of the fragmented ore was also trialled in the 1980s, with mixed success.

In the late 1990s and early 2000s the mining focus moved to the Esperanza deposit, with open pit mining of a high grade chalcocite supergene copper blanket, with the ore treated through a ferric leach-SX/EW circuit to produce cathode copper. The Esperanza pit was mined to a depth of around 200m. The depth extension of Esperanza remains part of CCPL's underground development plan.

Under ABM's ownership from 2003, the mining focus returned to the Mammoth underground lodes. Open stoping methods were used without the use of cemented backfill or paste, with voids backfilled with waste rock or left open. When the EMR joint venture took ownership in 2015 and re-started the mine in 2017, there was a legacy of stope voids in the lower levels of Mammoth, containing minimal or unconsolidated fill material.

Current Status

CCPL's current LOM plan is based on the mining of five deposits in the project area, namely Esperanza South (ESS), Mammoth, Greenstone, Esperanza and Pluto. Key parameters of the planned mining operations are summarised in Table 9.1.

Table 9.1
Summary of CCPL Underground Operations - Current and Planned

Item	Esperanza South	Mammoth	Greenstone	Pluto	Esperanza
Ore Reserve	7.1Mt at 1.6% Cu	4.1Mt at 1.9% Cu	0.5Mt at 1.8% Cu	1.2Mt at 2.6% Cu	0.5Mt at 1.9% Cu
LOM Inventory	11.9Mt at 1.7% Cu	7.8Mt at 2.0% Cu	0.6Mt at 2.0% Cu	1.5Mt at 2.8% Cu	2.5Mt at 2.3% Cu
Mining Method	SLC	LHOS	LHOS	LHOS	LHOS
Stope Fill	Cave	Paste/Waste Rock Fill	Waste Rock Fill	Proposed Paste Fill	Proposed Paste Fill
Access/Decline	ESS Decline	Mammoth Decline	Off Mammoth Decl.	Off Mammoth Decl.	Off Mammoth Decl.
LOM Typical Production Rate	1.1Mtpa	0.6Mtpa	0.5Mtpa	0.3Mtpa	0.4Mtpa
LOM Production Period	2021-2034	2021-2034	2021-2022	2026-2031	2027-2034
LOM Working Levels	4990-4500mL	5000-4000mL	5055-4900mL	4910-4720mL	5145-4870mL
LOM Depths	290-780m	250-1250m	195-350m	340-530m	105-380m

Note: Ore Reserve is based on the March 2019 resource model with ore depletion to 31 August 2019; LOM Inventory is from July 2020 and includes Measured, Indicated and Inferred resources plus minor unclassified mineralisation (Exploration Target)

Mine production is currently from ESS, Mammoth and Greenstone with ESS being the primary source of ore at around 55% of ore mined (Figure 7). The ESS deposit is mined using sublevel caving (SLC) with production currently from 4950mL. Mammoth lodes are mined using long hole open stoping (LHOS) with paste and waste rock fill, with current production from Mammoth Remnants on 4655mL and Mammoth Deeps (G Lens) on 4520mL. The Greenstone deposit is mined using LHOS mining methods with waste rock fill, using Avoca-style progressive fill methods in some stopes, with current production from 4925mL and 5025mL.

Two separate declines (ESS and Mammoth) provide access to the ESS SLC and the Mammoth and Greenstone lodes (Figure 5). At ESS, CCPL has developed new mine infrastructure comprising declines, ventilation raises, power supply network and ground water pumping. At Mammoth the historical decline has been rehabilitated and extended and provides access to Mammoth Remnants and Mammoth Deeps, and to the Greenstone deposit via an access drive from the Mammoth decline. At Greenstone, a separate return air raise and emergency egress raise have been developed.

A further access drive (decline) is proposed from the Mammoth decline to provide access to the Pluto and Esperanza deposits, which are planned to be mined in 2026 and 2027 respectively (Figure 5).

Ore mined underground is trucked to surface via the two declines and hauled to the process plant run of mine (ROM) pad (Figure 2).

All mine development and stoping activities including drill and blast, load and haul and ground support, are carried out by mine contractor, Byrnegut Australia Pty Ltd (BAPL). CCPL manages the mine contractor and provides technical oversight including grade control, mine planning and geotechnical engineering.

Mammoth Pillar Failure

In March 2021 ground movement was reported on 4630mL in the Mammoth mine. It was determined that approximately 150,000t of waste rock had flowed into a stope void from a rock filled stope after a pillar failure. The movement triggered increased air flow and dust up the decline and in the lower workings. No personnel or equipment were affected but mining ceased and a full geotechnical review was undertaken. Rock noise and dust had been reported prior to the major movement and personnel had been removed from the mine at the time of the ground movement. The Queensland Inspector of Mines (“Mines Inspector”) issued a directive to suspend all underground operations at the Mammoth and Greenstone during the assessment. Mining recommenced in mid-April (approximately a one-month suspension) in the Mammoth Deeps and Greenstone orebodies after the Mine Inspector lifted the suspension order on mining operations; Mammoth Remnants mining is still halted for further review of ground stability and the impact of stope voids within the Mammoth Remnants.

The investigation into the incident was carried out by CCPL management and geotechnical department with geotechnical assistance from external consultants. A report was prepared by Cartledge Mining and Geotechnics (“CMG”) on the appraisal of risk from the ground failure.

At the time of the incident mine production was from an F lens stope (MAMR-4530-F1-Ext) on 4530mL within the Mammoth Remnants. The stope was approximately 75m high and had limited ore in the stope although the brow was full on 4530mL. The findings concluded that the pillar between F-Stope and another stope in D lens (D-WEST Stope) had collapsed along with an adjoining pillar between the D-West stope and the D-East stope at 4655mL. The D-East stope was filled with waste rock which flowed into the D-West and F1 stope voids creating the movement of air and dust within the mine. The finding concluded the air movement was not considered a hazardous air blast which is an air movement with high pressure and high velocity causing damage or personnel injury.

CMG has concluded that the risk of hazardous airblasts originating in the Mammoth mine is currently low, although as a precaution CCPL has deployed airblast-resisting controls with the installation of bulkheads at various access drive locations in the Mammoth Remnants to mitigate the effect of such events. CCPL is also considering ground monitoring systems, such as instrumentation to monitor varying rock stress and deformation, in addition to the regular visual geotechnical inspections currently carried out. The ground failure in the recent incident had occurred behind a barricade and was not generally accessible despite the monthly monitoring.

CCPL is reviewing the planned mining sequence within the Mammoth Remnants while the planned mining sequence in Mammoth Deeps and Greenstone will continue unchanged. While the mine review of Mammoth is ongoing there is no definitive forecast for the remainder of 2021 but CCPL is confident that Mammoth Remnant mining will re-commence in June and that the majority of the shortfall in H1 2021 can be made up within the year. BDA notes that initial assessment indicates that there will be limited or no reduction in the available LOM mining inventory but there will likely be some sequencing changes in light of the failure.

9.2 Mine Planning and Design

In 2016, prior to the re-start of the operation, Mining Plus Pty Ltd (“Mining Plus”) was commissioned to complete a mine feasibility study including the preparation of a LOM plan for the five orebodies, ESS, Mammoth, Greenstone, Pluto and Esperanza. Since start up in late 2017, operations have progressed with mining in ESS, Mammoth and Greenstone and the LOM plan has been further developed by the CCPL technical staff based on the revised resources for the five orebodies and the improved geotechnical knowledge including experience in the current operating sections of the mine. Prior to the completion of the updated reserve estimates in June 2019, Mining Plus also assisted with stope and development designs. More recently this work has been carried out by CCPL, with input from AMDAD, Mining Plus and other external consultants as required.

The mining schedule for the updated LOM has been prepared using Measured, Indicated and Inferred resources as well as a small quantity (1.4Mt) of unclassified mineralisation, which could be considered an Exploration Target. The Inferred resources and unclassified mineralisation were evaluated using the same criteria as for the Measured and Indicated resources and subsequent scheduling of this lower geological confidence material has been carried out to the same level of detail. CCPL has considered this material suitable for inclusion in the LOM plan due to its proximity to existing planned development, being largely extensions to known mineralisation. It is planned to infill drill these areas to a higher level of confidence well before any nearby mining is carried out.

A separate mining schedule has also been completed based only on the economically mineable Measured and Indicated Mineral Resources; this schedule provides the basis for the Proved and Probable Ore Reserves. However,

CCPL considers that the Ore Reserves provide a relatively conservative estimate of the mineralisation which will eventually be mined, and that the LOM inventory provides a more realistic guide.

Esperanza South

During the 2015/16 feasibility study of the ESS orebody, several mining methods were assessed using qualitative and quantitative analysis. Ground conditions at ESS were found to be suited to small-scale bench and fill, cut and fill and longitudinal sublevel caving (with transverse SLC where the width of the mineable zone increases). SLC was determined to be the most appropriate method both in terms of economics and safety.

The key results of the mining analysis were:

- greater total margin on the bulk SLC method due to the higher mining inventory, albeit at a lower grade and at a lower margin per tonne of ore
- ground conditions unfavourable for selective mining due to the risk of individual stope failure and associated scheduling restrictions
- low throughput associated with selective mining method.

Sublevel caving requires a rockmass where both the orebody and the overlying country rock will fracture under controlled conditions. The orebody is drilled and blasted and progressively extracted in depth, with the overlying country rock and hangingwall caving as the ore is withdrawn, with the cave propagating upwards ultimately leading to subsidence of the surface. It is important to avoid creation of voids or cavities around the mining area, where a sudden collapse may cause an airblast which can pose a significant risk to personnel, infrastructure and equipment. The method is well suited to a bulk deposit, provided the geotechnical conditions are suitable, and represents a relatively inexpensive bulk mining method. One drawback however is the potential for waste dilution to report to the drawpoints, and this must be controlled by systematic monitoring and controlled extraction from the various drawpoints.

The SLC design parameters used at Esperanza South are as follows:

- decline at 1 in 7, located within the footwall rocks
- sublevel spacing of 25m floor to floor
- ore drive 6m wide x 5m high and spacing of 15m centre to centre, with 9m pillars (which are extracted from the level below)
- ore drives offset between levels
- each sublevel has between two and six ore drives running generally in a north-south orientation, parallel with the hangingwall and footwall and following the strike of the orebody; in thicker zones east-west transverse extraction cross-cuts are planned
- the slot drive (commencement of the cave on each level) runs perpendicular to ore drives (typically east-west orientation).

Each sublevel is established from the decline with an ore stockpile bay, an escapeway drive linking to a fresh air raise equipped with a ladderway, a ventilation drive linked to the return air raises and a drainage sump.

The ESS SLC comprises an upper northern block and a lower southern block, with a relatively low grade transition zone between (Figure 5). CCPL is currently transitioning through this area, completing the northern cave extraction and commencing the southern cave block. The plan for initiating the southern cave was to open up a slot of two sublevels (effectively 100% extraction) while extracting only 40% of the broken ore when retreating on the third sublevel (4950mL). If caving had not commenced, a number of waste rings, drilled in the hangingwall of the upper two levels, and parallel with it, would be blasted into the open void, increasing the unsupported span to a size that was calculated as being sufficient to initiate the cave.

By the end of the first quarter, the open slot had become filled with broken rock and it appeared that the cave may be in the early stages of propagating. CCPL is initially planning to drill a hole into the assumed top of the collapsed ground and, using a cavity auto-scanning laser system (“C-ALS”), will determine the extent of the collapse and the size of the void above the broken rock. After determining the void, CCPL will consider drilling a series of blastholes to assist the propagation. The plan to blast further hangingwall rings to assist the cave is no longer considered necessary or viable given the level of broken rock in the slot.

Prior to the recent developments, CCPL commissioned Resolve Mining Solutions to review the air blast risk to the SLC operation. In addition to maintaining significant broken rock above the production draw points it was considered necessary to construct engineered walls on the 4975mL and 5015mL to mitigate the air blast risk.

Currently production is on the 4950mL with extraction of 40% of the blasted ore to establish a cushion of broken ore above the extraction levels to limit ingress of waste into the drawpoints. CCPL plans to increase the limit to production to 60% and 80% of the blasted ore from sublevels 4925mL and 4900mL respectively.

Minimising waste dilution entry into the SLC drawpoints is integral to CCPL's draw control strategy. CCPL uses PGCA software for simulating the SLC draw which, together with systematic grade control sampling, is an integral part of managing and modelling the dilution risk.

Mammoth

Deswick Mine Shape Optimiser (MSO) software is used to interrogate the resource block models to define stoping blocks for the Mammoth deposit (and for Greenstone, Pluto and Esperanza). Stopes are defined with a maximum strike length of 20m and a stope height of 25m in line with the sublevel interval. The minimum mining width applied is 3m, with a maximum stope width of 25m. The average dip angles range from 45-65° and up to 90° (sub-vertical) for some areas of Mammoth Deeps. The stopes are generally orientated northeast-southwest.

The upper lodes of the Mammoth orebody were extensively mined prior to the operation being placed onto care and maintenance by ABM in 2013. LHOS has generally been the preferred mining method, although sublevel caving and mass blasting with in-situ leach have both been attempted for periods in the past with variable success. LHOS with fill is now being used as the standard mining method at Mammoth and is the proposed method for the remainder of the LOM.

Mining the Mammoth Remnants area involves primarily mining the upper sections of the D and F lenses (Figure 5), based on stopes not mined or not fully recovered in the past and pillars left unmined. Mining is utilising overhand continuous retreat LHOS. Open stopes left from previous operations are to be filled with paste fill to enable recovery of secondary stopes or pillars and to provide additional stability. The cement addition to the paste is around 3.5-4% cement/fly ash content which has proved successful. CCPL has already started to expose paste fill in the stoping cycle with no issues with stability of the paste fill exposures.

Mining in the Mammoth Deeps area is currently based on mining the lower sections of the Mammoth G lens and deeper E and H lenses, using overhand continuous retreat LHOS along strike from the limits of orebody back towards the decline, with paste or rock fill to control stability of walls and minimise dilution. The orebodies within Mammoth Deeps are split into independent panels each comprising six sublevels, with the final lift developed beneath a sill pillar with high strength cemented paste fill.

The current LOM schedule assumes paste filling of the stopes in Mammoth Deeps, but current mining operations within G lens are using pillars with rock fill. If rock fill rather than paste fill is used for the deeper E and H lenses then the requirement for pillars will marginally reduce the overall recovery of the Deeps area.

The Mammoth Remnants and Mammoth Deeps resources extend from approximately 250m to 1,250m below surface. In-situ stress levels increase from moderate to high as mining progresses in depth. The stopes have been designed in accordance with geotechnical recommendations, with systematic cable-bolt support to control stability and dilution as required.

Greenstone

Stopes have been designed in accordance with the dimensions recommended for unsupported excavations. Mining is undertaken using LHOS with overhand bench mining with rock fill, retreating each sublevel along strike from the limits of the orebody back towards the decline/access and using waste rock fill to control stability and dilution. Progressive Avoca-style rock fill has been used in some stopes.

Current stoping plans are based on mining six sub-parallel lodes on six sublevels with sublevel intervals of 25m. Most levels are accessed over the fill of the stope below, resulting in some potential for additional dilution from the fill during loading. Mining of the Greenstone deposit is scheduled for completion in 2022.

Pluto

No mining at Pluto is planned until 2026, so planning is still at a preliminary stage. The stopes have been designed in accordance with recommended dimensions for supported excavations with systematic cable-bolting. CCPL plans to use LHOS with an overhand continuous retreat sequence along strike from the limits of the orebody back towards the decline, using paste fill to control stability of abutments. The lower lift will be advanced at least two stopes ahead of the overlying lift. Preliminary stoping plans are based on four to six sublevels with no sill pillar. Further refinement of the stoping method is likely after more detailed infill drilling and geotechnical assessment.

Esperanza

The upper enriched chalcocite portions of the Esperanza orebody were mined by open pit from 1999 to 2003, but the orebody continues below the depth of the mined-out pit, and CCPL is planning to extract the remaining resource from around 2027. The Esperanza open pit is currently being used as a tailings depository, and the 2016 DFS geotechnical assessment proposed a 50m pillar to be left below the pit to protect the underground workings from the tailings above. CCPL's mine design includes a minor amount of development within this zone, but all scheduled stopes maintain the recommended 50m stand-off from the pit limits.

9.3 Geotechnical Considerations

The geotechnical aspects of the mine are managed by CCPL's geotechnical engineering team within the Mine Technical Department. A Ground Control Management Plan (GCMP) has been prepared in line with industry requirements to ensure ground control is appropriately managed and mine designs are properly geotechnically assessed. The geotechnical section carries out routine inspections of shotcrete thickness, shotcrete quality and pull tests of split set bolts to ensure ground support standards are maintained. As part of the day to day operations, the mine contractor is required to ensure ground control testing can be carried out on installed support.

CCPL also has trigger action response plans (TARP) for seismic events, air blasts, draw point mud rushes and rainfall events.

The key geotechnical issues that CCPL currently manages are:

- safe productive caving of ESS SLC
- safe productive stoping geometry in Mammoth and Greenstone
- interactions with open voids in remnant mining at Mammoth
- rehabilitation to maintain key Mammoth infrastructure and to access remnant stoping.

As part of managing these geotechnical issues, CCPL has in place:

- a seismic system to monitor the ESS cave
- time-domain reflectometer surveys (TDR) for monitoring voids and cave propagation
- void monitoring and surveying of Mammoth stopes
- plans to install Smart Cave Markers for cave flow monitoring at ESS.

CCPL has a cave management plan for the ESS SLC to address the technical aspects of the sublevel cave, including cave related hazards and risk identification, draw control strategy, production scheduling, and mine design and sequencing.

Esperanza South

The ESS deposit is located within the steeply west-dipping Esperanza Fault zone and is constrained between the north-south trending footwall and hangingwall margins of the fault zone. The mineralisation occurs as a 25-75m wide zone of variably silicified and locally brecciated, sheared material, dipping steeply to the west, sub-parallel to the main fault zone.

The host rocks are carbonaceous shales and siltstones, typically thinly bedded, with zones of silicified breccia. The mineralised zone is bounded by the hangingwall and footwall faults; the rock between the faults is frequently brecciated and sheared; zones of sheared graphitic shale are also present.

ESS rock strength assessment indicated rock strengths in the hanging and footwall zone of 94-103 megapascals ("MPa") with the fault zones and the ESS shear zone being weaker at around 40-50MPa. The current ground control at ESS comprising rock bolting and shotcrete with cable bolting in the mine infrastructure is sufficient to provide the necessary ground support for the operation.

The main geotechnical issue in the short term is the development of the southern cave. The upper northern cave has propagated to surface and is generally progressing in line with expectations. Progressive caving to surface will continue as mining proceeds. Controlled draw and cave monitoring will continue to ensure safe caving conditions.

The lower southern cave is still to be established and close monitoring is required until propagation to surface occurs. As part of the southern cave propagation assessment, CCPL carried out 3D finite element modelling to assess the interaction of the northern (upper) and southern (lower) caves. The results indicated that the two caves will initially be independent but will merge as mining progresses. The modelling also highlighted the need to monitor the development of any air gap above the new cave. Until the southern cave has been fully initiated there is potential for reduced production while steps are taken to assist the cave propagation. Geotechnical consultant ITASCA Australia Pty Ltd ("ITASCA"), has been working with the CCPL technical team on the caveability assessment and management of the ESS southern cave.

Analysis of the likely caving subsidence area for ESS, using subsidence angles developed by well-known caving consultant, D H Laubscher; shows that the final subsidence zone may extend outside the current subsidence fence line and intersect a water course. CCPL has made allowance in the capital budget to make diversions to the water course to protect the underground from any inflows.

Mammoth Remnants and Deeps

Geotechnical assessments were undertaken for the Mammoth Remnants and Deeps resources based on the historic Mammoth geotechnical database and more recent CCPL exploration programmes in Mammoth Deeps. The resource comprises steeply dipping lenses associated with the intersection of the Mammoth and Portal Faults. The country rock hosting the copper mineralisation largely comprises bedded, jointed quartzites with zones of siliceous haematite alteration, and healed brecciated zones. The geotechnical logging data has been processed using various geotechnical classification systems; rock mass conditions are generally fair to good, but ground support requirements increase with depth in the Mammoth Deeps lodes.

Calculated critical maximum stope spans for open stoping range from 8-20m for 25m sublevel intervals. The 8m span is for strike oriented walls in the orebody, and indicates that longitudinal long hole open stopes where the strike extent exceeds this will not be stable. Transverse long hole open stopes would be more stable, with spans of 20m achievable, but there are limited areas in Mammoth where this layout can be applied. The restrictive strike span for longitudinal stopes has implications for stope designs, fill and scheduling. However, the stope designs do provide some flexibility to increase strike length of longitudinal stopes if the ground proves more stable than predicted, and generally this has proved to be the case.

Within the Mammoth Remnants area there are numerous stope voids left by the previous mine operator that are regularly monitored and surveyed to ensure stability. Where unrecovered ore occurs in pillars or adjacent areas, CCPL is progressively filling some of these voids to allow extraction of adjacent ore grade material. CCPL is reviewing the installation of TDRs into the voids for on-going monitoring; the recent pillar failure within the Mammoth Remnants has highlighted the need for this increased ground monitoring. It has also highlighted the need to review a larger area of impact from the extraction of a remnant stope.

Greenstone

The initial geotechnical assessment of the Greenstone deposit was based on over 2,000m of rock core logging from 15 holes. The resource comprises a series of steeply dipping lenses bounded by strands of the Mammoth Extended Fault. The country rock hosting the copper mineralisation largely comprises bedded, jointed quartzites with zones of siliceous fault breccia with haematite alteration. The geotechnical logging data was processed using various geotechnical classification systems to determine mining parameters. The Avoca-style mining method employed initially allows progressive backfilling of the stope to minimise hangingwall exposure in weaker ground, but more recent mining within Greenstone has encountered better ground conditions allowing more conventional LHOS with rock fill post mining.

Pluto

A geotechnical assessment was undertaken for the Pluto deposit based on geotechnical core logging data from the CCPL 2017/2018 exploration programme, based on around 9,000m of geotechnical core logging of exploration drilling, 1,000m being within the resource. Pluto comprises a series of lenses and lies between the Foschi's and Mammoth faults at the convergence and intersection of the Mammoth and Mammoth Extended faults. The country rock hosting the copper mineralisation largely comprises altered, siliceous fault breccia. Alteration minerals are dominantly haematite and kaolinite.

Within the planned mining area a number of areas of poor ground have been identified, generally within the orebody and in the eastern rock mass where development is planned. The assessment indicates that a 3-dimensional RQD model should be generated and used for mine planning purposes to minimise exposure of development to such areas; this is still to be completed. RQD values in Pluto are generally poor and mine planning has taken these factors into account with all stoping incorporating paste filling.

Esperanza

To date, geotechnical information for Esperanza is limited. Generally, RQD measurements immediately below the Esperanza pit show good quality rock, with poorer quality to the north of the pit. An initial geotechnical assessment provided guidelines for the preliminary mine designs with average stope sizes 25m long by 15m wide with paste fill. The assessment recommended a 50m pillar below the existing Esperanza pit which is currently being used for tailings storage.

In the current LOM plan Pluto and Esperanza are scheduled for production in 2026 and 2027 respectively. A detailed investigation, including 3-dimensional stress modelling and design will be required prior to mining. Further geotechnical assessment and mine design is required to better define the impact of mining beneath the open pit.

9.4 Hydrogeology Considerations

CCPL reports that the main aquifer at the mine is located within fractured rock at depths of 30m below the ground level. Baseline studies have shown the groundwater flow regime is a relatively flat water table with an elevation around 5220mL at both Mammoth and Esperanza. The host rocks have generally very low permeability (between 10^{-7} and 10^{-9} metres/second) with groundwater flow primarily along major fault lines and fractures, the most significant of which is the Mammoth Fault along with the historical Mammoth mine workings.

Overall, underground experience has demonstrated that the rock mass is tight with only minor dewatering of the underground operations required, of the order of 2L/s or 0.2ML per day. Recharge of the water table occurs by direct infiltration of rainwater and surface water into rock fractures.

The two mine areas, Mammoth and ESS, have pumping systems to manage groundwater and water from mine services. The Mammoth dewatering system consists of a combination of horizontal heavy-duty centrifugal slurry pumps and submersible sump pumps located at twelve staging pump stations with each station operating at varying static heads of 40-100m, and a total dynamic head of up to 110m; pump motors are either 75 or 90kW. The Greenstone mine area utilises the Mammoth dewatering system. At ESS there is similar staged pumping with stations at 100m vertical intervals.

Overall, hydrological issues are considered a low risk to the underground operations with pumping capacity sufficient for the groundwater flows. Major rain events may cause short term issues but it is noted that both operations are well established with significant underground development which can provide sacrificial storage for sudden water flows, so impacts are minimised. A detailed geotechnical and hydrological study will be required to assess the risks associated with the presence of water and tailings in the Esperanza open pit before mining at Pluto and Esperanza commences.

9.5 Mine Ventilation

In 2017, CCPL commissioned Ozvent Consulting Pty Ltd (“Ozvent”) to prepare a report on the ventilation requirements for the LOM plan and evaluate the existing ventilation systems at Mammoth and ESS. The ventilation network has further developed since, with updates in line with the mining fleet requirements. CCPL has commissioned a more recent review but there is some discussion on the assumptions used in preparing the revised review recommendations so further analysis is necessary.

Esperanza South

The ventilation system at ESS is an exhaust system with fresh air flow down the decline which acts as the main fresh air intake. The exhaust system consists of a portal and short raise to a parallel decline to 5245mL which connects a series of short return air raises that follow the decline; a 500kW fan is installed at the portal to the exhaust airway. The ESS LOM ventilation requirement is estimated at up to 300 cubic metres per second (“m³/s”) based on the planned fleet required for the ESS production. The actual airflow is currently 230m³/s, which is close to the maximum, so a new 5m diameter return air raise from 4975mL to surface is planned (approximately 300m) (Figure 5), which will allow the LOM required airflows to be met. The ventilation raise is included in the LOM capital budget for 2021.

A second 500kW fan will be installed in parallel with the existing fan on top of the new raise. The second fan will be transferred from the Mammoth HR1 raise. A replacement fan will be purchased for Mammoth HR1 Raise and is allowed for in the 2021 Budget.

Mammoth

At Mammoth the major components of the ventilation system are:

- HR1: this is the main exhaust raise system consisting of an initial 435m 5m diameter raise and then a series of 4.5 x 4.5m raises; the main 500kW fan is mounted vertically on the 5m diameter raise.
- FR1: this raise (and the decline) provide the main surface fresh air intake and comprise 3.5m and 4.5m raises.
- HS1: this raise is a 2.4m diameter 670m surface ventilation raise to 4575mL; currently this is not in use but will be used to ventilate Mammoth Deeps in the longer term.
- EN1: this raise from surface to 4950mL supplies fresh air to the escape ladderway, fresh air base and underground crib room; a 2 x 55kW fan is installed at the collar.

The total exhaust volume from Mammoth via HR1 totals around 200m³/s. No additional major capital ventilation infrastructure is planned for Mammoth, with the ventilation network advancing along with the decline to the final proposed depth of 4000mL.

Greenstone

The Greenstone deposit ventilation network consists of the access from the Mammoth decline for fresh air intake and a 2.4m diameter exhaust raise, located close to the Greenstone decline, from 4925mL to surface (Figure 5). The escapeway had been installed in the exhaust raise but due to deteriorating ground conditions at the bottom of the raise it was deemed to be unfit for access and a separate 1.4m diameter raise for the escapeway was bored from surface to 4950mL in 2019. The exhaust raise is still available for ventilation. There is a 280kW fan installed at the surface of the exhaust raise and the airflow rate is approximately 80m³/s.

Pluto and Esperanza

A preliminary design has been prepared for the ventilation network for Pluto which will be extended to Esperanza. Two 5m diameter raisebore holes are planned from surface to around 4800mL, one for fresh air intake and the other for return air. Ozvent recommended a fan size of 350kW to meet the design airflow rate of 290m³/s; further vent design work will need to be completed prior to development but capital allowances have been made in the LOM plan for the raises and fan installation.

Cooling

Ozvent has reported that hot working conditions may become an issue for mining operations below 4500mL and it will not be practical to maintain acceptable working conditions below this horizon by simply increasing ventilation rates. The report notes that to implement refrigerated mine air cooling, the most cost-effective option is to employ surface bulk air cooling (i.e. cooling the air at the intake raise collar); alternatively localised spot cooling could be applied for those workplaces exceeding 28°C wet bulb, rather than any general refrigeration.

The geothermal gradient was not measured as part of the Ozvent report but it was assumed that the gradient would be similar to the Dugald River project located about 100km to the southeast. In-situ bore-hole temperature readings obtained for that project in 2008 yielded an extrapolated surface rock temperature of 30°C and a geothermal gradient of 2.4°C per 100m depth. While this relatively high gradient may not necessarily represent the geothermal gradient at Capricorn Copper, it does suggest that hot working conditions may be experienced at the development faces with increasing depth. There is some allowance for increase in operating costs for Mammoth to provide a cooling unit to be established in the HS1 intake for Mammoth Deeps. Ozvent has indicated that a larger diameter raise than HS1 would be required but this requires further analysis.

9.6 Underground Operations

Operations

Mining is split into two distinct areas, the ESS SLC operation serviced by the portal and decline at Esperanza South and the Mammoth and Greenstone (and future mining at Pluto and Esperanza) operations serviced by the portal and decline at Mammoth. All mining operations underground are carried out by the mine contractor, Byrncut Australia Pty Ltd (BAPL). The mine contract between CCPL and BAPL commenced in early 2017 for a five year term which has an option for a one year extension. Overall, CCPL is satisfied with the contractor's performance; BAPL is generally meeting targets, although there were instances where the contractor's remote loaders were temporarily stuck in stopes, which impacted on production in the first half of 2020. A fifth remote loader was mobilised to site in 2020 and has been utilised to support production; with recent events the extra loader will provide capacity to increase production to overcome the current shortfall in 2021 production.

The mine offices and mine fleet workshops are located near the Mammoth portal. CCPL manages the underground operations as well as carrying out all technical services including mine planning, scheduling, geotechnical engineering, survey and geological grade control. Grade control is important in all mines but is particularly critical for managing the draw in the ESS SLC.

Mining Fleet

The mine contractor has a mining fleet comprising eight 60t haul trucks, five 20t loaders, two development jumbos, three production drills, and miscellaneous service vehicles including graders, and charging vehicles. The equipment is serviced and maintained in the contractor workshop close to the Mammoth portal; daily service checks and refuelling are carried out at the ESS portal and at the underground service bay (4720mL) at Mammoth. A ninth truck is planned to be mobilised to site to increase trucking capacity, particularly for waste. As the underground waste tippie at Mammoth is not available, waste trucking has to be to surface, increasing trucking requirements until the issues with the Mammoth Remnant area are resolved.

Load and Haul

At ESS, ore is loaded from the SLC drawpoints to stockpile bays and then loaded into trucks which haul the ore to the surface and a further 2.7km to the ROM pad at the processing plant. The total ore haulage distance is currently around 5km and with depth this will increase to 8km. This equates to an increase in haulage tonne kilometres (“tkm”) including both ore and waste from 5.6Mtkm to a peak of 9.5Mtkm per annum at ESS.

At Mammoth and Greenstone ore is loaded from the stope drawpoints to stockpile bays and then loaded into trucks which haul the ore to the surface and a further 900m to the ROM pad at the processing plant. The ore haulage distance varies from approximately 2km from Mammoth Remnant and Greenstone, increasing to 5km from Mammoth Deeps over the LOM. The tkm per annum for Mammoth Deeps increases from 2.9Mtkm in 2021 to a peak of 5.4Mtkm per annum. The LOM plan assumes that truck haulage will continue to be used as mining progress to greater depths and additional trucks will be added to the fleet by the mine contractor as and when required, as is the case at Mammoth at present.

Paste Filling

As part of the re-start of operations, a paste fill plant was constructed above the Mammoth deposit for paste filling the Mammoth historical stope voids and remnant stopes to allow extraction of pillars, and as fill in the Mammoth Deeps LHOS and also for the future Pluto and Esperanza stopes.

Paste fill is a non-segregating slurry that remains as a homogenous product during transport and placement and contains tailings with a binding agent (cement/slag) of around 3.5-4%. The fill infrastructure includes lined drill hole and pipes discharging the paste into the required stope void. The plant has an operating capacity of around 40-50 cubic metres (“m³”) per hour and is operated by Outotec.

The plant has been run intermittently with a number of issues with the fill lines over an extended period; after the recent pipe line failure from surface it is planned to install a friction loop to reduce wear. Filling is scheduled to recommence in early H2 2021. Delays in filling voids has the potential to impact the scheduled extraction of stopes, although short term delays in placement of fill appear manageable without significant impact on overall production. The Greenstone stoping operations are utilising waste rock fill with some selective waster rock fill also placed into historical Mammoth voids.

Mine Production

Table 9.2 sets out the production from each deposit for 2018 to 2020, and the planned production from each deposit over the LOM. The LOM production rate is planned to be maintained at 1.8Mtpa which was achieved in 2020. A number of initiatives were put in place to achieve the higher rate, including increased mine contractor resourcing and equipment, increase in active production sublevels in ESS and optimised caving strategy and modifications to the blast firing patterns to reduce hang-ups and dilution.

Table 9.2
Actual and Forecast LOM Mine Production Schedule

Item	Unit	Calendar Years													
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	30-34	Total
Esperanza South															
Ore	Mt	0.93	1.18	1.02	1.04	1.01	1.10	1.10	0.97	0.89	1.03	0.97	0.94	2.84	11.9
Grade Cu	% Cu	1.77	1.76	1.16	1.29	1.55	1.57	1.53	1.66	1.80	1.72	1.90	2.01	1.80	1.69
Contained Cu	kt Cu	16.5	20.8	11.8	13.32	15.6	17.3	16.8	16.1	16.0	17.7	18.4	18.9	51.1	201.4
Mammoth															
Ore	Mt	0.13	0.29	0.45	0.27	0.79	0.72	0.71	0.84	0.79	0.53	0.27	0.15	2.72	7.8
Grade Cu	% Cu	1.91	1.88	1.90	1.74	1.94	1.93	1.96	2.06	2.15	1.82	1.97	2.15	1.93	1.96
Contained Cu	kt Cu	2.5	5.5	8.6	4.8	15.4	13.9	13.9	17.3	17.0	9.6	5.3	3.3	52.5	152.9
Greenstone															
Ore	Mt	0.23	0.11	0.37	0.44	0.04									0.5
Grade Cu	% Cu	1.55	1.53	1.92	1.95	1.56									1.92
Contained Cu	kt Cu	3.6	1.7	7.1	8.7	0.6									9.3
Pluto															
Ore	Mt									0.14	0.25	0.43	0.42	0.25	1.5
Grade Cu	% Cu									2.34	2.83	2.53	2.90	3.02	2.75
Contained Cu	kt Cu									3.3	7.2	11.0	12.1	7.6	40.9
Esperanza Deeps															
Ore	Mt										0.06	0.19	0.32	1.97	2.54
Grade Cu	% Cu										1.76	1.75	2.02	2.43	2.31
Contained Cu	kt Cu										1.0	3.3	6.4	47.9	58.7
Total															
Ore	Mt	1.30	1.58	1.85	1.75	1.83	1.81	1.81	1.80	1.82	1.87	1.86	1.83	7.78	24.2
Grade Cu	% Cu	1.75	1.77	1.49	1.53	1.73	1.72	1.70	1.86	1.99	1.90	2.04	2.23	2.04	1.9
Contained Cu	kt Cu	22.7	28.0	27.6	26.7	31.7	31.2	30.7	33.5	36.2	35.5	37.9	40.8	159.1	463.3

Note: 2021-2033 production is based on LOM forecasts including both Ore Reserves and Resources; Totals are for period 2021 to 2034; reference for 2021 forecast update (file: 20210426 Project Cyprus - BDA Update_vSent.xlsx)

Current mine production is predominantly from the ESS SLC, producing 55% of the ore tonnage, with Mammoth and Greenstone contributing around 24% and 21% respectively in 2020. The recent pillar failure in March 2021 leading to the cessation of mining at Mammoth and Greenstone is impacting the production in the first half of 2021; ore mined in the first quarter was 415kt at a grade of 1.3% Cu which is close to budget tonnage but 27% below budget grade; the grade was impacted by the lower tonnages from Mammoth and Greenstone. Mammoth Deeps and Greenstone re-commenced operations in mid-April 2021; Mammoth Remnants will commence after further stope sequence and void review.

The overall LOM production based on the scheduled mineral inventory is 24.2Mt at 1.9% Cu, with 11.9Mt from ESS, 7.8Mt from Mammoth, 0.6Mt from Greenstone, 1.5Mt from Pluto and 2.5Mt from Esperanza; the percentage tonnage contribution from each deposit to the LOM is 49%, 32%, 2%, 6% and 10% respectively. Greenstone production will be completed in 2022 with the ore sources being reduced to just ESS and Mammoth for a three year period, although Mammoth production will be from both Mammoth Remnant and Mammoth Deeps areas. In 2026 Pluto will commence ore production, initially from development, and Esperanza will commence a year later in 2027.

The LOM schedule is primarily based on Proved and Probable reserves but also includes areas of Measured and Indicated resources that have not yet been formally included in reserves as well as lower geological confidence material comprising Inferred resources and a minor amount of unclassified mineralisation (Exploration Target). Historical drilling has primarily been from surface, and at depth the drill spacing is commonly inadequate to permit a Measured or Indicated classification. With underground development, sites become available for more detailed infill drilling, but typically these sites only provide access to the next few development levels. Thus a significant portion of the LOM planned tonnage remains outside the reserve category, though this category will be progressively expanded as development and infill drilling continue.

Table 9.3 provides a summary of the LOM schedule showing the relative contributions of reserves, resources and unclassified material to the LOM plan. For the purpose of this comparison, Measured and Indicated resources not yet formally included in Ore Reserves, typically due to lack of detailed planning, have been combined with Ore Reserves and are compared with the percentage of Inferred resources and unclassified material.

In total, 60% of current LOM production is based on Ore Reserves and Measured and Indicated resources with 40% based on Inferred resources (34%) and unclassified material (6%). Over the next five years (2021-2025), 68% of production is based on Ore Reserves and Measured and Indicated resources with 32% based on Inferred resources and unclassified material. The unclassified mineralisation included in the LOM schedule is 1.4Mt or 6% of the total LOM inventory, and can be considered an Exploration Target. The quantity of Inferred resources and unclassified material in the LOM schedule does impose additional risks, but these should be progressively mitigated with advance drilling as development progresses in depth.

Table 9.3
Forecast LOM Mine Production Schedule by Category

Item	Unit	Calendar Years										
		2021	2022	2023	2024	2025	2026	2027	2028	2029	30-34	Total
Esperanza South												
Reserves + M/I Resources	Mt	0.79	0.67	0.57	0.74	0.60	0.58	0.64	0.55	0.52	1.02	6.67
Inf. Resources/Unclassified	Mt	0.25	0.34	0.53	0.36	0.37	0.31	0.39	0.42	0.42	1.82	5.21
% Inf. Resources/Unclassified	%	24	34	48	33	38	35	38	43	45	64	44
Mammoth												
Reserves +M/I Resources	Mt	0.20	0.50	0.46	0.55	0.62	0.58	0.21	0.08	0.00	1.14	4.36
Inf. Resources/Unclassified	Mt	0.07	0.29	0.26	0.16	0.22	0.21	0.32	0.19	0.15	1.58	3.44
% Inf. Resources/Unclassified	%	26	37	36	22	26	26	60	71	99	58	43
Greenstone												
Reserves + M/I Resources	Mt	0.39	0.01									0.40
Inf. Resources/Unclassified	Mt	0.05	0.03									0.09
% Inf. Resources/Unclassified	%	12	87									17
Pluto												
Reserves + M/I Resources	Mt						0.12	0.17	0.35	0.34	0.24	1.23
Inf. Resources/Unclassified	Mt						0.02	0.07	0.08	0.08	0.01	0.26
% Inf. Resources/Unclassified	%						16	30	18	18	3	17
Esperanza Deeps												
Reserves +M/I Resources	Mt							0.00	0.02	0.13	1.68	1.82
Inf. Resources/Unclassified	Mt							0.06	0.17	0.19	0.30	0.72
% Inf. Resources/Unclassified	%							100	91	59	15	29
Total												
Reserves + M/I Resources	Mt	1.39	1.17	1.03	1.28	1.23	1.27	1.03	1.00	0.99	4.13	14.52
Inf. Resources/Unclassified	Mt	0.37	0.66	0.78	0.52	0.58	0.54	0.84	0.85	0.84	3.66	9.65
% Inf. Resources/Unclassified	%	21	36	43	29	32	30	45	46	46	47	40

Note: Proved and Probable reserves have been combined with Measured and Indicated resources that have had mining parameters applied; Inferred resources and unclassified material have also had mining parameters applied

Figure 7 shows a breakdown of annual production by deposit and by resource classification.

In the Mammoth Deeps area, CCPL plans to develop along strike and down dip under geological control to determine the limits of the ore zone. Due to the difficulties of access, it is challenging to clearly define the limits by advance drilling, so that development and subsequent sludge drilling is being used to define stope boundaries. If ore grade mineralisation is shown to continue, stope limits can be extended and the available ore increased. However, commencement of stoping on that level can be delayed while the ore boundaries are defined and incorporated into the stope planning. Conversely, if low grade mineralisation is encountered, stope limits may be reduced. To date, variations have generally been positive but delays in the definition of the final boundary can impact the mine production schedule. CCPL plans to mitigate this issue with a programme of underground drilling whenever suitable sites become available.

Mine lateral development is planned to be approximately 65km over the LOM with around 7,000m per year in the short term, reducing to around 5-6,000m per annum for the majority of the LOM before reducing a few years before completion of the planned operation. The split of the development by cost allocation is 37km operating and 28km capital. Development rates are scheduled at appropriate levels for the mine fleet and available development headings. Development metreage in 2018, 2019 and 2020 was 5,680m 5,820m and 7,118m respectively; the development rate is only tracking at an equivalent rate of 6,700m per annum for the first quarter of 2021 and needs to increase to achieve around 7,900m for 2021; the recent events at Mammoth have impacted on the development rates and these rates should increase now full access to Mammoth has been re-established.

BDA considers the principal short term risk to production is the transition from the northern (upper) ESS cave to the southern (lower) cave, with the establishment of a new cave front. In addition, there is potential for delays in development of mine production areas at Mammoth and completion of paste filling prior to extraction of remnant stopes.

BDA has reviewed the main inputs to the mine scheduling and these are considered appropriate and achievable but increasing depth of operations may reduce productivity which may impact both development and production. The LOM plan is based on a vertical advance rate of around 70m per year at ESS, but there is reduced ore tonnage per vertical metre in the next few sublevels, partly due to the requirement to leave a cushion of ore above the southern cave. The recent cessation of mining has provided added resources within ESS which has resulted in increased in development inventory. CCPL has some flexibility within the schedule to mitigate risk to production by increasing mine development rates or increasing production levels from one or other deposit as has been shown during the recent interruption to Mammoth and Greenstone production.

CCPL is reviewing a further production increase from 1.8Mtpa to 2Mtpa, although this is not incorporated in the current LOM plan. This mining rate was achieved during H2 2020, however, if this is to be sustained, the following steps would need to be initiated:

- increase in cave sublevels and drawpoint availability at ESS
- more than one mining front at Greenstone, or increasing mining fronts at Mammoth
- additional trucks to support both ESS and Mammoth mines
- ventilation review of impact of additional trucks and potential additional ventilation capital required.

These changes should be achievable as the production rates proposed are not unreasonable for truck hauling via declines, but the challenge will be to establish sufficient inventory of development and stopes to maintain the level of production.

Conclusions

The CCPL LOM plan is considered appropriate for an ongoing operation although increased definition drilling will allow better planning in the short and medium term.

The recent pillar failure in Mammoth Remnants has impacted on the production from this area, and has highlighted the need to increase monitoring and further geotechnical review the planned stope sequencing especially around the various stope voids within the Remnants.

Overall the geotechnical knowledge is appropriate for the operation particularly for the SLC at ESS; CCPL has drawn on external consultants to assist in managing the known risks associated with the SLC. Additional definition drilling in Mammoth Deeps should provide the necessary geotechnical data ahead of mining. Pluto and Esperanza require additional geotechnical assessment and planning before mining can commence, but the schedule allows ample time for determination of stope designs and appropriate access beneath the Esperanza open pit which is currently used for tailings storage.

The mine contractor, BAPL, is generally meeting the requirements of the mine forecast and CCPL reports that it is generally satisfied with the contractor's overall performance. BAPL has an appropriate fleet at the mine and this has been increased to mitigate any lower equipment availabilities.

The establishment of the southern ESS cave is critical to CCPL meeting the production rates in the short term. In addition it is important that planned development rates are achieved to allow access to stoping on multiple levels. Recent development rates have been around target levels for 2021. There has been progress in initiating the cave with the recent filling of the slot with broken ground but there still needs to be evidence that the cave is fully initiated. CCPL is taking appropriate steps to monitor the progress of the fallen ground above the southern cave SLC and plans to assist the propagation of the cave if required. Once the southern cave is established and multiple sublevels are available for production, ESS should have ample capacity to meet the proposed production rates. Further extension of the northern cave is providing added ore sources for ESS in the short term.

The inclusion of both Inferred Resources and unclassified mineralisation in the LOM plan inventory increases the long-term production risk, given the lack of definition of this material. The unclassified material could effectively be considered an Exploration Target. Possible impact includes reduced production from some areas of Mammoth if drilling does not confirm mineable tonnages and grades, as much of this material is within the Mammoth deposit. However, the multiple ore sources planned to be mined in the LOM schedule should allow some mitigation of this production risk, and there also remains material upside from definition of additional ore through infill and exploration drilling.

For these reasons, as well as those identified in earlier sections of this Report – see in particular Section 2.3, Section 2.5, the discussions on ‘Geology/Resources/Reserves’ and ‘Production Forecast’ in Section 3.1, the corresponding mitigating factors identified in Section 3.2, and also Sections 6.5, 9.2 and 9.6 – both EMR and BDA consider that there is a reasonable basis for reporting within the LOM plan that part of the production target that is derived from the Exploration Target (unclassified material) totalling 1.4Mt (or 6%) of the total LOM inventory.

Nevertheless, there is a low level of geological confidence associated with Inferred Mineral Resources and Exploration Targets (unclassified material). In terms of Inferred resources, there is no certainty that further exploration work will result in the determination of Measured or Indicated Mineral Resources, and in terms of the Exploration Targets, the quantity and grade are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources. In both cases there is no certainty that the production target itself will be realised.

The paste filling operation has achieved required placement rates over the short term but the recent surface hole blockage has restricted paste filling and current stoping operations are largely reliant on waste rock fill; in most areas, however, this appears satisfactory. The performance of the paste fill plant and filling rates are important to the LOM schedule being achieved; underperformance may reduce available ore tonnages in the LOM due to the delays in filling or the need to leave pillars. The potential impact of stope voids on production as demonstrated in the recent events within Mammoth Remnants emphasises the need for strategic filling of stope voids.

Overall BDA considers that the proposed target of 1.8Mtpa ore production from underground as per the LOM plan is achievable, but depends on adequate production sources, including increased production levels in ESS SLC, to allow added flexibility within the overall mine schedule to mitigate any individual stope or drawpoint delays.

10.0 PROCESSING

10.1 Overview

The processing plant at Capricorn Copper incorporates the following stages:

- a single-stage jaw crushing operation
- a crushed ore stockpile
- a two-stage SAG mill/ball mill grinding circuit, with the ball mill operated in closed circuit with cyclones
- a flotation circuit which includes roughing, cleaning, recleaning and cleaner scavenging, and a vertical regrind mill
- a concentrate dewatering plant which includes a feed thickener and a plate-and-frame pressure filter.

Target primary grind size is 80% passing 106µm; the ore can be reground to around 80% passing 30µm when required. Flotation concentrate is thickened, filtered, and most is then trucked by a contractor to a rail siding near Cloncurry, east of Mt Isa, from where it is railed to Townsville for storage and ocean shipment by bulk carrier. Some concentrate is trucked to Mt Isa and sold to Glencore for smelting at the latter's Mt Isa operation.

10.2 History

The first significant ore processing at the site occurred in the 1970s when SML and subsequently Consolidated Gold Fields Australia Ltd and Mitsubishi ran an underground mine based on the Mammoth orebody, feeding a copper flotation operation that processed around 325ktpa of ore. This operation ceased around 1977, with a contributing factor being Mitsubishi's reluctance to accept the high arsenic (up to around 0.7% As) copper concentrate being produced from some Mammoth lodes at the time.

In 1978, RGC commenced a heap and in-situ leaching operation, producing copper cathode via a solvent extraction/electrowinning (SX/EW) process.

The comminution circuit in the current plant was constructed around 1999 as part of the crush/grind/high pressure leach/SX/EW operation established by Aberfoyle and subsequently owned by Western Metals for the processing of the high grade chalcocite ore from the Esperanza pit.

Subsequently, in 2003, ABM acquired the operation and converted the processing plant to a conventional crush/grind/flotation operation producing a copper concentrate. This plant operated until it was closed down in 2013, and provides the basis of the current CCPL processing plant.

CCPL rehabilitated and refurbished the copper concentrator in 2017, adding some additional flotation cell capacity. For much of the period since operations resumed in 2017, the capacity of the plant has exceeded that of the mining operation, limiting plant operating time to less than the usually achievable level of around 92-94%.

In late-2018 EMR opted to contract plant management and operations, including maintenance, to Ausenco, a Brisbane-based Australian mineral processing and design engineering company. Ausenco appointed a Process Manager and the processing section employees at the time transferred to Ausenco employment. While the contracting of mining operations is common in the Australian mining industry, this was the first instance in Australia of contracting hard rock plant management and operations to an external supplier. From BDA's review, the change appears to have been successful and has contributed to progressive improvements in throughput rate, reliability and efficiency.

10.3 Plant Operations

The plant flowsheet is shown in Figure 6. The plant comprises the following major operations:

- single stage jaw crushing to approximately 80% finer than 130mm, with the crushed ore being conveyed to a 4,000t capacity crushed ore stockpile
- recovery of ore via ore feeders and conveyor belt to a two-stage grinding circuit, comprising a 2MW, 5.5m diameter by 4.1m long SAG mill and a 3.4MW, 5m diameter by 7m long ball mill, the latter operated in closed circuit with cyclones
- flotation processing of the cyclone overflow, containing solids ground to around 80% finer than 106µm, fed to a copper flotation process that comprises four 100m³ rougher cells, eight 8.5m³ cleaner 1 cells, six 8.5m³ cleaner 2 cells and twelve 8.5m³ scavenger cells.
- regrinding of intermediate middlings streams to 80% passing 30µm.
- dewatering of flotation concentrate using a 13.5m diameter high-rate thickener and a vertical plate pressure filter, with storage of concentrate in a storage shed awaiting truck transportation off site.

The process plant water supply comprises concentrate and tailings thickener overflows, water treatment plant product (return water from tailings storage) and raw make-up water.

A vertical regrind mill with a maximum power draw of around 1MW is available to regrind flotation circuit middlings streams (e.g. scavenger concentrate). Fine regrinding is important for fine-grained domains but adds little value to coarse-grained domains. The benefits of improved liberation are offset by negative impacts on pulp chemistry, so the regrind mill is taken off-line if it is considered that it is not making a net contribution. It was offline for extended periods in 2019 and 2020 but was reintroduced in late 2020 when plant results were below forecast. This most likely reflects a change from a more favourable to a less favourable domain mix. CCPL has commissioned external experts to investigate pulp chemistry improvements in grinding and regrinding. BDA expects that regrinding will generally be needed for the forecast future plant feed mix.

A range of modifications have been made to the process plant since operations resumed in 2017. These include:

- changes to the design of the SAG mill feed chute to reduce the number of blockages caused by top size material in the ore
- redesign of SAG mill liners and lifters to increase the life of liners, lifters and grates and to allow the mill to operate with a higher ball charge
- fitting of a ball retaining ring in the ball mill discharge to allow mill power draw to be increased from 2.4 to 2.9MW
- changes to reagent addition points in the flotation circuit and automation to allow better reagent control
- modifications to the filter feed thickener to enable the thickener underflow density to be increased, producing a significant increase in the capacity of the filter and enabling the moisture content of the product to be reduced significantly
- installation of a logging system for recording process operating parameters (including equipment running hours and live operating data)
- improved control and automation of flotation air and levels, and better reliability of on-stream analysis systems.

In addition, a range of operating initiatives have been undertaken to improve the performance, reliability and stability of the plant. Ausenco's input has been instrumental in many of these upgrades.

In BDA's opinion, the plant is generally suitable and has sufficient capacity to process the feed rates proposed in the LOM plan.

10.4 Recent Process Reviews

Several consultants have been engaged over the last three years to assess the performance of the plant including highly regarded experts in ore mineralogy, flowsheet design, operating techniques with specific experience with these ores, and flotation pulp chemistry. High quality work reported in the 2016 Feasibility Study identified the mineralogy, flowsheet requirements and metallurgical performance of fourteen different ore domains. In 2020 and 2021, flotation chemistry experts conducted detailed on-site programmes seeking to improve flotation selectivity. Test programmes have been well-directed and executed. Important findings are:

- there is wide variability in grain size, mineral composition and textural complexity between domains; in laboratory tests, some domains (Greenstone) may produce 45% Cu concentrate at 93% recovery, while others (Esperanza fine chalcocite/high pyrite) may produce 16% Cu at 82% recovery
- the flotation circuit performs well given the textural complexity and variability; performance in any period depends on the mix of ore domains
- a further challenge is caused by the high electrochemical reactivity of pyrite in this ore; this induces galvanic reactions with chalcocite (a copper sulphide) which releases copper ions during processing and these copper ions in turn "activate" some pyrite causing it to be recovered unselectively to concentrate; the combination of both chemical and mineralogical complexity explains the relatively low copper concentrate produced in spite of the presence of high grade copper sulphide minerals (bornite, chalcocite and small amounts of native copper); in some cases, the chemical effects of high pyrite reactive domains may also adversely impact results from better-performing domains
- these pulp chemistry effects have been long known and are well understood on site; new programs in 2020 and 2021 are applying industry-leading techniques to further improve understanding and identify improvements
- arsenic levels, and its deportment to concentrate, varies between domains; arsenic is predominantly associated with pyrite recovered to concentrate and As level in concentrate is managed by scheduling and blending of both plant feed and filtered concentrate; this keeps As at acceptable levels for marketing, though penalties in treatment are incurred (US\$5.0-7.5/t for concentrate with 0.4-0.5% As)

- the finer grained and texturally complex domains require fine regrinding for good performance and the regrind mill was reintroduced in 2020; however, the benefit of better mineral liberation is offset by the chemistry effect of increased pyrite reactivity at fine sizes; external and on-site programmes are designed to reduce this chemical impact so that the full liberation benefit is evident in results.

10.5 Future Ore Supply and Production

A high proportion of the plant feed ore supply is derived from operations in the Esperanza South and Mammoth ore bodies which both contain a mix of good-performing and difficult domains. Between 2022 and 2026 all mill feed comes from these orebodies, with supply from the good-performing Greenstone ore ceasing in early 2022 (subject to any further exploration success). From around 2027, the ore feed will be supplemented with ore from Pluto and Esperanza deeps, requiring the installation of a gravity circuit and controlled potential sulphidisation to recover native copper and oxidised copper minerals. The LOM forecast performance drops from around 26% Cu concentrate at 87% recovery to around 21.5% Cu at 85% recovery from 2027.

The data shown in Table 10.1, collated from Tables 28 and 70 in Chapter 7 of the DFS, shows the variable performance between domains. Improvements to grinding and plant reliability and control since 2019 have demonstrated the ability to process around 1.9Mtpa at an ore hardness equivalent to that of the material currently being mined. The planned ore throughput of 1.8Mtpa therefore appears achievable, with some upside potential. In 2020 the plant processed 1.81Mt of available ore.

10.6 Metallurgical Performance

CCPL has advised BDA that the flotation performance data set out in the 2016 DFS, summarised in Table 10.1, gives a reasonable guide to the results from treatment of the Capricorn Copper ores. This demonstrates wide variability in performance depending on the mix of domains in the feed.

In the 18 months to May 2020, the plant averaged around 25% Cu concentrate at 82.5% recovery. From June 2020 to March 2021, concentrate grade dropped to an average of 22.0% Cu at about the same recovery, probably reflecting a more difficult domain mix. Sublevel cave mining does not allow precise control of domain mix, and future performance is likely to vary. Achieving the forecast 26% Cu concentrate at about 87% recovery from 2021 to 2026 will require either an improved domain blend compared with that processed recently, or improvements from current metallurgical programmes.

Table 10.1
LOM Metallurgy Forecast by Domain – 2016 Definitive Feasibility Study

Domain	Concentrate Grade			Recovery	
	% Cu	g/t Ag	% As	Cu %	Ag %
ESS Supergene	29.5	110	0.0	77.1	70.0
ESS Coarse Cc	41.1	135	0.1	90.1	76.0
ESS Fine Cc High Py	16.2	60	0.3	82.9	66.7
ESS Hematite	42.2	135	0.1	86.7	71.0
Mammoth Chalcocite	28.4	30	0.9	93.9	50.3
Mammoth Bornite	20.7	40	1.1	79.9	57.9
Esperanza Deeps	20.9	75	0.3	68.4	50.0
Greenstone Cc	45.4	25	0.1	93.1	37.6
Pluto*	25.0	75	0.3	86.5	50.0

Note: *drill core was not available for Pluto, estimates are weighted average of domains

Since the DFS data in Table 10.1, preliminary flotation testwork in 2018 on Pluto, Esperanza and ESS Deeps samples indicated that copper recoveries ranging from 78-85% could be achieved to a 20% Cu concentrate grade, providing that an efficient native copper recovery circuit is provided for the Pluto ore.

Conclusions

The process plant has generally achieved reasonable results since the re-start of the operation in 2017. The engagement of Ausenco to manage the plant operations and maintenance has improved plant throughput rate, reliability and efficiency. The plant achieved the required LOM production rate of 1.8Mtpa in 2020 and has demonstrated capacity to exceed this if ore supply increases.

The ore is variable, with 14 domains identified with widely differing performance. The poor results from some domains reflect both textural and chemical complexity that are well understood by CCPL. The results in any period will vary depending on the domain mix processed. Performance in the last 18 months of around 22.5% Cu concentrate at 82.5% Cu recovery probably reflects a more difficult blend than that processed in 2019 and H1 2020 when concentrate grade averaged around 25% Cu. The LOM forecast of 26% Cu at about 87% recovery for 2022 to 2026 will require an improved blend of domains, or developments from current metallurgical programmes.

Processing of Pluto ore commencing in late 2026 requires a controlled potential sulphidisation process to be commissioned to recover oxidised copper minerals by flotation and gravity recovery to recover metallic copper. These are proven technologies and have been provided for in capital cost estimates.

11.0 INFRASTRUCTURE

The Capricorn Copper operation, located approximately 120km north of Mt Isa, is accessed by road from Mt Isa via the Barkly Highway (the highway connecting Tennant Creek and Mt Isa) and a mostly unsealed local road which runs northwards through the mine site from a point on the Barkly Highway about 40km northwest of Mt Isa (Figure 1). The local access road has a number of creek crossings with concrete causeways which are subject to flooding during and immediately after wet season rainfall. However, access to site is generally only subject to short interruptions. The road is maintained by the local municipality at CCPL's cost.

All stores, reagents and supplies are trucked to site along the access road, and all concentrate product is trucked from site, either to Mt Isa or to the railhead at Cloncurry.

Water supply to the operation is from Lake Waggaboonya, an established reservoir with a capacity of around 5.8 gegalitres which is located about 2km east of the mine site on Greenstone Creek (Figure 2). The concrete arch dam was constructed in 1969 for SML as part of the capital works carried out prior to commencement of operations in 1970. Significant storage on site for process water also exists in the Esperanza tailings dam and in the Esperanza open pit. A pipeline supplies water from Lake Waggaboonyah to the Lady Annie oxide copper operation, around 20km southwest of Capricorn Copper (Figure 8).

A Bioteq water treatment plant is fed with water from the Esperanza open pit, producing water for recirculation into the mill water tank; some copper is also produced as a by-product of the water-treatment process and is included in the concentrate product.

Electricity is supplied to the operation via a high voltage transmission line from the 302MW capacity Diamantina power station located in Mt Isa. The transmission line was constructed prior to the operation of the Mt Gordon SX/EW process for cathode production in the late 1990s/early 2000s and the power line and the site transformer installation are owned by Ergon Ltd. There is the potential from 2024 onwards for the mine to source power from the proposed "Copper String" development, which involves a new grid connection from Townsville to Mt Isa, which could have a significant impact on the mine's power costs.

Employee accommodation is located around 4km southeast of the mine site (Figure 2). The camp comprises around 325 single rooms with attached bathrooms, messing facilities and a bar. The camp is considered adequate for the scale of the operation and could be readily expanded if this was found to be necessary.

A sealed airstrip is located around 10km south of the mine-site adjacent to the access road to the mine. Most employees travel to the operation by road from Mt Isa (company transport is co-ordinated with commercial flights into Mt Isa) but BAPL utilises the airstrip to support charter flights for some of its employees from Townsville and Cairns.

Conclusions

Site infrastructure, power, water, accommodation and access are appropriate and generally well managed and maintained.

12.0 REGULATORY APPROVALS, LICENCES AND PERMITS

12.1 Environmental Regulatory Compliance

Background

The Capricorn Copper site has been subject to mining activities dating back to 1927. Mining activity has varied over the years and on several occasions the site has transitioned from ‘operational’ to ‘care and maintenance’ or ‘closure’ phases and vice versa (see Section 5.3).

Large scale ore mining at Mammoth, and production of a flotation copper concentrate commenced in the 1970s. Towards the end of the 1970s and into the 1980s the operation transitioned to heap leaching and in-situ leaching of Mammoth ores, with production of copper cathodes via an SX/EW process. In the 1990s, Aberfoyle and then Western Metals constructed a ferric leach-SX/EW plant to process high grade chalcocite ore from the Esperanza deposit, mined by open pit, and producing copper cathode.

In 2003 Aditya Birla Minerals Limited (ABM) purchased the project and reverted to underground mining at Mammoth and production of copper concentrates. The operation continued until 2013 when it was placed on care and maintenance.

Capricorn Copper Holdings Pty Ltd (CCH), an incorporated joint venture owned by EMR Capital and Lighthouse Minerals, acquired Birla Mt Gordon Pty Ltd from ABM in October 2015, and in November 2015 changed the name to Capricorn Copper Pty Ltd (CCPL). The project was also renamed from the Mt Gordon Operation to the Capricorn Copper Mine.

A DFS was completed in December 2016 and mining recommenced in 2017. The first ore was processed in November 2017 with 2018 effectively the first operating year. In 2018 EMR acquired Lighthouse Minerals share to take complete control of CCPL.

Under EMR/CCPL, the site has been the subject to a A\$110M capital programme to refurbish and restart the project. The project was declared a Prescribed Project under the Queensland State Development and Public Works Organisation Act 1971. There have been significant investments in environmental programmes in line with the Transitional Environmental Programme (“TEP”) and Court Orders implemented under the previous operator ABM. Projects of note that have been executed by CCPL over this period include A\$3M spent in capping the Mammoth (Old) Tailings Storage Facility (TSF) and Heap Leach Evaporation Pad Number 2. However, given the historical legacy issues, CCPL continues to face a number of challenges with respect to achieving environmental compliance, most particularly in relation to water storage levels and water discharge.

EMR Capital retains all management rights. The latest LOM plan envisages a 13-year operation to 2033, with the potential of further extension dependent on future drilling and exploration programmes.

Current Environmental Regulatory and Legal Framework

The following provides an overview of the regulatory and legal framework that applies (or has recently applied) to the Capricorn Copper site.

Prescribed Project Declaration

CCPL obtained Prescribed Project declaration under the State Development and Public Works Organisation Act 1971 on 20 April 2017. A Prescribed Project declaration enables the Queensland Coordinator-General, if necessary, to intervene in State and local government approval processes to ensure timely decision-making for the Prescribed Project. This provision, which was principally of relevance during the re-development phase, expired on 19 April 2020.

Environmental Authority (“EA”)

CCPL operations are conducted under an Environmental Authority (EA number EPML00911413) issued by the Department of Environment and Science (DES) on 1 November 2017 that authorises the carrying out of Environmentally Relevant Activities as defined in the *Environmental Protection Act 1994*.

Following acquisition of the project, CCPL was successful in obtaining an amendment to the EA incorporating the following operational changes:

- *ESS SLC* - approval of recommencement of underground mining at Esperanza South (ESS) and a change of mining methods to SLC methodology with the resulting increased surface disturbance
- *Esperanza Pit Tailings Storage* - approval was given for tailings to be deposited in the Esperanza pit during commissioning and ramp up, concurrent with water treatment and removal

- *Paste Fill* - approval was given for operation of a Paste Fill plant and placement of tailings underground; the Paste Fill plant was constructed, enabling a proportion of tailings to be diverted underground, for backfilling of old (and new) stoping voids; plant capacity allows for up to 75% of tailings to be placed underground.

Environmentally relevant activities (“ERAs”) authorised under the EA are:

- 8(1)(a) Chemical storage > 50t (Class 1 or 2 dangerous goods)
- 8(1)(c) Chemical storage > 500m³ (Class C1 or C2 combustible liquids)
- 31(1) Mineral processing
- 33(1) Crushing, grinding, milling, and screening
- 17 Mining copper ore.

The EA has undergone previous amendments by ABM to provide alignment with the requirements of both the Transitional Environment Programme EP MAN17560 and Court Orders; these are not described in detail here.

A Transitional Environmental Programme (TEP) with provisions relating to various requirements under the EA, was in force until 1 March 2019, with relevant actions undertaken by CCPL (see Section 13).

Court Order Site Water Release Requirement - 2015

CCPL was until recently subject to Court Order No 3163 issued by the Planning & Environment Court on 21 August 2015. The Court Order substitutes a Court Order originally made on 28 September 2011 (and subsequently amended later in 2011 and 2012) with orders that:

- required the Company to implement all reasonable measures to achieve a minimum net water reduction of 311ML from the Esperanza pit each year until the water level in the pit is at or below the Mandatory Reporting Level (“MRL”) of 217.5m AHD
- allowed the Company to release discharge quality water from the mine site when flow volumes in Gunpowder Creek exceeded certain specified levels and when the water levels in the Esperanza pit exceeded the MRL.

The 2011 Court Order referred to above was stayed until 21 August 2020, within the current period of the Plan of Operations.

Environment Protection Order (EPO) - December 2019

DES issued CCPL an Environmental Protection Order STAT 1440 (EPO) on 2 December 2019. The EPO and Court Order required CCPL to reduce the volume of water contained within the regulated structures on site by way of discharge to Gunpowder Creek.

CCPL was approved to release or discharge water from the Esperanza pit to Gunpowder Creek under Court Order #3163 of 2015 (Court Order), and to comply with discharge requirements under the site Environmental Authority EPML00911413 (EA) and the Environmental Protection Order (EPO) dated 2 December 2019. The Court Order for the site was current whilst stored water levels in the EPIT were above the MRL.

CCPL was directed under this EPO to release discharge quality water when flow volumes in receiving water exceeded 2.0m³ per second upstream of the W1 Release Point. The release volume was to be maximised within the constraints authorised by the EA and the Court Order 3163 of 2015. The discharge conditions specified by the Court Order were additional to existing EA conditions related to contaminant release to receiving waters. The water in the Esperanza pit was treated with the addition of hydrated lime, a component of the deposited tailings. The December 2019 EPO remained in force until 1 June 2020 and is now officially closed out with no further action required.

CCPL has now negotiated for the resolution of historic Court orders. Under the terms settled with DES, a new EPO was issued on 18 September 2020, focused on actions required to move the volume of water stored on-site to below Design Storage Allowance (DSA) by 1 November 2022. The parties by consent then secured an order from the Queensland Planning and Environment Court vacating the historic Court orders (21 September 2020).

CCPL has a Water Discharge Management Plan in place which describes the management process and infrastructure to facilitate a lawful discharge of water from the Esperanza pit to Gunpowder Creek during periods of natural flow.

A reverse osmosis (“RO”) plant with 2.0ML/day capacity has been commissioned to reduce the import of raw water from Lake Waggaboonya. Construction and operation of this RO water treatment plant was a requirement under the EPO, to be implemented by 31 January 2020. Water is now also recycled from the Esperanza pit (tailings decant) to the processing plant, via the water treatment plant.

12.2 Environmental Compliance Action Plan (ECAP) - November 2019

GHD Pty Ltd (“GHD”) has assisted CCPL since the acquisition of the project, having had a long history with the site, particularly in tailings and tailings storage facility management. CCPL has engaged GHD to develop an Environmental Compliance Action Plan (ECAP) to provide CCPL, its investors, and DES with clarity and confidence regarding direction and actions to be taken on the site over its operating life, but initially within the next 2-3 years.

This ECAP and associated actions have the following key areas of focus: operations, water management, rehabilitation planning, groundwater monitoring and receiving waters quality monitoring. Actions within these key areas are generally categorised as: technical (e.g. options analysis, concept design, site investigations and detailed design), approvals (e.g. EA amendments) and capital expenditure (i.e. implementation).

Given the environmental legacies and complexity of the site, it is important that there remains flexibility within the ECAP so that actions can be re-evaluated where new information, whether that be monitoring data, legislative changes or development of new technologies, becomes available.

BDA has reviewed the ECAP and considers the plan is appropriate to the site’s environmental setting and sufficiently comprehensive to ensure compliance into the future, but also acknowledges and recognises the environmental legacies which are the result of prior site activities which occurred under previous ownership and when limited environmental legal constraints existed.

12.3 Plan of Operations

The Capricorn Copper project is being operated under an approved Plan of Operation (“PoO”) to cover a three-year operational period between 1 June 2018 to 31 May 2021. The PoO has been prepared in accordance with requirements of Section 288 of the Environmental Protection Act, 1994.

Under the EA, certain documents are required to be included in the PoO. The documents include the Tailings Management Procedure under condition (E4-1) of the EA and a Post-Mine Land Use Plan under condition (F3-1) of the EA.

12.4 Financial Assurance

Section 288(2) of the EP Act requires CCPL to propose an amount of Financial Assurance for the rehabilitation programme for land disturbed, or proposed to be disturbed, as outlined in the PoO. The disturbance area proposed under this PoO also includes the decommissioning and rehabilitation of the paste fill plant recently constructed.

For the purpose of Section 288(2) of the EP Act, CCPL’s current Financial Assurance for the EA for the Plan of Operations increases to \$35,974,231. Financial assurance for CCPL’s EA is provided by way of a bank guarantee (ANZ Bank).

Conclusions

BDA has completed a review of CCPL’s statutory approvals from the documentation provided by CCPL. Given the complexities in regard to the site’s historic environmental legacies, the approvals process for gaining variations and amendments to regulatory permits appears relatively straightforward and the approvals achieved since CCPL ownership and endorsement of the Plan of Operations and Environment Action Plan, so far, appear appropriate for the Capricorn Copper mining operations. A new Environmental Protection Order (EPO) was issued on 18 September 2020, focused on actions required to move the volume of water stored on-site to below Defined Storage Allowance (DSA) by 1 November 2022. BDA can foresee no reason why any future mine development approval applications or variations would not be forthcoming.

13.0 ENVIRONMENT, SOCIAL/COMMUNITY AND HEALTH AND SAFETY

13.1 Background

BDA has reviewed those environmental aspects which are a material part of the project and which may have implications for project approvals and costs.

CCPL's environmental management programme focuses particularly on the monitoring of water volumes and water quality of water both held on site and discharged. Annual audits are conducted to establish performance against the requirements of site environmental management programme targets.

A Transitional Environmental Programme (TEP), relating to the Environmental Authority (EA), was in force until 1 March 2019. The TEP obligated CCPL to execute an agreed works programme over a 5-year period, designed to achieve and maintain compliance with the standards contained in the EA and relevant regulations for water quality in the receiving environment. The TEP required the following actions:

- maintain and upgrade where necessary all water management and seepage controls as described in the TEP
- install and commission four high capacity (Minetek) evaporation fans as well as refurbish and commission the existing water treatment plant to improve management of contaminated water on site
- evaluation of Preferred Rehabilitation Strategy for the Old Mammoth TSF (Figure 2) and Heap Leach Pad #2 landforms; this included completion and delivery of the technical feasibility, engineered designs and project implementation plans for the chosen rehabilitation strategy
- construction of cover trials or other research methodologies, to define more effective sulphidic waste cover designs; this activity included the excavation of materials to construct a range of covers of various design attributes
- construction of final cover designs over the Mammoth TSF and Heap Leach pads
- other earthworks as required to minimise environmental harm from surface or subsurface flows, including, but not limited to, scalping of contaminated soil and removal of contaminated sediments in Magazine Creek
- installation of equipment and test pits as required to better understand the geophysical properties of the Capricorn Copper project area and potential seepage pathways.

13.2 Water Management

Raw water is sourced from Lake Waggaboonya pump station (6GL capacity), for which the project has four water licences. Water for domestic consumption is pumped from the primary storage tank (which receives water from Lake Waggaboonya) to mine tanks and the camp potable water treatment plant. A reverse osmosis (RO) plant with 2ML/d capacity has recently been commissioned to assist with managing the site water balance and to reduce water consumption from Lake Waggaboonya.

Process water, which is treated in the water treatment plant at the process plant, is also sourced from the recycling of tailing decant water in Esperanza pit. Process water consumption is 4ML/d. Total average site water consumption is 4.0ML/d, including 13,500L/d of potable water.

A Water Balance Model has been developed to facilitate understanding of water management options and solutions to the site's water inventory and the site's predicted spill risk during rain events and wet seasons, more generally.

CCPL was subject to Court Order No 3163 of 2015 issued by the Planning & Environment Court on 21 August 2015, current until 21 August 2020, with orders that:

- require the company to implement all reasonable measures to achieve a minimum net water reduction of 311ML from the Esperanza pit each year, until the water level in the pit is at or below the Mandatory Reporting Level (MRL)
- allow the Company to release discharge quality water from the mine site when flow volumes in Gunpowder Creek exceed certain specified levels (as they did in February and March 2020, enabling an Esperanza pit release) and when the water levels in Esperanza pit exceed the MRL.

CCPL has now negotiated for the resolution of historic Court orders. Under the terms settled with DES, a new EPO was issued on 18 September 2020 for CCPL, focused on actions required to move the volume of water stored on-site to below DSA by 1 November 2022. The parties by consent then secured an order from the Queensland Planning and Environment Court vacating the historic Court orders (21 September 2020).

The September 2020 EPO requires that, by 1 November 2022:

- the water level in Esperanza Pit is at or below 204m AHD
- the water level in Mill Creek dam is at or below 214.5m AHD.

A significant rain event in March 2020 enabled a Temporary Emission licence to be granted to release pit water with elevated limits.

A Water Management Plan (incorporating the requirements of the now completed TEP) is in place, which makes provision for elements such as:

- dewatering of underground workings (Mammoth and Esperanza South)
- maintenance and management of existing water management dams (including spillway management, pumping infrastructure, dredging of the lime precipitant in Mill Creek Dam, treating and transferring water)
- water and sediment management activities
- diversion of clean storm water runoff away from the mine site
- site water reduction measures in accordance with the EA and 2015 Court Order involving water reduction from the Esperanza pit and Mill Creek Dam, through measures such as pan evaporation from site water storages, active water treatment using the refurbished water treatment plant, discharge to Gunpowder Creek during wet season flows and operation of High Capacity Evaporators off the pit highwall
- investigation of contaminant point sources impacting Magazine, Greenstone and Gunpowder Creeks, involving monitoring, excavating test pits, bores and other earthworks to facilitate improved environmental outcomes
- surface and groundwater monitoring to quantify water quality improvements resulting from removal of contamination sources, and provide data to assist with water treatment and discharge programmes
- upgrading the wet season pumping infrastructure to increase flow rate release and improve reliability.

13.3 Waste Management

Waste Rock Management

A Waste Rock Management Plan is in place to ensure monitoring of seepage collection sumps, water sampling at all waste dump locations actually or potentially discharging from the site, and capture on site of any seepage from dumps with potential for acid mine drainage, to ensure they drain to the Esperanza pit TSF.

Ongoing management of Mammoth, Esperanza and North Rock Waste Rock Dumps include activities such as: dumping, reshaping, extraction, compacting and capping, together with other drainage works as required at Mammoth TSF, Concentrate Shed, ROM pad and batter, Heap Leach pads and Mammoth Hill.

All dumps will eventually be capped to prevent water ingress and to shed clean water away from contaminated water storage areas.

Tailings Storage Facility Management

Tailings from the processing of ore are currently pumped to the Esperanza pit for storage and management of the tailings. Water from the pit is treated and recycled for use in the processing plant and other on-site uses via the recommissioned Water Treatment Plant. When operational, around 25% of tailings are also used to feed the paste fill plant that provides thickened tailings for backfilling of underground voids in the mining process.

The current EA, EPML00911413 dated 17 December 2019, provides approval with respect to Esperanza pit for tailings storage to a Maximum Operating Level (“MOL”) of 222m AHD, a Design Storage Allowance of 204m AHD and a Mandatory Reporting Level (MRL) of 217.5m AHD. The approved Design Storage Allowance of 204m AHD has almost been reached (a cumulative volume of approximately 2.4Mm³), and a further EA/EA amendment will be required to facilitate further tailings deposition into the Esperanza pit.

The planned EA amendment will seek licence approval for the Esperanza pit as a LOM TSF for the project. In addition to the increased storage capacity, this amendment will address detailed water management issues such as pit water quality, potential seepage through the pit wall and geotechnical and groundwater drilling programmes as well as a Consequence Category Assessment revision, as the Esperanza pit TSF is likely to be considered high risk (according to GHD’s assessment based on the *Manual for Assessing Consequence Categories and Hydraulic Performance of Structures*). Impoundment design is being developed by GHD to enable the in-pit tailings level to be raised above the currently approved MOL of 222m AHD, which is expected to be reached shortly, initially to 240m AHD and potentially to a height of 270m AHD. In order to obtain approval for this extension, it will be necessary for CCPL to be able to demonstrate achievement of a negative water balance, utilising the refurbished Water Treatment Plant, RO plant, and the high capacity Minetec evaporators.

An additional lift on the presently inactive Esperanza TSF (Figure 2), is currently being sought to enable placement of an extra year's production of tailings (approximately 400,000m³) with a 3m (to 280m AHD) impoundment wall raise. The EA amendment and application for this development was lodged on 30 March 2021. New infrastructure will need to be established to facilitate further tailings deposition to this TSF. This short-term expansion of the Esperanza TSF could bridge the gap for tailings storage capacity while awaiting finalisation of the EA amendment for the Esperanza pit, and resultant provision of project LOM tailings storage.

Condition G9-3 of EPMLL00911413 states the holder must operate and manage the Esperanza TSF in a manner that ensures:

- surface water drains to the decant pond
- decant pond water levels and volume are minimised
- there is no ponding of water against any embankment
- all reasonable and practicable measures are implemented to prevent the release of contaminants to the receiving environment from the Esperanza TSF
- any contaminated seepage from the Esperanza TSF is intercepted and returned to an appropriate containment facility.

CCPL commissioned the refurbished process plant in November 2017 and tailings have been discharged to the Esperanza pit since this time, with TSF and seepage structures monitored on a regular basis.

Periodically, pit water and water from the Mill Creek Dam have been discharged to the surface of the Esperanza TSF. This has been undertaken as a result of elevated pit water levels due to capture of rainfall (and zero controlled discharges of treated water being undertaken) to facilitate evaporation over the available surface area. As a result of this water transfer there has been no seepage detected in Saddle Dam 2 and 3 during this time but they continue to be monitored.

Key measures in place are:

- daily visual inspections of the tailings surface
- daily monitoring of any water transfers relating to the TSF (including seepage)
- system in place for surface water to be pumped to Esperanza pit when required.
- Esperanza TSF inspected as a component of the Regulated Structures Inspection (October 2018) and the report submitted to the department in accordance with EA Condition G6 in November 2018
- TSF spillway is constructed to allow overflow of water to run to Esperanza pit; there has been no overflow during the period of this report.

GHD Engineering undertakes an annual Regulated Structure inspection of the TSF.

13.4 Rehabilitation and Closure Provisions

The Post-Mine Land Use Plan makes provision for progressive rehabilitation, revegetation, erosion and drainage control activities and meeting the requirements of the TEP to progressively rehabilitate the Old Mammoth TSF (decommissioned some decades ago) and Heap Leach Pad #2, both now almost completed.

CCPL's current Estimated Rehabilitation Cost for its Environmental Authority (EA) is about A\$36M, applicable for the period to 31 May 2021. This estimated rehabilitation cost is calculated under provisions of the EP Act in accordance with the Statutory Financial Assurance ("FA") Guidelines and FA Calculator; BDA considers the estimate is reasonable and appropriate for the proposed operations.

13.5 Occupational Health and Safety Management

The Capricorn Copper project is operating under a new Health, Safety, Environment and Community (HSEC) Management System, which provides a major risk control framework that focuses on (amongst other things) action management and accountability for line management, hazard reporting and awareness, independent safety audits (including contractor safety management systems), continuous improvement, collaboration on implementing solutions to reduce at-risk behaviour, and training. Coronavirus COVID-19 audits have been added in recent months.

The Capricorn Copper Mines Rescue capability includes up to 30 team members, with independent operating capability and medical facilities.

Significant improvements in safety and safety statistics have been achieved, including lowering the Total Recordable Injury Frequency Rate ("TRIFR") on a 24 monthly moving average from 12.90 to 9.03 in December 2020.

13.6 Greenhouse Gas Emissions

For the Reporting Year 2019/20, CCPL produced 11,835t total carbon dioxide equivalent (tCO₂-e) Scope 1 emissions, and 66,967t CO₂-e Scope 2 emissions, a total of 78,802t Scope 1 and 2 emissions. Total/net energy consumed for the period was 472,611GJ.

13.7 Social and Community

The operations are located in a remote area and are operated on a drive-in/drive-out and fly-in/fly-out basis. There is no immediate town to qualify as a stakeholder and the community is thinly spread over an extensive area.

Mining is an accepted and historic part of the District's history, bringing employment opportunities to the broad local population and significant revenue to the government.

Local non-government stakeholders have been identified by CCPL as:

- landowners (Calton Hills)
- Dunn Family Trust
- Kalkadoon People Traditional Owners
- non-governmental organisations (NGOs)
- local businesses
- mining industry peers
- downstream landowners.

CCPL's operations are located on Calton Hills pastoral lease, owned by the Kalkadoon Aboriginal Council. In 2011, the Federal Court of Australia made a determination order recognising the existence of native title over most of the tenure held by CCPL, in favour of the Kalkadoon People. However, CCPL's granted mining leases were granted prior to the commencement of the Native Title Act and therefore constitute valid 'past acts' under the Act. CCPL advises that all mining leases are exempt from native title and there are no known significant aboriginal cultural heritage sites on the mine leases.

CCPL's granted Exploration Permits were granted after the commencement of the Native Title Act. A Heritage Agreement covers EPMS 26421, 26422, 26423 and 26424, executed between the Kalkadoon Native Title Aboriginal Corporation and CCPL. A Cultural Heritage Items Register is maintained by CCPL which documents the items identified by cultural heritage clearance surveys conducted on the EPMS, and all proposed exploration sites on the EPMS are surveyed by representatives of the Kalkadoon People prior to any disturbance activities occurring.

Conclusions

CCPL has the required environmental approvals for current operations and will have adequate waste and tailing storage facilities necessary for its LOM operations once the planned EA amendment is approved.

CCPL is in compliance with most of its environmental conditions and regulations, however, managing excess volumes of site waste-water discharge is the key issue demanding ongoing attention, management plans and co-operation with authorities.

The cost to rehabilitate the currently disturbed areas of the Capricorn Copper mine site has been estimated at approximately A\$36M. Given the various environmental legacies associated with the site, BDA is of the opinion that this estimate is reasonable and appropriate for the proposed operations.

Mining is an accepted and historic part of the District's history, bringing employment opportunities to the local population and significant revenue to the government through state royalties and taxation.

14.0 PRODUCTION SCHEDULE

Overview

Production data from 2018 to 2020, plus forecast production based on the current CCPL LOM plan (file: *02.10.02 210322 Cyprus IPO Model_vBDA.xlsx*), which extends from 2021 to 2034, are shown in Table 14.1 and Figure 7. CCPL has issued a 2021 production forecast update since the financial model, reference file: *20210426 Project Cyprus - BDA Update_vSent.xlsx*.

Table 14.1**LOM Production Schedule - Actual for 2018 to 2020 and Forecast for 2021-2034**

Item	Unit	Calendar Years													
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	30-34	Total
Ore Mined	Mt	1.30	1.58	1.85	1.75	1.83	1.81	1.81	1.80	1.82	1.87	1.86	1.83	7.78	24.17
Ore Milled	Mt	1.33	1.61	1.81	1.74	1.84	1.82	1.82	1.81	1.81	1.88	1.86	1.83	7.78	24.19
Cu grade	%	1.70	1.76	1.50	1.51	1.70	1.72	1.70	1.84	1.97	1.90	2.01	2.16	2.04	1.90
Ag grade	g/t	na	na	na	6.48	8.71	10.73	11.10	10.92	11.42	11.30	11.59	12.34	9.6	10.24
Cu contained	kt	22.2	28.3	27.1	26.3	31.2	31.3	30.9	33.2	35.6	35.8	37.3	39.6	158.9	460.1
Ag contained	koz	na	na	na	362.6	514.2	628.1	649.5	634.6	663.6	683.0	691.8	726.5	2405.1	7,959.0
Cu recovery	%	79.3	82.4	82.9	83.2	86.8	86.9	87.1	87.5	86.7	85.9	84.5	83.9	85.6	85.7
Ag recovery	%	na	na	na	70	70	70	71	69	68	70	69	69	63	67.5
Cu in concentrate	kt	17.6	23.3	22.5	21.9	27.1	27.2	26.9	29.1	30.8	30.8	31.5	33.2	136.0	394.5
Ag in concentrate	koz	108	235	249	254	361	443	463	439	454	475	480	499	1507	5,375
Concentrate production	kdmt	81.1	93.5	99.9	84.1	104.2	104.6	103.6	111.8	118.6	143.1	146.4	154.6	632.7	1,704
Cu concentrate grade	%	21.7	24.9	22.5	25.2	26.0	26.0	26.0	26.0	26.0	21.5	21.5	21.5	21.5	22.1
Ag concentrate grade	g/t	42	78	66	91	108	132	139	122	119	103	102	100	74	98
Payable Cu production	kt	16.9	22.4	21.5	21.2	26.1	26.1	25.9	28.0	29.7	29.3	30.0	31.7	129.7	377.6

Note: 2021-2034 based on LOM forecast; Totals are from January 2021 to 2034; na = not available

Mining

Mine development has been increasing steadily from 2018 with the establishment of more production/stopping areas in line with the planned increase in production to around 1.8Mtpa. The total of operating and capital development metreage in 2019 was 5.8km and increased to 7.1km in 2020 which is generally in line with the target set for the mine contractor. Development is scheduled to be around 8km in 2021 before dropping to 6-7km per annum for the next eight years then reducing in the last years of the LOM.

Ore mined in 2020 was slightly ahead of budget at 1.85Mt. Production in the Q1 2021 was affected by the pillar failure in the Mammoth Remnants in March which temporarily closed the Mammoth decline. Tonnage for the quarter was generally in line with target but mine grade was 27% below budget with lower grade ore from ESS replacing ore from the higher grade Mammoth and Greenstone deposits. Production for 2021 is forecast to drop to 1.75Mt, but from 2022 onwards production of 1.8Mtpa is forecast through to 2031, with reducing tonnages in the last two-three years of the LOM.

BDA considers there is potential for some delays in establishing the new cave front in the southern cave of ESS in 2021 but the recent ongoing ground fall-off filling the slot established to assist in initiating the cave, is encouraging. CCPL continues with appropriate steps to mitigate the risks associated with initiating the cave, monitoring the cave and scheduling production from the upper levels of the southern cave to ensure the SLC achieves the planned tonnes and grade. Some variation to schedule has had to be imposed during the Mammoth and Greenstone production hiatus.

Based on recent history, the proposed LOM production schedule appears achievable, assuming the contractor maintains appropriate equipment and capacity to ensure the targets in both production and development are met, but there are some potential risks. The contractor performance has been generally satisfactory and extra production capacity has been added to meet the schedule.

While the inclusion of a significant tonnage of Inferred resources (34%) and unclassified material (6%) in the LOM plan reduces the confidence level in the LOM schedule, BDA recognises that a greater amount of this material relates to later years, and CCPL has established robust mine design protocols to ensure there is reasonable infill drilling and ore delineation of the mineable blocks before stope designs are prepared and implemented. CCPL has three production drill rigs available that allow the Mine Geology Department to systematically drill out and define grade boundaries prior to the mine designs being finalised. A detailed split of the reserve/resource contribution to the LOM plan is presented in Section 9.6. Overall, BDA considers that the forecast mine production is realistic and achievable, but notes that the ramp up to a consistent 1.8Mtpa of ore milled at the budgeted grade is still to be achieved.

Nevertheless, there is a low level of geological confidence associated with Inferred Mineral Resources and Exploration Targets (unclassified material). In terms of Inferred resources, there is no certainty that further exploration work will result in the determination of Measured or Indicated Mineral Resources, and in terms of the Exploration Targets, the tonnage and grade are conceptual in nature, there has been insufficient exploration to determine a Mineral Resource, and there is no certainty that further exploration work will result in the determination of Mineral Resources. In both cases there is no certainty that the production target itself will be realised.

Processing

Table 14.1 shows that the annual milled ore tonnage increased from 1.6Mtpa in 2019 to 1.8Mtpa in 2020. BDA considers that ongoing reliability and stability projects should further increase plant capacity, so the LOM production rate of 1.8Mtpa should be achieved if a relatively consistent supply of ore is available.

Copper metallurgical performance is predicted to increase from recent levels (around 22.5% Cu concentrate at 82.5% recovery) to 26% Cu at around 87% recovery from 2022 to 2026, and 21.5% Cu at around 85% from 2027 to 2034. Achieving the forecast for 2022 to 2026 will require that the mix of metallurgical domains improves compared with the recent mix of ore domains, and/or success in the metallurgical programmes currently underway.

From 2027 onwards, significant ore is scheduled from Pluto, Esperanza Deeps and Esperanza. These ores are relatively difficult to process and the LOM forecasts lower concentrate grade and recovery from 2027. Some of these ores (especially Pluto) contain higher levels of oxidised copper minerals and native copper. This requires installation of controlled potential sulphidisation (CPS) and gravity separation. These are proven technologies, testwork has demonstrated they are effective, and provision has been made in the capital forecast for their installation.

Overall, BDA considers that reasonable metallurgical performance will be achieved, but the LOM forecasts rely on improved domain mixes and metallurgical improvements. BDA consider that for 2022 to 2026 the metallurgical performance is more likely average somewhere between recent performance and the LOM forecast.

Conclusions

CCPL has increased mine production and development over the last two years targeting a 1.8Mtpa production rate but recent production has been hampered by the recent pillar failure at Mammoth Remnants. Performance is improving but mine grades need to achieve targets at the 1.8Mtpa production rate over the long term if the LOM mine production schedules are to be achieved, but there should be less pressure on mine production once the transition of the cave at ESS is complete, which will make the planned targets more readily achievable.

The performance of the processing plant has improved since the operation has been recommissioned and operation and maintenance of the plant has been undertaken on contract by Ausenco. To date plant throughput has been principally constrained by mine production, and the LOM rate of 1.8Mtpa was achieved in 2020 when ore was available. Metallurgical performance is determined by the ore domain blend. The well-targeted metallurgical programmes currently underway may improve performance for the difficult domains. Nevertheless, BDA consider that concentrate grade and recovery is more likely to be somewhere between recent results (22.5% Cu at 82.5% recovery) and the LOM forecast (26% Cu at 87% recovery) for 2022 to 2026.

15.0 CAPITAL COSTS

15.1 Summary

The LOM Capital Summary is shown in Table 15.1. The LOM capital project expenditure is estimated at A\$268.3M, including Mine Development of A\$161.9M and Mine Closure costs of A\$25.9; the Mine Closure costs, as discussed in Section 13.4, are in line with statutory guidelines and are considered a reasonable basis for the LOM forecast.

Table 15.1
LOM Capital Summary

Capital Projects	2021 ASM	2022 ASM	2023 ASM	2024 ASM	2025 ASM	2026 ASM	27-34 ASM	Total ASM
Exploration	2.77	2.00	1.70	1.70	1.70	1.70	3.40	14.97
Mine Development	25.65	17.97	15.58	15.62	19.96	14.09	53.03	161.90
Mine Growth and Sustaining	2.31	2.47	1.29	0.78	2.66	6.06	0.79	16.36
Processing incl. Maintenance	2.98	4.97	3.13	1.89	6.33	5.63	9.92	34.85
Site Support	5.84	0.50	0.20	4.00	0.60	0.20	3.00	14.34
Mine Closure	0.00	0.00	0.00	0.00	0.00	0.00	25.90	25.90
Total	39.56	27.91	21.90	23.99	31.25	27.68	96.04	268.33

15.2 Exploration

The allowance for Exploration in the LOM capital estimate is A\$15M. The expenditure forecast for the period 2021-2022 is based on planned near-mine exploration and statutory tenement commitments for the four surrounding EPMs, and the 2023-2033 forecast is based on an estimate for ongoing exploration in the four EPMs. Some capital expenditure has been allocated for Mammoth extension drilling and RC drilling programmes have been budgeted at the Grey Ghost and Eagles Nest prospects. Expenditure relating to resource infill drilling in the mine area is included in the Mine Department budget.

15.3 Mine Development and Mine Sustaining/Growth Costs

Mine development has been estimated using Deswik software to plan the LOM requirements, scheduled in line with the production and development rates planned to be achieved. Table 15.2 shows the capital development for each deposit. The horizontal or lateral development for mine infrastructure includes declines, main access drives, stockpiles and ventilation drives; vertical development comprises primarily ventilation raises for both fresh air and return air. Development within the orebody is considered an operating cost and is reviewed in Section 16. The lateral or horizontal development totals 26.7km over the 13-year life with over 8.2km at ESS and 8.9km at Mammoth. From 2025 and 2026, Pluto and Esperanza will be developed with 4km and 5km of lateral development respectively.

Table 15.2
LOM Mine Capital Development Schedule

Item	Units	2021	2022	2023	2024	2025	2026	27-34	Total
Horizontal									
ESS	m	2,380	1,490	1,294	1,124	1,000	862		8,151
GST	m	569							569
MAM	m	754	1,547	1,338	1,509	479	147	3,087	8,861
PLT	m					1,893	1,332	818	4,042
ESP	m						31	5,039	5,070
Total	m	3,702	3,037	2,633	2,633	3,372	2,372	8,944	26,693
Vertical									
ESS	m	664	176	148	93	100	100		1,281
GST	m	93							93
MAM	m	68	124	139	218	47	46	385	1,028
PLT	m					618	614	305	1,537
ESP	m							677	677
Total	m	826	301	288	311	765	760	1,367	4,616

The LOM cost of Mine Development is estimated at A\$151.9M which reflects the planned development for the LOM schedule at the current mine contractor unit rates for the various development activities. There is no specific contingency included in the development rates.

Other LOM Mine capital costs comprise Mine Growth capital of A\$16.0M and Mine Sustaining capital of A\$0.4M as shown in Table 15.3. The capital for growth includes ventilation requirements for Pluto, extensions to the

ladderways at ESS and Mammoth and extension of the paste fill network. There appears to be no allowance for ladderways and ventilation fan infrastructure at Esperanza Deeps although these should be relatively low cost.

Table 15.3**LOM Mine Capital Summary**

Capital Projects	2021	2022	2023	2024	2025	2026	27-34	Total
	ASM	ASM	ASM	ASM	ASM	ASM	ASM	ASM
Mine Development	25.65	17.97	15.58	15.62	19.96	14.09	53.03	161.90
Mining - Growth	2.31	2.47	1.29	0.77	2.66	5.94	0.55	15.99
Mining - Sustaining	0.00	0.00	0.00	0.01	0.00	0.12	0.24	0.37
Total	27.96	20.44	16.87	16.40	22.62	20.15	53.82	178.26

Overall the mine capital budget is considered reasonable and relies on historical cost estimates. No specific contingency has been added to the estimate; the mine development quantities reflect the current mine plans but BDA notes that, given the inclusion of a quantity of Inferred resources in the mine plan, there is some risk of variation in the development plans as knowledge of the resources improves and designs are refined.

15.4 Processing and Maintenance

The Processing sustaining capital costs in the LOM model total A\$17.3M, as shown in Table 15.4. An estimate of A\$8.7M has been made for expenditure in 2025 and 2026 for installation of gravity plant equipment and a controlled potential sulphidisation (CPS) circuit for native copper recovery from Pluto ore. The remaining Sustaining capital expenditure is planned for maintaining the current plant and associated assets as well as grinding improvements (A\$1M). A\$18.0M is planned to be spent on new plant and equipment over the LOM. The costs have been estimated by CCPL based on historical costs and on the condition of existing equipment and are considered reasonable.

Table 15.4**LOM Processing Capital Summary**

Capital Projects	2021	2022	2023	2024	2025	2026	27-34	Total
	ASM	ASM	ASM	ASM	ASM	ASM	ASM	ASM
Processing - Sustaining	1.62	2.97	1.18	0.38	4.68	3.98	2.08	16.89
Plant and Equipment	1.36	2.00	1.95	1.51	1.65	1.65	7.84	17.96
Total	2.98	4.97	3.13	1.89	6.33	5.63	9.92	34.85

15.5 Site Support and Mine Closure Costs

Site Support costs in the LOM model total A\$14.3M, as shown in Table 15.5. The site support costs include TSF wall and Esperanza pit design and construction (A\$8M). Other costs relate to environmental items; further allowance is made for environmental costs under Closure Costs. BDA considers that further sustaining site support capital may be required over the LOM but any extra allowance is likely to be relatively minor compared with the overall capital budget.

Table 15.5**LOM Site Support Capital Summary**

Capital Projects	2021	2022	2023	2024	2025	2026	27-34	Total
	ASM	ASM	ASM	ASM	ASM	ASM	ASM	ASM
Site Support - Sustaining	5.84	0.50	0.20	4.00	0.60	0.20	3.00	14.34
Mine Closure	0.00	0.00	0.00	0.00	0.00	0.00	25.90	25.90
Total	5.84	0.50	0.20	4.00	0.60	0.20	28.90	40.24

Conclusions

The operation is now reasonably well established. In BDA's opinion the LOM estimates of future capital expenditures are generally reasonable being based on historical costs and quotations from contractors and suppliers and form a reasonable basis for budgeting and financial analysis purposes. However, no contingency is included in the estimates and in BDA's opinion, it would be prudent to allow an additional 10% contingency.

16.0 OPERATING COSTS**Overview**

The operating costs shown in Table 16.1 comprise the actual costs for 2018 to 2020 and forecast costs from 2021 to 2033; the latter are based on the LOM plan and financial model prepared by CCPL (file: 02.10.02 210322 Cyprus IPO Model_vBDA.xlsx. CCPL has issued a 2021 production forecast update since the financial model, reference file: 20210426 Project Cyprus - BDA Update_vSent.xlsx.

Table 16.1**LOM Operating Costs - Actual for 2018 to 2020 and Forecast 2021-2034**

Item	Unit	Calendar Years													Total
		Actual 2018	Actual 2019	Actual 2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	30-34	
Physicals															
Ore Mined	Mt	1.30	1.58	1.85	1.75	1.83	1.81	1.81	1.80	1.82	1.87	1.86	1.83	7.78	24.17
Ore Milled	Mt	1.33	1.61	1.81	1.74	1.84	1.82	1.82	1.81	1.81	1.88	1.86	1.83	7.78	24.19
Payable Cu Productn	kt	16.9	22.4	21.5	21.2	26.1	26.1	25.9	28.0	29.7	29.3	30.0	31.7	129.7	377.6
Payable Cu Productn	Mlbs	37.3	49.3	47.4	46.7	57.4	57.6	57.1	61.6	65.4	64.7	66.2	69.9	285.9	832.5
Site Op Costs															
Mining	AS\$M	60.8	70.8	68.8	85.7	90.6	94.1	94.3	92.7	88.9	85.0	84.0	79.8	340.3	1,135.3
Mill	AS\$M	33.1	33.0	31.6	33.0	33.4	33.4	32.6	32.5	32.5	32.8	32.7	32.6	156.1	451.6
Maintenance	AS\$M	11.6	13.8	13.8	13.9	13.2	13.2	13.2	13.2	13.2	13.2	13.2	13.2	66.1	185.8
Site Serv, Overheads	AS\$M	12.4	13.4	16.9	21.5	20.0	19.6	19.5	19.5	19.5	19.6	19.6	19.6	97.9	276.2
Total Site Costs	AS\$M	117.9	130.9	127.9	154.0	157.1	160.3	159.6	157.9	154.1	150.6	149.5	145.2	660.4	2,048.8
Other Op Costs															
Corp Costs	AS\$M	18.0	11.7	-0.4	-	-	-	-	-	-	-	-	-	-	-
Realisation Costs	AS\$M	9.8	28.0	28.6	23.8	32.3	33.1	33.0	36.0	38.3	43.8	44.1	46.7	198.1	529.1
Royalty	AS\$M	6.0	8.3	8.9	11.9	13.5	13.0	12.8	13.7	14.5	14.3	14.7	15.5	62.6	186.4
Ag By-product Credit	AS\$M	4.4	6.5	7.2	7.5	9.6	12.0	12.6	12.2	12.6	13.2	13.3	13.9	41.1	147.9
Total Op Costs	AS\$M	147.4	172.5	157.8	182.2	193.5	194.4	192.7	195.4	194.3	195.5	195.0	193.5	880.0	2,616.5
Unit Costs															
Mining	AS\$/t mined	46.7	44.7	36.2	48.8	49.4	51.9	52.2	51.4	48.9	45.4	45.2	43.6	43.7	47.0
Milling (incl Mtee)	AS\$/t milled	33.7	29.1	24.7	26.9	25.4	25.6	25.2	25.3	25.3	24.5	24.7	25.0	28.5	26.4
Site Services	AS\$/t milled	9.4	8.3	9.3	12.3	10.9	10.8	10.7	10.8	10.8	10.4	10.5	10.7	12.6	11.4
Total Site Costs	AS\$/t milled	88.9	81.6	70.0	88.5	85.6	88.0	87.7	87.4	85.3	80.1	80.5	79.3	84.9	84.7
C1 Cash Costs	AS\$/lb Cu	3.31	3.12	3.16	3.65	3.13	3.15	3.15	2.95	2.75	2.80	2.73	2.55	2.86	2.92
C1 Cash Costs	US\$/lb Cu	2.32	2.17	2.19	2.81	2.29	2.30	2.30	2.15	2.01	2.04	1.99	1.86	2.09	2.13
AISC Costs	US\$/lb Cu	na	2.73	2.83	3.63	2.79	2.73	2.76	2.68	2.47	2.44	2.40	2.24	2.27	2.51

Note: 2021-2034 based on LOM forecast; Totals are from 2021 to 2034; Corp Costs (Actuals) include some inventory and accounting adjustments, particularly in 2020; AISC = All In Sustaining Costs; from 2021 Corporate Costs have been transferred from site costs to a corporate account

The overall site operating costs are estimated at a C1 Cash Cost of around A\$3.25/lb Cu (US\$2.41/lb) over the next four years and A\$2.92/lb (US\$2.13/lb) for the LOM; all in sustaining cost (“AISC”) for the LOM is US\$2.51/lb. The LOM unit costs are below the costs of A\$3.16/lb Cu for 2020 reflecting the forecast increase in copper production in 2022 and beyond. Higher unit costs are forecast for 2021 based on the interruptions to Mammoth and Greenstone production in Q1 and the South cave transition in ESS.

Mining

The forecast mining costs are based on the actual costs for 2020; the main drivers in the mining area reflect contract rates for the main mine contractor, BAPL. The costs for 2020 were below forecast, both in terms of total costs and the unit cost per tonne. Costs were lower due to reduced activity and in part reflect the portion of costs that are variable. Paste filling was not operational through most of 2020, but this had limited impact as paste filling represents less than 4% of the forecast unit mining costs.

The forecast unit costs for each deposit over the LOM are shown in Table 16.2 and range from A\$21/t at Greenstone to A\$30/t at Mammoth and Pluto with the main production unit, ESS, having a unit cost of A\$24/t.

Table 16.2**Unit Cost by Deposit for LOM (2021 to 2034)**

Deposit/Item	Total Cost AS\$M	Mine Production Mt	Unit Cost AS\$/t
Esperanza South	286.9	11.83	24
Mammoth	236.6	7.81	30
Greenstone	11.3	0.53	21
Pluto	44.3	1.49	30
Esperanza Deeps	58.8	2.54	23
Subtotal/Average	591.1	24.20	24
Mine Overheads	497.4		21
Total/Average	1,135.26	24.20	47

In addition to these unit costs, mining overhead costs, including technical services and unallocated contractor costs, average A\$21/t or A\$37Mpa.

The lower unit costs at Greenstone reflect the lower development costs and lower waste filling costs compared with Mammoth, Pluto and Esperanza where significant development is required together with planned paste fill placement. The SLC mining method at Esperanza South also has a relatively low unit cost, with no filling costs and higher production and productivity compared with the other deposits.

The overhead costs vary each year, which is largely a feature of cost allocation, as annual mining costs remain reasonably consistent over the LOM.

The unit cost forecasts are based on achievement of the scheduled LOM production. The mining contract costs are based on a schedule of rates, which are subject to a rise and fall clause incorporating various factors including employee payment index, consumer price index, mining material costs, explosive costs and fuel price. The weighting factors vary for each index, with the highest weighting being 30% on labour costs. Over the contract period to date the rise and fall factors have resulted in approximately a 7% overall increase (from 2017); some factors, such as fuel price, have gone down. Overall the mining contract should limit any major operating cost variations, and CCPL has managed contractor dayworks to a minimum, which is one area where contract costs can otherwise escalate.

Process Operating Costs

Milling costs over the LOM, inclusive of maintenance, are forecast to be around A\$25-26/t, comparable to the value achieved in 2020 when throughput reached the LOM rate of 1.8Mtpa. Plant reliability and efficiency improvements may marginally reduce unit cost, but this may be offset by additional flotation reagents to improve pulp chemistry, and for the operation of the gravity circuit and CPS from 2027. The LOM average estimate appears reasonable.

Process Maintenance and Site Services Costs

The estimate of A\$25-26/t processing cost includes around A\$7.2/t for maintenance. This is similar to the value of A\$7.48/t achieved in 2020. Ongoing reliability projects should improve plant condition, supported by the sustaining capital programme. BDA consider the maintenance cost estimate to be reasonable.

Site services costs are projected to reduce on an annual and unit cost basis. Given the projected increase in milled tonnes.

Other Costs

From 2021, Corporate costs have been re-allocated to a Corporate account and have been removed from Site costs.

The Queensland government royalty calculation varies between 2.5% up to 5% of gross revenue, depending on metal price. For copper, the lowest rate is for a copper price of A\$3,600/t (A\$1.63/lb) and the highest rate is for a copper price at or above A\$9,200/t (A\$4.17/lb) with pro rata rates between the price ranges. Current Cu prices are around A\$9,100/t or A\$4.10/lb.

For silver the lowest rate relates to a silver price of A\$9/oz and highest rate is for a silver price of A\$17/oz or above. Current Ag prices are around A\$19/oz.

The Queensland government applies a royalty discount to copper processed within Queensland to a product with at least 95% copper content. The financial model assumes a portion of the LOM production is processed within Queensland (based on concentrate sales to Mt Isa); the LOM average royalty rate based on the assumed metal prices is around 4.4% of revenue.

Conclusions

The forecast mine operating costs generally reflect the contract mining costs and given the nature of the contract are considered to provide a sound basis for the forecast costs over the LOM. Given a significant part of the contract is variable, based on production and other mining activities, the mining costs are sensitive to mining activity. The rise and fall formula in the mining contract provides some potential for cost increases, but these are unlikely to result in significant changes to overall mining costs.

The mill operating cost projections, at around A\$26/t milled, inclusive of maintenance costs, are consistent with costs achieved in 2020 and are considered realistic, but will be dependent on the milled ore tonnage throughput being close to plan. Site services costs are forecast to reduce significantly from current levels, but these have a relatively small percentage impact. Other costs are made up of the concentrate Treatment and Refining charges, arsenic penalties, off-site realisation costs and royalty. These costs are subject to contracts and market conditions and the estimates appear generally reasonable.

17.0 STATEMENT OF CAPABILITY

This report has been prepared by Mr Malcolm Hancock and Mr John McIntyre, Executive Directors of Behre Dolbear Australia Pty Limited, together with Mr Peter Ingham, General Manager Mining, and Mr George Brech, Mr Ian White, and Ms Janet Epps, Senior Consultants and Associates of BDA. BDA made a site visit to the Capricorn Copper mine site in July 2020 for the purpose of preparing this independent technical and environmental review.

Behre Dolbear has offices or agencies in Denver, New York, Toronto, Vancouver, London, Sydney, Guadalajara and Santiago. The parent company, Behre Dolbear & Company Inc., was founded in 1911 and is the oldest continuously operating mineral industry consulting firm in North America. The firm specialises in mineral evaluations, due diligence assessments, independent expert reports and strategic planning as well as technical geological, mining and process consulting.

The principal consultants engaged in the review on behalf of BDA are as follows:

Mr Malcolm Hancock (BA., MA., FGS, FAusIMM, MIMM, MMICA, CP (Geol), MAIMVA (CMV), MAIMA (CMA)) is a Principal and Executive Director of BDA. He is a geologist with more than 40 years of experience in the areas of resource/reserve estimation, reconciliation, project feasibility and development, mine geology and mining operations. Before joining BDA he held executive positions responsible for geological and mining aspects of project acquisitions, feasibility studies, mine development and operations. He has been involved in the feasibility, construction, and commissioning of several mining operations. He has worked in Australia, Africa and South-East Asia, on both open pit and underground operations, on gold, copper, base metal, iron ore and industrial mineral projects, and has been directly involved in the management and direction of the BDA Independent Engineer operations in recent years. Mr Hancock visited the mine site and reviewed the geology, resources and reserves, and exploration potential.

Mr John McIntyre (BEng. (Min) Hon., FAusIMM, CP (Min), MMICA, MAIMVA (CMV), MAIMA (CMA)) is the Managing Director of BDA. He is a qualified mining engineer, with over 40 years of experience in engineering, operations and management of mines and mining projects, in Australia, New Zealand, South East Asia and Africa. His principal fields of expertise include technical audit, project feasibility and development, mine and project evaluation, operating experience in open pit and underground mining of coal, base and precious metals, management review and operations optimisation. He has been a consultant for more than 30 years and has held positions, including General Manager Operations and CEO. Mr McIntyre reviewed the mining and operating cost components of the report.

Mr George Brech (BSc. Geology, MSc. Engineering Geology, FAusIMM) is a Senior Associate of BDA with more than 45 years of experience in exploration and mining as an exploration and mine geologist. He is experienced in management, exploration, project evaluation, mine development, resource and reserve estimation, feasibility studies, open pit mine production, exploration and mine data evaluation, and open pit slope engineering. He has worked in various capacities on a large number of projects providing geological expertise in Australia, southern Africa and Southeast Asia. He is familiar with a wide range of commodities including copper, gold, wolfram, magnesite, iron ore and coal. He has extensive experience in the areas of resource/reserve estimation, reconciliation, independent expert and due diligence reports. Mr Brech reviewed the geology, resources and reserves, and exploration potential.

Mr Peter Ingham (BSc. (Min), M.Sc., DIC, G.Dip.App. Fin. (Sec Inst), CEng, FAusIMM, MIMMM, MAIMVA) is General Manager Mining of BDA and is a graduate mining engineer with more than 40 years in the mining industry in Europe, Africa, Australia and Asia. His experience includes operations management, mining contract management, strategic planning, project assessment and acquisition, cost estimation and operational audits and trouble-shooting. He is experienced in a range of commodities, including gold, copper, nickel, base metals and platinum, in both surface and underground mining. He has extensive experience in assessment of mining contracts. Mr Peter Ingham visited the mine site and covered the underground mining, geotechnical and mining cost aspects of the project.

Mr Joe Pease (BE.(Hon) Metall., B Econ, FAusIMM, MCIMM) is a Senior Associate of BDA with more than 35 years' experience in the Australian mining industry. He is a metallurgist and has held senior management positions with MIM, Cominco and Xstrata. He has been involved in plant design and optimisation, process design testwork, feasibility studies and plant commissioning and project valuation. He is experienced in a range of process technologies and has worked with a range of commodities including gold, copper, lead, zinc, coal, magnetite, potash and oil sands. He has worked as CEO of the Cooperative Research Centre, and is a Principal Consultant for Mineralis Pty Ltd. Mr Pease reviewed the processing reports and performance data provided to BDA in 2020 and 2021, reviewed plant performance and initiatives with plant management, and discussed the findings of recent pulp chemistry programs with the external expert providers.

Ms Janet Epps BSc. (Geol), MSc. (Envir.), FAusIMM) is a Senior Associate of BDA with more than 40 years' experience as a specialist in environmental science and community issues management, policy development and regulatory consultancy services. Ms Epps has worked with the UN, World Bank, the IFC and the Multilateral Investment Guarantee Agency (MIGA), providing policy advice to a wide range of governments on matters associated with the environmental and community issues management of resource projects. She has also worked extensively with the private sector and is widely experienced in environmental and social/community due diligence, audits and reviews of environmental and social management plans and policies, closure plans, and gap analysis. Ms Epps has completed assignments in Australasia, Central, Eastern and South-East Asia (particularly China), Eastern Europe, Western Pacific (particularly Indonesia, PNG and Philippines), CIS, Africa (Zambia, Malawi, Namibia, Uganda), Caribbean and North and South America. Ms Epps reviewed the environmental and social aspects of the project.

Mr Adrian Brett (BSc (Hon) Geol., MSc, MEnvir. Law, FAusIMM) is a Senior Associate of BDA with more than 40 years' experience in environmental and geo-science, including the fields of environmental planning and impact assessment, site contamination assessments, environmental audit, environmental law and policy analysis and the development of environmental guidelines and training manuals. He has worked in an advisory capacity with several United Nations, Australian and overseas government agencies. He has completed assignments in Australia, Indonesia, Thailand, Laos, Myanmar, the Philippines, the Middle East, Africa and South America. Mr Brett reviewed the environmental regulatory and compliance aspects of the project.

18.0 STATEMENT OF INDEPENDENCE

Neither the principals nor associates of BDA have any material interest or entitlement in the securities or assets of EMR. BDA will be paid a fee for this report comprising its normal professional rates and reimbursable expenses. The fee is not contingent on the conclusions of this report.

19.0 LIMITATIONS AND CONSENT

This assessment has been based on data, reports and other information made available to BDA by EMR and referred to in this report.

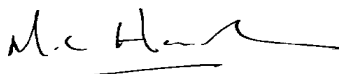
BDA has reviewed the data, reports and information provided and has used consultants with appropriate experience and expertise relevant to the various properties. The opinions stated herein are given in good faith. BDA believes that the basic assumptions are factual and correct and the interpretations reasonable.

BDA does not accept any liability other than its statutory liability to any individual, organisation or company and takes no responsibility for any loss or damage arising from the use of this report, or information, data, or assumptions contained therein. With respect to the BDA report and use thereof by EMR and any associated parties, EMR agrees to indemnify and hold harmless BDA and its shareholders, directors, officers, and associates against any and all losses, claims, damages, liabilities or actions to which they or any of them may become subject under any securities act, statute or common law and will reimburse them on a current basis for any legal or other expenses incurred by them in connection with investigating any claims or defending any actions.

The report is provided to EMR in respect of the proposed transaction. The report is provided for the purpose of assisting the Directors of EMR and potential financiers or prospective investors in assessing the technical issues and associated risks of the project and should not be used or relied upon for any other purpose. The report does not constitute a technical or legal audit. Neither the whole nor any part of this report nor any reference thereto may be included in, or with, or attached to any document or used for any purpose without BDA's written consent to the form and context in which it appears.

Yours faithfully

BEHRE DOLBEAR AUSTRALIA PTY LTD



Malcolm C Hancock
Executive Director - BDA



John S McIntyre
Managing Director - BDA

APPENDIX I

GLOSSARY

Term/Abbreviation	Description
A\$	Australian Dollar
Aberfoyle	Aberfoyle Resources Limited
ABM	Aditya Birla Minerals Limited
Adelaide Brighton	Adelaide Brighton Cement Holdings Limited
Ag	Silver
AHD	Australian Height Datum
ALS	Australian Laboratory Services
AMDAD	Australia Mine Development and Design Pty Limited
As	Arsenic
ASX	Australian Securities Exchange
Ausenco	Ausenco Limited
BAPL	Byrnescut Australia Pty Limited
BDA	Behre Dolbear Australia Pty Limited
Behre Dolbear	Behre Dolbear & Company Inc.
CCPL	Capricorn Copper Pty Limited
CMS	Cavity Monitoring System
Co	Cobalt
CPS	Controlled Potential Sulphidisation
CRM	Certified Reference Material
Cu	Copper
DD	Diamond Drill
DES	Queensland Department of Environment and Science
DSA	Design Storage Allowance
EA	Environmental Authority
ECAP	Environmental Compliance Action Plan
EMR	EMR Capital Management
EPM	Exploration Permits - Minerals
EPO	Environmental Protection Order
ESP	Esperanza
ESS	Esperanza South
Fe	Iron
G&A	General and Administration
GCMP	Ground Control Management Plan
Geostats	Geostats Pty Limited
GHD	GHD Pty Limited
GPS	Global Positioning System
GST	Greenstone
H	Half (year)
ha	Hectare (10,000m ²)
HR	Hydraulic Radius
HSEC	Health, Safety Environment and Community
ICP-ES	Induced Coupled Plasma-Atomic Emission Spectrometry
IP	Induced Polarisation
IPO	Initial Public Offering
ITASCA	ITASCA Australia Pty Ltd
ITE	Independent Technical Expert
ITR	Independent Technical Report
JORC Code	Joint Ore Reserve Committee (Australasian Resource/Reserve Code)
km	Kilometre
km ²	Square Kilometre
kPa	Kilopascals
kt	Thousand Tonnes
ktpa	Thousand Tonnes per Annum
ktpd	Thousand Tonnes per Day
kV	Kilovolts
kW	Kilowatt
kWhrs	Kilowatt Hours
L/day	Litres Per Day
lb	Pound
LHD	Load-Haul-Dump (Mining Units)
LHOS	Long Hole Open Stopping

GLOSSARY CONTINUED

Term/Abbreviation	Description
LOM	Life of Mine
LRFT	Leichhardt River Fault Trough
m	Metre
m ²	Square Metre
m ³	Cubic Metre
Mm ³	Million Cubic Metres
m ³ /s	Cubic Metres Per Second
µm	Micron
M	Million
Ma	Million Years Ago
MAM	Mammoth
MGD	CCPL Mine Geology Department
MGFZ	Mount Gordon Fault Zone
MGL	Maxwell Geoservices Pty Limited
Mining Plus	Mining Plus Pty Limited
Mlbs	Million Pounds
ML	Mining Leases
ML/day	Megalitres per Day
MII	Measured, Indicated and Inferred (Mineral Resources)
mma	Monthly Moving Average
mm	Millimetre
MOL	Maximum Operating Level
MRE	Mineral Resource Estimate
MRL	Mandatory Reporting Level
MSO	Deswick Mineable Shape Optimiser
Mt	Million Tonnes
Mtpa	Million Tonnes Per Annum
MW	Megawatt
OREAS	Ore Research and Exploration Pty Limited
OUTOTEC	Outotec Pty Limited
Ozvent	Ozvent Consulting Pty Limited
Pb	Lead
P80	80% Passing
PGCA	Power Geotechnical Cellular Automata
PLT	Pluto
PoO	Plan of Operations
Q	Quarter (year)
QA/QC	Quality Assurance /Quality Control
RAR	Return Air Raise
RC	Reverse Circulation
RGC	Renison Goldfields Consolidated Limited
RO	Reverse Osmosis
ROM	Run-of-Mine
RQD	Rock Quality Designation
S	Sulphur
SD2	SD2 Resource Consultants
SLC	Sublevel Cave
SML	Survey and Mining Limited
SRK	SRK Consulting (Australia) Pty Limited
SX/EW	Solvent Extraction/Electro-Winning
t	Tonne (1,000 Kilograms)
tkm	Tonne-Kilometres
tpd	Tonnes Per Day
t/vm	Tonnes per Vertical Metre
TARP	Trigger Action Response Plans
TDR	Time-Domain Reflectometer
TEP	Transitional Environmental Programme
TRIFR	Total Recordable Injury Frequency Rate
TSF	Tailings Storage Facility
UCS	Unconfined Compressive Stress
US\$	US Dollar
TDR	Time-Domain Reflectometer
TEP	Transitional Environmental Programme

GLOSSARY CONTINUED

Term/Abbreviation	Description
TRIFR	Total Recordable Injury Frequency Rate
TSF	Tailings Storage Facility
UCS	Unconfined Compressive Stress
US\$	US Dollar
VALMIN	Code for the Technical Assessment and Valuation of Mineral Assets and Securities for Independent Expert Reports
Western Metals	Western Metals Limited
XPS	XPS Expert Process Solutions
YTD	Year-to-Date
Zn	Zinc

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Report

Technical Assessment Report 29Metals Limited and EMR Capital Management Limited

AMC Consultants Pty Ltd in accordance with the Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets, The VALMIN Code, 2015 Edition

Specialist:

Roderick Carlson, BSc, MSc, MAIG RPGeo (Mining and Exploration) MAusIMM, Principal Geologist

AMC Project 219080
21 June 2021

Technical Assessment Report

29Metals Limited and EMR Capital Management Limited

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Executive summary

EMR Capital Management Limited (EMR) commissioned AMC Consultants Pty Ltd (AMC) to prepare a Technical Assessment Report (TAR) on the mineral assets (Mineral Assets) of the 100% owned subsidiary Redhill Magallanes SPA (Redhill) in Chile. 29Metals (a new Australian company) will be registered shortly, as a wholly owned subsidiary of EMR Capital Investment (No.6B) Pte Ltd, a Singaporean Company. The Redhill properties (the Project) include regional greenfield projects and the more advanced Cutters (also known as Zodiac) Project.

AMC understands that:

- EMR Capital Management Limited is owned EMR Capital Holding Limited. EMR Capital Management Limited is the Manager of the EMR Capital funds.
- 29Metals (a new Australian company) will be registered shortly, as a wholly owned subsidiary of EMR Capital Investment (No.6B) Pte Ltd, the Singaporean Company that owns Capricorn Copper.
- In connection with the Offer, the 29Metals Group will undertake a restructure under which a number of steps will occur which will result in 29Metals becoming the parent company of the 29Metals Group ('Restructure') which holds Golden Grove (Western Australia, Australia), Redhill (Chile) and Capricorn Copper (Queensland, Australia).
- EMR has appointed Macquarie Capital (Australia) Limited, Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited to prepare a prospectus (Prospectus) for the IPO and manage the listing process.
- the TAR will be included in the Prospectus.

AMC has prepared this TAR in accordance with the Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets, the VALMIN Code, 2015 Edition¹ (VALMIN) and the JORC Code, 2012 Edition² (JORC Code). The Cutters Project has a number of identified veins hosting copper with minor base metals and gold. Historical mining of the Cristina and Cutters veins was conducted between 1971 and 1975, with earlier production not recorded. The miners excavated approximately 211,000 t of ore at 1.7% Cu from surface to 60 m below surface, to produce 13,000 tonnes of copper concentrate with a grade of approximately 25% Cu. The current Mineral Resources are shown in Table ES1.

¹ The Australasian Code for the Public Reporting of Technical Assessments and Valuations of Mineral Assets. The VALMIN Code 2015 Edition. The VALMIN Code has been prepared by the VALMIN Committee, a joint committee of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. The VALMIN Code is a companion to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code). The VALMIN Code provides guidance on matters that may be subject to Australian regulations, other provisions of law and published policies and guidance of the Australian Securities and Investment Commission (ASIC) and the Listing Rules of the Australian Securities Exchange (ASX) or of other relevant exchanges.

² Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves, The JORC Code 2012 Edition, sets out minimum standards, recommendations, and guidelines for public reporting in Australasia of Exploration Results, Mineral Resources and Ore Reserves. Prepared by the Joint Ore Reserves Committee of The Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and the Minerals Council of Australia.

Technical Assessment Report

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Table ES1 Cutter Project Inferred Mineral Resource estimates

Vein	Tonnage (kt)	Cu grade (%)	Ag grade (ppm)	Au grade (ppm)	Cu metal (tonnes)	Ag metal (koz)	Au metal (koz)
Cristina	1,304	2.3	41	0.25	29,600	1700	10
Cutters	317	3.0	51	0.06	9,500	500	1
Gorda	354	0.6	56	1.6	2,000	600	18
Franceses Fault	1,499	1.3	14	0.06	18,887	693	3
Franceses Sheeted	241	1.0	8	0.03	2,362	65	0
Angelica	574	1.5	53	0.4	8,840	970	7
Total	4,300	1.7	33	0.29	71,000	4,600	40

Source: AMC adapted from Callaghan (2014) and Callaghan (2016). Reported above a zero percent copper cut-off within vein wireframe domains.

The data, information and methods supplied to AMC indicate that the Mineral Resource is reported in accordance with the JORC Code. The mineralisation is associated with mesothermal base metal rich quartz veins controlled by regional structures. The zones are well defined by surface mapping, trenching, historical stoping, underground development, and recent diamond drilling. The surface trenching and underground sampling has provided most of the information used to inform the Mineral Resource, with an additional 26 diamond drill holes for 4,174.4 m and 2,224 samples used to inform the six main areas of estimation. AMC has assessed the Mineral Resource estimate and finds that the input data, estimation methodology and classification are appropriate for reporting the Inferred Mineral Resource in accordance with the JORC Code.

The prospectivity of the area surrounding the Cutters Project is good, with potential along strike (although limited by bounding structures to the north and south), but certainly down dip.

The regional exploration concession holdings are extensive and spread over a very large area. Some of these concession areas are challenging to explore due to the remote and rugged nature of the area. The only logistical support method is by boat or helicopter (when weather permits). AMC considers the regional exploration potential is currently low based on limited exploration to date, although acknowledges that the regional work completed to date is preliminary in nature, potential for significant mineralisation within the concessions cannot be ruled out, and that results at specific prospects, such as Ventisqueros, demonstrate good potential.

In 2017, Redhill prepared a conceptual study for the Cutters Project. AMC has undertaken a brief review of the study which is included in Appendix A.

Technical Assessment Report

29Metals Limited and EMR Capital Management Limited

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Quality control

The signing of this statement confirms this report has been prepared and checked in accordance with the AMC Peer Review Process.

Project Manager

 The signatory has given permission to use their signature in this AMC document

Peter Fisher

21 June 2021

Date

Peer Reviewer

 The signatory has given permission to use their signature in this AMC document

Dean Carville

21 June 2021

Date

Author

 The signatory has given permission to use their signature in this AMC document

Roderick Carlson

21 June 2021

Date

Important information about this report

Confidentiality

This document and its contents are confidential and may not be disclosed, copied, quoted or published unless AMC Consultants Pty Ltd (AMC) has given its prior written consent.

No liability

AMC accepts no liability for any loss or damage arising as a result of any person other than the named client acting in reliance on any information, opinion or advice contained in this document.

Reliance

This document may not be relied upon by any person other than the client, its officers and employees.

Information

AMC accepts no liability and gives no warranty as to the accuracy or completeness of information provided to it by or on behalf of the client or its representatives and takes no account of matters that existed when the document was transmitted to the client, but which were not known to AMC until subsequently.

Precedence

This document supersedes any prior documents (whether interim or otherwise) dealing with any matter that is the subject of this document.

Recommendations

AMC accepts no liability for any matters arising if any recommendations contained in this document are not carried out, or are partially carried out, without further advice being obtained from AMC.

Outstanding fees

No person (including the client) is entitled to use or rely on this document and its contents at any time if any fees (or reimbursement of expenses) due to AMC by its client are outstanding. In those circumstances, AMC may require the return of all copies of this document.

Public reporting requirements

If a Client wishes to publish a Mineral Resource or Ore / Mineral Reserve estimate prepared by AMC, it must first obtain the Competent / Qualified Person's written consent, not only to the estimate being published but also to the form and context of the published statement. The published statement must include a statement that the Competent / Qualified Person's written consent has been obtained.

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Appendices

Appendix A Conceptual Study

Appendix B Concession Details

Appendix C JORC Table 1 and drilling collar information

Distribution list

1 e-copy to EMR Capital Management Limited

1 e-copy to AMC's Brisbane and Perth offices

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Technical Assessment Report

29Metals Limited and EMR Capital Management Limited

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1 Introduction

EMR commissioned AMC to prepare a TAR on the Mineral Assets of the 100% owned subsidiary Redhill in Chile. The Project includes regional greenfield projects and the more advanced Cutters (also known as Zodiac) Project.

The TAR will be included in a prospectus being prepared by Macquarie Capital (Australia) Limited, Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited for an initial public offering (IPO) for listing of 29Metals on the Australian Securities Exchange (ASX). EMR Capital Management Limited is owned by EMR Capital Holding Limited. EMR Capital Management Limited is the Manager of the EMR Capital funds. 29Metals (a new Australian company) will be registered shortly, as a wholly owned subsidiary of EMR Capital Investment (No.6B) Pte Ltd, the Singaporean Company that owns Capricorn Copper. In connection with the Offer, the 29Metals Group will undertake a restructure under which a number of steps will occur which will result in 29Metals becoming the parent company of the 29Metals Group ('Restructure') which holds Golden Grove (Western Australia, Australia), Redhill (Chile) and Capricorn Copper (Queensland, Australia).

AMC has prepared the TAR in accordance with the VALMIN Code to the extent that the code is relevant to the assignment, with due consideration of the JORC Code, and Australian Securities and Investments Commission Regulatory Guides:

- RG 55 Statements in disclosure documents.
- RG 111 Content of expert reports.
- RG 112 Independence of experts.
- RG 228 Prospectuses: Effective disclosure for retail investors.

The TAR does not include a determination of the status of tenure (as required by paragraph 7.2 of the VALMIN Code) on the basis that tenure will be separately reviewed by EMR's legal advisors as part of the legal due diligence and this section of their review has been provided to AMC.

AMC has prepared its Mineral Resource estimates and statements on the basis that tenure is in good standing.

AMC consents to the inclusion of this letter and the TAR, which are to be read in conjunction with each other, in the Prospectus.

1.1 Contributing authors

The author of this document is Roderick Carlson, Principal Consultant, AMC.

1.2 Independence

In the interests of full disclosure, we advise that AMC has previously undertaken and is currently providing consulting services to EMR Golden Grove operations. AMC has also provided independent technical consulting services to the previous owners of the Capricorn Copper operation. In all these assignments, AMC has acted as an independent party. AMC notes that it has not been involved in the preparation or reporting of the Mineral Resource or Ore Reserve estimates for any of the polymetallic assets that are the subject of the proposed transaction.

AMC has had no prior involvement with the Red Hill or Cutters projects described in this Report.

1.3 Site visit

AMC has not conducted a site visit to the property. The property is based in the remote parts of southern Chile and there is no opportunity for AMC to conduct a visit due to COVID virus travel restrictions.

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2 Background

2.1 Location and access

2.1.1 Location

The Project is located within the Region of Magallanes (Region XII), Chile (Figure 2.1), on the far southwest coast of South America.

Figure 2.1 Location map of Chile



Source: AMC, Projection Lat/Long

The local area map is shown in Figure 2.2 and shows the deep ocean-incised fjord lands surrounding the Project. The only major town in the area is Punta Arenas, some 100 km to the east-north-east.

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Figure 2.2 Location map of Cutter Project



Source: AMC - Projection: UTM WGS84 Zone 18S

2.1.2 Access

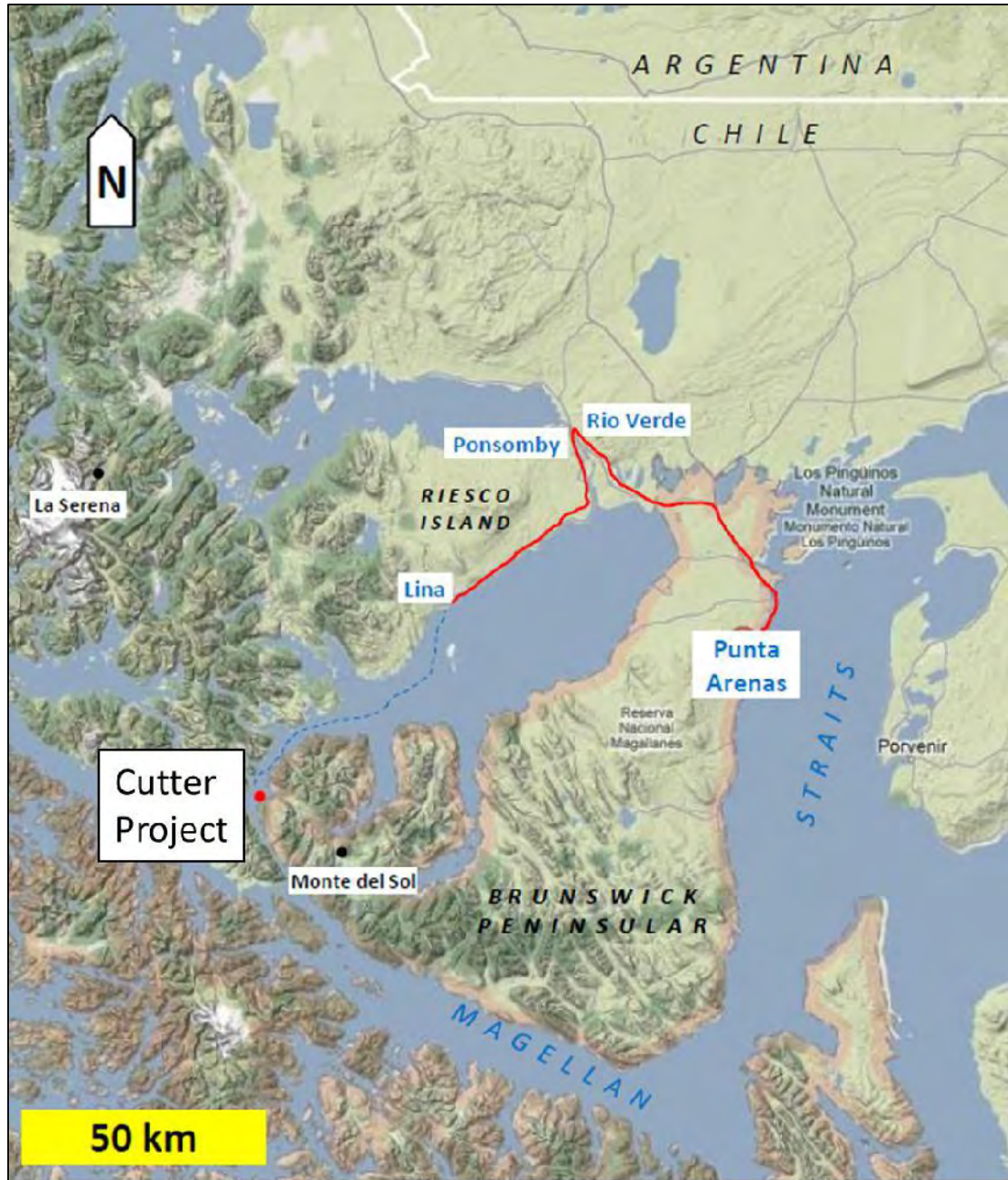
Project access is limited to air (helicopter) or sea year-round. There is no road access from the nearest major town of Punta Arenas. Travel time from Punta Arenas by boat is about 9 hours (Figure 2.3) or alternatively road and boat via Rio Verde is about 7 hours. There are two small gravel boat ramps adjacent to the Cutter Cove camp.

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Figure 2.3 Project access route via sea from Punta Arenas or land/sea via Rio Verde



Source: AMC adjusted from 11.03.03.04.01.01 Cutters Projects_Phase II Drill Program Report_11 Feb 2014.pdf

2.2 Climate, physiography and land use

2.2.1 Climate

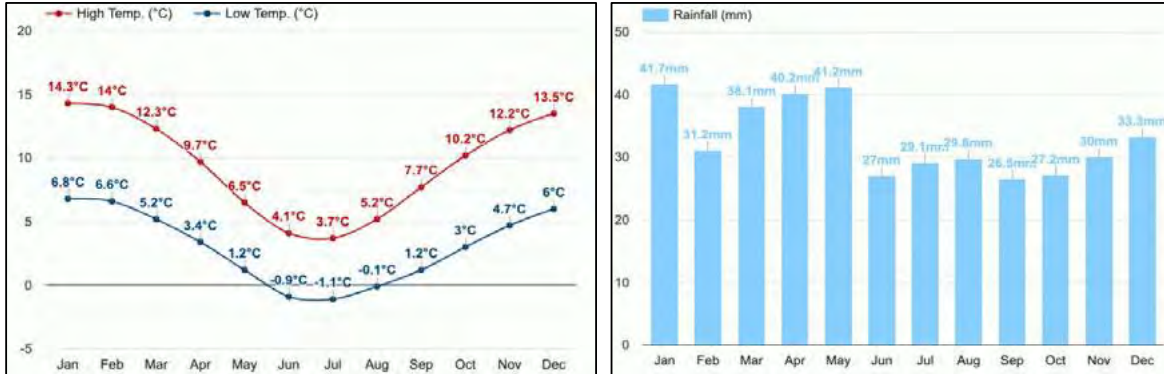
The climate in the southern reaches of Chile is cold and wet. Polar winds from the west and southwest impact the coastal ranges with heavy rain and snow year-round. To the eastern side of the mountain ranges at Punta Arenas the weather is classified as a temperate oceanic environment (Figure 2.4).

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Figure 2.4 Temperature and rainfall monthly averages for Punta Arenas



Source: <<https://www.weather-atlas.com/en/chile/punta-arenas-climate>>

2.2.2 Physiography

The physiography of the area is deeply incised glacial valleys filled with seawater, and high rugged peaks up to 1700 m (locally to Zodiac, up to 1000 m). The area has large proportions of fresh bedrock at surface or is covered by thick peat vegetation.

Figure 2.5 Regional physiography plan



Source: <<https://earthexplorer.usgs.gov>>

2.2.3 Land use

Magallanes is a territory of 132,294 km² and a very low population density (1.2 individuals per square kilometre) with most of the population in the regional town of Punta Arenas. Most of the people live in the southernmost Patagonian steppe while the western mountainous and fjord areas where the Cutter project is located, are essentially unpopulated. Local economy is based on the oil and gas industry, fishery, livestock and tourism.

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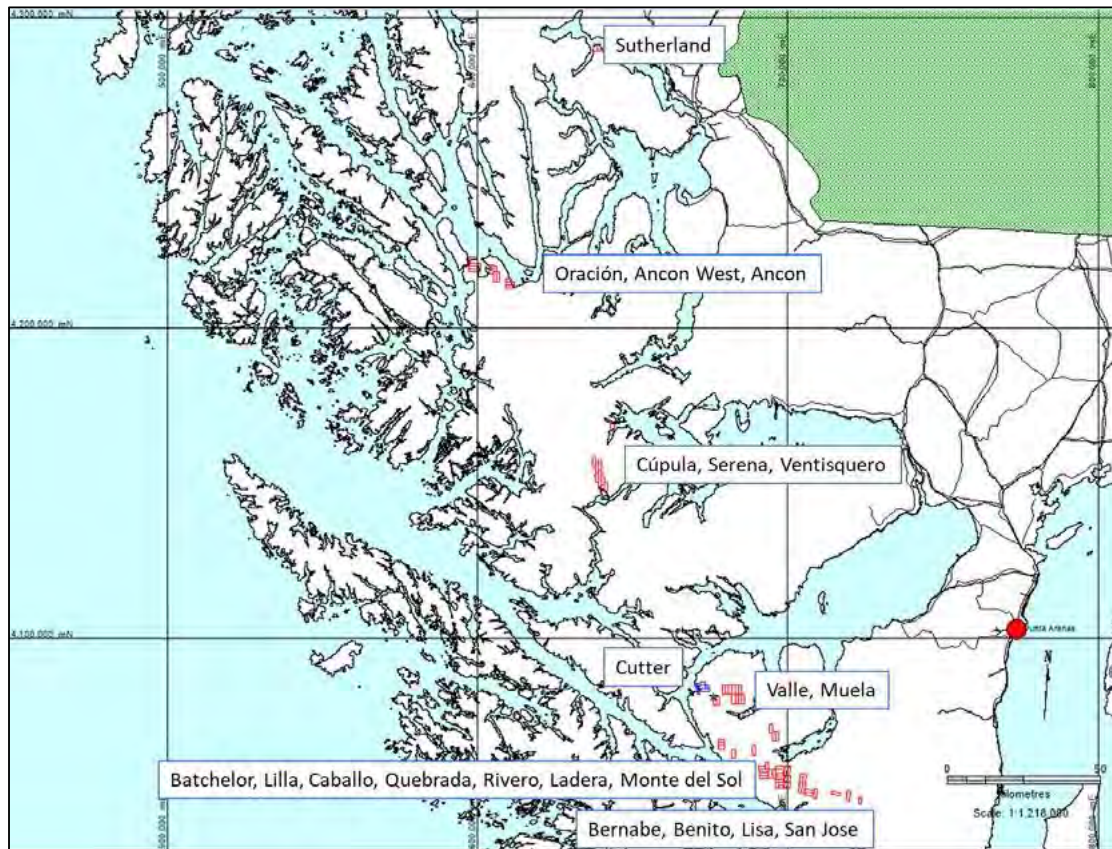
3 Concessions and permitting

3.1 Tenure

3.1.1 Introduction

The relative locations of all the exploration and exploitation concessions are shown in Figure 3.1. The concessions stretch over 250 km apart north to south. All concessions have a maximum size of 300 hectares. AMC understands that exploration concessions are valid for a two-year term extendable for up to two years if requested by the owner and upon waiver of at least half the area originally granted. Exploitation concessions have an unlimited term as long as the concessionaire pays a mandatory licence and accomplishes all requirements according to the Mining Code.

Figure 3.1 Location map Redhill concessions in Chile



Source: AMC. Projection UTM WGS 84 Zone 18S. Note East of 700,000mE the correct zone is 19S

3.1.2 Exploitation concessions

Redhill holds nine granted exploitation concessions in the Zodiac Project area. The concession details are shown in Table 3.1 and located in Figure 3.2. The exploitation concessions were registered 2 May 2016.

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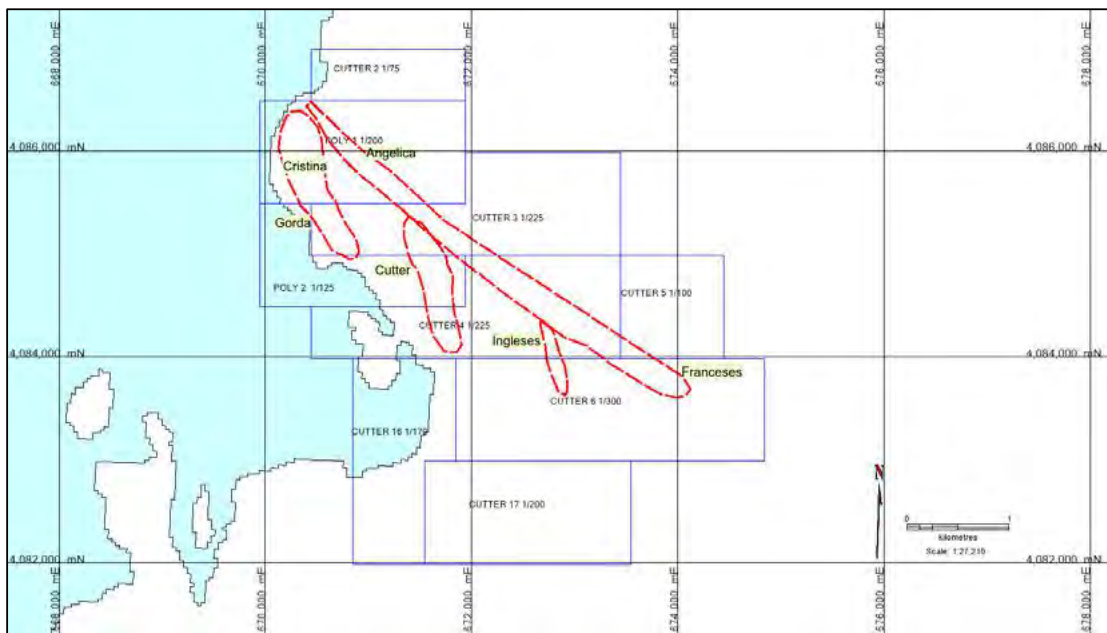
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Table 3.1 Exploitation concession information

Area name	Name	Area (ha)	Prospects
Zodiac (Cutter)	Cutter 2 1 al 75	75	-
	Cutter 3 1 al 225	225	Angelica trend
	Cutter 4 1 al 225	225	Ingleses
	Cutter 5 1 al 100	100	Franceses trend
	Cutter 6 1 al 300	300	Franceses/Ingleses
	Cutter 16 1 al 170	170	-
	Cutter 17 1 al 200	200	-
	Poly 1 1 al 200	200	Cristina, Gorda, Angelica
	Poly 2 1 al 125	125	Cutter

Source: Redhill File Concesiones Mineras Redhill Magallanes SpA 10022020.xlsx

Figure 3.2 Zodiac prospect exploitation concession location map



Source: AMC from Redhill data. Projection WGS84 UTM 18S

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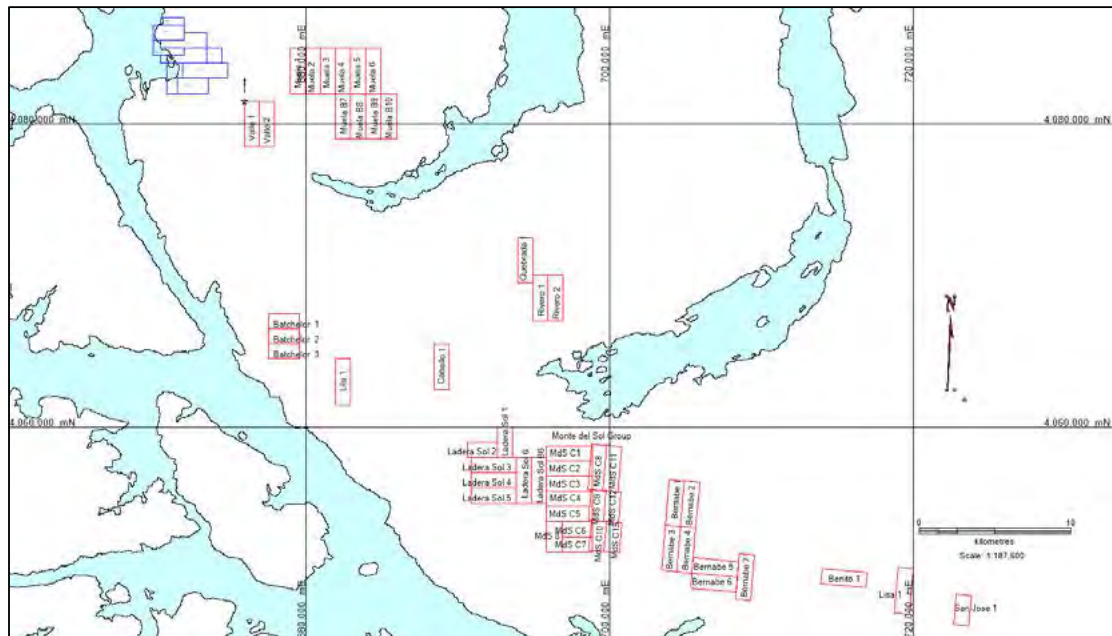
3.1.3 Exploration concessions

Redhill holds 78 granted exploration concessions. The tenure is split into three main areas and divided into nine groups. See Appendix B for details of concession details and expiration dates.

Table 3.2 Exploration concession information

Area name	Group	Granted concessions	Area (Ha)	Prospects	Number of targets
Brunswick Peninsula	Monte del Sol	15	4000	Montes del Sol	2
	Muela	10	3000	Wickham	4
	Ladera Sol	6	1600	Ladera del Sol	4
	Bernabé	7	2100		8
	Batchelor	3	600	Pico Batchelor	5
	Others	12	3400	-	-
Skyring	Serena	10	2900	La Serena, Cupula, Ventisqueros	-
Magellan	Ancón	7	1900	Ancón sin Salida, Ancón West	-
	Oraçión	6	1800	Oraçión	-
	Sutherland	2	400	Sutherland	-
	Total	78	21,700		

Figure 3.3 Concession location plan – Brunswick Peninsula



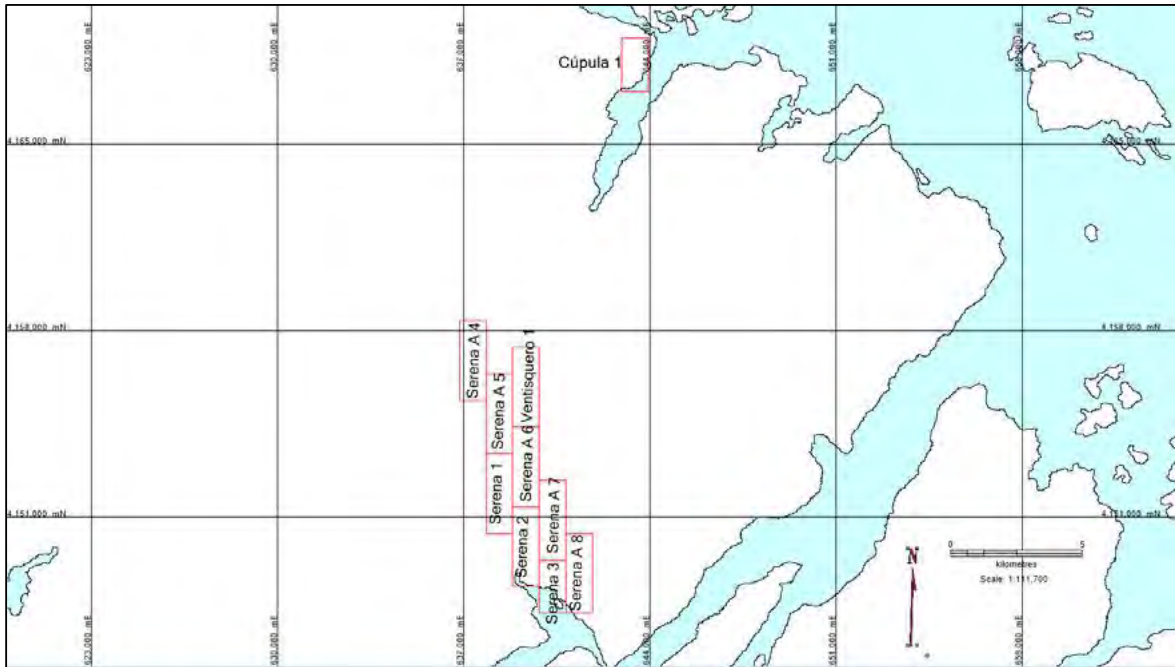
Source: AMC from Redhill data. Projection WGS84 UTM 18S

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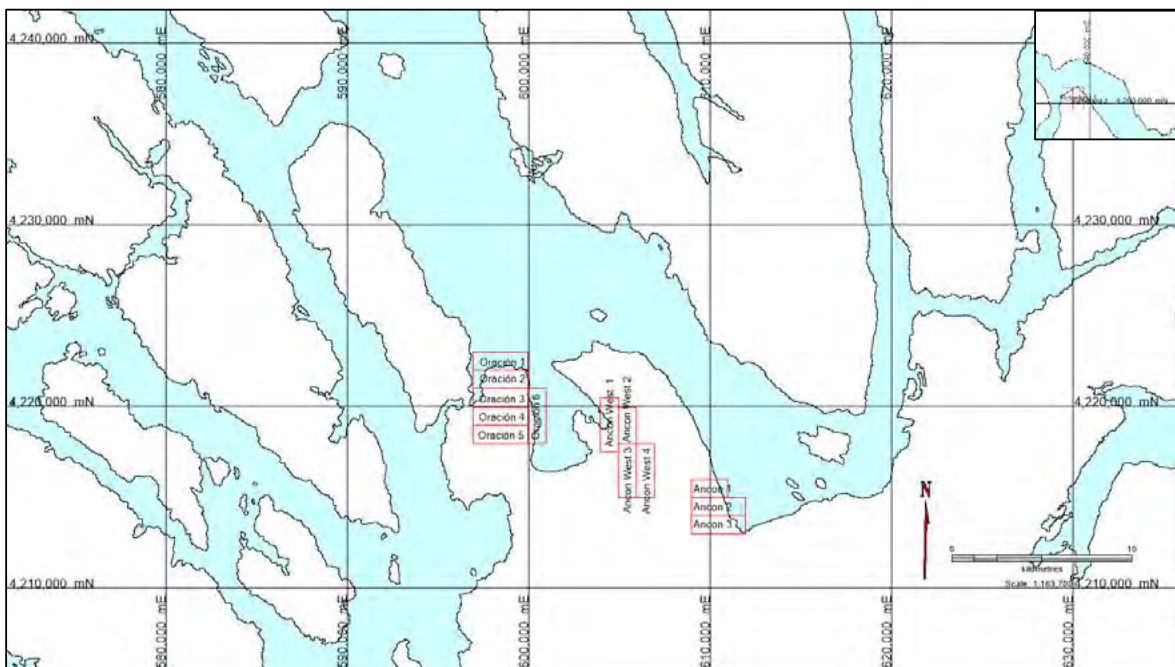
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Figure 3.4 Concession location plan – Skyring



Source: AMC from Redhill data. Projection WGS84 UTM 18S

Figure 3.5 Concession location plan – Magellan



Source: AMC from Redhill data. Projection WGS84 UTM 18S. Note inset of Sutherland concessions

AMC has been advised by Redhill that all the concessions are current. AMC has not independently verified the standing of the concessions.

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4 Project history

4.1 Pre-EMR history

Exploration of the entire Magallanes District has been generally limited to first pass reconnaissance work.

The Cutters Cove mining area was discovered in the early 1900s and commenced production in 1904. Copper was produced from 1905 to 1912 by the Cutter Cove Mining Company. The mine then re-opened in 1964 with artisanal workers until 1968 when a flotation plant was constructed which then increased production to 4,000 tonne per year. From 1971 mining of narrow vein underground material was by manual shrinkage stoping. The plant processed at 400 ton of ore per day until closure in 1975. Koscina (1977) quotes approximately 211,000 t of ore at 1.72% Cu were depleted from an estimated reserve of 237,000 t at 3.24% Cu³. The mine produced concentrates with grades of 28% S, 25% Cu, 5% to 6% Zn, 1.4% Pb, 500 g/t Ag and 2 g/t Au to 4 g/t Au (Koscina, 1977). Approximately 12,500 t to 13,000 t of concentrate was shipped from Cutters Cove during this period (Koscina, 1977) (Figure 4.1). Head grade during the period appears to be approximately 1.75% Cu with tails grade averaging 0.29% Cu, achieving an average 83% recovery.

The Project underground workings are from four areas:

- Cristina Mine – 2,040 m development with one transport level and four sub-levels.
- Cutter Mine – 740 m development with one transport level and one sub-level.
- Gorda Mine – 60 m development in one level.
- Ingleses Mine – 100 m development in one level and one sub-level.

Figure 4.1 Cutters Cove concentrate production December 1971 to December 1975



Source: AMC adapted from data in Koscina (1977)

³ This historic reserve estimate has not been estimated and reported in accordance with the JORC Code.

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4.2 Current project

Geologists from Redhill first visited the area in 2012 following acquisition in 2011 to follow-up anomalous surface rock chip and channel samples that had previous been collected by Eton Mining Corporation (Eton Mining) in 2008. Three phases of drilling, rock chip, channel and mapping have been conducted by Redhill. Drilling by Redhill totalled 4,175 m combined with other sampling exercises.

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5 Geology

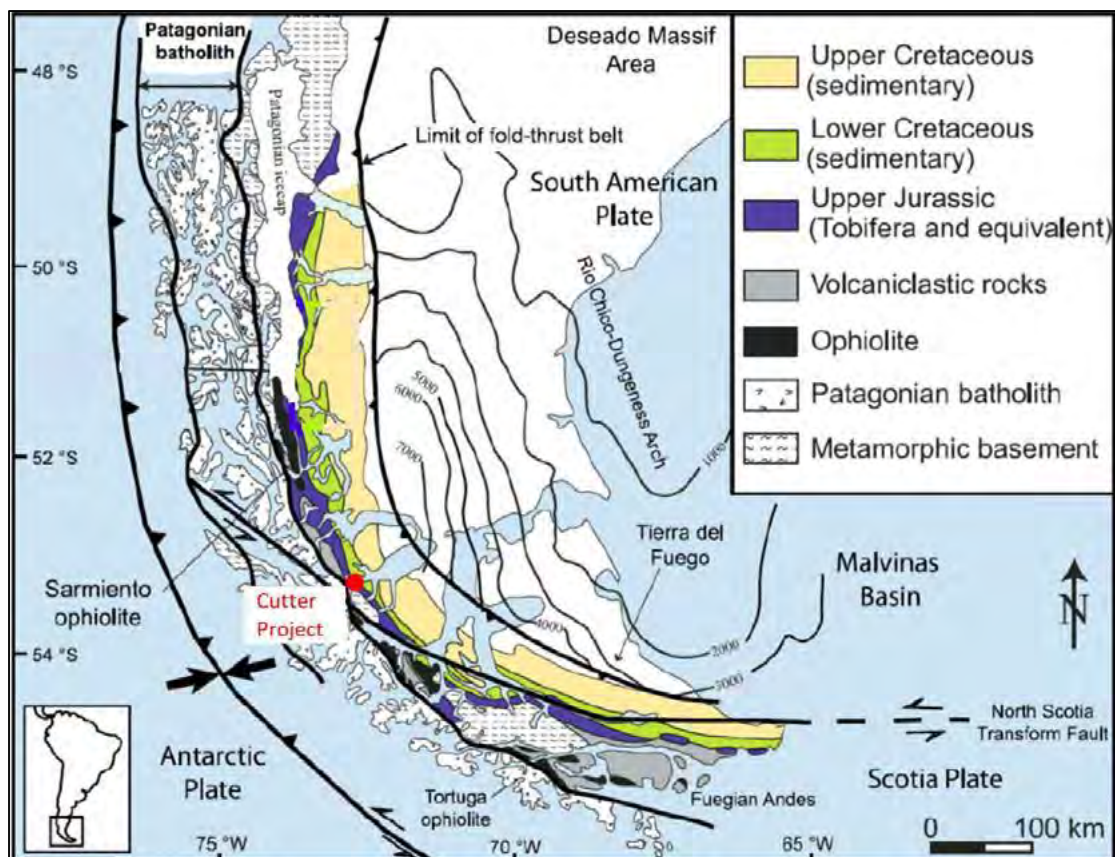
5.1 Regional geology

The Redhill Project areas are located in the central part of the arcuate Rocas Verdes belt, an intensely folded and thrustured belt of sediments, mostly turbiditic, with acid and subsidiary basic volcanics and small intrusions. This belt is bounded to the west and south by the 151 Ma to 16 Ma Patagonian Batholith: an amalgamation of subduction related granite, granodiorite and tonalite plutons (Figure 5.1).

The Palaeozoic basement consists of schists and slate that underwent numerous phases of deformation in an accretionary prism. Crustal melting induced by attenuation in the Upper Triassic-Lower Jurassic spreading event gave rise to the deposition of shallow marine conglomerates of the Poco Esperanza Formation and acid volcanic and volcanoclastic rocks and conglomerates of the Tobifera Formation (Fildani et al., 2008). These rocks filled, from the west, the grabens and half grabens that were formed during the main rifting event in the late Jurassic-early Cretaceous. Ocean crust formation in the back-arc basin is represented by the Tortuga Formation and Sarmiento Formation ophiolites.

During the Late Cretaceous and the Tertiary, the basin was compressed and deformed with an eastward vergence causing the basin faults to be reactivated and inverted as thick-skinned reverse faults. Jurassic and Tertiary aged rocks, as well as the Palaeozoic basement, were deformed and thrustured in this phase. It was during this compressive phase that the mineralisation at Cutter, including the Angelica and Franceses prospects, was emplaced and deformed (Redhill, 2017a).

Figure 5.1 Simplified tectonic map of the Patagonian



Source: Redhill (2015b) modified from Fildani et al. (2008)

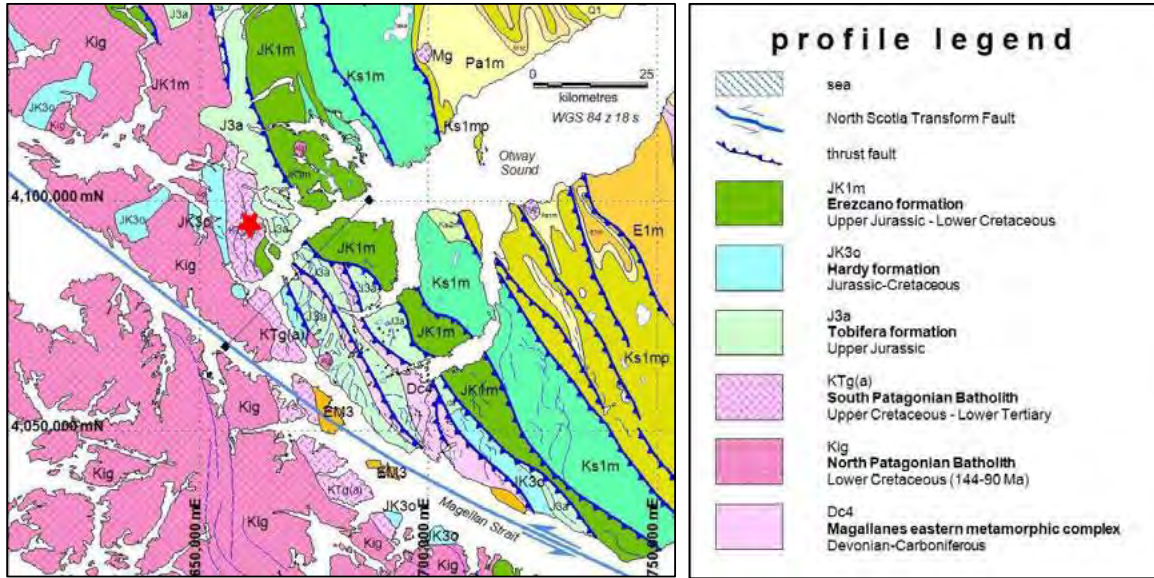
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The regional lithological formations as described in this report are shown in Figure 5.2.

Figure 5.2 Regional lithological formation distribution plan



Source: Redhill, 2015a

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6 Cutter Project

6.1 Local Geology

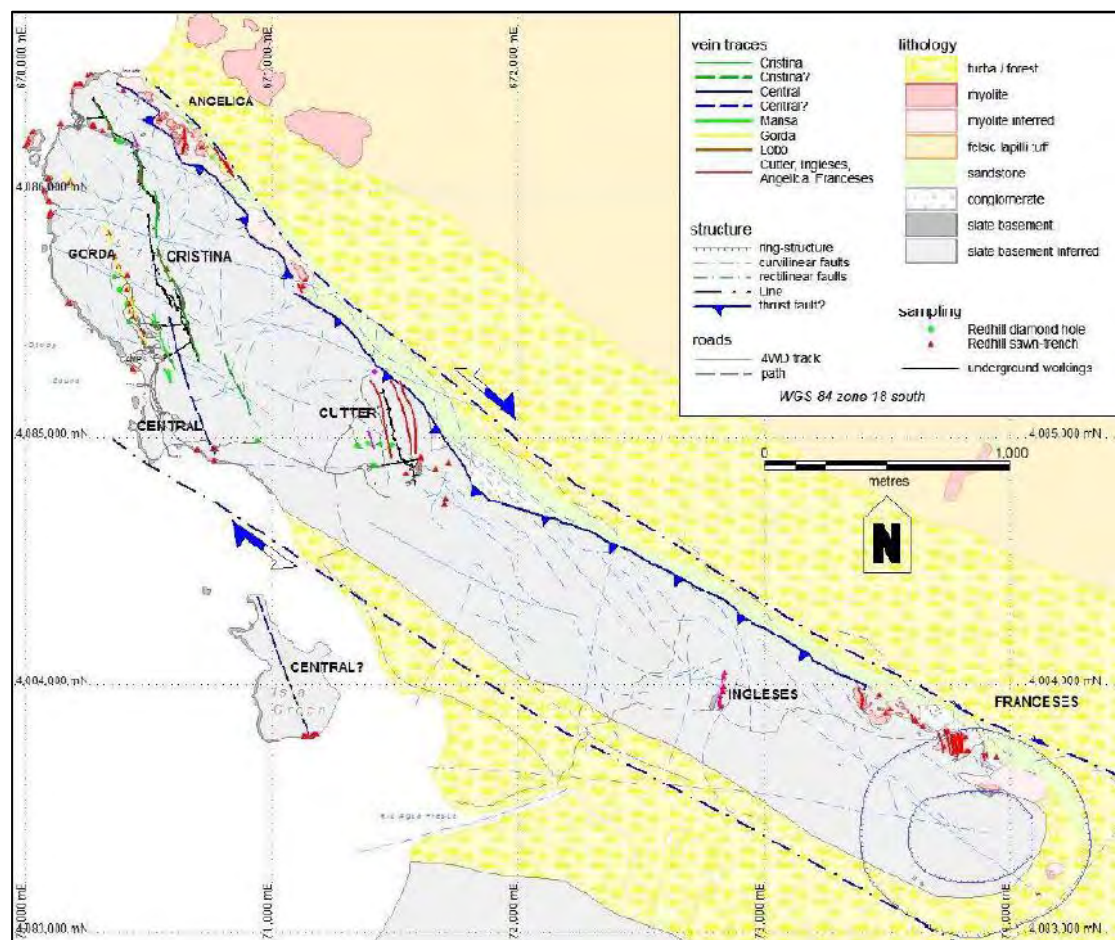
The general trend of the major lithological units is east-southeast in a set of fine-grained slates and black shales surrounded on either side by felsic tuffs. The zone is strongly structurally controlled by thrust and strike-slip faulting.

The Cutter Project comprises five areas of economic interest: Cristina, Cutter, Ingleses, Angelica and Franceses (Figure 6.1). The first three areas contain quartz vein mineralised systems that dip 50° toward the southwest, and are hosted in grey, poly-deformed, Palaeozoic slates of the Eastern metamorphic complex. The veins at Cutter and Cristina (historical production areas) are 2 m to 3 m thick quartz-chalcopryrite mesothermal veins with high-grade copper and moderate-grade silver.

At Angelica and Franceses, the mineralisation is associated with the boundary faults, and complex structures within felsic crystal lithic tuffs adjacent to slates and sandstones (Figure 6.1). The volcano-sedimentary rocks have an unconformable contact with the basement sediments.

Away from the shore, rock exposure is extremely poor being restricted to road cuttings and surface workings. Gullies are dominated by dense woodland of coigue, lenga and bushes, all other areas are covered by glacial till and up to 2 m of peat and moss (known as turba).

Figure 6.1 Cutter Project geology map



Source: Redhill, 2016

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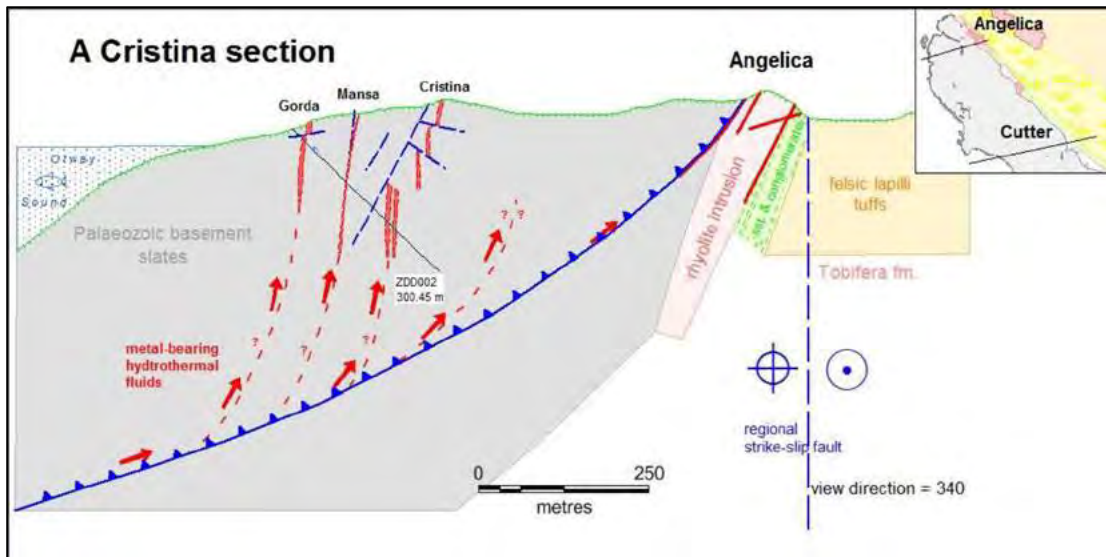
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6.2 Mineralisation

6.2.1 Cristina

The main Cristina vein extends over 1 km in strike length as seen in old workings at surface. The Cristina vein strikes north-northwest and dips steeply 85° west (Figure 6.2). Mineralisation consists of quartz veins with polymetallic sulphide mineralisation, principally pyrite-chalcopyrite. Sulphide mineralisation contains low-level gold credits and moderate silver and bismuth content. The mineralised veins are lenticular and vary between two and three metres average with minor thicker shoots to 10 m. Post mineral brittle faulting has disrupted the veins with offsets of one to ten metres. Mineralisation is developed in pronounced shoots along the structure with some low-grade and barren zones between mineralised sections.

Figure 6.2 Cristina, Mansa, and Gorda vein cross section



Source: Redhill, 2015b

6.2.2 Gorda

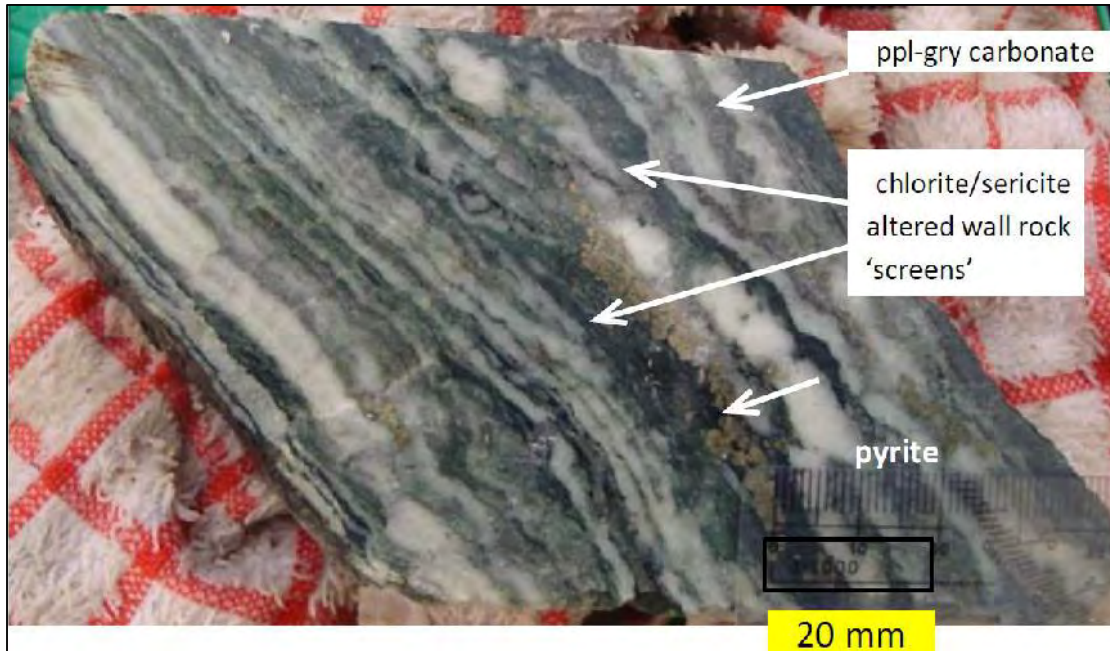
The Gorda vein is located approximately 100 m west of the Cristina vein (Figure 6.2) and extends over 500 m in a parallel strike direction. The vein dips steeply east to vertical and is estimated to intersect the Cristina vein at -200 m Reduced Level (RL). The Gorda vein ranges in thickness from 1 m up to 9.8 m thick. It contains higher levels of precious metals than the copper rich Cristina and Cutter veins, but lower order copper mineralisation and has some characteristics of an epithermal-style vein as evidenced by the presence of colloform banding seen in core from drillhole ZDD007 (Figure 6.3).

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Figure 6.3 Colloform banding in drillhole ZDD007 in the Gorda vein

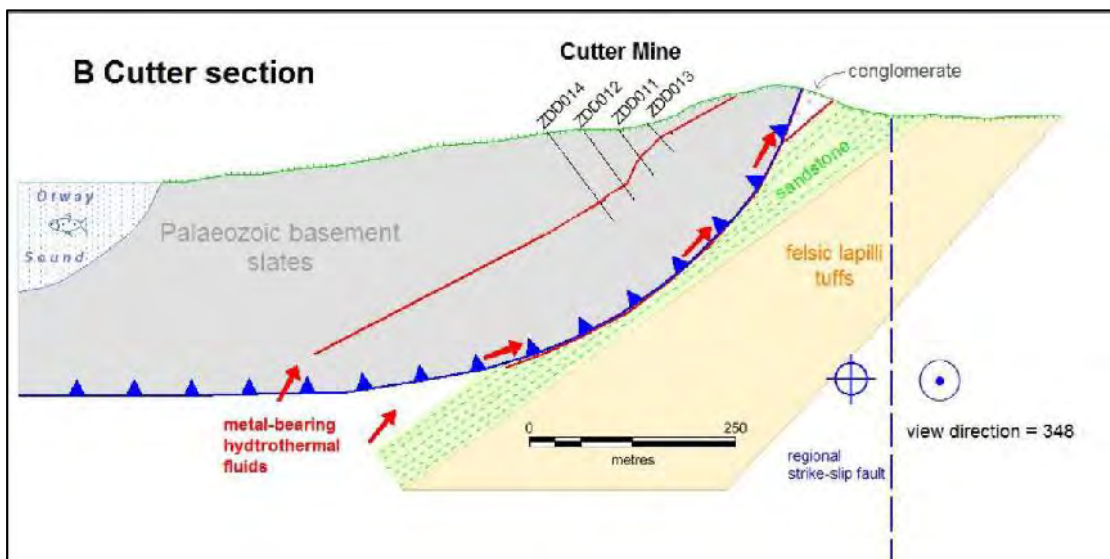


Source: Redhill (2015a). Note: From ZDD007 25.31m 8.25 ppm Au, 110 ppm Ag, 353 ppm Bi, 0.38% Cu

6.2.3 Cutter

The Cutter vein strikes north-northwest and dips at 45° to the west and extends approximately 400 m (Figure 6.4). Mineralisation consists of similar quartz-sulphide veins with low-grade gold and moderate silver and bismuth. The vein averages one to two metre true width. Sub-parallel veins called Flaca and Patricia are recognised but are not as well developed or sampled.

Figure 6.4 Cutter vein cross section



Source: Redhill, 2015b

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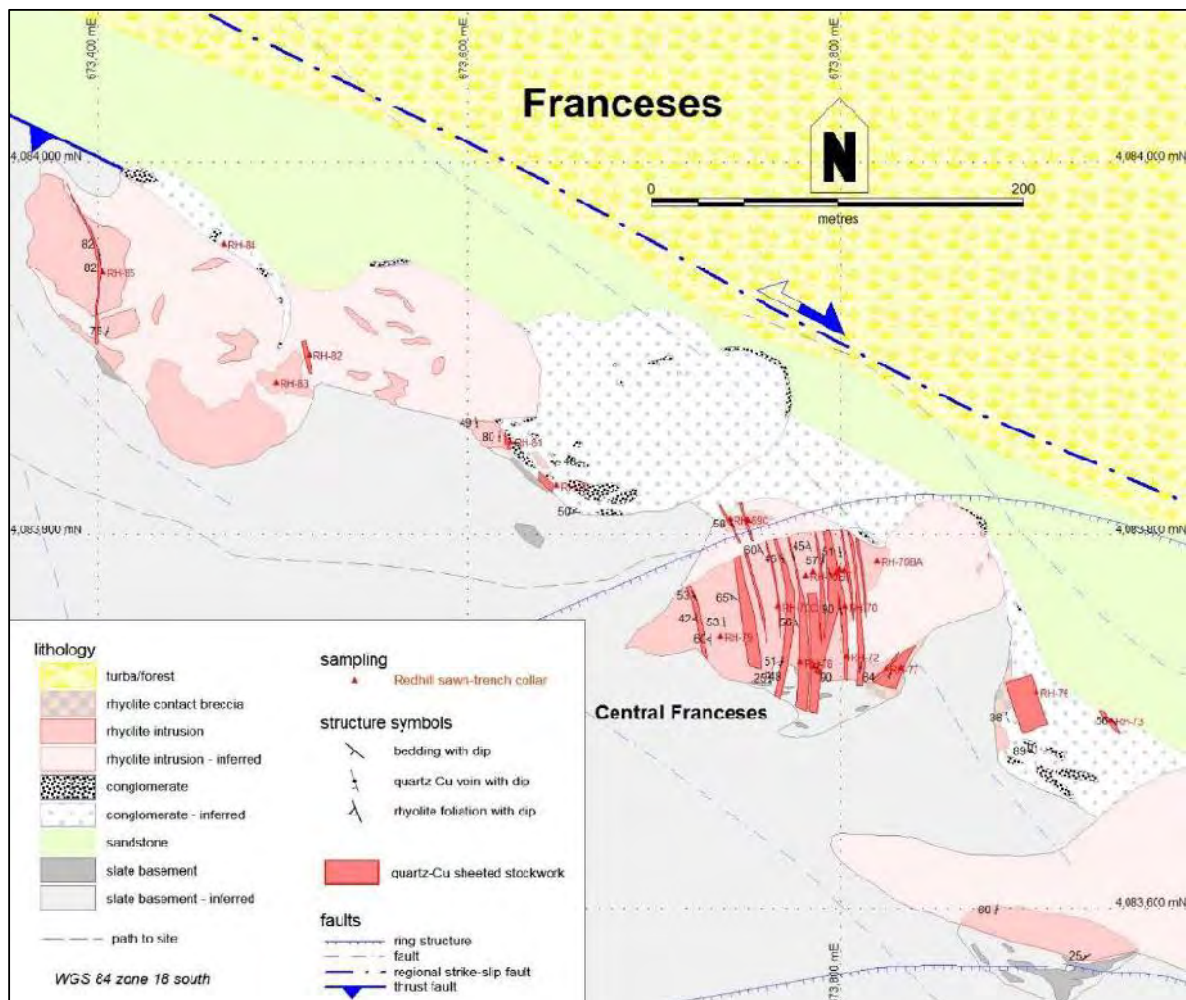
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6.2.4 Franceses and Angelica

Drilling of the Franceses Fault deposit has delineated two parallel fault-related veins of 2 m to 12 m striking north-south for 240 m and dipping 50° west to a depth of 240 m. Immediately west of the fault is the Franceses sheeted vein mineralisation consisting of disseminated and vein quartz-sulphide mineralisation hosted in chlorite-silica altered volcanics. Mineralised lenses of limited strike extent trend north-south and dip 50° west. The altered and mineralised zone is approximately 100 m wide and appears to plunge northwest. The Angelica Fault deposit consists of two separate tabular veins of fault-related mineralisation separated by approximately 130 m of felsic volcanoclastic sediments. The easternmost domain extends along a strike of 330° for 250 m and dips southwest at -60° to a depth of 150 m. The western domain trends 20° for a distance of 130 m and dips west at -70° to a depth of 90m. The Franceses area has been tested by channel samples and five diamond drillholes.

Figure 6.5 Geological plan of Franceses area



Source: Redhill, 2015a

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6.3 Prospectivity

The prospectivity of the Cutter area is well defined by historic mining and by recent mapping, sampling and drilling. The structural control of the mineralisation is well described and understood. The vein thicknesses and grade are sufficiently well developed, mapped and sampled in drill holes to develop Inferred Mineral Resource estimates. The mineralisation style requires detailed drilling to define higher-confidence Mineral Resources. Extending the known exploration areas along strike and down dip will require a significant drilling programme, as outcrop is commonly masked by thick ground cover and glacial till.

The area is prospective for further discoveries within the current mineralised package between and within the major strike slip faults that bound the known mineralisation (Figure 6.1).

6.4 Overview of data supporting the Mineral Resource estimate

6.4.1 Topography

Topography for the 2014 REG Resource Estimate (Cristina and Cutter) was based on a Land Department 10 m contour map adjusted for known survey points (eg drill collars) (Callaghan, 2014). Topography for the 2016 REG Resource Estimate (Franceses and Angelica) was based on a digital terrain model created by a licensed surveyor and adjusted for known survey points (Callaghan, 2016). AMC was provided with a topographic surface by the consultants Resource and Exploration Geology (REG) called 20131115_level10m_zodiac_wgs8418.dtm as shown in green in Figure 6.6. This file is compared against a topography (red line in Figure 6.6) generated by AMC from a file made available in the GIS folder of the Ansarada Project Magallanes folder (02.06.06.02.19.10 Contorno_Topo_Sup_1m.lyr). There are differences in global reduced level and also in precision available in the latter file not present in the original file.

AMC understands from REG that numerous underground sample RL differences due to a datum difference were detected and corrected during the resource estimation phase. Adjusted sample locations were collated to match the underground workings at the time. AMC notes that the current locations of samples based on data derived from the sample database file (11.03.03.01 01.03.09.01 aGD_Metallogen_Portable.accdb) appear not to take these corrections into account (Figure 6.7).

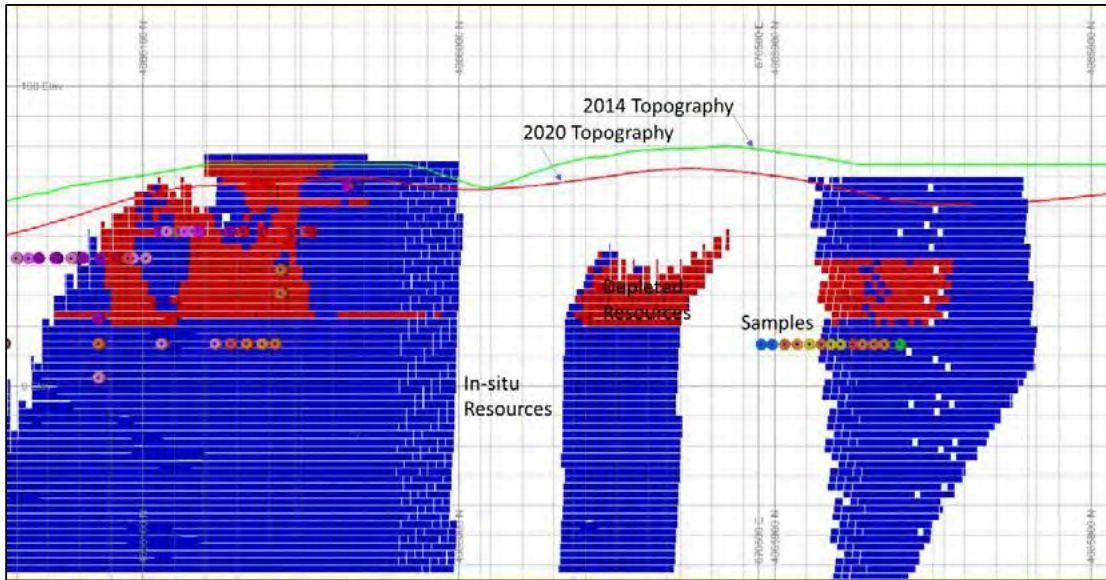
AMC understands the corrections were made at the time of the Mineral Resource estimate but appear not to have been fixed in the supplied database. AMC recommends that the data provided by REG at the time of the estimates is used to update the corporate database. Any future Mineral Resource estimate updates should be validated against a validated topographic base.

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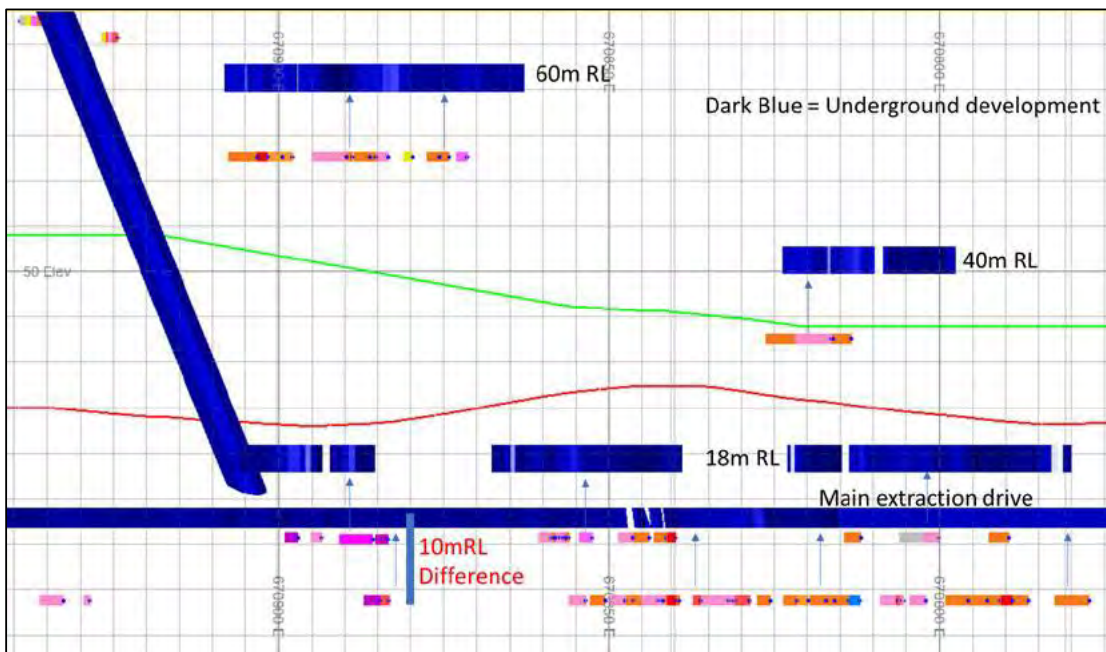
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Figure 6.6 Cristina vein Mineral Resources in relation to topography



Source: AMC from Redhill data

Figure 6.7 Cristina vein long section showing RL difference between samples and development



Source: AMC from Redhill data

6.4.2 Historical underground back samples

QAQC procedures for historical underground backs samples are not recorded and are unlikely to have existed. However, data has been utilised and locations adjusted by utilising historical plans and sections to provide greater data density through the sampled drives and adits (Figure 6.7).

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AMC recommends that unless statistical population similarity can be established between the underground samples and the diamond core samples, that the backs samples should be excluded from any future estimation due to uncertainty in position, sampling methodology and analytical accuracy. There are only four vein intercepts from diamond drilling in the Cristina vein (eleven samples, four composites) compared to 138 underground samples, which makes statistical comparison of sample types meaningless. The samples are adequate for use in the current Inferred Mineral Resource estimate, but not to inform higher-confidence Mineral Resource classification.

6.4.3 Channel sampling

Channel sampling has been used extensively to guide thickness and grade estimates at surface along the vein outcrops. The channel samples were collected using diamond tip saw blades to collect representative sections through the veins and margins (Figure 6.8). The sampling is appropriate for this style of mineralisation for inclusion in Mineral Resource estimates, as the method reduces the potential for bias.

Figure 6.8 Photograph of Cutter open pit showing locations and grades of channel samples



Source: Redhill, 2015b

6.4.4 Drilling

Diamond drilling has been completed in three phases at the Cutter Project by Redhill. Table 6.1 outlines the drilling of the 26 diamond drill holes drilled between 2013 and 2016 totalling 4,121.20 m.

Table 6.1 Cutter Project drill phases, dates and metres

Drill Phase	BHID start	BHID finish	Date from	Date To	No. of holes	Metres drilled
I	ZDD001	ZDD010	07/03/2013	18/05/2013	10	1,797.40
II	ZDD011	ZDD017	17/11/2013	18/12/2013	7	542.05
III	ZDD018	ZDD026	21/10/2015	13/02/2016	9	1,781.75
				TOTAL	26	4,121.20

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Drilling in Phase I utilised HQ size core to collar (up to 100-150 m depth) and then NQ size core tails. Phase II and II utilised HQ to collar but dominantly NQ or NQ2 core size (47 mm). Drilling was conducted using track mounted Morooka wide tracked vehicle to aid in traversing the boggy and rugged ground conditions.

6.4.5 Logging and sampling

Detailed logging and sampling conducted by Redhill personnel are recorded in detailed logs and programme outcomes in Redhill reports (Redhill (2013), Redhill (2014), and Redhill (2016)). The data is stored in a Microsoft Access database (11.03.03.01 01.03.09.01 aGD_Metallogen_Portable.accdb), and includes collar, survey, assay, lithology, alteration, mineralisation, specific gravity (density), structural, vein and sample recovery tables. The data is recorded adequately for the purposes of reporting of Mineral Resources.

The core logging and sampling procedures are recorded in the programme reports and indicate industry standard practices have been employed. Logging on to paper log sheets was completed and data entered in an Excel spreadsheet before validation importation into a modified Access database. Half core sampling was standard. The statistics of the sampling from the diamond drilling is shown in Table 6.2.

Table 6.2 Diamond drilling sampling statistics

Hole_ID	Number of samples	Metres sampled (m)	Max_Depth (m)	Average sample interval (m)	Average Cu grade (ppm)
ZDD001	239	221.20	305.45	0.9	724
ZDD002	215	201.85	300.45	0.9	1,324
ZDD003	113	113.05	113.05	1.0	220
ZDD004	55	52.64	64.25	1.0	672
ZDD005	66	59.83	158.49	0.9	3,254
ZDD006	198	183.97	236.29	0.9	873
ZDD007	113	101.10	103.72	0.9	556
ZDD008	158	148.45	153.95	0.9	575
ZDD009	209	196.25	200.25	0.9	183
ZDD010	166	156.83	161.5	0.9	578
ZDD011	58	32.71	96.35	0.6	5,081
ZDD012	58	30.32	102.8	0.5	5,741
ZDD013	64	33.30	65.5	0.5	3,937
ZDD014	65	36.35	139.7	0.6	5,993
ZDD015			19.6		
ZDD016			29.8		
ZDD017	21	10.76	88	0.5	3,878
ZDD018	58	56.14	215.2	1.0	2,453
ZDD019	18	17.00	53.5	0.9	4,270
ZDD019A	74	71.87	300.15	1.0	3,140
ZDD020	58	57.80	305.75	1.0	1,866
ZDD021	64	63.83	187.5	1.0	4,557
ZDD022	48	47.88	120.1	1.0	3,409
ZDD023	48	48.35	257.9	1.0	4,842
ZDD024	13	13.00	50	1.0	24,233
ZDD025	41	41.00	181.55	1.0	10,435
ZDD026	4	3.75	163.6	0.9	7,783

Source: AMC derived from Redhill database data

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Sample recovery is discussed in the resource reports (Callaghan 2014 and 2016) and is shown to be very good (range 95% to 100%) with no correlation between grade and recovery.

6.4.6 Assay

Samples for Phase I and II were analysed at ACME Analytical Laboratories S.A., Pudahuel, Santiago (ACME). The preparation and analytical steps were:

- Sample identification, drying, crushing to 80% passing 2 mm screen.
- **Quartering to 500 g and pulverising to 85% passing 75 µm.**
- Au analysis by 30 g fire assay / Atomic Absorption Spectrometry (AAS).
- 32 element aqua regia digest on 0.5 g sample with analysis by Inductively Coupled Plasma – Emission Spectrometry (ICP-ES).
- High range (Cu >1%) analysis by ore grade aqua regia digest / AAS

AMC notes that a correction was required to the original assays for Phase I due to core samples removed for density determination not being returned to the sample batch prior to sample preparation. Subsequent analysis of the density samples was then mass-weighted with the original analysis to report a corrected value (sample is identified in the database with a sampleID suffix of 'sg'). AMC suggests that whilst this is irregular and unsatisfactory assay laboratory quality assurance, the final results should not be biased.

Phase III samples were prepared at ALS Minerals Division, Coquimbo, Chile, and pulps sent to ALS Vancouver, Canada, for analysis. The preparation and analysis steps were:

- Sample identification, drying, crushing to 70% passing 2 mm screen.
- **Riffle split 1 kg and pulverising to 85% passing 75 µm.**
- Au analysis by 30 g fire assay / gravimetric.
- 33 element aqua regia digest on 0.5 g sample with analysis by Inductively Coupled Plasma – Atomic Emission Spectrometry (ICP-AES).
- Ag analysis by 30 g fire assay / gravimetric where ICP result >50 ppm
- High range (Cu >5%) analysis by ore grade aqua regia digest / ICP-AES.

6.4.7 Drillhole collars and survey

All drill collars were picked up by differential GPS either by licenced surveyor or company personnel. Downhole survey deviations were measured using a Reflex Ez-Trac™ tool surveying from end of hole upwards at hole completion every 6 m. AMC considers the collar and downhole data is fit for the purposes of a Mineral Resource estimate.

6.4.7.1 Database validity

AMC assumes the database is valid. Examinations of the database locations of the underground backs samples compared to the Mineral Resource wireframes and block model indicate that the corrected data supplied to Redhill by the consultant REG in its final report has not been transposed into the database supplied to AMC. AMC recommends that data is sourced and the database updated.

6.4.7.2 Bulk density

In Phase I core was tested by ACME for apparent bulk density using the wax-coated immersion technique on selected 5 cm to 20 cm pieces of core from each sample bag (a total of 1150 measurements). In Phase II selected runs of visibly mineralised and un-mineralised core were tested for density on site by Redhill geologists using half core (141 samples) immersion method. In Phase III whole core was selected from each metre (697 samples). In total 1,988 samples have density values.

The Mineral Resource estimates for Cristina, Cutters and Gorda in 2014 used density values available from the first two phases. The median values were used to calculate tonnage.

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Table 6.3 Density values used for Cristina, Cutters and Gorda

Zone	Number	Density Minimum (g/cm ³)	Density Maximum (g/cm ³)	Density Median (g/cm ³)
Waste	113	2.6	2.9	2.7
Cutters	28	2.7	3.1	2.8
Cristina	7	2.7	3.1	2.9
Gorda	22	2.8	3.7	3.0

Source: Redhill (2014)

The Mineral Resource estimates for Franceses and Angelica areas utilised a copper grade to density relationship to inform the block model density estimate. REG (Callaghan, 2016) states that the density is calculated using the following formula:

$$Density = \frac{(Cu\% + 8.6648)}{3.5485}$$

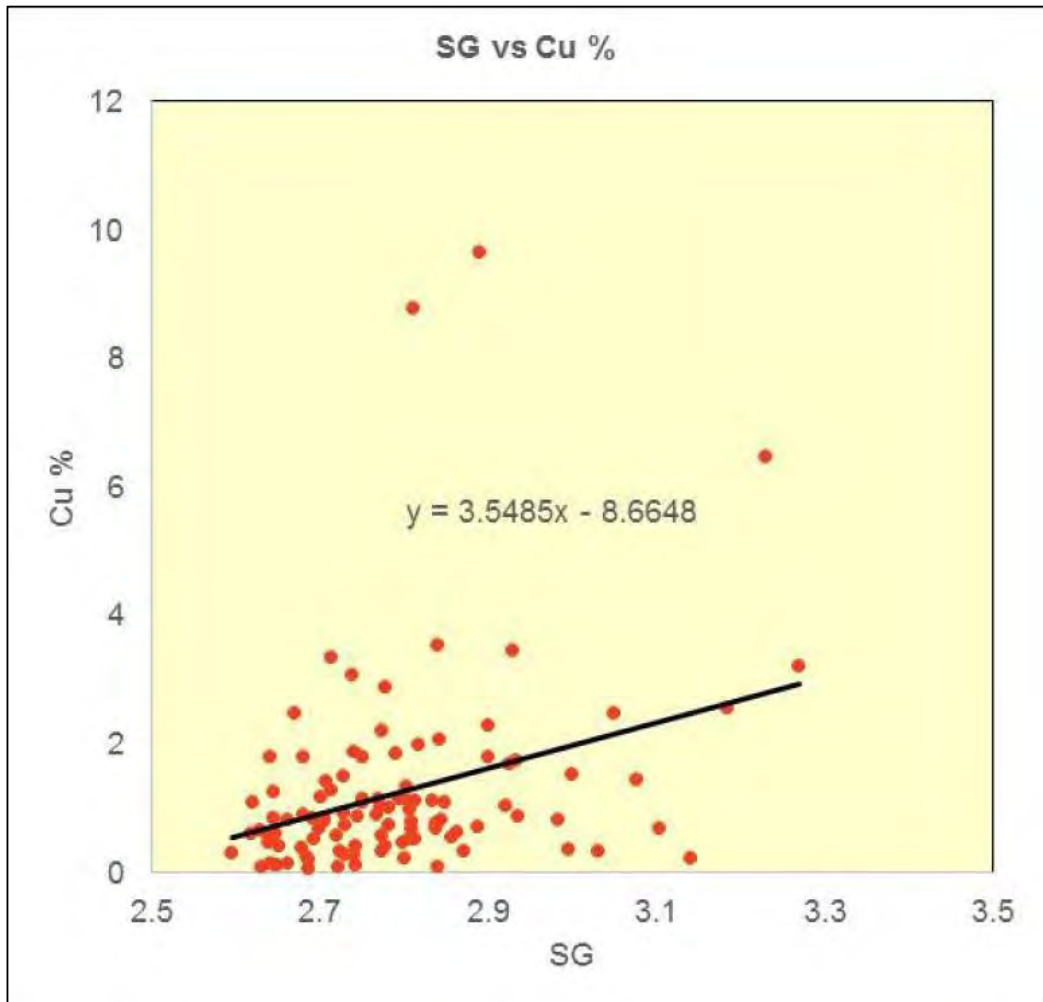
The formula is based on a regression as shown in Figure 6.9. AMC considers that the correlation with copper is weak and ill-defined. As such AMC compared the relative density by immersion against the sulphur grades to determine if a better fit could be established (Figure 6.10). AMC concludes that there is a great deal of variability in the data and that further density determinations need to be collected to ascertain if a grade-based correlation can be applied. AMC recommends that density regressions are not used until better data are obtained, instead using the data within each domain and assessing whether mean or median values should be utilised.

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Figure 6.9 Density regression used for informing Franceses and Angelica estimates



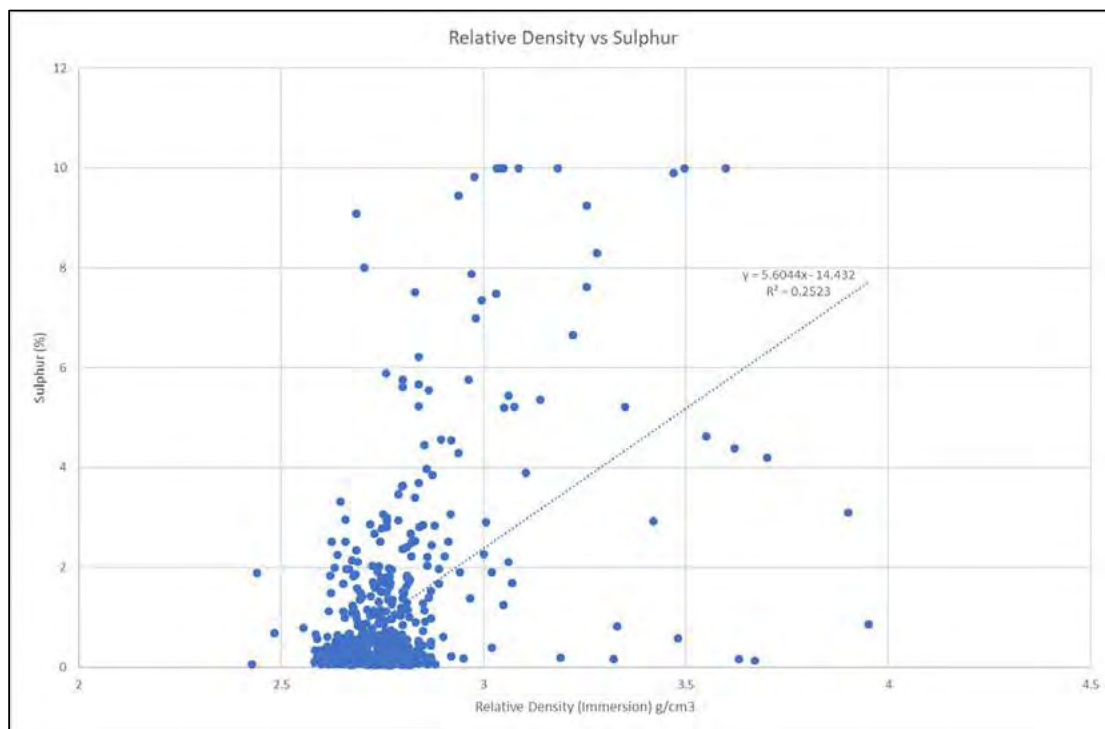
Source: Callaghan (2016)

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Figure 6.10 Density regression using sulphur



Source: AMC from Redhill data

6.4.7.3 Quality assurance and quality control (QAQC) procedures and results

QAQC procedures for the diamond drilling phases are recorded in Redhill (2013, 2014, 2016). The QAQC procedures outlined inclusion of certified reference materials (CRMs) in the sample stream every 40 samples in holes ZDD001 and ZDD002 and every 20 samples thereafter. The CRMs were purchased from Geostats Pty Ltd, Western Australia. The CRMs are appropriate for use in monitoring laboratory accuracy. Appropriate grade range CRMs were used for the programmes.

A blank based on plaster of paris material was used to assess sample position and potential contamination issues.

The database provided did not include the QAQC data results, however the graphical results of CRM analyses of the three drill phases were included in the drilling phase reports (Redhill 2013, 2014, 2016). They indicate that the results are within acceptable levels of two standard deviations from the accepted value in all but one case.

AMC considers that coarse duplicate analyses and umpire laboratory analyses are critical components of a QAQC programme. These processes have not been implemented to date.

6.4.7.4 Summary

The data collection process is generally adequate. AMC considers that improvements could be made by:

- Updating the underground sample locations in the database to match underground development shapes and current block model estimation. Previous locations provided by REG should replace current locations.

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- Additional information needs to be collected to better establish the validity of the underground samples. AMC considers the validity of these samples is only currently sufficient to warrant inclusion in an Inferred Mineral Resource estimate.
- Extensive bulk density values have been collected using immersion methods on all drilling, however, there is insufficient correlation with copper or sulphur grades to warrant a regressed density value into the block model.
- QAQC protocols can be strengthened by including coarse reject duplicates, blind pulp duplicates, and umpire pulp duplicates as standard practice. AMC also recommends coarse blank material is used to test for contamination rather than pulp blanks or manufactured soft materials like plaster of paris.

6.4.8 Mineral Resources

6.4.8.1 Overview

Mineral Resources have been estimated by external consultants (REG) for the Cristina, Cutter and Gorda veins (Callaghan, 2014), and Franceses and Angelica (Callaghan, 2016). JORC Code definitions were followed for the stated Mineral Resources as outlined in Table 6.4. For the purposes of AMC's review of the Mineral Resource estimates tabulated below, the AMC Competent Person has prepared a JORC Table 1 based on the AMC Competent Person's review of available information. The AMC Competent Person's JORC Table 1 is included in Appendix C to this Technical Assessment Report.

Table 6.4 Cutter Project Inferred Mineral Resource estimates

Vein	Tonnes (kt)	Cu%	Ag ppm	Au ppm	Cu tonnes	Ag koz	Au koz
Cristina	1,304	2.3	41	0.25	29,600	1700	10
Cutters	317	3.0	51	0.06	9,500	500	1
Gorda	354	0.6	56	1.6	2,000	600	18
Franceses Fault	1,499	1.3	14	0.06	18,887	693	3
Franceses Sheeted	241	1.0	8	0.03	2,362	65	0
Angelica	574	1.5	53	0.4	8,840	970	7
Total	4,300	1.7	33	0.29	71,000	4,600	40

Source: AMC from Callaghan (2014) and Callaghan (2016). Reported above a zero percent copper cut-off within vein wireframe domains.

6.4.8.2 Modelling methodology

Modelling of grade was completed by using spherical inversed distance to the power of two (ID²) interpolation. Cell sizes are shown in Table 6.5.

Table 6.5 Cutters Project block model cell sizes

Vein	Parent			Sub-cell		
	X (m)	Y (m)	Z (m)	X (m)	Y (m)	Z (m)
Cristina	10	10	10	1.25	2.5	2.5
Cutter	10	10	10	1.25	2.5	1.25
Franceses	10	10	10	1.25	2.5	2.5
Angelica	10	10	10	1.25	1.25	1.25

Source: Callaghan (2014 and 2016)

6.4.8.3 Interpretation

Modelling of the Cutters Project veins was completed based on surface mapping, trenching, historical surface and underground workings, and drilling intercepts to generate wireframes.

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Where possible the wireframes used the underground samples to map the vein thickness, assuming the samples were taken orthogonal to the vein orientation.

The interpretations of the veins are based largely on outcrop and historic workings for Cristina and Cutters. The other veins are based on mapping and drill intersections. The interpretations appear to be valid based on the data viewed by AMC. There is a paucity of data in many veins to confirm medium range continuity, and many veins are based on limited sampling.

6.4.8.4 Compositing

Data was composited on vein widths for copper, gold and silver. AMC considers this an appropriate method for the style of mineralisation

6.4.8.5 Top cap

Top caps were applied based on the coefficient of variation and grade histograms only for Cristina and Gorda veins (Table 6.6). Top caps were not applied to the other veins. AMC considers the top-caps used are appropriate.

Table 6.6 Summary of top caps used in estimation

Vein	Element	Top cap
Cristina	Au	1.46 g/t Au
Gorda	Au	8.3 g/t Au
	Cu	2.3% Cu

Source: Callaghan (2014)

6.4.8.6 Variography

The sporadic and clustered nature of the data limited the use of variography to the Y (north) direction. Variograms were only modelled for copper and for Cristina showed a nugget of 0.35 and range of 35 m to the sill. At Franceses and Angelica the data is poorly distributed with strong clustering effects associated with surface trenches. Downhole variograms were generated with low nugget effects of less than 20% of total variance and short ranges (2 m to 6 m). AMC considers the variography is limited in value due to the clustering of the data. It is heavily influenced by the underground samples for range information.

6.4.8.7 Grade interpolation

The grade is interpolated into the block models using an ID² method. The details of the search ellipses and minimum/maximum samples are shown in Table 6.7.

Table 6.7 Modelling parameters

Item	Cristina	Cutters	Gorda	Franceses	Angelica
Ellipse plunge	0	0	0	0	0
Ellipse bearing	340	340	340	0	0
Ellipse dip	80	60	90	50	50
Search radius	200 m	200 m	200 m	120 m	120 m
Major:semi major ratio	1	1	1	1	1
Major:minor ratio	1	1	1	1	1
Discretisation points	3:3:3	3:3:3	3:3:3	3:3:3	3:3:3
Min Samples	3	3	3	2	2
Max Samples	10	10	10	10	10

Source: Callaghan (2014, 2016)

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At Franceses and Angelica a spherical ID² model was used with a 120 m radius to inform blocks and a minimum number of samples of only two used. AMC considers this to be an optimistic extrapolation of data.

6.4.9 Reporting

The reporting of the estimation methodology and results is of a good standard and allows the reader to understand the methodology used. AMC considers the reporting allows an informed reader to develop a balanced assessment of the Cutter Project.

6.4.10 Validation

6.4.10.1 Reconciliation

There has been no recent mining. Historical shallow surface and underground mining from the Cristina and Cutter developments in the early 1970s are reported in Koscina (1977) to have taken 211,000 t of ore at 1.7% Cu depleted from an estimated reserve of 237,000 t at 3.2% Cu. The nature of the grade discrepancy is only noted as being likely due to dilution in mining of the veins.

6.4.11 Classification

The Mineral Resource estimate is classified as Inferred Mineral Resource. AMC concurs with the classification. There are some areas where information is widely spread and clustered, meaning the grades are largely extrapolated. In some areas AMC concludes that confidence in the estimate is at the low end of the Inferred Mineral Resource classification.

6.4.12 Block model estimation check

AMC reported the tonnes and grade from the block models provided and concluded that some of the block models had very minor differences in tonnes but that they are well within rounding differences. AMC concludes the block models have been reported adequately.

6.4.13 Geology and Mineral Resource conclusions

The geological models are well supported by mapping of outcrop and historical underground development and processing. The drilling supporting the thickness inferences is broadly spaced, and the majority of the vein thickness information is based on surface mapping/trenching and underground sampling of the Cristina Vein. The evidence is only sufficient to support an Inferred Mineral Resource classification.

The Mineral Resource estimation methodology uses an inverse distance squared grade estimate with vein thickness based on wireframed solids. The methods used, and dilution assumed from historical stoping, appear to support the validity of the grade and tonnage estimates. The summary of sampling for each vein is included in Table 6.8.

Table 6.8 Summary of sample information by vein

Area	Diamond drill holes (number)	Surface trench	Underground sample
Cristina+Gorda	9	85	144
Cutter	7	10	37
Franceses	6	25	
Angelica	3	9	

Source: AMC from Redhill data

The early-stage projects are estimated dominantly from surface trenching and underground sampling with some verification by diamond drilling. There is sufficient data to estimate an Inferred Mineral Resource.

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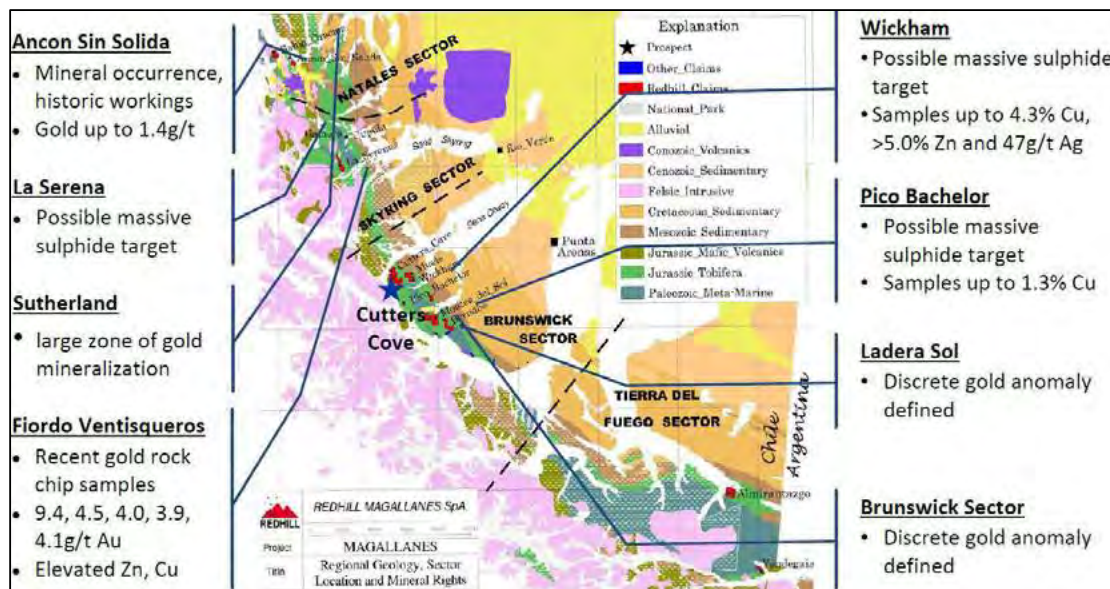
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7 Regional Project

7.1 Work completed

The regional exploration concession locations are shown in Section 3.1.3. The region was explored in the early 1990s by Rio Tinto-Zinc Corporation (RTZ) and more recently by Eton Mining. There was recognition of several geological and geochemical targets. The work completed by Redhill between 2015 and 2017 is discussed in detail in Allen (2014) and Schuler (2017). The early-stage exploration work included collation of historical exploration, collection of regional geological mapping, acquiring regional geophysics and where possible aerial photography. Ground assessments included mapping, drainage sampling, rock chip and trench sampling of a preliminary nature. A summary of the results is shown in Figure 7.1.

Figure 7.1 Regional exploration summary findings



Source: Redhill (2017b)

7.2 Geology

The grassroots regional exploration concessions are spread over a 260 km arcuate north-south band within the polymetallic Mesozoic metallogenic belt of southern Chile (Figure 7.2). The regional geology is described in Section 5.1. The area is prospective for structurally controlled base metal silver veins, volcanogenic massive sulphide (VMS) deposits, orogenic gold, epithermal precious metal and sedimentary hosted exhalative models.

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Figure 7.2 Redhill regional exploration project locations and geology



Source: Redhill 2017b

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7.3 Natales (or Magellan) sector exploration

7.3.1 Sutherland

The Sutherland prospects has two concessions targeting RTZ rock chip sample gold and silver anomalies in stockwork zones associated with felsic dykes in folded marine sediments. Two site visits collected sawn channel samples and rock chip samples with weak gold and silver values. There is enough evidence to suggest the mineralisation is worthy of follow up to test the larger concession area given the evidence of anomalism.

7.3.2 Bahia Oración

Bahia Oración has an area of steeply dipping quartz sulphide veins in stockwork zones that have been previously worked in the 1920s. The mineralisation is discontinuous and erratic. Interpretation ranks this area as having low prospectivity.

7.3.3 Ancon West

Ancon West exploration identified seafloor bimodal volcanism with alteration and mineralisation consistent with a VMS model. The geological setting has potential over nine kilometres of strike. Exploration to date has not found evidence of geochemistry suggesting proximity to mineralised vents. Prospectivity of this area is low to date.

7.3.4 Ancon san Salida

Historical working of massive sulphide (pyrite dominant) in this area is hosted in sheared microdiorite with inclusions of rhyolitic volcanoclastic rocks. The potential fragmented volcanic hosted massive sulphide (VHMS) system has had significant post-mineralisation deformation. Narrow structurally controlled mineralisation may have analogies to the Cutter Project environment. Prospectivity of the area is low to moderate.

7.4 Skyring sector

7.4.1 La Serena

The La Serena prospect had a high priority VMS-style target prior to field work. The field work showed that the mineralisation present in the area was epigenetic formed during late to post deformation. The mineralisation is present in brittle features, shears and breccia zones. Base metal anomalies occur along a nine-kilometre-long thrust fault zone in thin, short continuity high grade veins. Structural dilation zones may be relevant is difficult to target under any cover.

AMC considers the prospectivity to be low.

7.4.2 Ventisequeros

Ventisequeros has precious metal and base metal stream sediment anomalies that were followed up with sampling of a mineralised horizon in rhyolitic volcanoclastics and shales to shaley sandstones. The general area hosts the contact between the Palaeozoic meta-sediments and the Tobifera volcano-sedimentary rocks.

The mineralisation is not visually impressive but the calcite veining with chip samples across 1.2 m of outcrop average 4.3 g/t Au, 133 g/t Ag, 1739 ppm Sb, 0.14% Cu, 0.30% Pb, 0.57% Zn and 19 ppm Hg (Schuler, 2017). The area has extensive Turba cover which makes exploration very difficult.

AMC considers the prospectivity of this area is moderate to good.

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7.4.3 Cupula

The isolated Cupula concession was applied for following Eton Mining finding a float sample containing massive sulphide mineralisation of 5.45 g/t Au, >200 g/t Ag, 0.2% Cu, >1%Pb and >1% Zn. Follow-up stream sediment and panned concentrate samples confirmed anomalous geochemistry in the area. The prospect is located along a major contact between Palaeozoic meta-sediments and Jurassic Tobifera Formation to the northeast. Redhill mapping and sampling showed that the mineralisation was generally associated with clastic and massive rhyolites along structural features. The mineralisation appeared to be epigenetic and controlled by minor structures such as bedding and foliation. The work by Redhill downgraded the prospectivity to low.

7.5 Brunswick sector

The Brunswick sector includes the previously described Cutters Project. Redhill has a large number of concessions and prospects in the Brunswick Peninsula.

7.5.1 Wickham

Wickham prospect is part of the Muela group of concessions and was targeted as a potential VMS system. Work completed by Redhill includes mapping, and 10 channel samples (best sample 2.1 m at 4.34% Cu, 0.21% Pb, >5% Zn. The mineralisation is present as stratabound massive sulphides within a shale host with questionable interpretations of either syn-volcanic or VMS origin. AMC suggests this prospect has low prospectivity.

7.5.2 Pico Batchelor

The Batchelor concessions were selected based on RTZ sampling up to 1.28% Cu, 0.16% Zn, 0.15 g/t Au and 15 g/t Ag.

7.5.3 Montes del Sol

Numerous historical geochemical samples highlighted this area to have VMS potential. Mapping showed the presence of flat to moderately dipping veins sub-parallel to foliation and post rift thrusting. The veining is extensive with thicknesses ranging from 10 cm to 1 m with chalcopyrite and galena mineralisation dominant. AMC considers the areas mineralisation to have low exploration potential.

7.5.4 Ladera Sol

The Ladera Sol concessions are adjacent to the Montes del Sol. A panned concentrate anomaly generated by Eton Mining was followed up and shown to have up-stream confirmations of gold anomalism in Paleozoic meta-sediments containing numerous quartz and quartz-pyrite veins. Stream sediment samples showed no significant responses and erratic results suggest re-worked alluvial gold possibly from the sediments. AMC considers that additional mapping and possibly drilling is required to further test this zone. AMC considers the occurrence of coarse gold is worthy of a moderate prospectivity rating.

7.5.5 Other

Numerous other concessions are held in the Brunswick sector. The Batchelor concessions were selected based on RTZ sampling up to 1.28% Cu, 0.16% Zn, 0.15 g/t Au and 15 g/t Ag. Bernabe concessions were pegged based on visual iron oxide, silicification and vein anomalies defined in a helicopter reconnaissance in 2007 by Eton Mining. No anomalism has been detected based to date on broad traverses through the area. AMC considers the concessions to have low prospectivity.

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7.6 Regional concession prospectivity

The overall prospectivity of the work completed by Redhill in 2014 to 2016 has downgraded potential in the areas tested. Work to date has focussed primarily on accessible areas on coastlines and generally has not ground truthed the larger concession areas to adequately rule out potential. Exploration expenditure, if justified relative to other targets, should focus on developing regional targets using remote methods such as geophysics to narrow the areas of expenditure and then through ground truthing, mapping and geochemistry.

The concessions can host significant grades of gold and base metals, however, to date the structural history of the area has downgraded potential due to post-depositional activation. Epigenetic mineralisation requires structural dilation zones to host significant mineralisation, and these targets are more difficult to explore for, especially in the logistically difficult areas on the Chile south coast. The areas identified to date show a range of mineralisation styles, with VMS being likely to be the mineralisation style with the greatest potential, however, VMS are commonly small targets best defined by geophysical methods such as Vertical Time Domain – Electromagnetics (VTEM).

The work completed to date on the Redhill regional concessions is preliminary in nature, and potential for significant mineralisation with the concessions cannot be ruled out. There is little evidence to date to highlight immediate potential, and AMC considers the regional concession holding to have limited additional value above the Mineral Resources identified at the Cutters Project.

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8 JORC compliance statement

8.1 Technical Assessment Report

The information in this TAR has been compiled by Mr Roderick Carlson, a Competent Person who is a Member of The Australian Institute of Geoscientists. Mr Carlson is employed by AMC Consultants Pty Ltd. AMC Consultants Pty Ltd has been engaged by EMR under a services agreement. Mr Carlson has no relationship with EMR, or any employees or directors of EMR. Mr Carlson is not a shareholder of EMR. Mr Carlson has no beneficial interest in any of the claims or agreements related to the claims, the subject of this TAR. Mr Carlson has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Mr Carlson consents to the inclusion of this TAR in the IPO prospectus in its entirety.

Competent Persons

The Cutters Project May 2021 Mineral Resource estimates are reported in accordance with the standards set out in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves of December 2012 (the JORC Code) and estimated by Competent Persons as defined by the JORC Code.

Information in this report on the Mineral Resources has been compiled by Mr Roderick Carlson, a Competent Person who is a Member and Registered Professional Geologist of the Australian Institute of Geoscientists and a Member of the Australasian Institute of Mining and Metallurgy and is a full-time employee of AMC Consultants Pty Ltd. Mr Carlson has sufficient experience that is relevant to the style of mineralization and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the JORC Code. Mr Carlson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. AMC representatives have not visited the Cutters Project site due to COVID restrictions in 2020 and 2021.

In undertaking the assignments referred to in this report, AMC Consultants Pty Ltd and the Competent Person acted as independent parties, have no interest in the outcome of the Project and have no business relationship with RedHill other than undertaking those individual technical consulting assignments as engaged, and being paid according to standard per diem rates with reimbursement for out-of-pocket expenses. Therefore, AMC Consultants Pty Ltd and the Competent Person believe that there is no conflict of interest in undertaking the assignments and preparing the estimates as stated in this press release.

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10 Qualifications

10.1 Introduction

AMC is a firm of mineral industry consultants whose activities include the preparation of due diligence reports and reviews on mining and exploration projects for equity and debt funding and for public reports.

The contributors to this TAR are:

- Roderick Carlson – Principal Geologist BSc, MSc, MAIG RPGeo (mining and exploration). Rod is a principal geologist with extensive management and consulting experience. Rod is highly experienced in areas including resource evaluation and audit, mine to mill reconciliation, geochemistry, drilling interpretation, and regolith mapping. Currently a registered professional geoscientist with the Australian Institute of Geoscientists. With significant project management and peer review experience, Rod has worked across numerous commodities including gold, copper, bauxite, platinum, and coal. He has extensive international experience, having worked on projects in Australia, Indonesia, Malaysia, China, Colombia, Botswana, Burkina Faso, and Oman. Rod has also conducted industry-training programmes in areas including geology for non-geologists, practical sampling, quality assurance and control (QAQC), grade control, geostatistics, and reconciliation. He has generated resource reports to JORC Code and NI 43-101 standards.
- Dean Carville, Principal Geologist. Dean has over 35 years of industry experience. His primary areas of expertise are exploration and resource geology, resource estimation, technical due diligence and exploration valuation. Technical reviews and exploration valuations have been carried out for independent technical reports for finance, specialist reports related to transactions, administration of companies, and stamp duty and capital gains tax assessments.

10.2 Independence

AMC acted as an independent party. Neither AMC nor the contributors to this TAR have any interests in EMR or in the proposed transaction subject of this TAR that could be reasonably construed to affect their independence.

Neither AMC nor the contributors to this TAR or members of their immediate families hold shares in EMR.

AMC is being paid a fee according to its normal per diem rates and out of pocket expenses in the preparation of this TAR. Its fee is not contingent on the outcome of the transaction subject to this TAR. AMC has no other pecuniary interest, association, or employment relationship with EMR.

10.3 Reliance on information

In AMC's letter of engagement, EMR agreed to comply with the obligations of the commissioning entity under the VALMIN Code, including that to the best of its knowledge and understanding, complete, accurate and true disclosure of all relevant material information has been made.

In preparing this TAR, to the extent that it is based on information and reports provided by EMR, AMC has relied on information and reports provided to it by EMR, and AMC has no reason to believe that information is materially misleading or incomplete or contains any material errors. AMC accepts no liability in respect of such data or information, save that it has exercised reasonable care as set below, in the use of such data and information. AMC makes no representation and gives no warranty as to the accuracy or completeness of the data or information contained in any information or reports that it has relied on.

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EMR has been provided with drafts of this TAR to enable correction of any factual errors and notation of any material omissions. The views, statements, opinions and conclusions expressed by AMC are based on the assumption, that all data provided to it by EMR are complete, factual and correct to the best of EMR's knowledge.

10.4 Effective date

The effective date (Effective Date) of the TAR is deemed to be 5 May 2021. To the knowledge of AMC, and as informed by EMR, there is no material change in respect of the Mineral Assets.

AMC is not aware of material change since the Effective Date that has any material impact on the opinions expressed in the TAR.

The TAR and the conclusions and opinions expressed in it are effective as at the Effective Date. Those conclusions and the opinions expressed may change in future with changes in ore prices and currency exchange rates, operating and capital costs, and exploration and other technical developments that relate to the Mineral Assets.

10.5 Standard of work

AMC warrants that in the preparation of this TAR it has taken reasonable care in accordance with standards ordinarily exercised by members of the profession generally who practice in the same locality and under similar conditions. AMC accepts no liability whatsoever in respect of any failure to exercise a degree or level of care beyond such reasonable care. No other warranty, express or implied, is given, save where necessarily incorporated by statute. The TAR has been prepared in accordance with the scope of work and for the purpose outlined in the engagement letter dated 23 July 2018 and should be read in full. No responsibility is accepted for the use of any part of this TAR in any other context or for any other purpose or by third parties. This TAR does not purport to give to legal advice.

10.6 Consulting Fees

AMC's estimated fee for completing the Report is based on its normal professional daily rates plus reimbursement of incidental expenses. The fees are agreed based on the complexity of the assignment, AMC's knowledge of the assets and availability of data. The fee payable to AMC for this engagement is estimated at approximately A\$25,000. The payment of this professional fee is not contingent upon the outcome of this Report.

10.7 Consent

AMC consents to the inclusion of this TAR in listing documents to accompany an Initial Public Offering for a listing by 29Metals on the Australian Securities Exchange in 2021. Neither AMC's TAR nor any part of it, nor any reference to it, may be used for any other purpose without AMC's prior written consent.

10.8 Reliance on report

This letter is addressed to and stated as being capable of being relied upon by the Directors of the Board of EMR.

AMC is responsible for the TAR as part of the IPO and for all of the information in the IPO that has been extracted directly from the TAR and declares that it has taken all reasonable care to ensure that the TAR and the information extracted therefrom and included in the Prospectus is, to the best of its knowledge, in accordance with the facts and contains no omission likely to affect its import.

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10.9 Indemnity

EMR has indemnified AMC in regard to damages, losses and liabilities related to or arising out of AMC's engagement other than those arising from wilful default, negligence or unlawful act on our part.

10.10 Signatories

The signatories of this TAR are corporate members of the AIG and AusIMM and are bound by their code of ethics.



Roderick Carlson

BSc, MSc, MAIG (RPGeo), MAusIMM
General Manager, Principal Geologist

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Appendix A Conceptual Study

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Introduction

In 2017, Redhill commissioned various conceptual studies (the 2017 conceptual study) for the Cutters Project (the Project). The main objectives of the 2017 conceptual study were to consider technical viability and identify any critical issues.

The 2017 conceptual study considered mining of the Cristina, Cutter, Angelica and Franceses deposits, using Inferred Mineral Resources, unclassified material and exploration targets, and onsite processing using a conventional sulphide flowsheet to produce a copper concentrate.

AMC is not aware of any updates or revisions to this conceptual study since 2017. The study was based on the Inferred Mineral Resources reported as at 2016 that are discussed in the IGR.

AMC cautions against reliance on the 2017 conceptual study and investors should not make any investment decisions based solely on the results of the 2017 conceptual study. It is a preliminary technical and economic study of the potential viability of the Project. It is based on low level assessments that are not sufficient to support the estimation of Ore Reserves. Further exploration and evaluation work and appropriate studies are required before Redhill will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case.

No Ore Reserves, reported in accordance with the JORC Code or similar reporting codes, were estimated from the 2017 conceptual study. Some study documentation uses the terminology 'potential reserves', which is not a JORC Code term and AMC considers inappropriate considering the conceptual nature of the study.

The 2017 conceptual studies were published in Spanish. AMC has based its review on the English language translations of some, but not all, of the supporting documentation.

Historical mining

Historical mine workings have been identified across four deposits Cristina, Cutter, Gorda and Ingleses. AMC has been advised that there is approximately:

- 2,040 m of development at the Cristina Mine including one transport level and four sublevels.
- 740 m of development at Cutter including one transport level and one sub-level.
- 60 m of development at Gorda in one level.
- 100 m of development at Ingleses in one level and one sub-level.

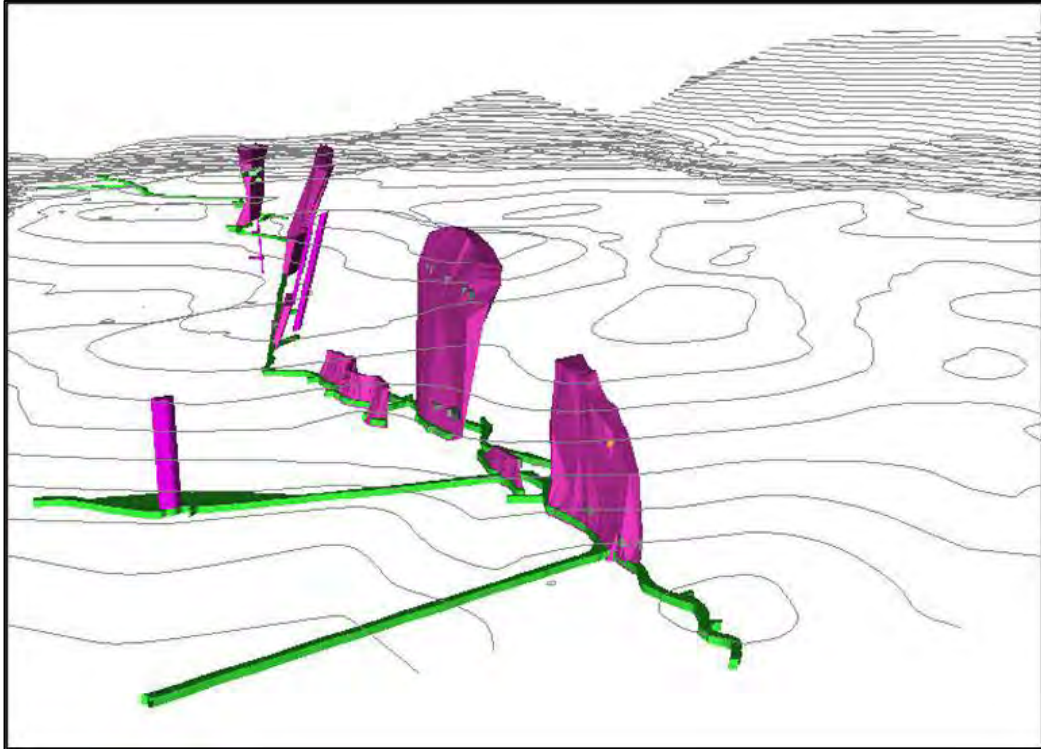
Isometric views of historical workings at Cristina and Cutter are shown in Figure 3 and Figure 4.

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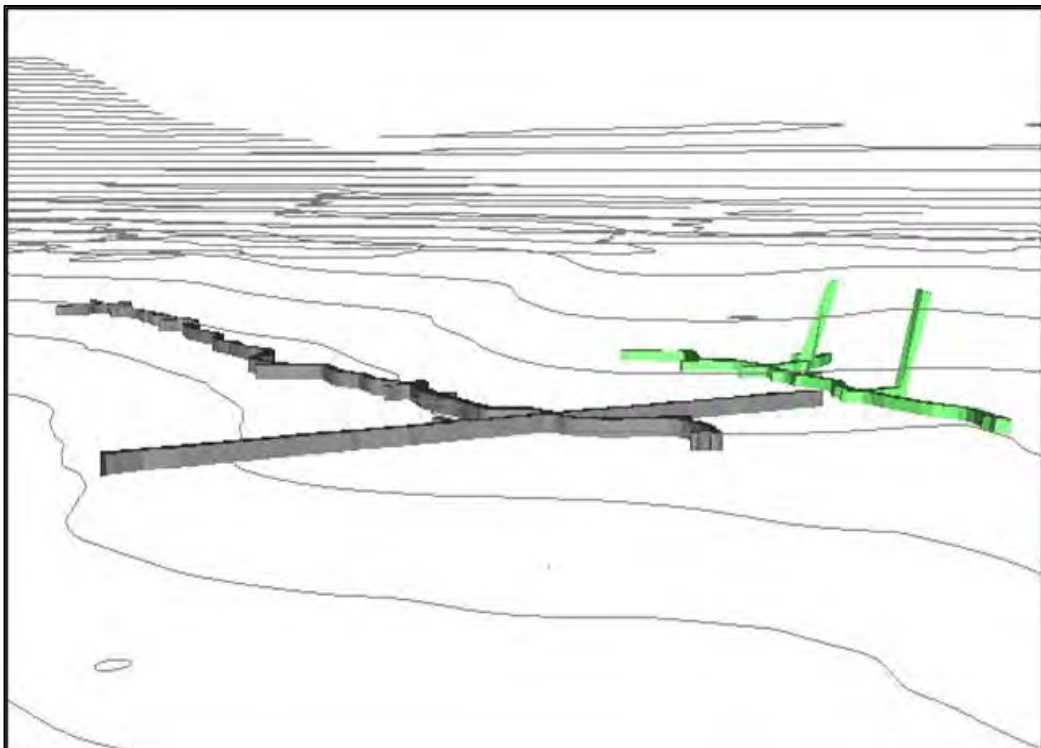
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Figure 3 Cristina historical workings



Source: AMC

Figure 4 Cutter historical workings



Source: AMC

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Mining

Geotechnical

It does not appear that any geotechnical investigations and studies have been undertaken for the 2017 conceptual study.

Geotechnical investigations and studies will need to be conducted as part of future studies.

Mining method

The conceptual mining study contemplates the use of a mechanised, non-entry mining method of longhole open stoping (LHOS). The study uses a variant of LHOS with pillars, where the pillars are used to maintain stable ground conditions. Stopes are extracted in a longitudinal direction retreating from the extremity to the access. Once the maximum stope length is reached, a rib pillar is left, and the next stope commenced along strike. Mining proceeds in a down-dip direction under the completed stope voids. This method is suited to moderate grade, narrow to moderate width deposits, and with competent ground conditions.

The 2017 conceptual study mentions that alternative mining methods were considered but does not provide any discussion on those methods.

Cut-off grade

The 2017 conceptual mining study used a mining cut-off grade of 1.27% copper equivalent (Cu Eq). Commodity prices, cost, production capacity and recovery assumptions are noted in the documentation supporting both equivalent copper grades and cut-offs. Some of these assumptions are different to the assumptions noted in the economic modelling summary in the Redhill Management Presentation CopperCo Jan 24 and the Project Magellan IM Dec17.

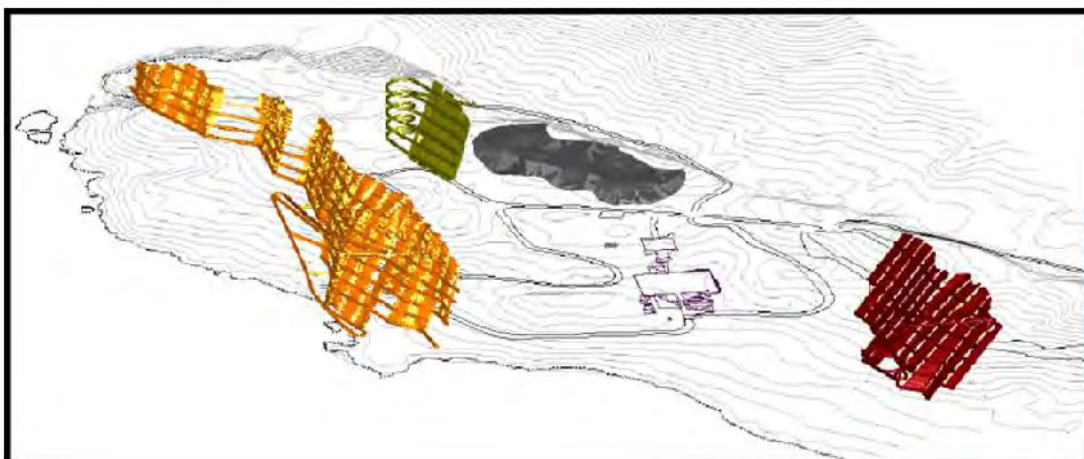
Modifying factors

It is unclear as to what, if any, modifying factors such as dilution and ore loss have been applied in the 2017 conceptual study.

Mine design

High level mine designs were generated for four independent mines. Isometric views of the mine designs for Cristina (orange), Cutter (red), Angelica are shown in Figure 3 and for Franceses in Figure 6.

Figure 28 Isometric view of Cristina (orange), Cutter (red), Angelica (yellow) and a waste rock dump (grey)



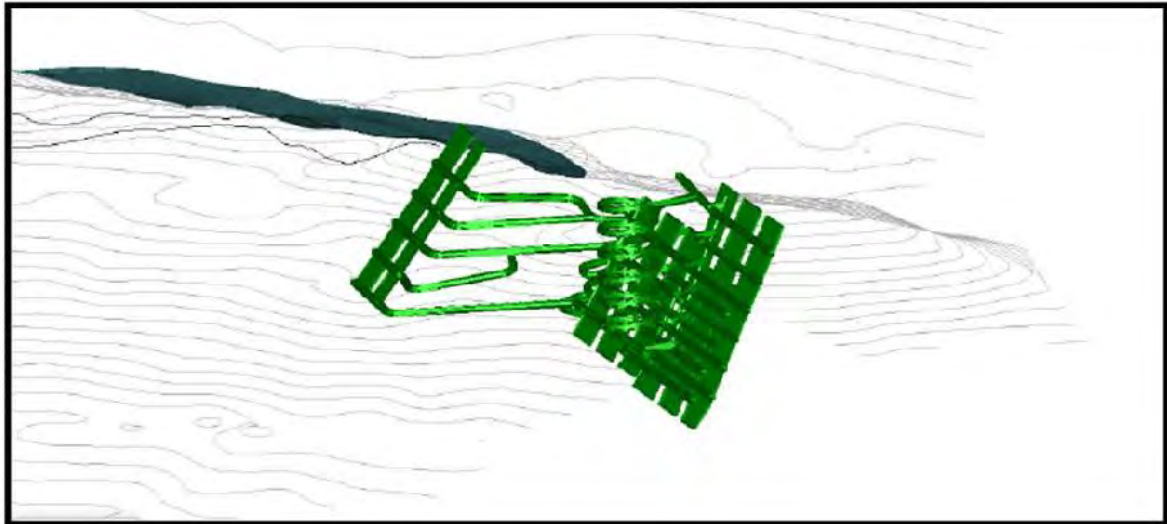
Source: Cutters Project Mine Design and Environment Study Executive Study.pdf

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Figure 6 Isometric view of Franceses



Source: Cutters Project Mine Design and Environment Study Executive Study.pdf Access to the Cristina and Cutter deposits is contemplated through existing historical workings, with deeper sections of the deposits accessed via the development of new declines. While unclear, AMC assumes that re-use of old accesses and level drives at Cristina and Cutter will involve rehabilitation and stripping out to the proposed access profiles to suit the mechanised equipment.

Access to the Angelica and Franceses deposits appears to be contemplated through new portals and the development of new declines.

There appears to be ventilation shafts included in the designs of Cutter and Franceses only. Conceivably these shafts could also be used as a means for secondary egress. The conceptual designs for Cristina and Angelica deposits do not appear to include a means for primary ventilation and appear to rely on natural ventilation. While there is some brief commentary and considerations noted in Castillo, 2017 in relation to ventilation, AMC does not consider the ventilation designs appropriate for mechanised mining.

Stope shapes were created for each deposit, based on:

- Longitudinal sublevel longhole stoping.
- 21 m vertical level intervals.
- 30 m stope strike lengths.
- 10 m rib pillars.

AMC notes that it is unclear as to how the mining cut-off grade of 1.27% Cu Eq has been incorporated into the stope shapes and design.

AMC makes the following observations of the Cristina design:

- Re-access through old workings.
- A decline design located in the hangingwall.
- Stopes are contemplated across three zones and designed dipping circa 70° to 80°, with some stopes in the upper sections dipping circa 50° to 60°.
- A number of the historical stopes appear to deplete some conceptual stopes. It is unclear as to whether this has been appropriately accounted for within the study.
- The design has a long strike length of 1.3 km that is accessed from a single decline.
- The access from the decline to the ore is poorly designed and in places impractical.

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- The design contains single heading ore drives up to 1 km long, which will be very difficult to ventilate for mechanised equipment.
- There is no infrastructure design for return airways, second means of egress, etc.
- There are no sill pillars. These are typically required every 3 to 5 levels for a no-fill method.
- The offset level access locations make stope sequencing difficult.
- Overall, AMC considers the design to be very rudimentary. It is generally impractical with additional development required to form a practical mine design.

AMC makes the following observations of the Cutter design:

- Re-access through old workings.
- A decline design located in the hangingwall.
- Similarly to Cristina, a number of the historical stopes appear to deplete some conceptual stopes. It is unclear as to whether this has been appropriately accounted for within the study.
- AMC considers the level spacing of 21 m for an average design width of 2-3 m and 35° to 45° stopes to be excessive and it would be appropriate to use a reduced level spacing.
- The offset level access locations make stope sequencing difficult.
- As with Cristina there is a lack of infrastructure design for return airways, second means of egress, stockpiles, sumps, etc. There is a small return airway designed from a single location on the decline to the surface. AMC considers this to be insufficient.

AMC makes the following observations of the Angelica design:

- New portal.
- A decline design located in the footwall.
- Stopes designed dipping circa 60°.
- There is no infrastructure design for return airways, second means of egress, etc.

AMC makes the following observations of the Cristina design:

- New portal.
- A decline design located in the footwall.
- Stopes designed dipping circa 50° to 65°.
- The design does contain a return airway, but apart from that as with the other designs, there is a lack of infrastructure design.

Processing

The 2017 conceptual study contemplates an ore processing plant consisting of crushing, milling and conventional sulphide flotation circuits. The plant flowsheet is considered conventional, converting mine sourced copper sulphide ore into copper concentrates destined for market, while producing tailings waste which is stored on site in a tailings storage facility (TSF).

Mineralogy and test work

The conceptual mining operation includes four deposits being Cristina, Cutter, Angelica and Franceses. Test work has been conducted by SGS Minerals S.A. on limited samples and included flotation testwork and mineralogy characterisation across feed, concentrate and tailings. Other properties such as ore hardness and optimal grind size do not appear to have been tested. It is also unclear as to the distribution and representivity of the samples tested across each deposit.

The major copper mineral found in the samples tested is chalcopyrite (34.5% Cu) with proportions of 97.9% to 99.8% and then minor amounts of bornite (63.3% Cu) with proportions of less than 2%. There are variable amounts of pyrite present within the samples tested with proportions ranging from 0.75% to 8.5% and arsenopyrite ranging from 0.01% to 0.28%.

Future studies to pre-feasibility and feasibility level would also typically include information on the distribution and representivity of samples submitted for testing. Composites may also be selected and submitted to try model the performance of a blended plant feed across deposits.

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Based on the samples mineralogically analysed, the conclusion noted on the characteristics across the Project is that they are very similar mineralogically. Namely, high copper sulphides, low silver sulphides, high Ag, As, Sb, Bi sulfosalts with low to negligible deleterious elements.

As tabled in the SGS Characterisation and Flotation Testwork report, Cu recoveries ranged from 82% (Cristina) to 91% (Cutter), while Ag recoveries ranged from 59% (Angelica) to 78% (Franceses). Flotation test work noted the potential to improve recoveries by reducing the P80 210 μ m grind. AMC has not cited this follow up testwork but it appears that this was carried out subsequently and produced recoveries supporting the assumption of 93% and 78% for Cu and Ag respectively and as used in the economic summary assumptions in the Red Hill Management Presentation, 2020.

Process description

Conceptual studies nominate a base case and an upside case respectively. Ore from each of the underground mining fronts is stockpiled on the run-of-mine (ROM) pad, then rehandled into a ROM bin. The ROM bin feeds a jaw crusher, with the crushed product then reporting to the grinding circuit.

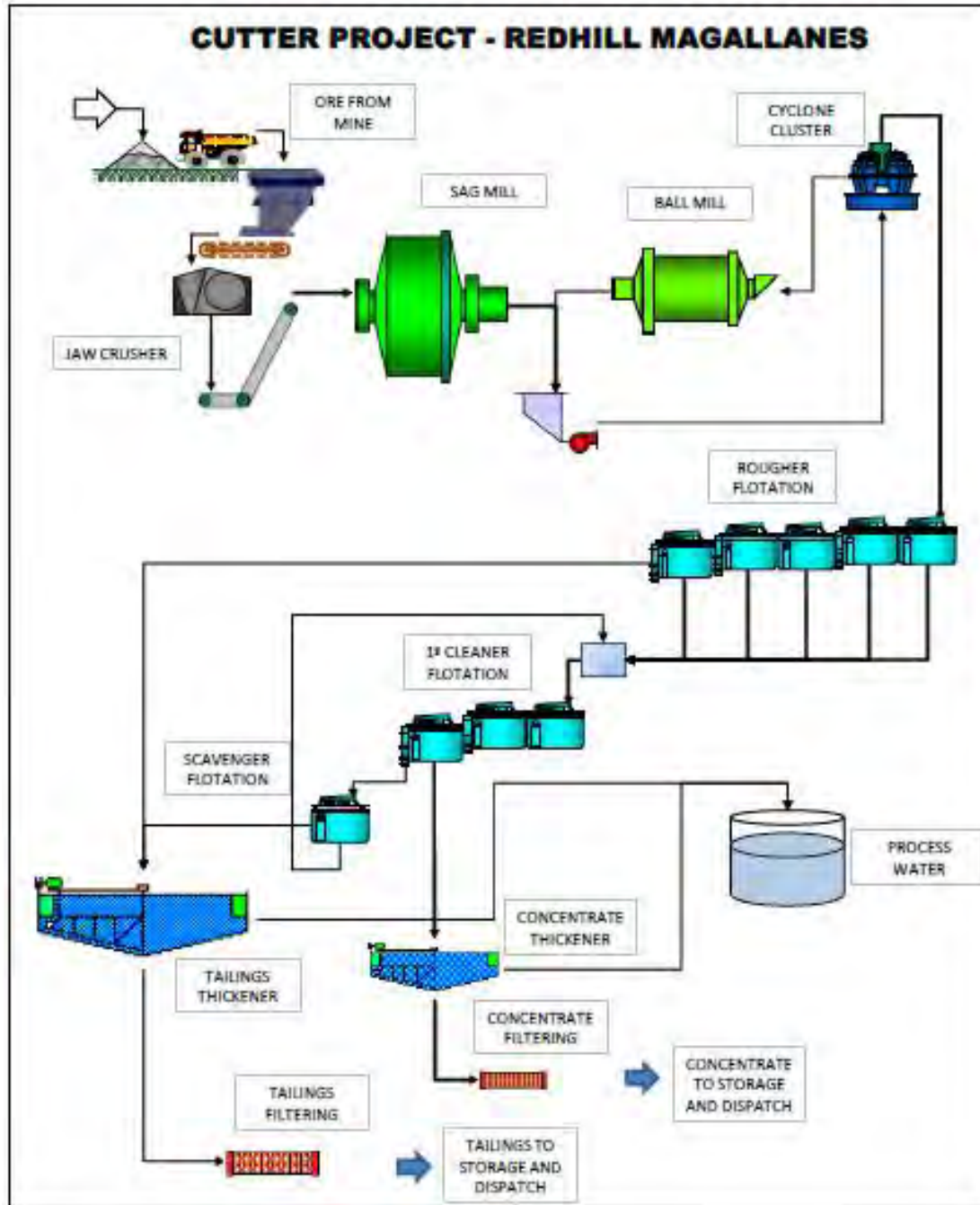
The conceptual grinding circuit comprises both a SAG mill and a Ball mill. Cyclone overflow is then shown to report to the rougher flotation circuit before progressing through the cleaning circuit direct to concentrate thickening and filtration or through scavenger floatation. Filtered concentrate is then stored and dispatched. The Cutter project conceptual process flowsheet is shown in Figure 30.

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Figure 30 Cutter project conceptual process flowsheet



Source: Project Magellan Information Memorandum Dec 17

- Additional work on the recoverability of gold from the four deposits contemplated for potential mining. AMC notes (as in the previous mining section) some inconsistency in the consideration and assumptions with respect to potential economic feasibility of gold from the Cristina, Cutter, Angelica and Franceses deposits.

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Infrastructure

Currently Project access is limited to air (helicopter) or sea year-round. There is no road access from the nearest major town of Punta Arenas. Travel time from Punta Arenas by boat is about 9 hours or alternatively road and boat is about 7 hours.

The conceptual study contemplates the main site access for materials, staff and concentrate export to be via sea using a site-based port facility.

Redhill does not own, operate or have access to appropriate port infrastructure near the Project site. The 2017 conceptual study contemplates the application for a marine concession in order to construct/re-establish port infrastructure to support the transport of concentrate product. The 2017 conceptual study estimates two years from application to grant of a marine concession.

AMC has not validated the appropriateness of this plan, likelihood of a concession being granted, nor the time, cost or work involved in a successful application. While operating costs appear to have been contemplated, it is unclear if an estimate of capital costs associated with developing port infrastructure have been included in the 2017 conceptual study. AMC reasonably expects capital costs associated with port construction to be estimated and included in progressive studies.

Preliminary estimates were made of power and water requirements to support the 2017 conceptual study plan. However, the source of these was not identified.

Social and environmental

Noise, vibrations, water and air quality, baseline flora and fauna, hydrological soil studies and rehabilitation have been recognised in the study work to date as needing more work and research.

Notable stakeholder mapping was undertaken in 2017 for the Project. Within the report is the identification of both internal and external stakeholders to the project, with a main focus on the external stakeholders. Critical stakeholder potentials have been identified across government, related companies (natural resources operating in the area), neighbours, NGOs, activists, parliamentarians, media, suppliers and tourism companies.

The Project appears to have had a relatively low profile in the community. Studies suggest that there will likely be general support for the Project given the anticipated employment and economic benefits and expected relatively low environmental impact.

Study work to date has not identified areas of cultural heritage in relation to the Project site.

Study work to date has not identified areas of potential native title or similar in relation to the Project site. There appears to be little in the way of information about indigenous communities, within stakeholder mapping undertaken in 2017, there is only one mention of a hamlet of fishermen descended from the Kawesqar indigenous people and are grouped as a neighbour to the project (Villalobos, 2017).

The study notes a preliminary workforce estimate of approximately 300 for the construction stage and 210 for operations.

Costs

AMC's overarching comment on the study costs estimated for the Project, is to highlight that the study work is conceptual only. The industry rule of thumb with respect to level of accuracy in conceptual to scoping level studies is anywhere from $\pm 30\%$ up to as high as $\pm 50\%$. Limited detail is provided on the costs and AMC has not validated these costs in relation to completeness, accuracy or escalation.

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Royalties

AMC is not aware of how, or if, any applicable or relevant royalties have been accounted for in the 2017 conceptual study.

Conclusions

AMC reiterates its caution against reliance on the 2017 conceptual study and investors should not make any investment decisions based solely on the results of the 2017 conceptual study. It is a preliminary technical and economic study of the potential viability of the Project. It is based on low level technical and economic assessments that are not sufficient to support the estimation of Ore Reserves. Further exploration and evaluation work and appropriate studies are required before Redhill will be in a position to estimate any Ore Reserves or to provide any assurance of an economic development case.

Mining

AMC makes the following observations on the conceptual mining study work:

- There are no Ore Reserves reported for the project.
- The study considered mining of the Cristina, Cutter, Angelica and Franceses deposits, using on Inferred Mineral Resources, unclassified material and exploration targets. Given the low level of confidence, the conceptual mining studies should be used to help inform further exploration and Mineral Resource work before progressing additional studies.
- Inferred Mineral Resources make up less than 80% and 40% in the base and upside cases respectively, with the remainder unclassified material and exploration targets.
- Industry standard mechanised mining methods are conceptually proposed and appear appropriate for the individual deposits. However, the mining method will need to be supported by further geotechnical and other work in future studies.
- It is unclear how the mine design utilised the stated cut-off grade and what, if any, modifying factors have been incorporated into the design.
- The mine designs are rudimentary and in places impractical. Additional development is required to form practical mine designs and reliance on natural ventilation is not considered suitable for mechanised mining.
- Minimal consideration is made of supporting infrastructure and services.
- The conceptual life of mine plan contemplates a base case annual mining rate, with a potential upside case.

Processing

AMC makes the following observations on the conceptual mineral processing study work:

- Industry standard processing methods and flowsheet has been conceptually proposed.
- There is little information on the distribution and representivity of the samples taken for metallurgical testwork. As a part of future work, AMC recommends both additional metallurgical testwork (including hardness, grindability, optimal grind size and further flotation tests etc) and more information on the distribution and representivity of tested samples.
- Additional work on the recoverability of gold from the four deposits contemplated for potential mining. AMC notes some inconsistency in the consideration and assumptions with respect to potential economic feasibility of gold from the Cristina, Cutter, Angelica and Franceses deposits.

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Costs

AMC makes the following observations on the conceptual study costs:

- Limited detail is provided on the costs and AMC has not validated these costs in relation to completeness, accuracy, or escalation.
- The mining operating costs were based on benchmark of mines in central Chile with 30% additional cost to account for the Project's location (and not based on the technical work undertaken for the study). The sites used for the benchmark were not identified and AMC is uncertain if the sites benchmarked have a similar configuration as the Project.

Further work

AMC notes significant further work is required to progress the study across all technical areas.

Redhill notes the study identified no fatal flaws and the main issues requiring further assessment to be:

- Main waste storage.
- Tailing's storage.
- Acquisition of a marine concession that allows construction and operation of a port facility.

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References

- Redhill, January 2020; Redhill Management Presentation - Chilean Copper and Precious Metals Project with Significant Exploration Upside. Available from Ansarada Project Cyprus data room 11.03.01.02 REG_Mineral resource estimate of Franceses and Angelica_May 2016.pdf accessed 10 February 2020.
- Redhill, December 2017; Project Magellan Information Memorandum Dec 17. Available from Ansarada Project Cyprus data room.
- Redhill, Cutters Project Mine Design and Environment Study Executive Study.pdf. Available from Ansarada Project Cyprus data room.

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Quality control

The signing of this statement confirms this report has been prepared and checked in accordance with the AMC Peer Review Process.

Project Manager


The signatory has given permission to use their signature on this AMC document

Peter Fisher

21 June 2021

Date

Peer Reviewer


The signatory has given permission to use their signature on this AMC document

David Lee

21 June 2021

Date

Author


The signatory has given permission to use their signature on this AMC document

Marie Sexton

21 June 2021

Date

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Appendix B Concession Details

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Table 1.0 Concession Details

No.	Name	Type	Size (hectares)	Registration Date	Page	Number	Registry	Mining Conservator	Expiration Date
1	Cutter 2 1 AL 75	Exploitation	75	5-2-2016	1	1	Property	Punta Arenas	N/A
2	Cutter 3 1 AL 225	Exploitation	225	5-2-2016	7 v.	2	Property	Punta Arenas	N/A
3	Cutter 4 1 AL 225	Exploitation	225	5-2-2016	15 v.	3	Property	Punta Arenas	N/A
4	Cutter 5 1 AL 100	Exploitation	100	5-2-2016	22 v.	4	Property	Punta Arenas	N/A
5	Cutter 6 1 AL 300	Exploitation	300	5-2-2016	28 v.	5	Property	Punta Arenas	N/A
6	Cutter 16 1 AL 170	Exploitation	170	5-2-2016	36	6	Property	Punta Arenas	N/A
7	Cutter 17 1 AL 200	Exploitation	200	5-2-2016	43	7	Property	Punta Arenas	N/A
8	Poly 1 1 AL 200	Exploitation	200	5-2-2016	49 v.	8	Property	Punta Arenas	N/A
9	Poly 2 1 AL 125	Exploitation	125	5-2-2016	57	9	Property	Punta Arenas	N/A
10	Serena 6	Exploration	300	1-20-2021	15	15	Discoveries	Punta Arenas	Still in process
11	Monte del Sol 13	Exploration	200	1-20-2021	14	14	Discoveries	Punta Arenas	Still in process
12	Monte del Sol 10	Exploration	200	1-20-2021	18	18	Discoveries	Punta Arenas	Still in process
13	Monte del Sol 7	Exploration	300	1-20-2021	17	17	Discoveries	Punta Arenas	Still in process
14	Monte del Sol 3	Exploration	300	1-20-2021	16	16	Discoveries	Punta Arenas	Still in process
15	Serena 8	Exploration	300	1-20-2021	10	10	Discoveries	Punta Arenas	Still in process
16	Serena 5	Exploration	300	1-20-2021	9	9	Discoveries	Punta Arenas	Still in process
17	Monte del Sol 12	Exploration	200	1-20-2021	8	8	Discoveries	Punta Arenas	Still in process
18	Monte del Sol 9	Exploration	200	1-20-2021	7	7	Discoveries	Punta Arenas	Still in process
19	Monte del Sol 6	Exploration	300	1-20-2021	13	13	Discoveries	Punta Arenas	Still in process
20	Monte del Sol 4	Exploration	300	1-20-2021	12	12	Discoveries	Punta Arenas	Still in process
21	Monte del Sol 1	Exploration	300	1-20-2021	11	11	Discoveries	Punta Arenas	Still in process
22	Serena 7	Exploration	300	1-20-2021	4	4	Discoveries	Punta Arenas	Still in process
23	Serena 4	Exploration	300	1-20-2021	3	3	Discoveries	Punta Arenas	Still in process
24	Monte del Sol 11	Exploration	300	1-20-2021	2	2	Discoveries	Punta Arenas	Still in process
25	Monte del Sol 8	Exploration	300	1-20-2021	1	1	Discoveries	Punta Arenas	Still in process
26	Monte del Sol 5	Exploration	300	1-20-2021	6	6	Discoveries	Punta Arenas	Still in process
27	Monte del Sol 2	Exploration	300	1-20-2021	5	5	Discoveries	Punta Arenas	Still in process
28	Muela 7	Exploration	300	9-28-2020	207	221	Discoveries	Punta Arenas	Still in process
29	Muela 10	Exploration	300	9-28-2020	210	224	Discoveries	Punta Arenas	Still in process
30	Muela 8	Exploration	300	9-28-2020	208	222	Discoveries	Punta Arenas	01-03-2023
31	San José 1	Exploration	200	9-28-2020	211	225	Discoveries	Punta Arenas	01-03-2023
32	Muela 9	Exploration	300	9-28-2020	209	223	Discoveries	Punta Arenas	02-03-2023
33	Ancon 1	Exploration	200	10-5-2020	9 v.	6	Discoveries	Puerto Natales	Still in process
34	Ancon 2	Exploration	300	10-5-2020	11	7	Discoveries	Puerto Natales	Still in process

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Table 1.0 Concession Details cont

No.	Name	Type	Size (hectares)	Registration Date	Page	Number	Registry	Mining Conservator	Expiration Date
35	Ancon 3	Exploration	300	10-5-2020	12	8	Discoveries	Puerto Natales	Still in process
36	Oración 1	Exploration	300	10-5-2020	13 v.	9	Discoveries	Puerto Natales	Still in process
37	Oración 2	Exploration	300	10-5-2020	15	10	Discoveries	Puerto Natales	Still in process
38	Oración 3	Exploration	300	10-5-2020	16	11	Discoveries	Puerto Natales	Still in process
39	Oración 4	Exploration	300	10-5-2020	17 v.	12	Discoveries	Puerto Natales	Still in process
40	Oración 5	Exploration	300	10-5-2020	19	13	Discoveries	Puerto Natales	Still in process
41	Oración 6	Exploration	300	10-5-2020	20	14	Discoveries	Puerto Natales	Still in process
42	Batchelor 3	Exploration	200	1-3-2020	35	35	Discoveries	Punta Arenas	Still in process
43	Serena 3	Exploration	200	1-3-2020	34	34	Discoveries	Punta Arenas	Still in process
44	Bernabe 2	Exploration	300	1-3-2020	33	33	Discoveries	Punta Arenas	Still in process
45	Bernabe 5	Exploration	300	1-3-2020	32	32	Discoveries	Punta Arenas	Still in process
46	Bernabe 7	Exploration	300	1-3-2020	31	31	Discoveries	Punta Arenas	Still in process
47	Ladera Sol 3	Exploration	300	1-3-2020	30	30	Discoveries	Punta Arenas	Still in process
48	Ladera Sol 6	Exploration	300	1-3-2020	29	29	Discoveries	Punta Arenas	Still in process
49	Muela 3	Exploration	300	1-3-2020	28	28	Discoveries	Punta Arenas	Still in process
50	Muela 6	Exploration	300	1-3-2020	27	27	Discoveries	Punta Arenas	Still in process
51	Cupula 1	Exploration	200	1-3-2020	26	26	Discoveries	Punta Arenas	Still in process
52	Monte del Sol 8	Exploration	200	1-3-2020	25	25	Discoveries	Punta Arenas	Still in process
53	Rivero 1	Exploration	300	1-3-2020	24	24	Discoveries	Punta Arenas	Still in process
54	Serena 1	Exploration	300	1-3-2020	23	23	Discoveries	Punta Arenas	Still in process
55	Bernabe 1	Exploration	300	1-3-2020	22	22	Discoveries	Punta Arenas	Still in process
56	Bernabe 4	Exploration	300	1-3-2020	21	21	Discoveries	Punta Arenas	Still in process
57	Ladera Sol 1	Exploration	200	1-3-2020	20	20	Discoveries	Punta Arenas	Still in process
58	Ladera Sol 4	Exploration	300	1-3-2020	19	19	Discoveries	Punta Arenas	Still in process
59	Muela 1	Exploration	300	1-3-2020	18	18	Discoveries	Punta Arenas	Still in process
60	Muela 4	Exploration	300	1-3-2020	17	17	Discoveries	Punta Arenas	Still in process
61	Caballo 1	Exploration	300	1-3-2020	16	16	Discoveries	Punta Arenas	Still in process
62	Lisa 1	Exploration	300	1-3-2020	15	15	Discoveries	Punta Arenas	Still in process
63	Rivero 2	Exploration	300	1-3-2020	14	14	Discoveries	Punta Arenas	Still in process
64	Valle 2	Exploration	300	1-3-2020	13	13	Discoveries	Punta Arenas	Still in process
65	Ventisquero 1	Exploration	300	1-3-2020	12	12	Discoveries	Punta Arenas	Still in process
66	Serena 2	Exploration	300	1-3-2020	11	11	Discoveries	Punta Arenas	Still in process
67	Bernabe 3	Exploration	300	1-3-2020	10	10	Discoveries	Punta Arenas	Still in process
68	Bernabe 6	Exploration	300	1-3-2020	9	9	Discoveries	Punta Arenas	Still in process
69	Ladera Sol 2	Exploration	200	1-3-2020	8	8	Discoveries	Punta Arenas	Still in process
70	Ladera Sol 5	Exploration	300	1-3-2020	7	7	Discoveries	Punta Arenas	Still in process
71	Muela 2	Exploration	300	1-3-2020	6	6	Discoveries	Punta Arenas	Still in process
72	Muela 5	Exploration	300	1-3-2020	5	5	Discoveries	Punta Arenas	Still in process

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Table 1.0 Concession Details cont

No.	Name	Type	Size (hectares)	Registration Date	Page	Number	Registry	Mining Conservator	Expiration Date
73	Benito 1	Exploration	300	1-3-2020	4	4	Discoveries	Punta Arenas	Still in process
74	Lila 1	Exploration	300	1-3-2020	3	3	Discoveries	Punta Arenas	Still in process
75	Quebrada 1	Exploration	300	1-3-2020	2	2	Discoveries	Punta Arenas	Still in process
76	Valle 1	Exploration	300	1-3-2020	1	1	Discoveries	Punta Arenas	Still in process
77	Ancon West 1	Exploration	300	1-13-2021	1	1	Discoveries	Puerto Natales	10-7-2022
78	Ancon West 2	Exploration	200	1-13-2021	4	2	Discoveries	Puerto Natales	10-7-2022
79	Ancon West 3	Exploration	300	1-13-2021	7	3	Discoveries	Puerto Natales	10-7-2022
80	Ancon West 4	Exploration	300	1-13-2021	10	4	Discoveries	Puerto Natales	10-7-2022
81	Sutherland 1	Exploration	200	1-13-2021	13	5	Discoveries	Puerto Natales	10-7-2022
82	Sutherland 2	Exploration	200	1-13-2021	16	6	Discoveries	Puerto Natales	10-7-2022
83	Batchelor 1	Exploration	200	6-24-2019	176	234	Discoveries	Punta Arenas	12-9-2021
84	Batchelor 2	Exploration	200	6-24-2019	177	235	Discoveries	Punta Arenas	2-13-2021
85	Monte Del Sol C 6	Exploration	300	7-24-2019	229	300	Discoveries	Punta Arenas	4-23-2021
86	Serena A 5	Exploration	300	7-24-2019	224 v.	297	Discoveries	Punta Arenas	4-23-2021
87	Serena A 8	Exploration	300	7-24-2019	223	296	Discoveries	Punta Arenas	4-23-2021

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Appendix C

JORC Table 1 and drilling collar information

JORC Code, 2012 Edition – Table 1 report template

Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> • <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i> • <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i> • <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i> • <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i> 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> • The Cutters Cove Project has been sampled through two short diamond drilling campaigns and surface cut channel sampling campaigns in 2013 and 2014. • 17 diamond drill holes for 2,339.45 m • Approximately 0.5 m to 1 m samples of 2 kg to 3 kg were taken from diamond saw cut drill core whilst respecting geological boundaries. • Approximately 2 kg to 3 kg samples derived from diamond saw cut core trench samples perpendicular to vein strikes and respecting geological boundaries. • 181 backs channel samples taken during 1970's mining operation. Width and grade recorded on Historic Plans. • Historic backs samples consist of 15 cm by 2 cm to 3 cm deep chipped channel samples traversing the vein suggesting sample weights of approximately 10 kg to 12 kg. <p>Angelica – Frances</p> <ul style="list-style-type: none"> • The Angelica and Franceses deposits of the Cutters Cove Project have been sampled through a diamond drilling campaign and surface cut channel sampling campaigns in 2015 and 2016. • 9 diamond drill holes for 1,781.75 m • Approximately 0.5 m – 1 m samples of 2 kg – 3 kg were taken from diamond saw cut drill core whilst respecting geological boundaries. • Approximately 2 kg - 3 kg per 1 m samples derived from diamond saw cut core trench samples perpendicular to vein strikes. Samples generally 1 m while respecting geological boundaries.

Criteria	JORC Code explanation	Commentary
Drilling techniques	<ul style="list-style-type: none"> Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc). 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> 17 diamond HQ, NQ diamond core for 2,339.45 m. Core not oriented <p>Angelica – Frances</p> <ul style="list-style-type: none"> 9 diamond HQ, NQ diamond core for 1,781.75 m Core not oriented
Drill sample recovery	<ul style="list-style-type: none"> Method of recording and assessing core and chip sample recoveries and results assessed. Measures taken to maximise sample recovery and ensure representative nature of the samples. Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material. 	<ul style="list-style-type: none"> Core reconstituted, marked up and measure in all drilling campaigns. Generally excellent (95 % -100 %). No relationship between recovery and grade was observed.
Logging	<ul style="list-style-type: none"> Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies. Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. The total length and percentage of the relevant intersections logged. 	<ul style="list-style-type: none"> Core geologically logged by experienced geologist over all campaigns. Standard lithology codes used for interpretation. RQD and recoveries logged. Logs loaded into Excel spreadsheets and uploaded into Access database
Sub-sampling techniques and sample preparation	<ul style="list-style-type: none"> If core, whether cut or sawn and whether quarter, half or all core taken. If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. For all sample types, the nature, quality and appropriateness of the sample preparation technique. Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> No record of historic sample preparation. Half core split by diamond saw on 0.5 m to 1 m samples while respecting geological contacts. Bagged core delivered to ACME Laboratories in Santiago. Whole core crushed to 80 %passing 2 mm. Crushed sample quartered to 500 gr and pulverized to pass 75 micron <p>Angelica – Frances</p>

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. Whether sample sizes are appropriate to the grain size of the material being sampled. 	<ul style="list-style-type: none"> Half core split by diamond saw on 0.5 m – 1 m samples while respecting geological contacts. Bagged core delivered to ALS Laboratories in Coquimbo. Whole core crushed to 70 % passing 2 mm. Crushed sample riffle split to 1 kg and pulverized to 85 % passing 75 microns.
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total. For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc. Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established. 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> No record of laboratory tests for historic back samples No record of QAQC procedures were available for historic sampling. Recent sampled Cu, Pb, Zn, and Ag analyzed by AAS after Aqua Regia digestion at ACME Laboratories Santiago. Au by fire assay with AAS finish by ACME Laboratories Santiago 32 elements analysis by ICP-AES after Aqua Regia digestion. QAQC analysis with Certified Reference Material inserted every 20th sample. <p>Angelica – Frances</p> <ul style="list-style-type: none"> 33 elements including Cu and Ag analysed by ICP-AES after Aqua Regia digestion at ALS Laboratories Coquimbo. Au by fire assay with AAS finish by ALS Laboratories Coquimbo. QAQC analysis with Certified Reference Material inserted every 20th sample. Acceptable levels of accuracy and precision establish with the exception of two unexplained anomalies in early trench samples RH-70C and RH-76.
Verification of sampling and assaying	<ul style="list-style-type: none"> The verification of significant intersections by either independent or alternative company personnel. The use of twinned holes. Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols. 	<ul style="list-style-type: none"> No Independent laboratory analyzes completed. Minor verification of historic samples with recent channel samples. No twinned holes were completed.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • Discuss any adjustment to assay data. 	<ul style="list-style-type: none"> • Primary assays data was received electronically and stored by consultant geologist. • All electronic data uploaded onto spreadsheets and uploaded to Access database. • Data validation with Surpac software, basic statistical analysis and comparison with historic plans and sections. • Negative result for below detection limit assays data has been entered as detection limit.
<p><i>Location of data points</i></p>	<ul style="list-style-type: none"> • Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation. • Specification of the grid system used. • Quality and adequacy of topographic control. 	<ul style="list-style-type: none"> • All hole collar surveys by licensed surveyor. • All coordinates in WGS94. • RL's as MSL. • Down hole surveys by downhole camera. • Underground samples located from registered plans and sections (+/- 2 m) • Topographic dtm created from lands department 10 m contour maps adjusted for known survey points (eg. drill collars).
<p><i>Data spacing and distribution</i></p>	<ul style="list-style-type: none"> • Data spacing for reporting of Exploration Results. • Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied. • Whether sample compositing has been applied. 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> • Sample spacing approximately 5 m by 10 m around mine openings. • Drill spacing approximately 100 m by 100 m or lower below mine development. • Samples spacing is clustered around mine levels. • Drill spacing is appropriate for the estimation of Indicated to Inferred Mineral resources. • Samples have been composited on vein intercepts for the resource estimation <p>Angelica – Frances</p> <ul style="list-style-type: none"> • Data spacing limited by low drill hole intercept numbers generally 100 m x 100 m or worse. • Surface samples clustered on topographic surface.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> • <i>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</i> • <i>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</i> 	<ul style="list-style-type: none"> • Drill spacing is considered to be appropriate for the estimation of Inferred Mineral Resources only. • Samples have been composited on 1 m lengths for the resource estimation.
Sample security	<ul style="list-style-type: none"> • <i>The measures taken to ensure sample security.</i> 	<ul style="list-style-type: none"> • The majority of diamond drill holes have been drilled east-west sub-perpendicular to vein strike. • Channel samples have been taken sub-perpendicular to the vein strike. • Drill hole orientation is not considered to have introduced any material sampling bias.
		<p>Cristina - Cutter</p> <ul style="list-style-type: none"> • Samples ticketed and bagged on site. • Delivered by courier to ACME Laboratories in Santiago. • All historic data captured and stored in customized Access database. • Data integrity validated with Surpac software for EOH depth and sample overlaps. • Manual check by reviewing cross sections with the historic drafted sections and plans. • Basic statistical analysis support data validation. <p>Angelica – Frances</p> <ul style="list-style-type: none"> • Samples ticketed and bagged on site. • Delivered by RHM personnel, then courier to ALS laboratories in Coquimbo. • Data integrity validated with Surpac software for EOH depth and sample overlaps. • Basic statistical analysis support data validation.
Audits or reviews	<ul style="list-style-type: none"> • <i>The results of any audits or reviews of sampling techniques and data.</i> 	<ul style="list-style-type: none"> • No audits or review of sampling data techniques completed.

Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
<i>Mineral tenement and land tenure status</i>	<ul style="list-style-type: none"> Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings. The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area. 	<ul style="list-style-type: none"> Detailed mineral tenement information is provided in the report including locations, areas and currency. AMC has relied on the Due Diligence report supplied by King & Wood Mallesons for EMR Capital Management Limited (DRAFT 5 May 2021)
<i>Exploration done by other parties</i>	<ul style="list-style-type: none"> Acknowledgment and appraisal of exploration by other parties. 	<ul style="list-style-type: none"> Historical exploration is described in the report. Work was restricted to backs sampling in the mine workings. These samples have been used in the resource estimate.
<i>Geology</i>	<ul style="list-style-type: none"> Deposit type, geological setting and style of mineralisation. 	<ul style="list-style-type: none"> The Cutter project host Cu-Au-Ag veins of orogenic origin and mesothermal to epithermal overprint
<i>Drill hole Information</i>	<ul style="list-style-type: none"> A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> easting and northing of the drill hole collar elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar dip and azimuth of the hole down hole length and interception depth hole length. If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case. 	<ul style="list-style-type: none"> See attached table included after Table 1
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated. 	<ul style="list-style-type: none"> Exploration results are not reported

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail. The assumptions used for any reporting of metal equivalent values should be clearly stated. 	<ul style="list-style-type: none"> Exploration results are not reported
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> These relationships are particularly important in the reporting of Exploration Results. If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported. If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known'). 	<ul style="list-style-type: none"> Exploration results are not reported
Diagrams	<ul style="list-style-type: none"> Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views. 	<ul style="list-style-type: none"> Maps and Diagrams are included in the attached report
Balanced reporting	<ul style="list-style-type: none"> Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results. 	<ul style="list-style-type: none"> Exploration results are not reported
Other substantive exploration data	<ul style="list-style-type: none"> Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances. 	<ul style="list-style-type: none"> All material data is reported including bulk density and metallurgical responses.
Further work	<ul style="list-style-type: none"> The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive. 	<ul style="list-style-type: none"> Further drilling is required in the areas of the resources to replace the underground back samples and to extend down dip and along strike the defined resources.

Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes. Data validation procedures used. 	<ul style="list-style-type: none"> All data captured and stored in customized Access database by Redhill. Drop down menu validation in Access. Digital data uploaded from laboratory reports to Access database. Data integrity validated with Surpac software for EOH depth and sample overlaps and transcription errors. Data validated against historic plans and sections. Numerous errors in data location, particularly underground plans and samples fixed in database. Negative in database converted to half the detection limit.
Site visits	<ul style="list-style-type: none"> Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case. 	<ul style="list-style-type: none"> Site visit conducted from 29th January to 5th February 2014 to validate location, collars, drill core, core processing facilities, historic workings, sampling methods, mineralisation styles and exploration potential by previous independent person. The Competent Person signing off on this report has not visited site due to the restrictions associated with COVID in 2020 and 2021.
Geological interpretation	<ul style="list-style-type: none"> Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit. Nature of the data used and of any assumptions made. The effect, if any, of alternative interpretations on Mineral Resource estimation. The use of geology in guiding and controlling Mineral Resource estimation. The factors affecting continuity both of grade and geology. 	<ul style="list-style-type: none"> High confidence in the simple geological model, minor disruption by brittle faulting and low-grade zones in mineralised structures will be difficult to predict away from detailed maps and sampling. Historic backs maps and channel samples used for geological domaining. No alternative geological interpretations were attempted. Geology model used for mineralized domain modelling. Brittle faulting and low-grade quartz zones effect grade and location of mineralization.

Criteria	JORC Code explanation	Commentary
<p><i>Dimensions</i></p>	<ul style="list-style-type: none"> <i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i> 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> Cristina 1.3 km by 200 m with a north-northwest strike and steep west dip (80°). Vein width average 2.5 m. Cutter 400 m strike by 200 m depth with a north-northwest and 45° west dip. Vein width averages 1.8 m. Gorda 500 m northwest strike by 80 m depth with 5 m average width. <p>Angelica – Frances</p> <ul style="list-style-type: none"> The Franceses Fault consists of two subparallel tabular fissures of mineralisation extending 240 m north south and dipping 50° west to 240 m depth. Domain widths varied between 2 m and 12 m. Franceses sheeted consist of eleven separate veins striking north-south and dip west at 50° - 60°. Most vein defined by single intercepts. Angelica Fault consists of two separate tabular sheets of fault bound mineralisation separated by approximately 130 m of felsic volcaniclastic sediments. Lower domain extends along a strike of 330° for 250 m and dips southwest at -60° to a depth of 150 m. The western domain trends 20° for a distance of 130 m and dips west at -70° to a depth of 90 m. The Angelica domains are poorly defined by two diamond drillholes and five surface trench samples.
<p><i>Estimation and modelling techniques</i></p>	<ul style="list-style-type: none"> <i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i> <i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i> <i>The assumptions made regarding recovery of by-products.</i> <i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i> 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> Block modeled estimation completed with Surpac software Wire-framed solid models created from level plans, backs maps and vein width composited sample data. Solid models snapped to drill holes. No minimum mining width Internal dilution not restricted. Data composited on vein widths including Cu, Au and Ag. Top cutting based on CV and grade histograms. Au cut to 1.46 g/t for the Cristina Vein and Cu cut to 2.3 %, Au cut to 8.3 % g/t for Gorda Vein.

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> • <i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i> • <i>Any assumptions behind modelling of selective mining units.</i> • <i>Any assumptions about correlation between variables.</i> • <i>Description of how the geological interpretation was used to control the resource estimates.</i> • <i>Discussion of basis for using or not using grade cutting or capping.</i> • <i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i> 	<ul style="list-style-type: none"> • Excellent correlation between Cu and Au grades. • Cristina Block Model extent of 4085150N to 4086700N, 669900E to 670750E, -100mRL to 100mRL. Block dimension of 10mN by 10mE by 10mRL block size with sub-ceiling to 2.5 m in the y and z 1.25 m in the x directions. • Cutter Block Model extends 4084700N to 4085300N, 669900E to 670750E, -100mRL to 100mRL. Block dimensions of 10mN by 10mE by 10mRL block size with sub-ceiling to 2.5 m in the y and 1.25 m in the x and z directions. • Variogram models constructed in y direction only due to sparse and poorly located data. Well-constructed models with moderate to low nugget effect and long range of 35 m to 60 m to sill of the Cristina and Cutters Vein respectively. • Search ellipse set at 200 m spherical range to ensure all block populated with no anisotropy. • Inverse distance squared estimated model constrained by geology solid model. • Block grades validated visually against input data. • Good correlation with previous polygonal estimations • Acceptable correlation of depleted model with historic production. Angelica – Frances • Rotated block modeled estimation completed with Surpac software. • Wire-framed solid models created from drillholes, trench samples and geological sections on sectional interpretation. • Solid models snapped to drill holes. • Minimum mining of 2 m @ 0.4 % Cu. • Internal dilution restricted to 2 m with allowances for geological continuity. • Data composited on 1 m intervals including Cu, Ag and Au. • No top cutting applied.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> Insufficient data and data distribution for anisotropic variogram modelling. Downhole variogram models well-constructed with low nugget effect (20 %) and short range of 5 m to 10 m to sill for major geological domains. Search ellipse set at 120 m spherical range to ensure all blocks populated. Inverse distance squared model estimated model constrained by geology solid model. Block grades validated visually against input data. The estimate based on a dry tonnage.
Moisture	<ul style="list-style-type: none"> Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content. 	
Cut-off parameters	<ul style="list-style-type: none"> The basis of the adopted cut-off grade(s) or quality parameters applied. 	Cristina - Cutter <ul style="list-style-type: none"> No cutoff parameters applied for this estimation. Results are reported on the whole vein. Angelica – Frances <ul style="list-style-type: none"> Cut off grades have been based on the natural break or mineralised domains.
Mining factors or assumptions	<ul style="list-style-type: none"> Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made. 	Cristina - Cutter <ul style="list-style-type: none"> Underground long hole stoping, Avoca method, cut and fill or shrink stopes. Angelica – Frances <ul style="list-style-type: none"> Amenable to narrow vein long hole open stoping Avoca method, shrink stoping or cut and fill mining. Typical ore loss and dilution factors for this type of mining are anticipated.
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. 	<ul style="list-style-type: none"> A standard crushing grinding circuit followed by sulphide flotation is likely given historic processing records. Historic production suggests an 11 to 1 upgrade to produce a 25 % Cu concentrate.

Criteria	JORC Code explanation	Commentary
<p><i>Environmental factors or assumptions</i></p>	<p>Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</p> <ul style="list-style-type: none"> Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made. 	<ul style="list-style-type: none"> Historic recoveries not cited but typical sulphide float of 80 % assumed. No formal environmental studies have been conducted at this stage. Historic mining activities have left minor environmental legacies including minor areas of acid rock drainage. Tailings storage facilities, reagent storage and waste rock storage facilities will need to be addressed.
<p><i>Bulk density</i></p>	<ul style="list-style-type: none"> Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples. The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit. Discuss assumptions for bulk density estimates used in the evaluation process of the different materials. 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> 49 Bulk density determination by ACME Laboratories in Phase 1 program by unspecified methods. Systematic Bulk Density measurements were made on site during the second phase of drilling. A total of 141 samples were measured using the Archimedes method using calibrated digital scales. Determination made of un-weathered core with no appreciable voids or porosity. Mean SG of 2.8 assigned to Cristina from 7 determinations, Mean SG of 2.7 assigned to waste areas from 113 determinations. <p>Angelica – Frances</p> <ul style="list-style-type: none"> Bulk density derived from diamond drill core using the Archimedes method. Determination made of un-weathered core with no appreciable voids or porosity. Grade-density relationship used for bulk density determination of mineralized zones: $SG = (Cu \% + 8.6648) / 3.5485$ Waste rock assigned bulk density of 2.7.

Criteria	JORC Code explanation	Commentary
<p><i>Classification</i></p>	<ul style="list-style-type: none"> <i>The basis for the classification of the Mineral Resources into varying confidence categories.</i> <i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i> <i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i> 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> Confidence in the geological model and data quality is considered to be sufficient for Inferred Resource as there is insufficient data to support the geological model and grade to ensure Ore Reserve definition. <p>Angelica – Frances</p> <ul style="list-style-type: none"> Confidence in the geological model, data quality and interpolation is considered to be sufficient for the Mineral Resource to be classified as Inferred Resource only. Data quality is to industry standards. Data distribution and density is limited restricting confidence in the estimation. The resource classification appropriately reflects the views of the Competent Person. No audits or reviews have been completed for this estimation.
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <i>The results of any audits or reviews of Mineral Resource estimates.</i> 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> The geological model and data quality within 30 m – 60 m of the sill drives is well understood and modeled. The effect of localised brittle faulting and mineralized shoot development is difficult to predict beyond detailed mapped areas but is expected to be similar to that observed in Sill drives. There is reasonable confidence in the global tonnage estimation as the geology is reasonable well constrained and simple. Although grade estimation is based on a limited number of composites clustered along sill drives, the varioqram models suggest mineralisation is relatively continuous providing confidence in the grade interpolation of Cu. <p>Angelica – Frances</p> <ul style="list-style-type: none"> The geological model is relatively simple and analogous to known mineralisation in the locality.
<p><i>Discussion of relative accuracy/ confidence</i></p>	<ul style="list-style-type: none"> <i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i> <i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i> <i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i> 	<p>Cristina - Cutter</p> <ul style="list-style-type: none"> The geological model and data quality within 30 m – 60 m of the sill drives is well understood and modeled. The effect of localised brittle faulting and mineralized shoot development is difficult to predict beyond detailed mapped areas but is expected to be similar to that observed in Sill drives. There is reasonable confidence in the global tonnage estimation as the geology is reasonable well constrained and simple. Although grade estimation is based on a limited number of composites clustered along sill drives, the varioqram models suggest mineralisation is relatively continuous providing confidence in the grade interpolation of Cu. <p>Angelica – Frances</p> <ul style="list-style-type: none"> The geological model is relatively simple and analogous to known mineralisation in the locality.

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> • Data distribution is poor restricting confidence in the estimate. • There is moderate confidence in the global tonnage estimation as the geology is reasonable well constrained and simple. <p>Grade estimation is based on a limited number of samples and many domains have single intercepts restricting confidence.</p>

Section 4 Estimation and Reporting of Ore Reserves

No Ore Reserves quoted

Redhill Drilling Coordinates Information – All coordinates in UTM WGS84 Zone 18 south

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-01	670573.5	4085335	23.91	12.49	0	75.4	Cristina	Trench	WGS84z18s	sawn channel trench
RH-02	670482.7	4085386	24.01	11.16	0	70.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-03	670477.4	4085426	37.91	6.42	0	68	Cristina	Trench	WGS84z18s	sawn channel trench
RH-04	670531.4	4085450	52.51	10.19	0	66.6	Cristina	Trench	WGS84z18s	sawn channel trench
RH-05	670441.8	4085495	40.31	7.67	0	62.2	Cristina	Trench	WGS84z18s	sawn channel trench
RH-06	670426.1	4085509	34.71	4.31	0	85.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-07	670426.4	4085540	40.21	6.15	0	80.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-08A	670414.3	4085600	40.61	1.51	0	65.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-08B	670415.4	4085602	41.01	1.16	0	74.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-08C	670416.7	4085601	41.31	1.48	0	68.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-09A	670378.6	4085692	47.61	3.58	0	251.3	Cristina	Trench	WGS84z18s	sawn channel trench
RH-09B	670374.9	4085691	46.71	1.74	0	247.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-10	670252	4086465	6.51	2.58	0	266.5	Cristina		WGS84z18s	sawn channel trench
RH-11	670033	4086239	4.91	3.87	0	56.4	Cristina		WGS84z18s	sawn channel trench
RH-14	670341.7	4086255	44.11	4.12	0	76.3	Cristina		WGS84z18s	sawn channel trench
RH-15	670461.8	4086038	66.71	7.3	0	116.5	Cristina		WGS84z18s	sawn channel trench
RH-16	670180.8	4086035	38.51	2.85	0	249.5	Cristina		WGS84z18s	sawn channel trench
RH-17A	670077.2	4085996	4.61	2.44	0	68	Cristina		WGS84z18s	sawn channel trench
RH-17B	670078.8	4085998	5.11	3.48	0	76	Cristina		WGS84z18s	sawn channel trench

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-18	670099.7	4085910	4.31	1.81	0	76.3	Cristina		WGS84z18s	sawn channel trench
RH-20A	670435.5	4085276	5.21	1.4	0	95.5	Cristina		WGS84z18s	sawn channel trench
RH-20B	670437	4085276	5.11	1.1	0	95.5	Cristina		WGS84z18s	sawn channel trench
RH-20C	670438.5	4085272	5.01	2.08	0	98	Cristina		WGS84z18s	sawn channel trench
RH-21A	671130.7	4083789	3.81	0.73	0	90	Isla Green		WGS84z18s	sawn channel trench
RH-21B	671136.2	4083788	3.91	1.07	0	103	Isla Green		WGS84z18s	sawn channel trench
RH-21C	671139.9	4083786	4.01	3.44	0	92.2	Isla Green		WGS84z18s	sawn channel trench
RH-21D	671146.8	4083786	4.01	3.73	0	83.3	Isla Green		WGS84z18s	sawn channel trench
RH-21E	671150.2	4083787	4.11	1.11	0	45	Isla Green		WGS84z18s	sawn channel trench
RH-21F	671159.4	4083789	4.01	1.64	0	79	Cristina		WGS84z18s	sawn channel trench
RH-21G	671177.3	4083796	4.01	4.37	0	77	Isla Green		WGS84z18s	sawn channel trench
RH-22A	670765.2	4084902	4.41	0.49	0	110	Cristina		WGS84z18s	sawn channel trench
RH-22B	670766.8	4084901	4.61	1.01	0	110	Cristina		WGS84z18s	sawn channel trench
RH-22C	670768.9	4084901	5.51	0.52	0	110	Cristina		WGS84z18s	sawn channel trench
RH-22D	670769.8	4084901	5.71	0.4	0	110	Cristina		WGS84z18s	sawn channel trench
RH-23A	670696.3	4084946	4.11	3.02	0	67	Cristina		WGS84z18s	sawn channel trench
RH-23B	670699.1	4084947	4.01	1.55	0	67	Cristina		WGS84z18s	sawn channel trench
RH-24	670436.6	4085559	46.41	2.83	0	77.3	Cristina		WGS84z18s	sawn channel trench
RH-25	670413.1	4085656	46.11	4.84	0	72.6	Cristina		WGS84z18s	sawn channel trench
RH-26A	670363	4085731	50.21	2.97	0	229	Cristina		WGS84z18s	sawn channel trench

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-26B	670359.8	4085728	48.91	1.69	0	228.5	Cristina		WGS84z18s	sawn channel trench
RH-27	670336.8	4085827	47.41	2.71	0	237	Cristina		WGS84z18s	sawn channel trench
RH-28	670547.3	4085739	63.61	0.57	0	90	Cristina		WGS84z18s	sawn channel trench
RH-29	670576.7	4085679	77.51	2.67	0	244	Cristina		WGS84z18s	sawn channel trench
RH-30	670594.5	4085639	75.71	2.18	0	86.4	Cristina		WGS84z18s	sawn channel trench
RH-31	670647.1	4086850	8.11	6.06	0	167	Cristina		WGS84z18s	sawn channel trench
RH-32	670264.6	4086471	5.41	17.77	0	240.3	Cristina		WGS84z18s	sawn channel trench
RH-33A	670229.6	4086427	4.11	3.91	0	268	Cristina		WGS84z18s	sawn channel trench
RH-33B	670225.6	4086427	4.61	3.71	0	276	Cristina		WGS84z18s	sawn channel trench
RH-33C	670222.1	4086428	3.91	8	0	268.3	Cristina		WGS84z18s	sawn channel trench
RH-33D	670214.8	4086428	4.11	8.24	0	264	Cristina		WGS84z18s	sawn channel trench
RH-33E	670207.2	4086426	4.01	4.09	0	281.4	Cristina		WGS84z18s	sawn channel trench
RH-33F	670203.2	4086427	4.21	0.82	0	281.4	Cristina		WGS84z18s	sawn channel trench
RH-34	670191.6	4086397	4.91	7.44	0	230.5	Cristina		WGS84z18s	sawn channel trench
RH-35A	670143.9	4086268	3.41	3.33	0	228.3	Cristina		WGS84z18s	sawn channel trench
RH-35B	670141.2	4086267	4.51	4.4	0	227.3	Cristina		WGS84z18s	sawn channel trench
RH-36A	670278.2	4086260	19.71	1	0	312	Cristina		WGS84z18s	sawn channel trench
RH-36B	670277.3	4086261	19.81	1	0	312	Cristina		WGS84z18s	sawn channel trench
RH-36C	670276.6	4086261	19.51	1	0	312	Cristina		WGS84z18s	sawn channel trench
RH-36D	670275.9	4086262	19.51	1	0	312	Cristina		WGS84z18s	sawn channel trench

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-36E	670275.2	4086263	19.51	1	0	312	Cristina		WGS84z18s	sawn channel trench
RH-37	670313.9	4086240	29.51	8.5	0	298	Cristina		WGS84z18s	sawn channel trench
RH-38	670453.9	4086184	47.91	3.06	0	266.6	Cristina		WGS84z18s	sawn channel trench
RH-39A	670032.8	4086239	4.01	8.25	0	230.3	Cristina		WGS84z18s	sawn channel trench
RH-39B	670026.9	4086233	4.31	10.94	0	228.3	Cristina		WGS84z18s	sawn channel trench
RH-40A	670011.8	4086207	4.31	6.04	0	215	Cristina		WGS84z18s	sawn channel trench
RH-40B	670011.1	4086200	5.31	2	0	227	Cristina		WGS84z18s	sawn channel trench
RH-40C	670010.5	4086198	4.31	2.03	0	242.1	Cristina		WGS84z18s	sawn channel trench
RH-40D	670010.6	4086194	4.01	2.16	0	242	Cristina		WGS84z18s	sawn channel trench
RH-40E	670008.4	4086192	3.91	4.83	0	237.3	Cristina		WGS84z18s	sawn channel trench
RH-40F	670003.9	4086190	2.51	6.9	0	237.2	Cristina		WGS84z18s	sawn channel trench
RH-40G	670000.7	4086185	5.01	6.77	0	220	Cristina		WGS84z18s	sawn channel trench
RH-40H	669999.5	4086176	5.51	10.27	0	194	Cristina		WGS84z18s	sawn channel trench
RH-41A	670092.3	4086050	3.51	2.84	0	181.6	Cristina		WGS84z18s	sawn channel trench
RH-41B	670091.1	4086045	3.71	1.77	0	71.5	Cristina		WGS84z18s	sawn channel trench
RH-41C	670092.1	4086045	4.41	2.87	0	197.5	Cristina		WGS84z18s	sawn channel trench
RH-42A	670091.5	4085960	4.91	5	0	91	Cristina		WGS84z18s	sawn channel trench
RH-42B	670096.4	4085956	3.11	30.27	0	100.1	Cristina		WGS84z18s	sawn channel trench
RH-43	671596.9	4084889	80	8.07	0	279.2	Cutter		WGS84z18s	sawn channel trench
RH-44	671600.8	4084911	89.7	5.18	0	269.3	Cutter		WGS84z18s	sawn channel trench

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-45	671706.8	4084750	88.7	3.01	0	155.1	Cutter		WGS84z18s	sawn channel trench
RH-46	671705.5	4084727	79.4	3.59	0	99.2	Cutter		WGS84z18s	sawn channel trench
RH-47A	670771.7	4084951	17.81	9.4	0	249	Cristina		WGS84z18s	sawn channel trench
RH-47B	670763.5	4084949	14.51	2.67	0	254.3	Cristina		WGS84z18s	sawn channel trench
RH-47C	670761.3	4084949	14.71	1.42	0	257.2	Cristina		WGS84z18s	sawn channel trench
RH-48A	670184.1	4086034	37.91	3.92	0	253	Cristina		WGS84z18s	sawn channel trench
RH-48B	670176.6	4086030	35.21	2.67	0	274	Cristina		WGS84z18s	sawn channel trench
RH-49A	670173.7	4085545	4.01	5.91	0	85.2	Cristina		WGS84z18s	sawn channel trench
RH-49B	670181.9	4085540	5.21	4.03	0	73.6	Cristina		WGS84z18s	sawn channel trench
RH-50	670397	4086404	9.81	2.98	0	215	Cristina		WGS84z18s	sawn channel trench
RH-51	671131.4	4083789	4.11	5.01	0	98.2	Isla Green		WGS84z18s	sawn channel trench
RH-52	671137.1	4083787	3.91	3.08	0	100.5	Cristina		WGS84z18s	sawn channel trench
RH-53	671143.4	4083787	4.01	3.41	0	91.4	Isla Green		WGS84z18s	sawn channel trench
RH-54	671151	4083788	3.81	8.52	0	78.5	Isla Green		WGS84z18s	sawn channel trench
RH-55A	671161.1	4083789	4.21	6.98	0	76.5	Isla Green		WGS84z18s	sawn channel trench
RH-55B	671167.8	4083792	4.21	5.68	0	82.3	Isla Green		WGS84z18s	sawn channel trench
RH-55C	671172.7	4083794	4.01	2	0	63.18	Isla Green		WGS84z18s	sawn channel trench
RH-55D	671175.6	4083795	3.81	1.75	0	73.6	Isla Green		WGS84z18s	sawn channel trench
RH-56A	671181.7	4083795	4.01	1.51	0	76.5	Isla Green		WGS84z18s	sawn channel trench
RH-56B	671184.4	4083795	3.71	5.82	0	73.3	Isla Green		WGS84z18s	sawn channel trench

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-57	671599	4084902	83.5	7	0	244	Cutter		WGS84z18s	sawn channel trench
RH-58	671602	4084916	90.27	4	0	291	Cutter		WGS84z18s	sawn channel trench
RH-59	671598.9	4084927	91.95	6	0	276.7	Cutter		WGS84z18s	sawn channel trench
RH-60	671714.8	4084899	108.9	4.5	0	284	Cutter		WGS84z18s	sawn channel trench
RH-61	671659.4	4084875	95.97	5.03	0	258.6	Cutter		WGS84z18s	sawn channel trench
RH-62	672836.9	4084042	148.48	5.79	0	278	Ingleses	Trench	WGS84z18s	sawn channel trench
RH-63	672833.1	4084030	144.93	6.85	0	285	Ingleses	Trench	WGS84z18s	sawn channel trench
RH-64	672826.7	4083989	127.71	15.17	0	268	Ingleses	Trench	WGS84z18s	sawn channel trench
RH-65	672827.6	4083970	123.7	11.75	0	268	Ingleses	Trench	WGS84z18s	sawn channel trench
RH-66	672815.4	4083943	112.13	8.9	0	265	Ingleses	Trench	WGS84z18s	sawn channel trench
RH-67	672815.1	4083911	97.43	13.01	0	272	Ingleses	Trench	WGS84z18s	sawn channel trench
RH-69B	673747.2	4083804	140.72	10.27	0	253	Franceses	Trench	WGS84z18s	sawn channel trench max depth was 10.27
RH-69C	673737.5	4083802	139.34	3.39	0	216	Franceses	Trench	WGS84z18s	sawn channel trench
RH-70	673770	4083762	156.01	36.1	-5	270	Franceses	Trench	WGS84z18s	sawn channel trench
RH-70BA	673796.9	4083780	158.56	17.95	-10	258	Franceses	Trench	WGS84z18s	sawn channel trench
RH-70BB	673800.2	4083779	159.24	2.14	0	271	Franceses	Trench	WGS84z18s	sawn channel trench
RH-70BC	673800.1	4083780	158.53	2.1	0	258	Franceses	Trench	WGS84z18s	sawn channel trench
RH-70BD	673788.2	4083777	158.51	10.15	-10	261	Franceses	Trench	WGS84z18s	sawn channel trench
RH-70BE	673783.6	4083779	157.47	4.03	0	251	Franceses	Trench	WGS84z18s	sawn channel trench

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-70BF	673779.1	4083776	157.17	6.005	-10	252	Franceses	Trench	WGS84z18s	sawn channel trench
RH-70C	673745.1	4083762	153.2	23.05	-26	264	Franceses	Trench	WGS84z18s	sawn channel trench
RH-71	673779.2	4083731	146.5	6.99	0	285	Franceses	Trench	WGS84z18s	sawn channel trench
RH-71A	673783.7	4083726	146.52	4.7	0	281	Franceses	Trench	WGS84z18s	sawn channel trench
RH-72	673797.2	4083737	152.19	5.91	0	289	Franceses	Trench	WGS84z18s	sawn channel trench
RH-73	673941.9	4083698	141.95	2.94	0	270	Franceses	Trench	WGS84z18s	sawn channel trench
RH-74	673823.6	4083727	150.24	7.95	0	271	Franceses	Trench	WGS84z18s	sawn channel trench
RH-75	671542.7	4084854	76.15	6	0	249	Cutter	Trench	WGS84z18s	sawn channel trench
RH-76	673887.2	4083701	144.87	29.46	-14	287	Franceses	Trench	WGS84z18s	sawn channel trench
RH-77	673805.1	4083731	150.43	18.26	-8	279	Franceses	Trench	WGS84z18s	sawn channel trench
RH-78	673761	4083737	148.28	18.2	-10	286	Franceses	Trench	WGS84z18s	sawn channel trench
RH-79	673724.4	4083747	146.31	12.1	-25	279	Franceses	Trench	WGS84z18s	
RH-80	673635.7	4083841	146.37	17.42	-8	296	Franceses	Trench	WGS84z18s	
RH-81	673606.6	4083861	143.74	14.97	0	299	Franceses	Trench	WGS84z18s	
RH-82	673503.5	4083898	156.64	4.14	0	253	Franceses	Trench	WGS84z18s	
RH-83	673488.9	4083881	156.38	7.61	0	248	Franceses	Trench	WGS84z18s	
RH-84	673459.8	4083959	149.12	6.51	0	255	Franceses	Trench	WGS84z18s	
RH-85	673390.5	4083942	147.37	11.84	0	253	Franceses	Trench	WGS84z18s	
RH-86	671111.4	4085608	74.96	15.92	0	232	Angelica	Trench	WGS84z18s	
RH-87	671132.2	4085636	79.92	6.04	0	215	Angelica	Trench	WGS84z18s	

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
RH-88	670824.8	4086079	47.22	4.33	0	228	Angelica	Trench	WGS84z18s	
RH-89	670816.4	4086093	46.59	4.88	17	228	Angelica	Trench	WGS84z18s	
RH-90	670809.9	4086105	45.7	4.96	44	232	Angelica	Trench	WGS84z18s	
RH-91	670707.7	4086170	88.07	7.09	0	256	Angelica	Trench	WGS84z18s	
RH-92	670640	4086192	84.51	9.31	0	283	Angelica	Trench	WGS84z18s	
RH-93	670644.2	4086216	91.29	2.97	0	281	Angelica	Trench	WGS84z18s	
RH-94	670543	4086287	63.64	4.02	0	265	Angelica	Trench	WGS84z18s	
RH-ANG	670798	4086126	35.81	3	0	0	Cristina	Trench	WGS84z18s	sawn channel trench
RH-SNA	670103.1	4085911	4.51	1.76	0	242	Cristina	Trench	WGS84z18s	sawn channel trench
RH-SNB	670100.8	4085906	4.61	3.71	0	217.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-SNC	670099.3	4085903	5.81	6.62	0	200.5	Cristina	Trench	WGS84z18s	sawn channel trench
RH-SND	670096.4	4085896	6.51	7.08	0	212.1	Cristina	Trench	WGS84z18s	sawn channel trench
S1	671385	4085150	68	100	-50	73	CUTTER		WGS84z18s	
S2	671316.4	4085034	52	139.41	-45	81	CUTTER		WGS84z18s	
S3	671318.7	4085231	56	100.15	-45	80	CUTTER		WGS84z18s	
S4	671420.5	4085262	82	58.9	-60	80	CUTTER		WGS84z18s	
S5	671423.7	4085037	65	50	-45	80	CUTTER		WGS84z18s	
S6	671422.6	4084815	54.39	100.2	-45	80	CUTTER		WGS84z18s	
UG_0001	670678.7	4085374	13.81	2.5	0	70	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0002	670688.5	4085351	13.81	4	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0003	670677.3	4085379	13.81	1.6	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0004	670674.7	4085384	13.81	2.5	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0005	670672	4085390	13.81	2.7	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0006	670668.3	4085398	13.81	2.7	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0007	670666.4	4085407	13.81	2	0	75	cristina		WGS84z18s	coordinates taken from paper records
UG_0008	670661.5	4085417	13.81	2.7	0	53	cristina		WGS84z18s	coordinates taken from paper records
UG_0009	670657.6	4085423	13.81	1.8	0	50	cristina		WGS84z18s	coordinates taken from paper records
UG_0010	670674.7	4085382	20.71	2.4	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0011	670653.8	4085428	13.81	1.7	0	50	cristina		WGS84z18s	coordinates taken from paper records
UG_0012	670643.3	4085448	13.81	2	0	75	cristina		WGS84z18s	coordinates taken from paper records
UG_0013	670642.4	4085451	13.81	2	0	75	cristina		WGS84z18s	coordinates taken from paper records
UG_0014	670641.2	4085455	13.81	2	0	75	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0015	670639.3	4085459	13.81	2	0	75	cristina		WGS84z18s	coordinates taken from paper records
UG_0016	670636.7	4085465	13.81	2	0	75	cristina		WGS84z18s	coordinates taken from paper records
UG_0017	670633.9	4085471	13.81	1.7	0	75	cristina		WGS84z18s	coordinates taken from paper records
UG_0018	670631.8	4085478	13.81	2	0	85	cristina		WGS84z18s	coordinates taken from paper records
UG_0019	670654	4085434	20.71	2	0	60	cristina		WGS84z18s	coordinates taken from paper records
UG_0020	670631	4085483	13.81	2	0	85	cristina		WGS84z18s	coordinates taken from paper records
UG_0021	670629.7	4085487	13.81	2	0	85	cristina		WGS84z18s	coordinates taken from paper records
UG_0022	670658.4	4085430	42.61	5	0	63	cristina		WGS84z18s	coordinates taken from paper records
UG_0023	670654.6	4085438	42.61	7.4	0	56	cristina		WGS84z18s	coordinates taken from paper records
UG_0024	670653.7	4085440	42.61	4	0	56	cristina		WGS84z18s	coordinates taken from paper records
UG_0025	670612.7	4085524	20.71	3	0	69	cristina		WGS84z18s	coordinates taken from paper records
UG_0026	670611.4	4085521	13.81	2	0	65	cristina		WGS84z18s	coordinates taken from paper records
UG_0027	670609.9	4085523	13.81	4	0	65	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0028	670606.1	4085532	13.81	2	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0029	670605	4085535	13.81	3	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0030	670604	4085538	13.81	2	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0031	670604.1	4085541	13.81	2	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0032	670603.7	4085545	13.81	2.3	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0033	670585.4	4085543	13.81	2.67	0	74	crisina		WGS84z18s	coordinates taken from paper records
UG_0034	670583.6	4085545	13.81	4	0	73	crisina		WGS84z18s	coordinates taken from paper records
UG_0035	670584.8	4085549	13.81	1	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0036	670584.9	4085552	13.81	1	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0037	670579.9	4085562	13.81	2.1	0	57	crisina		WGS84z18s	coordinates taken from paper records
UG_0038	670574.8	4085565	13.81	1.5	0	56	crisina		WGS84z18s	coordinates taken from paper records
UG_0039	670570.3	4085574	13.81	2	0	72	crisina		WGS84z18s	coordinates taken from paper records
UG_0040	670571.9	4085569	20.71	1.7	0	64	crisina		WGS84z18s	coordinates taken from paper records

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0041	670568.2	4085576	20.71	1.5	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0042	670566.6	4085581	20.71	2.7	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0043	670565.9	4085584	20.71	1.8	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0044	670570.8	4085571	13.81	1	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0045	670566.4	4085591	20.71	1.6	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0046	670565.9	4085596	20.71	1.65	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0047	670564.9	4085598	20.71	1.7	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0048	670563.7	4085598	20.71	1	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0049	670562.4	4085600	20.71	2	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0050	670560.8	4085602	20.71	1	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0051	670559.7	4085604	20.71	2	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0052	670558.4	4085606	20.71	1.1	0	67	cristina		WGS84z18s	coordinates taken from paper records
UG_0053	670557.3	4085608	20.71	1.8	0	67	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0054	670627.2	4085537	62.61	1.44	0	85	cristina		WGS84z18s	coordinates taken from paper records
UG_0055	670626	4085542	62.61	3	0	85	cristina		WGS84z18s	coordinates taken from paper records
UG_0056	670626.3	4085543	62.61	1.45	0	85	cristina		WGS84z18s	coordinates taken from paper records
UG_0057	670625.9	4085548	62.61	1.35	0	84	cristina		WGS84z18s	coordinates taken from paper records
UG_0058	670625.3	4085553	62.61	2	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0059	670624.6	4085556	62.61	2.75	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0060	670624.2	4085558	62.61	1.5	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0061	670623.4	4085562	62.61	1.3	0	69	cristina		WGS84z18s	coordinates taken from paper records
UG_0062	670622.1	4085565	62.61	1.8	0	70	cristina		WGS84z18s	coordinates taken from paper records
UG_0063	670618.7	4085569	62.61	4	0	68	cristina		WGS84z18s	coordinates taken from paper records
UG_0064	670613.5	4085585	62.61	2.06	0	71	cristina		WGS84z18s	coordinates taken from paper records
UG_0065	670611.7	4085589	62.61	3	0	71	cristina		WGS84z18s	coordinates taken from paper records
UG_0066	670608.5	4085595	62.61	4	0	68	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0067	670608.2	4085598	62.61	3.4	0	68	crisina		WGS84z18s	coordinates taken from paper records
UG_0068	671577.6	4084834	61.9	1.15	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0069	671575.1	4084852	61.9	1.4	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0070	671574.7	4084868	61.9	1.5	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0071	671574	4084878	61.9	1.8	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0072	671568.6	4084905	61.9	2.7	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0073	671557	4084913	61.9	2	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0074	671523.7	4084915	53.3	0.87	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0075	671521.9	4084921	53.3	1.75	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0076	671520.5	4084926	53.3	1.26	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0077	671518.7	4084934	53.3	1.05	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0078	671518.6	4084938	53.3	1.06	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0079	671518.8	4084945	53.3	1.23	0	80	cutter		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0080	671517.6	4084950	53.3	1.7	0	75	cutter		WGS84z18s	coordinates taken from paper records
UG_0081	671512.6	4084958	53.3	1	0	75	cutter		WGS84z18s	coordinates taken from paper records
UG_0082	671511.7	4084961	53.3	1.2	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0083	671511.1	4084966	53.3	1.38	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0084	671508	4084972	53.3	1.41	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0085	671505.8	4084977	53.3	1.13	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0086	671504.9	4084980	53.3	3.4	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0087	671500	4084991	53.3	1.4	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0088	671495	4084993	53.3	2.2	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0089	671493.9	4084996	53.3	2.2	0	90	cutter		WGS84z18s	coordinates taken from paper records
UG_0090	671492.4	4084999	53.3	2.4	0	90	cutter		WGS84z18s	coordinates taken from paper records
UG_0091	671489.9	4085005	53.3	3.2	0	90	cutter		WGS84z18s	coordinates taken from paper records
UG_0092	671489.6	4085009	53.3	1.2	0	85	cutter		WGS84z18s	coordinates taken from paper records

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0093	671490.6	4085014	53.3	1.9	0	108	cutter		WGS84z18s	coordinates taken from paper records
UG_0094	671493.8	4085022	53.3	0.9	0	90	cutter		WGS84z18s	coordinates taken from paper records
UG_0095	671493	4085031	53.3	1.9	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0096	671490.3	4085035	53.3	1.6	0	72	cutter		WGS84z18s	coordinates taken from paper records
UG_0097	671488.1	4085043	53.3	2.8	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0098	671467.9	4085152	53.3	1.4	0	75	cutter		WGS84z18s	coordinates taken from paper records
UG_0099	671467.5	4085155	53.3	1.6	0	75	cutter		WGS84z18s	coordinates taken from paper records
UG_0100	671467.6	4085160	53.3	1.2	0	70	cutter		WGS84z18s	coordinates taken from paper records
UG_0101	671462.7	4085168	53.3	1.2	0	55	cutter		WGS84z18s	coordinates taken from paper records
UG_0102	671459.2	4085172	53.3	1.5	0	72	cutter		WGS84z18s	coordinates taken from paper records
UG_0103	671459.1	4085177	53.3	1.5	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0104	671458.7	4085181	53.3	1.2	0	80	cutter		WGS84z18s	coordinates taken from paper records
UG_0105	670556	4085610	20.71	1.6	0	70	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0106	670554.9	4085612	20.71	1.6	0	70	crisina		WGS84z18s	coordinates taken from paper records
UG_0107	670432.1	4086015	14.01	1.5	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0108	670431.3	4086025	14.01	2.2	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0109	670431.3	4086052	14.01	1.8	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0110	670430	4086057	14.01	2.31	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0111	670428.1	4086062	14.01	4.5	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0112	670427.4	4086067	14.01	1.8	0	90	crisina		WGS84z18s	coordinates taken from paper records
UG_0113	670427.5	4086073	14.01	2	0	90	crisina		WGS84z18s	coordinates taken from paper records
UG_0114	670426.8	4086091	14.01	6.5	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0115	670425.8	4086113	14.01	6	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0116	670425.8	4086113	22.51	4.2	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0117	670436	4086041	51.61	1.3	0	90	crisina		WGS84z18s	coordinates taken from paper records
UG_0118	670436.6	4086044	51.61	1.3	0	90	crisina		WGS84z18s	coordinates taken from paper records

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0119	670437.6	4086049	51.61	1.1	0	90	cristina		WGS84z18s	coordinates taken from paper records
UG_0120	670437.7	4086059	51.61	0.95	0	90	cristina		WGS84z18s	coordinates taken from paper records
UG_0121	670437.2	4086066	51.61	1.05	0	90	cristina		WGS84z18s	coordinates taken from paper records
UG_0122	670437.3	4086071	51.61	1.57	0	90	cristina		WGS84z18s	coordinates taken from paper records
UG_0123	670437.6	4086082	51.61	1.25	0	91	cristina		WGS84z18s	coordinates taken from paper records
UG_0124	670437.7	4086084	51.61	4.8	0	90	cristina		WGS84z18s	coordinates taken from paper records
UG_0125	670437.4	4086087	51.61	4	0	90	cristina		WGS84z18s	coordinates taken from paper records
UG_0126	670437.5	4086089	51.61	4	0	90	cristina		WGS84z18s	coordinates taken from paper records
UG_0127	670436.6	4086093	51.61	1.1	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0128	670436.2	4086095	51.61	1.15	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0129	670435.3	4086100	42.61	1	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0130	670432.6	4086103	42.61	4.5	0	63	cristina		WGS84z18s	coordinates taken from paper records
UG_0131	670431.4	4086105	42.61	4.5	0	63	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0132	670429.4	4086109	42.61	1	0	66	cristina		WGS84z18s	coordinates taken from paper records
UG_0133	670426.8	4086113	42.61	1	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0134	670424.6	4086118	42.61	1.3	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0135	670422.8	4086122	42.61	6	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0136	670420.3	4086126	42.61	5.9	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0137	670418.9	4086132	42.61	1	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0138	670423.2	4086137	42.61	0.85	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0139	670422.1	4086141	42.61	3.5	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0140	670415.9	4086144	14.01	6	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0141	670400.5	4086164	14.01	3.8	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0142	670537.9	4085662	20.51	1.6	0	74	cristina		WGS84z18s	coordinates taken from paper records
UG_0143	670536	4085667	20.51	4	0	73	cristina		WGS84z18s	coordinates taken from paper records
UG_0144	670529.3	4085673	13.81	2	0	73	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0145	670528.3	4085676	13.81	2	0	73	crisina		WGS84z18s	coordinates taken from paper records
UG_0146	670525.6	4085689	20.71	1.5	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0147	670525	4085694	20.71	1.8	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0148	670516.9	4085741	13.81	1	0	90	crisina		WGS84z18s	coordinates taken from paper records
UG_0149	670517.5	4085745	13.81	3.5	0	90	crisina		WGS84z18s	coordinates taken from paper records
UG_0150	670497.9	4085855	13.81	1	0	100	crisina		WGS84z18s	coordinates taken from paper records
UG_0151	670498.4	4085860	13.81	1	0	100	crisina		WGS84z18s	coordinates taken from paper records
UG_0152	670499	4085864	13.81	1.1	0	100	crisina		WGS84z18s	coordinates taken from paper records
UG_0153	670499.8	4085868	13.81	0.8	0	100	crisina		WGS84z18s	coordinates taken from paper records
UG_0154	670500.4	4085872	13.81	1.95	0	100	crisina		WGS84z18s	coordinates taken from paper records
UG_0155	670501.3	4085877	13.81	0.5	0	99	crisina		WGS84z18s	coordinates taken from paper records
UG_0156	670501.9	4085880	13.81	0.7	0	95	crisina		WGS84z18s	coordinates taken from paper records
UG_0157	670502.2	4085884	13.81	2	0	87	crisina		WGS84z18s	coordinates taken from paper records

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0158	670501.7	4085888	13.81	1	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0159	670500.3	4085892	13.81	1	0	73	cristina		WGS84z18s	coordinates taken from paper records
UG_0160	670498.7	4085896	13.81	1	0	75	cristina		WGS84z18s	coordinates taken from paper records
UG_0161	670497.3	4085899	13.81	0.1	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0162	670496.4	4085903	13.81	0.1	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0163	670430.6	4086050	38.81	7	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0164	670430.6	4086050	30.91	6	0	80	cristina		WGS84z18s	coordinates taken from paper records
UG_0165	670313.3	4086230	30.91	3.4	0	60	cristina		WGS84z18s	coordinates taken from paper records
UG_0166	670312.2	4086232	14.01	3.8	0	60	cristina		WGS84z18s	coordinates taken from paper records
UG_0167	670306.5	4086245	14.01	4	0	60	cristina		WGS84z18s	coordinates taken from paper records
UG_0168	670303.5	4086255	14.01	3.39	0	60	cristina		WGS84z18s	coordinates taken from paper records
UG_0169	670302.6	4086257	14.01	4	0	60	cristina		WGS84z18s	coordinates taken from paper records
UG_0170	670299.5	4086264	14.01	4	0	60	cristina		WGS84z18s	coordinates taken from paper records

Hole Name	Easting (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
UG_0171	670295.1	4086274	14.01	4	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0172	670294	4086277	14.01	4.9	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0173	670289	4086287	14.01	3.9	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0174	670284.1	4086296	14.01	3	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0175	670282.8	4086298	14.01	4	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0176	670277.6	4086306	14.01	4	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0177	670273.3	4086315	14.01	3.15	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0178	670250.1	4086341	14.01	4	0	60	crisina		WGS84z18s	coordinates taken from paper records
UG_0179	670425.8	4086113	2.81	5	0	80	crisina		WGS84z18s	coordinates taken from paper records
UG_0180	670425.8	4086113	2.81	5	0	75	crisina		WGS84z18s	coordinates taken from paper records
UG_0181	670666.7	4085405	20.71	5	0	80	crisina		WGS84z18s	coordinates taken from paper records
ZDD001	670476.5	4085383	19.51	305.45	-44.2	61.65	Cristina	DDH	WGS84z18s	Phase 1, gps coords by jc
ZDD002	670422.2	4085467	27.81	300.45	-44.7	66.45	Cristina	DDH	WGS84z18s	Phase 1, gps coords by jc

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
ZDD003	670411.6	4085539	33.41	113.05	-64	70	Cristina	DDH	WGS84z18s	Phase 1, gps coords by jc
ZDD004	670382.9	4085600	38.21	64.25	-54	73	Cristina	DDH	WGS84z18s	Phase 1, note dip at 0 m = -54 not -55
ZDD005	670521.8	4085466	52.41	158.49	-40	72.5	Cristina	DDH	WGS84z18s	Phase 1,
ZDD006	670361	4085651	38.21	236.29	-40	80	Cristina	DDH	WGS84z18s	Phase 1,
ZDD007	670359.7	4085653	38.31	103.72	-40	354.9	Cristina	DDH	WGS84z18s	Phase 3,
ZDD008	671416.3	4084888	49.7	153.95	-40.2	51.8	Cutter	DDH	WGS84z18s	
ZDD009	670940.6	4084986	32.61	200.25	-34.3	246.95	Cristina	DDH	WGS84z18s	
ZDD010	671413	4084888	49.7	161.5	-74.8	40.15	Cutter	DDH	WGS84z18s	
ZDD011	671441	4084967	57.59	96.35	-52.9	72.35	Cutter	DDH	WGS84z18s	2nd phase
ZDD012	671396.4	4084971	55.07	102.8	-52	73	Cutter	DDH	WGS84z18s	2nd phase
ZDD013	671478.9	4084973	64.73	65.5	-55.3	66.25	Cutter	DDH	WGS84z18s	2nd phase
ZDD014	671348.8	4084977	56.24	139.7	-52.2	68.05	Cutter	DDH	WGS84z18s	2nd phase
ZDD015	670385	4086198	42	19.6	-45	120		DDH		
ZDD016	670385	4086198	42	29.8	-45	130		DDH		
ZDD017	670376.3	4086205	31.53	88	-45	130	Cristina	DDH	WGS84z18s	abandoned at 88m, core barrel detached at bottom of hole. Hole not surveyed, too risky to reenter says driller
ZDD018	670596.5	4086200	67.17	215.2	-45	100	Angelica	DDH	WGS84z18s	proposed ID = ang1

Hole Name	Eastings (m)	Northing (m)	Elevation (m)	Depth (m)	Dip (degrees)	Bearing (degree)	Prospect Name	Type	UTM_Grid_ID	Comments
ZDD019	670758.2	4086041	57.7	53.5	-45	44	Angelica	DDH		
ZDD019A	670758.2	4086041	57.7	300.15	-45	44	Angelica	DDH	WGS84z18s	re-drill of ZDD019
ZDD020	673667.6	4083762	129.28	305.75	-48.8	91.6	Franceses	DDH	WGS84z18s	
ZDD021	673705.7	4083798	132.67	187.5	-50	71.5	Franceses	DDH	WGS84z18s	
ZDD022	673625.7	4083813	128.87	120.1	-50	50	Franceses	DDH	WGS84z18s	
ZDD023	673753.4	4083760	154.14	257.9	-50	91	Franceses	DDH	WGS84z18s	
ZDD024	673902.8	4083702	147.82	50	-45	15.7	Franceses	DDH	WGS84z18s	
ZDD025	673865.4	4083719	141.03	181.55	-55	93.2	Franceses	DDH	WGS84z18s	
ZDD026	671482.4	4085337	71.95	163.6	-50	45	Cutter	DDH	WGS84z18s	

Technical Assessment Report

29Metals Limited and EMR Capital Management Limited

219080

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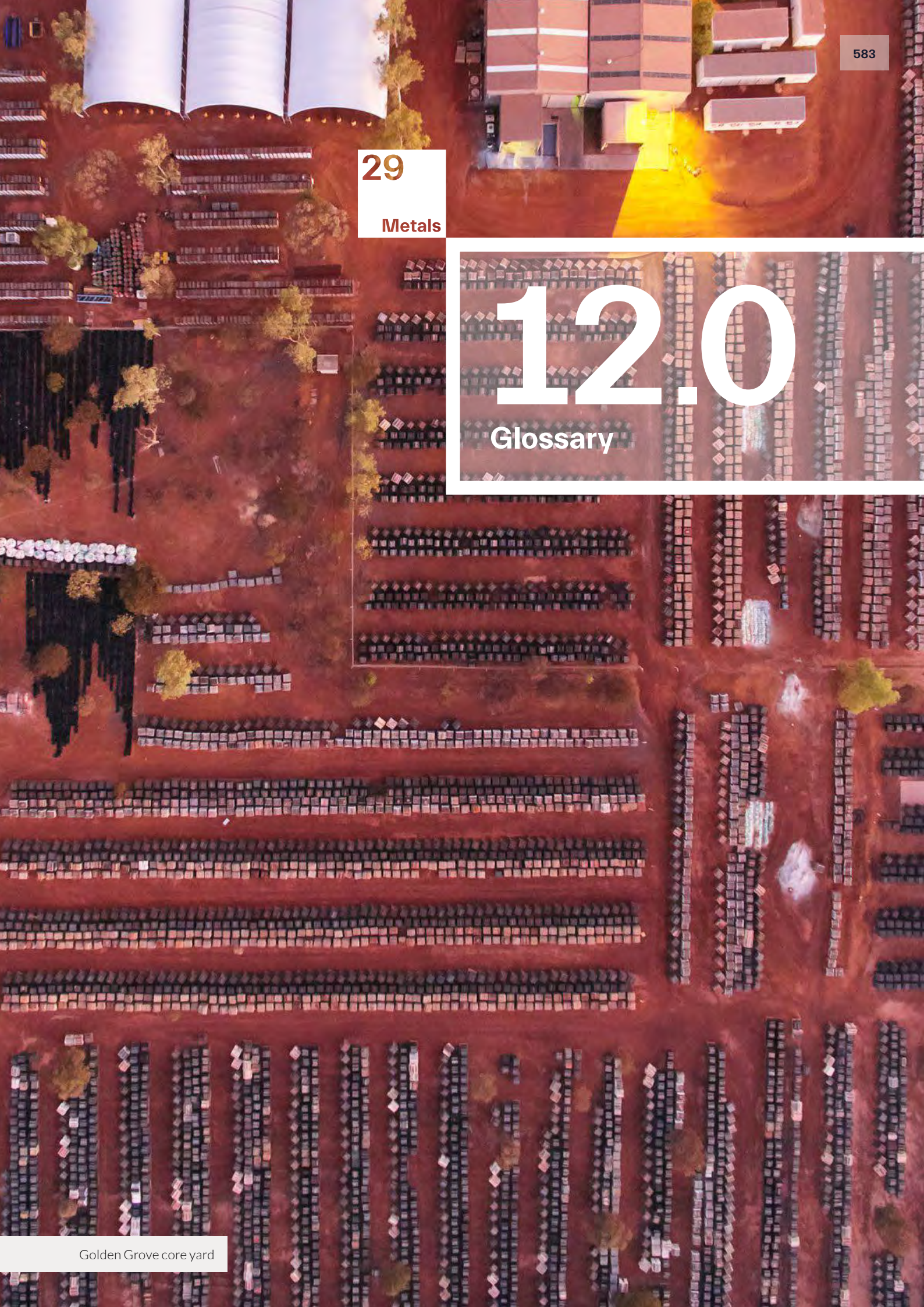
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29
Metals

12.0

Glossary



Golden Grove core yard

12.1 Units of Measurement and Technical Terms

12.1.1 Units of Measurement

Unit	Meaning
\$/dmt	dollar per dry metric tonne
\$/lb	dollar per pound
dmt	dry metric tonnes
g/t	grams per tonne
GL	gigalitres
kt	kilotonnes
ktpa	kilotonnes per annum
ML	megalitres
Moz	million ounces
Mt	million tonnes
Mtpa	megatonnes per annum
MW	megawatts

12.1.2 Technical Terms

Term	Meaning
Ag	silver
AISC	C1 Costs plus royalties cost, corporate costs, sustaining capital and capitalised development costs, but excludes growth capital and exploration
ANCOLD	Australian National Committee on Large Dams
Au	gold
Average Realised Price	gross revenue from metal in-concentrate sales (exclusive of QP gains/losses) divided by sales volume
C1 Costs	mining costs, processing costs, maintenance costs, site general & administrative costs, realisation costs (including shipping and logistics costs), and treatment and refining charges, adjusted for stockpile movements and net of by-product credits (being revenue derived from production of metals other than copper)
CHF	cemented hydraulic fill
Co	cobalt
COS	crushed ore stockpile
Cu-eq	copper equivalent contained metal ¹
Cu	copper
DIDO	drive-in drive-out
FIFO	fly-in fly-out
HPM	high precious metals
LHOS	long hole open stoping, an underground mining method
LOM	life of mine
MCP	mine closure plan
Pb	lead
QP	quotation period
RC	refining charges
RO	reverse osmosis
ROM	run of mine
SAG	semi-autogenous grinding

1 Refer to Important Information at the beginning of this Prospectus regarding the Cu-eq calculations and the use of Cu-eq metrics in this Prospectus.

Term	Meaning
SLC	sub-level cave, an underground mining method
SXEW	solvent extraction and electrowinning
TC	treatment charges
TC/RC	treatment and refining charges
TRIFR	total recordable injury frequency rate
TSF	tailings storage facility
VHMS	volcanic-hosted massive sulphide, a type of mineral deposit
Zn	zinc

12.2 Defined Terms in the Prospectus

Term	Meaning
29Metals	29Metals Limited (ACN 650 096 094)
AAS	Australian Accounting Standards
AASB	Australian Accounting Standards Board
ABN	Australian Business Number
ACH Act	<i>Aboriginal Cultural Heritage Act 2003</i> (Qld)
Aggregate Substantial Interest	40% or more by two or more unassociated foreign persons and their associates
AH Act	<i>Aboriginal Heritage Act 1972</i> (WA)
AISC	all-in sustaining costs
AME	the report commissioned by 29Metals dated 19 March 2021 prepared by AME Mineral Economics Pty Ltd in relation to the commodities outlook for copper and by-products produced by 29Metals
Applicant	a person who submits an Application
Application	an application to subscribe for Shares offered under this Prospectus
Application Form	the application form attached to or accompanying this Prospectus (including the electronic form provided by an online application facility)
Application Monies	the amount of money submitted or made available by an Applicant in connection with an Application
ASIC	Australian Securities and Investments Commission
ASX	Australian Securities Exchange
ASX Recommendations	the fourth edition of the Corporate Governance Principles and Recommendations developed by the ASX Corporate Governance Council
ASX Settlement Operating Rules	the settlement operating rules of ASX
ATO	Australian Taxation Office
ATSIHP Act	<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984</i> (Cth)
AUD	Australian Dollars
Ausenco	Ausenco Operations Pty Ltd, an operations and maintenance services contractor
Ausenco O&M	has the meaning given in section 10.6.8
Australian Accounting Standards (AAS)	Australian Accounting Standards issued by the Australian Accounting Standards Board
Board	the board of directors of the Company
Broker Firm Offer	the offer of Shares under this Prospectus to Australian and New Zealand resident retail clients of participating Brokers who have received an invitation from their Broker to participate in the Broker Firm Offer, provided that such clients are not in the United States, as described in section 8.5

Term	Meaning
Broker Firm Offer Application Form	an application form attached to or accompanying this Prospectus (including any electronic form provided by an online application facility) in respect of the Broker Firm Offer
Broker	any ASX participating organisation selected by the Joint Lead Managers and 29Metals to act as a Broker to the Offer
ByrneCut Australia	ByrneCut Australia Pty Ltd, an underground mining services contractor
Capricorn Copper	the copper and silver mining operations and associated assets and infrastructure described in section 3.11
Capricorn Copper Group	Capricorn Copper Holdings, Capricorn Copper Pty Ltd, and Lighthouse Minerals
Capricorn Copper Holdings	Capricorn Copper Holdings Pty Ltd (ACN 608 241 121)
Capricorn Copper Pty Ltd	Capricorn Copper Pty Ltd (ACN 106 396 801)
Cash Backed Indemnity Amount	has the meaning given in clause 10.6.12.3
CC-ByrneCut UMSA	Capricorn Copper ByrneCut underground mining services agreement
CC Hedges	the copper hedging arrangements described in section 10.6.10
CGT	capital gains tax
Chair	chair of the Board
CHESS	ASX's Clearing House Electronic Subregister System, operated in accordance with the ASX Listing Rules and the ASX Settlement Operating Rules
CL Register	contaminated land register
Closing Date	the date on which the Offer is expected to close, being Wednesday, 30 June 2021 in respect of the Retail Offer
COMEX	Commodity Exchange Inc., better known as COMEX, a division of the New York Mercantile Exchange that trades futures in metals
Committee	a committee established by the Board
Company	29Metals, and includes (unless the context requires otherwise) its subsidiaries
Competent Persons	a person who is a qualified person under the JORC Code in relation to Mineral Resources and Ore Reserves estimates
Completion	completion of the Offer
Constitution	the constitution of 29Metals
Corporations Act	<i>Corporations Act 2001</i> (Cth)
Counter Indemnity	has the meaning in section 10.6.7
CSA	<i>Contaminated Sites Act 2003</i> (WA)
Cu-eq	copper equivalent contained metal
D&A	depreciation and amortisation
Derivative Payout, Debt and Working Capital Reduction	impact of the change in capital structure to reflect repayment of Capricorn Copper Pty Ltd's external borrowings, settlement of the 2021 CC Hedges (up to an aggregate cost of \$40 million), reduction of Golden Grove OpCo's external borrowings and reduction of the 29Metals group's trade and other payables
DES	the Queensland Department of Environment and Science
DIA	an Environmental Impact Statement
Director	a director of 29Metals
DMIRS	the Western Australia Department of Mines, Industry Regulation and Safety
DWER	the Western Australia Department of Water and Environment Regulation
EA	environmental authority issued under the Qld EP Act
EA Holder	the holder of an EA
EAR	the Environmental Approval Resolution
EBITDA	earnings before finance income, finance costs, any unrealised foreign exchange gains or losses, any realised and unrealised gains or losses on derivative financial instruments, income tax expense and D&A
EIA	an Environmental Impact Study
EIAS	the Environmental Impact Assessment System

Term	Meaning
Eligible Employee	refers to eligible Australian-resident employees and Directors of 29Metals, the Golden Grove Group and the Capricorn Copper Group, who have received an Employee Offer invitation to acquire Shares under this Prospectus
Eligible Incentive Plan Employees	has the meaning given in section 7.3.3.2
EM Register	environmental management register
EMOS	an Environmental Management Overview Strategy
EMR Capital	means EMR Capital Management Limited and includes funds managed by it or any one or more of its affiliates unless the context requires otherwise
EMR Capital Investors	funds managed or advised by EMR Capital or its affiliates, holding companies of those funds and the investors in those funds
EMR Fund O	EMR Capital Resources Fund, LP, a limited partnership formed in the Cayman Islands
EMR Fund I	EMR Capital Resources Fund 1, LP, a limited partnership formed in the Cayman Islands
EMR Fund II Investors	the limited partners of Golden Grove LP
EMR Nominees	the persons identified in section 7.1, being persons nominated by EMR Capital for appointment to the Board
EMR Parties	NomineeCo, as nominee for EMR fund O and the EMR Fund II Investors, EMR Capital Investment (No.4B) Pte. Ltd. and EMR Capital Investment (No.6B) Pte. Ltd.
Environmental Bond	a bank guarantee issued by NAB on behalf of Capricorn Copper in favour of the State of Queensland
EPBC Act	<i>Environmental Protection and Biodiversity Conversation Act 1999</i> (Cth)
EPit	the Esperanza Pit TSF at Capricorn Copper, as described in section 3.11.7
EPO	Environmental Protection Order
ERC	has the meaning given in section 10.7.1.4
Escrow Deeds	the escrow deeds entered into by the Escrowed Shareholders described in section 8.11.1
Escrowed Shareholders	NomineeCo, EMR Capital Investment (No.4B) Pte. Ltd. and EMR Capital Investment (No.6B) Pte. Ltd.
Escrowed Shares	all of the Shares held by the Escrowed Shareholders on Completion
ESG	environmental, social and corporate governance
ESS	Esperanza South
ETF	exchange traded fund
ETSF	the Esperanza TSF at Capricorn Copper, as described in section 3.11.7
Executive Leadership	has the meaning given in section 7.2
Expiry Date	the date which is 13 months after the Prospectus Date
Exposure Period	the seven-day period after the Prospectus Date, which may be extended by ASIC by a further period of seven days, during which no Applications may be processed by 29Metals as described in the Important Information
FATA	<i>Foreign Acquisitions and Takeovers Act 1975</i> (Cth)
Financial Information	the Historical Financial Information and the Forecast Financial Information
Financial Provisioning Act	<i>Mineral and Energy Resources (Financial Provisioning) Act 2018</i> (Qld)
FIRB	the Foreign Investment Review Board
FIRB Approval	the Australian Government's Foreign Investment Policy
Forecast Financial Information	has the meaning given in section 5.1.1
Forecast Limited Assurance Report	the Limited Assurance Investigating Accountant's Report on the Pro Forma Forecast Financial Information and Statutory Forecast Financial Information prepared by KPMG Transaction Services, a copy of which is included in section 9 (Investigating Accountant's Reports)
FPO	<i>UK Financial Services and Markets Act 2000</i> (Financial Promotions) Order 2005
FSMA	<i>UK Financial Services and Markets Act 2000</i>

Term	Meaning
FTE	full-time equivalent
FY2018	the year ended 31 December 2018
FY2019	the year ended 31 December 2019
FY2020	the year ended 31 December 2020
FY2021	the year ended 31 December 2021
G&A	general and administration costs
GG-Byrnegut UMSA	Golden Grove underground mining services agreement
GG Trafigura Offtake Contracts	has the meaning given in section 3.10.9
Golden Grove	the copper, zinc, gold, silver and lead mining operations and associated assets and infrastructure described in section 3.10
Golden Grove Group	Golden Grove, LP, Golden Grove TopCo, Golden Grove Holdings (No.3) Pty Ltd (ACN 616 183 503) (formerly named EMR Golden Grove Holdings Pty Ltd), Golden Grove Holdings and Golden Grove OpCo, which, as at the Prospectus Date, are directly or indirectly 100% owned by the EMR Fund II Investors
Golden Grove Holdings	Golden Grove Holdings (No.2) Pty Ltd (ACN 616 179 705) (formerly named EMR Capital Golden Grove Pty Ltd)
Golden Grove LP	Golden Grove, LP, a limited partnership formed in New South Wales, Australia (formerly named EMR Capital RF II Golden Grove, LP)
Golden Grove OpCo	Golden Grove Operations Pty Ltd (ACN 114 868 325) (formerly named EMR Golden Grove Pty Ltd)
Golden Grove TopCo	Golden Grove Holdings (No.1) Pty Ltd (ACN 650 628 112)
Group or 29Metals Group	the Company and its subsidiaries
GST	goods and services tax
Historical Financial Information	has the meaning given in section 5.1.1
HSEC	health, safety, environment and community
IFRS	International Financial Reporting Standards issued by the International Accounting Standards Board
ILUA	Indigenous Land Use Agreement
Independent Director	a non-executive director of the Company who has been assessed by the Board to be an independent director
Industry Data	has the meaning given in the Important Information under the heading 'Market and Industry Data'
Initial Restructure	has the meaning given in section 5.1
Institutional Investor	<p>Investors who are:</p> <ul style="list-style-type: none"> ▪ persons in Australia who the Joint Lead Managers believe offers and issues of Shares may be lawfully made without the need for disclosure to investors under Chapter 6D of the Corporations Act; and ▪ institutional investors in certain other jurisdictions, as agreed by the Company and the Joint Lead Managers to whom offers of Shares may lawfully be made without the need for a lodged or registered prospectus or other form of disclosure document or filing with, or approval by, any governmental agency (except one with which the Company is willing in its discretion to comply), <p>provided that if such person is in the United States, it is either a person that the Joint Lead Managers reasonably believe to be a "qualified institutional buyer" as defined in Rule 144A under the U.S. Securities Act or a dealer or other professional fiduciary organised or incorporated in the United States acting for a discretionary account or similar account (other than an estate or trust) held for the benefit or account of persons that are not U.S. persons (as defined in Rule 902(k) of Regulation S under the U.S. Securities Act) for which it has, and is exercising, investment discretion, within the meaning of Rule 902(k)(2)(i) of Regulation S under the U.S. Securities Act</p>
Institutional Offer	the invitation to Institutional Investors under this Prospectus or the U.S. Institutional Offering Memorandum, as applicable, to acquire the Shares, as described in section 8.9
Investigating Accountant's Reports	the Forecast Limited Assurance Report and the Pro forma Historical Limited Assurance Report

Term	Meaning
IPO	initial public offering
IPO Acquisitions	has the meaning given in section 5.1
ITAA 1997	<i>Income Tax Assessment Act 1997</i> (Cth)
Joint Lead Managers	Macquarie Capital (Australia) Limited, Credit Suisse (Australia) Limited and Morgan Stanley Australia Securities Limited
JORC Code	the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012, a mineral resources classification system
JORC Table 1 Disclosures	the JORC Table 1 disclosures for the 29Metals Ore Reserves and Mineral Resources estimates, included in Annexure A (29Metals' Ore Reserves and Mineral Resources – JORC Table 1 disclosures)
Korea Zinc	has the meaning given in section 3.10.9
LIBOR	London Inter-Bank Offered Rate
Lighthouse Minerals	Lighthouse Minerals Pty Ltd (ACN 158 128 306)
Listing	the admission of the Company to the Official List
Listing Rules	the rules of ASX that govern the admission, quotation and removal of securities from the Official List
LME	the London Metal Exchange
LTi	the Company's long-term incentive scheme, as described in section 7.3.3.4
Managing Director & Chief Executive Officer	the managing director and chief executive officer of 29Metals
March 2021 Quarter	period from 1 January to 31 March 2021 (inclusive)
MCP	has the meaning given in section 10.7.1.2
MEROLA	<i>Mineral Energy Resources and Other Legislation Amendment Act 2020</i> (Qld)
Mineral Resources	has the meaning given in the JORC Code, and includes sub-categories Measured Resources, Indicated Resources and Inferred Resources. Refer to section 2.3.2
MRF	Mining Rehabilitation Fund
MWPA	Mid West Ports Authority, a provider of port handling and loading facilities in Geraldton WA
NAB	National Australia Bank Limited
Native Title Act or NTA	<i>Native Title Act 1993</i> (Cth)
Native Title Party	Kalkadoon Native Title Aboriginal Corporation
Net Cash or Net Debt	total debt (including lease liabilities and derivative financial assets and liabilities), less cash and cash equivalents
Net Drawn Debt	total debt (excluding lease liabilities, financial liabilities and derivative financial assets and liabilities), less cash and cash equivalents (excluding Cash Backed Indemnity Amount)
New Shareholders	persons acquiring Shares under the Offer (excluding any Escrowed Shareholders who acquire Shares under the Offer)
New Shares	the new Shares to be issued by 29Metals under the Offer
New Zealand Mutual Recognition Regime	the mutual recognition regime established under subpart 6 of Part 9 of the <i>Financial Markets Conduct Act 2013</i> (New Zealand) and subpart 2 of Part 9 of the <i>Financial Markets Conduct Regulations 2014</i> (New Zealand), relating to the offer of financial products in New Zealand by an Australian offeror
NNTT	the National Native Title Tribunal
NomineeCo	Perpetual Nominees Limited (ACN 000 733 700), which holds Shares as bare trustee for the EMR Fund II Investors and EMR Fund 0
non-IFRS Financial Information	has the meaning given to it in section 5.3
Non-Performance Payment	has the meaning given in section 10.6.5
Offer	the offer under this Prospectus of New Shares for issue by 29Metals and of Shares by SaleCo
Offer Period	Tuesday, 22 June 2021 to Wednesday, 30 June 2021

Term	Meaning
Offer Price	\$2.00 per Share
Official List	the official list of entities that ASX has admitted, and which have not been removed from listing on the ASX
Offtake Contracts	has the meaning given in section 2.1.2.6
Operating Free Cash Flows	net cash flow from operating activities less capital expenditure and excluding the net payout of derivative financial instruments
Ore Reserves	has the meaning given in the JORC Code, and includes sub-categories Proved Reserves and Probable Reserves. Refer to section 2.3.3
Original Prospectus	the prospectus dated 7 June 2021 and lodged with ASIC on that date, which is replaced with this Prospectus
OSR	the Queensland Office of State Revenue
Other Executives	the Group's Chief Financial Officer, Chief Operating Officer and General Counsel & Company Secretary
PAS	has the meaning given in section 10.7.2.3
Performance Rights	rights in the Company issued under the Plan Rules
Plan	the Company's Equity Incentive Plan adopted by the Board on 7 June 2021, as described in section 7.3.3.2
Plan Rules	the Equity Incentive Plan Rules, as described in section 7.3.3.2
Port Authority Agreement	has the meaning given in section 10.6.4
Port Authority Lease	has the meaning given in section 10.6.4
Port Authority Licence	has the meaning given in section 10.6.4
Port Services Agreement	has the meaning given in section 10.6.4
PPE	property, plant and equipment
PRC	the People's Republic of China
PRC plan	has the meaning given in section 10.7.1.4
PRC plan start date	has the meaning given in section 10.7.1.4
Priority Offer	has the meaning given in section 8.6
Pro Forma Forecast Cash Flows Information	pro forma forecast cash flow information for FY2021
Pro Forma Forecast Financial Information	has the meaning given in section 5.1.1
Pro Forma Forecast Results	the pro forma forecast statement of comprehensive income for FY2021
Pro Forma Historical Balance Sheet	the pro forma historical statement of financial position as at 31 December 2020
Pro Forma Historical Cash Flows Information	the pro forma historical cash flow information for FY2018, FY2019 and FY2020
Pro Forma Historical Financial Information	has the meaning given in section 5.1.1
Pro Forma Historical Limited Assurance Report	the Limited Assurance Investigating Accountant's Report on the Pro Forma Historical Financial Information prepared by KPMG Transaction Services, a copy of which is included in section 9 (Investigating Accountant's Reports)
Pro Forma Historical Results	the pro forma historical statements of comprehensive income for FY2018, FY2019 and FY2020
Prospectus	this document (including the electronic form of this Prospectus), which is a replacement prospectus and which replaces the Original Prospectus

Term	Meaning
Prospectus Date	the date on which a copy of the Original Prospectus was lodged with ASIC, being Monday, 7 June 2021
Prospectus Regulation	has the meaning given in 10.14.3
Provinces	has the meaning given in section 10.14.1
Qld EP Act	has the meaning given in section 10.7.1
Qld Mining Act	<i>Mineral Resources Act 1989</i> (Qld)
Qld Mining Safety Legislation	the <i>Mining and Quarrying Safety and Health Act 1999</i> (Qld); and the <i>Mining and Quarrying Safety and Health Regulations 2017</i> (Qld)
Qld Water Act	<i>Water Act 2000</i> (Qld)
Qld WHS Legislation	<i>Work Health and Safety Act 2011</i> (Qld) and the <i>Work Health and Safety Regulation 2011</i> (Qld)
QP	Quotational Period
Redhill	the copper and precious metals exploration assets described in section 3.12.4
Redhill Group	Redhill Magallanes SpA (a company formed and existing under the laws of Chile) and Redhill Mining, which are directly or indirectly 95.5% owned by EMR Fund I and 4.5% owned by EMR Fund O
Redhill Mining	Redhill Mining Hong Kong Limited (a company formed and existing under the laws of Hong Kong)
Relationship Deed	the Relationship Deed dated 7 June 2021 between the Company and the EMR Parties
Relevant Interest	has the meaning given in section 608 of the Corporations Act
Replacement Indemnity	has the meaning given in section 10.6.7
Restricted Shares	restricted shares in the Company issued under the Plan Rules and as described in section 7.3
Restructure	the Initial Restructure and the IPO Acquisitions, as described in section 10.3.1
Retail Offer	the Broker Firm Offer, the Priority Offer and the Employee Offer
Revolving Capital Facility	the revolving capital facility described in section 10.6.2
RG 230	ASIC Regulatory Guide 230 'Disclosing non-IFRS Financial Information'
SaleCo	29Metals SaleCo Limited (ACN 649 782 150)
Scheme	has the meaning given in section 10.7.1.4
Securities and Futures Act	has the meaning given in section 10.14.6
Security Agent	has the meaning given in section 10.6.2
Settlement	the date settlement of the Offer occurs, expected to be Monday, 5 July 2021
SFA	has the meaning given in section 10.6.2
Share	a fully paid ordinary share in the capital of 29Metals
Shareholder	means a registered holder of Shares
Share Registry	Link Market Services Limited (ACN 083 214 537)
SHFE	Shanghai Futures Exchange
Staff Offer Incentive	the award of Performance Rights to eligible 29Metals employees, as described in section 7.3.3.5
Statutory Forecast Cash Flows Information	the statutory forecast cash flow information for FY2021
Statutory Forecast Results	the pro forma statutory forecast statement of comprehensive income for FY2021
Statutory Historical Balance Sheet	the statutory historical statement of financial position as at 31 December 2020
Statutory Historical Cash Flows Information	the statutory historical cash flow information for FY2018, FY2019 and FY2020

Term	Meaning
Statutory Historical Financial Information	has the meaning given in section 5.1.1
Statutory Historical Results	the statutory historical statements of comprehensive income for FY2018, FY2019 and FY2020
STI	the Company's short-term incentive scheme, as described in section 7.3.3.3
Sub-Lease	the sub-lease 29Metals has entered into with EMR Capital Pty Ltd for its head office premises at Level 2, 150 Collins Street, Melbourne, Victoria
Substantial Interest	has the meaning given in section 10.7.1.7
TAP	Taxable Australian Property
Technical Reports	(a) the Golden Grove technical report; (b) the Capricorn Copper technical report; and/or (c) the Redhill technical report, included in section 11 (Technical Reports) of this Prospectus
Term Facility	the term facility described in section 10.6.2
TFN	Tax File Number
TFR	Total Fixed Remuneration
Tier 1	is used in this Prospectus to describe a mining jurisdiction that is rated in the first quartile of the jurisdictions surveyed based on the Investment Attractiveness Index published by the Fraser Institute as part of its Annual Survey of Mining Companies, 2020
Trafigura	Trafigura Pte Ltd, a global commodities trading firm
Trafigura Indemnity	has the meaning given in section 10.6.7
Transaction Fee	the fee payable by EMR Capital to certain eligible individuals in connection with Completion of the Offer, as described in section 7.3.5
USD	United States Dollars
US GAAP	US generally accepted accounting principles
U.S. Institutional Offering Memorandum	an offering memorandum under which the Institutional Offer will be made in the United States, which consists of this Prospectus and an offer document wrap
U.S. Securities Act	the U.S. Securities Act of 1933, as amended
Underwriting Agreement	the underwriting agreement (as amended or supplemented) entered into between the Joint Lead Managers, 29Metals and SaleCo dated 5 June 2021
WA	Western Australia
WA EP Act	<i>Environmental Protection Act 1986 (WA)</i>
WA Mining Act	<i>Mining Act 1978 (WA)</i>
WA Mining Safety Legislation	the <i>Mines Safety and Inspection Act 1994 (WA)</i> ; and the <i>Mines Safety and Inspection Regulations 1995 (WA)</i>
WA OSH Legislation	the <i>Occupational Safety and Health Act 1984 (WA)</i> and the <i>Occupational Safety and Health Regulations 1996 (WA)</i>
WA Water Act	<i>Rights in Water and Irrigation Act 1914 (WA)</i>
Working Capital	the sum of trade receivables and inventories less trade payables, royalties, other creditors and accruals, GST and employee liabilities