



SIHAYO GOLD LIMITED

Financial Services Guide and Independent Expert's Report

26 October 2020

We have concluded that the Proposed Transaction is not fair but reasonable

FINANCIAL SERVICES GUIDE

RSM Corporate Australia Pty Ltd ABN 82 050 508 024 (“RSM Corporate Australia Pty Ltd” or “we” or “us” or “ours” as appropriate) has been engaged to issue general financial product advice in the form of a report to be provided to you.

In the above circumstances we are required to issue to you, as a retail client, a Financial Services Guide (“FSG”). This FSG is designed to help retail clients make a decision as to their use of the general financial product advice and to ensure that we comply with our obligations as financial services licensees.

This FSG includes information about:

- who we are and how we can be contacted;
- the financial services that we will be providing you under our Australian Financial Services Licence, Licence No 255847;
- remuneration that we and/or our staff and any associates receive in connection with the financial services that we will be providing to you;
- any relevant associations or relationships we have; and
- our complaints handling procedures and how you may access them.

Financial services we will provide

For the purposes of our report and this FSG, the financial service we will be providing to you is the provision of general financial product advice in relation to securities.

We provide financial product advice by virtue of an engagement to issue a report in connection with a financial product of another person. Our report will include a description of the circumstances of our engagement and identify the person who has engaged us. You will not have engaged us directly but will be provided with a copy of the report as a retail client because of your connection to the matters in respect of which we have been engaged to report.

Any report we provide is provided on our own behalf as a financial services licensee authorised to provide the financial product advice contained in the report.

General Financial Product Advice

In our report we provide general financial product advice, not personal financial product advice, because it has been prepared without taking into account your personal objectives, financial situation or needs.

You should consider the appropriateness of this general advice having regard to your own objectives, financial situation and needs before you act on the advice. Where the advice relates to the acquisition or possible acquisition of a financial product, you should also obtain a product disclosure statement relating to the product and consider that statement before making any decision about whether to acquire the product.

Benefits that we may receive

We charge various fees for providing different financial services. However, in respect of the financial service being provided to you by us, fees will be agreed, and paid by, the person who engages us to provide the report and such fees will be agreed on either a fixed fee or time cost basis. You will not pay to us any fees for our services; the Company will pay our fees. These fees are disclosed in the Report.

Except for the fees referred to above, neither RSM Corporate Australia Pty Ltd, nor any of its directors, employees or related entities, receive any pecuniary benefit or other benefit, directly or indirectly, for or in connection with the provision of the report.

Remuneration or other benefits received by our employees

All our employees receive a salary.

Referrals

We do not pay commissions or provide any other benefits to any person for referring customers to us in connection with the reports that we are licensed to provide.

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RSM Corporate Australia Pty Ltd is beneficially owned by the partners of RSM Australia, a large national firm of chartered accountants and business advisers. Our directors are partners of RSM Australia Partners.

From time to time, RSM Corporate Australia Pty Ltd, RSM Australia Partners, RSM Australia and / or RSM Australia related entities may provide professional services, including audit, tax and financial advisory services, to financial product issuers in the ordinary course of its business.

Complaints resolution

Internal complaints resolution process

As the holder of an Australian Financial Services Licence, we are required to have a system for handling complaints from persons to whom we provide financial product advice. All complaints should be directed to The Complaints Officer, RSM Corporate Australia Pty Ltd, P O Box R1253, Perth, WA, 6844.

When we receive a written complaint we will record the complaint, acknowledge receipt of the complaint within 15 days and investigate the issues raised. As soon as practical, and not more than 45 days after receiving the written complaint, we will advise the complainant in writing of our determination. If a complaint is received in advance of a shareholder meeting or other key date where shareholders or investors may be making decisions which are influenced by our report, we will make all reasonable efforts to respond to complaints prior to that date.

Referral to External Dispute Resolution Scheme

A complainant not satisfied with the outcome of the above process, or our determination, has the right to refer the matter to the Australian Financial Complaints Authority ("AFCA"). AFCA is an independent dispute resolution scheme 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. You may contact AFCA directly by email, telephone or in writing at the address set out below.

Australian Financial Complaints Authority
GPO Box 3
Melbourne VIC 3001
Toll Free: 1800 931 678
Email: info@afca.org.au

Time limits may apply to make a complaint to AFCA, so you should act promptly or consult the AFCA website to determine if or when the time limit relevant to your circumstances expires.

Contact details

You may contact us using the details set out at the top of our letterhead on page 5 of this report.

CONTENTS

1.	Introduction	5
2.	Summary and conclusion.....	7
3.	Summary of the Proposed Transaction.....	10
4.	Scope of the Report.....	13
5.	Industry Overview	15
6.	Profile of Sihayo Gold Limited.....	18
7.	Profile of Provident and Merdeka.....	28
8.	Valuation approach	29
9.	Valuation of SIH Prior to the Proposed Transaction.....	32
10.	Valuation of SIH Post the Proposed Transaction.....	47
11.	Is the Proposed Transaction Fair to Shareholders?	49
12.	Is the Proposed Transaction Reasonable to Shareholders?.....	50

TABLE OF APPENDICES

A.	Declarations and Disclaimers.....	55
B.	Sources of Information.....	56
C.	Glossary of Terms.....	57
D.	Discount Rate	59
E.	Comparable Companies	63
F.	Independent Technical Assessment and Valuation Report by Mining Associates – The Sihayo Gold Project	64

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26 October 2020

The Directors
Sihayo Gold Limited
11/66 Eagle Street
Brisbane, QLD, 4000

Dear Directors

INDEPENDENT EXPERT'S REPORT ("REPORT")

1. Introduction

- 1.1 This Independent Expert's Report (the "Report" or "IER") has been prepared to accompany the Notice of Annual General Meeting and Explanatory Statement ("Notice") to be provided to shareholders for an Annual General Meeting of Sihayo Gold Limited ("SIH" or "the Company") to be held on or around 30 November 2020, at which shareholder approval will be sought for (among other things) the issue of placement shares to Eastern Field Developments Limited ("EFDL"), a 99.9% owned subsidiary of PT Merdeka Copper Gold Tbk ("Merdeka").
- 1.2 On 20 August 2020, SIH announced that it had received binding commitments to raise approximately A\$5,428,049 (before costs), through the issue of 217,121,951 SIH Shares ("Tranche 2 Placement Shares") at an issue price of A\$0.025 per Share ("Tranche 2 Placement"), subject to receiving shareholder and Foreign Investment Review Board ("FIRB") approval. As part of the Tranche 2 Placement:
 - (a) EFDL has committed to subscribe for A\$4,878,049, being 195,121,951 Tranche 2 Placement Shares ("the Proposed Transaction");
 - (b) Mr Gavin Caudle, a director of the Company, has committed to subscribe for A\$500,000, being 20,000,000 Tranche 2 Placement Shares; and
 - (c) Mr Colin Moorhead, a director of the Company, has committed to subscribe for A\$50,000, being 2,000,000 Tranche 2 Placement Shares.
- 1.3 In addition to the Tranche 2 Placement, the Company is seeking shareholder approval to convert a US\$1.5 million convertible instrument with EFDL into 83,623,693 SIH Shares at a deemed issue price of A\$0.025 per Share.

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RSM Corporate Australia Pty Ltd ABN 82 050 508 024 Australian Financial Services Licence No. 255847

- 1.4 The resolution relevant to the Proposed Transaction for shareholder approval is set out in the Notice and listed below:

Resolution 7 – Approval of issue of Tranche 2 Placement Shares to Eastern Field Developments Limited

“That, for the purposes of section 611 (item 7) of the Corporations Act, ASX Listing Rule 10.11 and for all other purposes, approval is given for:

- (a) the issue of 195,121,951 Tranche 2 Placement Shares to Eastern Field Developments Limited; and*
- (b) the acquisition of a relevant interest in the issued voting shares of the Company by Eastern Field Developments Limited, otherwise prohibited by section 606(1) of the Corporations Act by virtue of the Tranche 2 Placement Shares to Eastern Field Developments Limited, which will result in PT Merdeka Copper Gold Tbk’s voting power in the Company increasing from 27.69% to 32.99%,*

on the terms and conditions set out in the Explanatory Statement.”

- 1.5 The Directors of the Company have requested that RSM Corporate Australia Pty Ltd (“RSM”), being independent and qualified for the purpose, express an opinion as to whether the Proposed Transaction is fair and reasonable to shareholders not associated with the Proposed Transaction (“Non-Associated Shareholders”).
- 1.6 The request for approval of the Proposed Transaction is included as Resolution 7 in the Notice and is not subject to the approval of any other resolution.
- 1.7 The ultimate decision whether to approve the Proposed Transaction should be based on each Shareholder’s assessment of their circumstances, including their risk profile, liquidity preference, tax position and expectations as to value and future market conditions. If in doubt as to the action they should take with regard to the Proposed Transaction, or the matters dealt with in this Report, Shareholders should seek independent professional advice.

2. Summary and conclusion

Opinion

2.1 In our opinion, and for the reasons set out in Sections 11 and 12 of this Report, the Proposed Transaction is **not fair but reasonable** to the Non-Associated Shareholders of SIH.

Approach

2.2 In assessing whether the Proposed Transaction is fair and reasonable to the Non-Associated Shareholders, we have considered Australian Securities and Investment Commission (“ASIC”) Regulatory Guide 111 – *Content of Expert Reports* (“RG 111”), which provides specific guidance as to how an expert is to appraise transactions.

2.3 Where an issue of shares by a company otherwise prohibited under section 606 of the Act is approved under item 7 of section 611, and the effect on the company shareholding is comparable to a takeover bid, such as the Proposed Transaction, RG 111 states that the transaction should be analysed as if it was a takeover bid.

2.4 Therefore, we have considered whether or not the Proposed Transaction is “fair” to the Non-Associated Shareholders by assessing and comparing:

- The Fair Market Value of a Share in SIH on a control basis prior to the Proposed Transaction; with
- The Fair Market Value of a Share in SIH on a non-control basis immediately post completion of the Proposed Transaction,

and, considered whether the Proposed Transaction is “reasonable” to the Non-Associated Shareholders by undertaking an analysis of the other factors relating to the Proposed Transaction which are likely to be relevant to the Non-Associated Shareholders in their decision of whether or not to approve the Proposed Transaction.

2.5 Further information of the approach we have employed in assessing whether the Proposed Transaction is “fair” and “reasonable” is set out at Section 4 of this Report.

Fairness

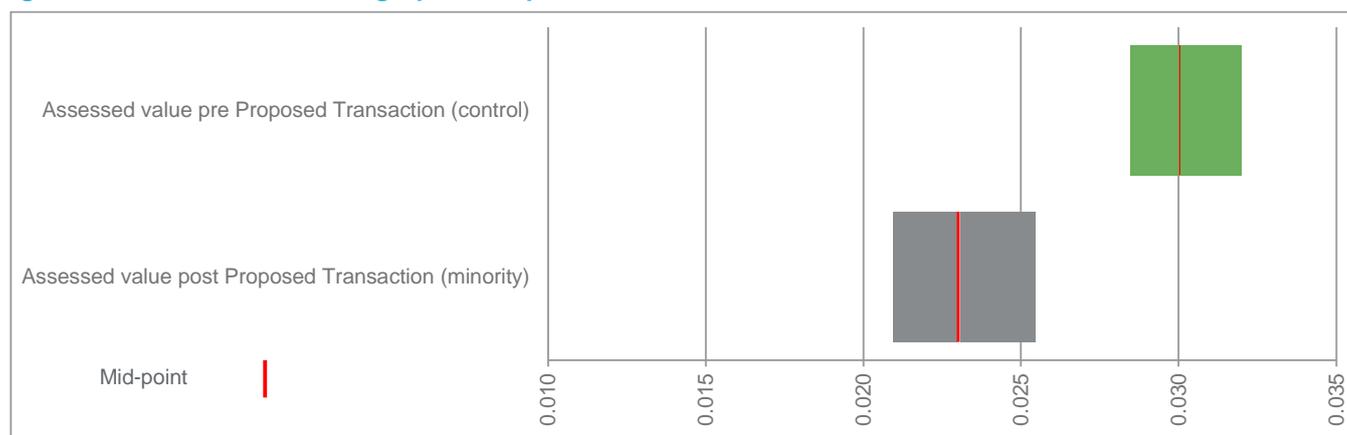
2.6 Our assessed values of a SIH Share prior to and immediately after the Proposed Transaction are summarised in the table and figure below.

Table 1 Assessed values of a SIH Share pre and post the Proposed Transaction

Assessment of fairness	Ref	Value per Share		
		Low A\$	High A\$	Preferred A\$
Fair Market Value of a SIH Share pre the Proposed Transaction - Control basis	Section 9	0.0285	0.0319	0.0300
Fair Market Value of a SIH Share post the Proposed Transaction - Non control basis	Section 10	0.0210	0.0254	0.0230

Source: RSM analysis

Figure 1 SIH Share valuation graphical representation



Source: RSM analysis

- 2.7 The chart above indicates that the range of values post the Proposed Transaction on a minority basis are less than the values prior to the Proposed Transaction on a control basis.
- 2.8 In accordance with the guidance set out in ASIC RG 111, and in the absence of any other relevant information, for the purposes of Section 611, Item 7 of the Act, we consider the Proposed Transaction to be **not fair** to the Non-Associated Shareholders of SIH.

Reasonableness

- 2.9 RG 111 establishes that an offer is reasonable if it is fair. It might also be reasonable if, despite not being fair, there are sufficient reasons for security holders to accept the offer in the absence of any higher bid before the offer closes. As such, we have also considered the following factors in relation to the reasonableness aspects of the Proposed Transaction:
- The future prospects of the Company if the Proposed Transaction does not proceed; and
 - Any other commercial advantages and disadvantages to the Non-Associated Shareholders as a consequence of the Proposed Transaction proceeding.
- 2.10 If the Proposed Transaction does not proceed then the Company will be required to seek additional funding to further progress its development of the Sihayo Gold Project and ongoing exploration activities. Obtaining such funding from further capital raisings may dilute existing shareholders and there is no guarantee that sufficient funding will be obtained, or on acceptable terms.
- 2.11 If approved, the Proposed Transaction will result in Merdeka and Provident's collective voting power in SIH increasing from 27.7% to approximately 31.6%, and to a maximum of 32.99% if Resolutions 6 to 9 are approved. RG111 states that it is important for an expert to focus on the substance of control, rather than the legal mechanism used to effect it. In this instance, control over SIH does not change significantly, as Provident already had the ability to block special resolutions of the Company prior to the Proposed Transaction.
- 2.12 However, RG 111 guides Independent Experts to assess the fairness of a control transaction under Item 7 of s611 as if it was a takeover bid. Accordingly, our assessment of fairness of the Proposed Transaction has compared the value of a SIH Share prior to the Proposed Transaction on a controlling basis, with the value of a SIH Share after the Proposed Transaction on a minority basis by applying a 20% to 26% minority discount.
- 2.13 We note that the Company has recently given shareholders the opportunity to participate in an Entitlement offer at \$0.025 per Share, of which approximately 48% was taken up by existing Shareholders. The issue of

195,121,951 Shares to Merdeka is also proposed to be at \$0.025 per Share, which is consistent with the Entitlement Offer made to existing Shareholders.

2.14 The key advantages of the Proposed Transaction are:

Advantages	Details
No significant impact arising from the collective level of control held by Merdeka and Provident	Prior to the Proposed Transaction, Provident holds 27.7% of the issued Shares in SIH which gives Provident the ability to block special resolutions in the Company. If the Proposed Transaction is approved by the Shareholders, Merdeka and Provident will collectively hold voting power over 31.6% of the issued shares in SIH, and a maximum of 32.99% if Resolutions 6 to 9 are approved, therefore their level of control does not change significantly.
Secure funding for further exploration and evaluation of the Sihayo Gold Project	If the Proposed Transaction is approved, SIH will have secured the required funding to further progress exploration and evaluation activities at the Sihayo Gold Project.

2.15 The key disadvantages of the Proposed Transaction are:

Disadvantages	Details
The Proposed Transaction is not fair	We have assessed that the Proposed Transaction is not fair to the Non-Associated Shareholders, on the basis that the assessed value of a SIH Share post the Proposed Transaction on a minority interest basis is less than the assessed value of a SIH Share prior to the Proposed Transaction on a control basis, in accordance with the guidance in RG 111 for control transactions.
Dilution of Non-Associated Shareholders	If the Proposed Transaction is approved, then the Non-Associated Shareholders interest in SIH will be reduced from 72.1% to 68.2%.

2.16 We are not aware of any alternative proposals which may provide a greater benefit to the Non-Associated Shareholders of SIH at this time.

2.17 Shareholders should read our full analysis of the reasonableness of the Proposed Transaction in Section 12.

2.18 In our opinion, the position of the Non-Associated Shareholders of SIH if the Proposed Transaction is approved is more advantageous than if the Proposed Transaction is not approved. Therefore, in the absence of any other relevant information and/or a superior offer, we consider that the Proposed Transaction is **reasonable** for the Non-Associated Shareholders of SIH.

3. Summary of the Proposed Transaction

Overview

Capital Raising

3.1 On 20 August 2020, SIH announced that it was planning to undertake a significant capital raising to raise up to \$38.8 million (before costs). The Company advised that the capital raising would be completed in two parts, specifically:

- \$19.08 million via a non-renounceable entitlement offer at \$0.025 per share on the basis of one (1) new share for every three (3) shares held by eligible shareholders (“Entitlement Offer”); and
- A \$19.74 million placement of shares in two tranches to institutional and sophisticated investors (“Placement”).

Together (the “Capital Raising”).

3.2 In addition to the Capital Raising, the Company is seeking shareholder approval to convert a US\$1.5 million convertible instrument with Eastern Field Developments Limited (“EFDL”) (a 99.9% subsidiary of Merdeka) into SIH Shares at a deemed issue price of \$0.025 per Share.

Entitlement Offer

3.3 The Entitlement Offer closed on 28 September 2020 with a total of \$13.04 million raised, resulting in a \$6.0 million shortfall. SIH received subscriptions for 363,357,359 Shares to raise approximately \$9.1 million and an additional \$3.96 million was raised via commitments from investors.

Share Placement

3.4 In addition to the Entitlement Offer, the Company announced that it had received firm commitments from sophisticated and professional investors to raise approximately \$19.74 million (before costs) through the issue of 789,588,016 SIH Shares at an issue price of \$0.025 per Share.

3.5 The Placement was to be carried out in two tranches, comprising of:

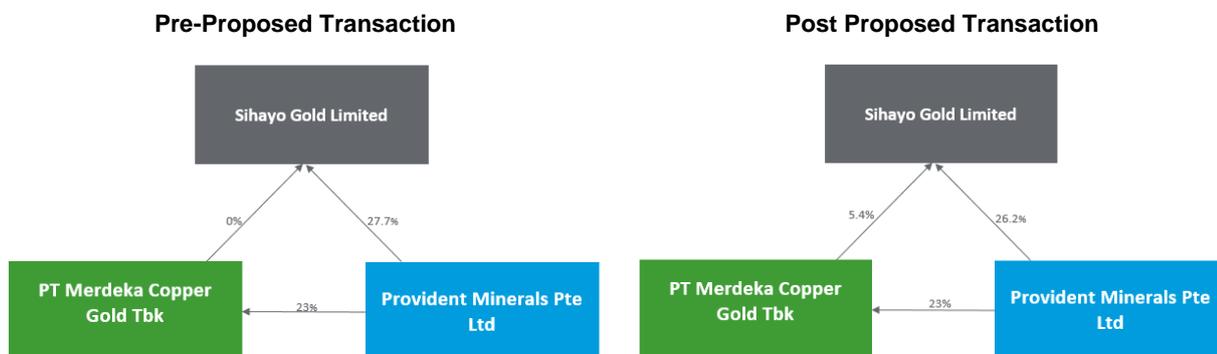
- a) The issue of 572,466,065 SIH Shares (“Tranche 1 Placement Shares”) to raise approximately \$14.31 million (before costs) (“Tranche 1 Placement”); and
- b) The issue of 217,121,951 SIH Shares (“Tranche 2 Placement Shares”) to raise approximately \$5.48 million (before costs) (“Tranche 2 Placement”), subject to receiving shareholder and FIRB approval. The Company has received binding commitments from the following parties to participate in the Tranche 2 Placement:
 - EFDL has committed to subscribe for \$4.88 million, being 195,121,951 Tranche 2 Placement Shares (being the Proposed Transaction which is the subject of this Report);
 - Mr Gavin Caudle, a director of the Company has committed to subscribe for \$0.5 million, being 20,000,000 Tranche 2 Placement Shares; and
 - Mr Colin Moorhead, a director of the Company has committed to subscribe for \$50,000, being 2,000,000 Tranche 2 Placement Shares.

3.6 The Tranche 1 Placement was successfully completed on 28 August 2020, raising \$14.31 million for the Company.

Merdeka Debt Conversion

- 3.7 On 30 July 2020, SIH announced that it had entered into a US\$1.5 million convertible instrument with EFDL (“Convertible Instrument”), which converts into SIH Shares (“Merdeka Debt Conversion”) subject to receiving shareholder approval.
- 3.8 The Company is seeking shareholder approval for the conversion of the Convertible Instrument into SIH Shares at a deemed issue price of \$0.025, being the issue price of the Entitlement Offer and the Placement, resulting in the issue of approximately 83,623,693 SIH Shares to EFDL (“Debt Conversion Shares”) based on an exchange rate of AUD1:USD0.7175. The issue of the Debt Conversion Shares is also subject to FIRB approval.
- 3.9 For the purposes of this Report, as EFDL is a 99.9% subsidiary of Merdeka we have treated any shares to be issued to EFDL as indirectly owned by Merdeka. Following completion of the Proposed Transaction Merdeka will hold a shareholding interest of 5.45% in SIH, and if the Merdeka Debt Conversion and other Tranche 2 Placement Shares are also approved by Shareholders then Merdeka would hold 7.57%.
- 3.10 We note that Merdeka is an associate of Provident Minerals Pte Ltd (“Provident”), a significant shareholder in SIH and also a substantial shareholder in Merdeka. Mr Gavin Caudle is a common director of Merdeka, Provident and SIH.
- 3.11 If the Proposed Transaction is approved by shareholders, it will result in Merdeka and Provident increasing their collective voting power in SIH from 27.7% to 31.6%, and to a maximum of 32.99% if Resolutions 6 to 9 are approved. The relationship between Provident, Merdeka, SIH is shown in the figure below:

Table 2 Merdeka and Provident shareholding – Pre and post Proposed Transaction



Key conditions of the Proposed Transaction

- 3.12 Completion of the Proposed Transaction is subject to and conditional upon SIH obtaining all necessary shareholder, FIRB and regulatory approvals required by the Corporations Act, ASX Listing Rules or other applicable laws in relation to the Proposed Transaction, including SIH shareholder approval under section 611, item 7 of the Corporations Act and ASX Listing Rule 10.11.

Rationale for the Proposed Transaction

3.13 The Directors of SIH consider that the Proposed Transaction, along with the Entitlement Offer and Tranche 1 Placement, will result in SIH being fully funded to complete its upcoming exploration program at Hutabargot Julu as well as early capital works at the Sihayo Gold Project, and fund short-term working capital requirements of the Company.

Impact of Proposed Transaction on SIH's Capital Structure

3.14 The table below sets out a summary of the capital structure of SIH prior to and post the Proposed Transaction.

Table 3 Share structure of SIH pre and post the Proposed Transaction

	Prior to Proposed Transaction		Post Proposed Transaction		After Resolutions 6, 8, 9 & 10 (if approved)	
Shares on issue						
Non-Associated Shareholders	2,440,381,391	72.1%	2,440,381,391	68.2%	2,440,381,391	66.2%
Provident Minerals Pte Ltd	936,920,394	27.7%	936,920,394	26.2%	936,920,394	25.4%
PT Merdeka Copper Gold Tbk ⁽¹⁾ (2)	-	0.0%	195,121,951	5.4%	278,745,644	7.6%
Mr Gavin Caudle ⁽¹⁾	6,613,984	0.2%	6,613,984	0.2%	26,613,984	0.7%
Mr Colin Moorhead ⁽¹⁾	-	0.0%	-	0.0%	2,000,000	0.1%
Total undiluted shares on issue	3,383,915,769	100%	3,579,037,720	100.0%	3,684,661,413	100.0%
Options on issue:						
Mr Colin Moorhead	-	0.0%	-	0.0%	94,500,000	100.0%
Total Options on issue	-	0.0%	-	0.0%	94,500,000	100.0%
Fully Diluted Position:						
Non-Associated Shareholders	2,440,381,391	72.1%	2,440,381,391	68.2%	2,440,381,391	64.6%
Provident Minerals Pte Ltd	936,920,394	27.7%	936,920,394	26.2%	936,920,394	24.8%
PT Merdeka Copper Gold Tbk	-	0.0%	195,121,951	5.4%	278,745,644	7.4%
Mr Gavin Caudle	6,613,984	0.2%	6,613,984	0.2%	26,613,984	0.7%
Mr Colin Moorhead	-	0.0%	-	0.0%	96,500,000	2.6%
Total diluted shares on issue	3,383,915,769	100.0%	3,579,037,720	100.0%	3,779,161,413	100.0%

Source: Company estimates

(1) Reflects the number of shares to be issued under the Tranche 2 Placement including the Proposed Transaction, where 195,121,951 Shares will be issued to Merdeka as shown in the Post Proposed Transaction column above, 20,000,000 Shares to be issued to Mr Gavin Caudle and 2,000,000 Shares to be issued to Mr Colin Moorhead.

(2) Relates to 83,263,693 Debt Conversion Shares to be issued to EFDL.

3.15 The 3,383,915,769 Shares on issue prior to the Proposed Transaction includes shares issued under the Entitlement Offer and Tranche 1 Placement of the Capital Raising, as described in the Overview of the Transaction above.

3.16 Successful completion of the Proposed Transaction will result in Merdeka's interest in SIH increasing from nil to 5.45%. Provident's direct interest in SIH will decrease from 27.7% to 26.2% post the Proposed Transaction, however Merdeka and Provident's collective voting power in SIH will increase from 27.7% to 31.6%. As a result, shareholder approval is required under section 611, item 7 of the Corporations Act.

3.17 The impact of Resolutions 6, 8, 9 and 10 if approved is also shown in the table above, although they do not form part of our assessment for the purposes of this Report. The maximum voting power which Merdeka and Provident could hold if all Resolutions are approved is 32.99% on an undiluted basis and 32.2% fully diluted.

4. Scope of the Report

Corporations Act

- 4.1 Section 606 of the Act prohibits a person from acquiring a relevant interest in the issued voting shares of a public company if the acquisition results in that person's voting interest in the company increasing from a starting point that is above 20% to an interest that is below 90%, unless specific exemptions apply. Completion of the Proposed Transaction will result in Merdeka and Provident, an associate and major shareholder of Merdeka, increasing their collective voting power in SIH from 27.7% to approximately 31.6%.
- 4.2 Under Item 7 of Section 611 of the Act, the prohibition contained in Section 606 does not apply if the acquisition has been approved by the Non-Associated Shareholders of the company.
- 4.3 Accordingly, the Company is seeking approval from the Non-Associated Shareholders for Resolution 7 under Item 7 of Section 611 of the Act.
- 4.4 Section 611(7) of the Act states that shareholders must be given all information that is material to the decision on how to vote at the meeting. ASIC Regulatory Guide 111 ("RG 111") advises the requirement to commission an Independent Expert's Report in such circumstances and provides guidance on the content.

Basis of evaluation

- 4.5 In determining whether providing the Proposed Transaction is "fair" and "reasonable" we have given regard to the views expressed by the ASIC in RG 111.
- 4.6 RG 111 provides ASIC's views on how an expert can help security holders make informed decisions about transactions. Specifically, it gives guidance to experts on how to evaluate whether or not a proposed transaction is fair and reasonable.
- 4.7 RG 111 states that the expert's report should focus on:
- The issues facing the security holders for whom the report is being prepared: and
 - The substance of the transaction rather than the legal mechanism used to achieve it.
- 4.8 Where an issue of shares by a company otherwise prohibited under section 606 is approved under item 7 of section 611 and the effect on the company's shareholding is comparable to a takeover bid, RG 111 states that the transaction should be analysed as if it was a takeover bid.
- 4.9 RG 111 applies the fair and reasonable test as two distinct criteria in the circumstance of a takeover offer, stating:
- A takeover offer is considered "fair" if the value of the offer price or consideration is equal to or greater than the value of the securities that are the subject of the offer; and
 - A takeover is considered "reasonable" if it is fair, or where the offer is "not fair" it may still be reasonable if the expert believes that there are sufficient reasons for security holders to accept the offer.
- 4.10 Consistent with the guidelines in RG 111, in determining whether the Proposed Transaction is fair and reasonable to the Non-Associated Shareholders, the analysis undertaken is as follows:
- A comparison of the Fair Market Value of an ordinary Share in SIH prior to the Proposed Transaction (on a control basis) and immediately following the Proposed Transaction (on a non-control basis) – fairness; and

- A review of other significant factors which Non-Associated Shareholders might consider prior to approving the Proposed Transaction – reasonableness.

4.11 The other significant factors to be considered include:

- Other prospects of the Company if the Proposed Transaction does not proceed; and
- any other commercial advantages and disadvantages to the Non-Associated Shareholders as a consequence of the Proposed Transaction proceeding.

4.12 Our assessment of the Proposed Transaction is based on economic, market and other conditions prevailing at the date of this Report.

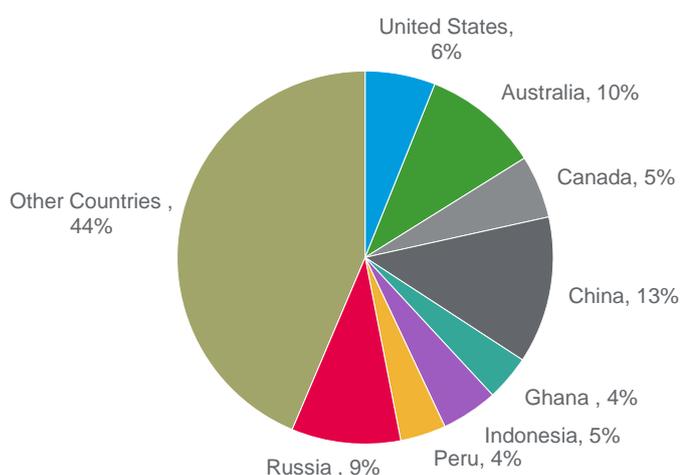
5. Industry Overview

- 5.1 Gold mining is a capital intensive and high cost process, becoming increasingly difficult as the quality of the ore reserves diminish. Furthermore, there are substantial indirect costs related to exploration, royalties, overheads, marketing and native title law that are usually required to be paid.
- 5.2 The precious metal is noncorrosive and highly malleable. These properties have allowed for the recycling of the metal, often used to produce alternative products. Consequently, both mining ore and recycled gold support the demand for gold.
- 5.3 Over the long term, gold has been shown to be an alternative investment during times of economic uncertainty, as gold prices largely maintain or increase in value. Furthermore, it has also been used as a hedge against inflation as gold usually increases in value when currency declines.

U.S. Geological Survey - Mineral Commodity Summaries 2020

- 5.4 The U.S. Geological Survey (“USGS”) publishes an annual summary on mineral commodities, with the latest report published in February 2020.
- 5.5 The USGS estimated gold production in the US to be approximately 200 metric tons in 2019, a reduction of 11% from 2018. Globally, 2019 gold mine production remained unchanged from 2018, due to an increase of production in Australia, China and Indonesia, which offset the decrease in production in South Africa, the United States, Zimbabwe and Peru.
- 5.6 The summary also concluded that the estimated gold price was 10% higher in 2019 than in 2018.
- 5.7 The figure below summarises gold production in 2019, by country.

Figure 2 Gold production by country - 2019

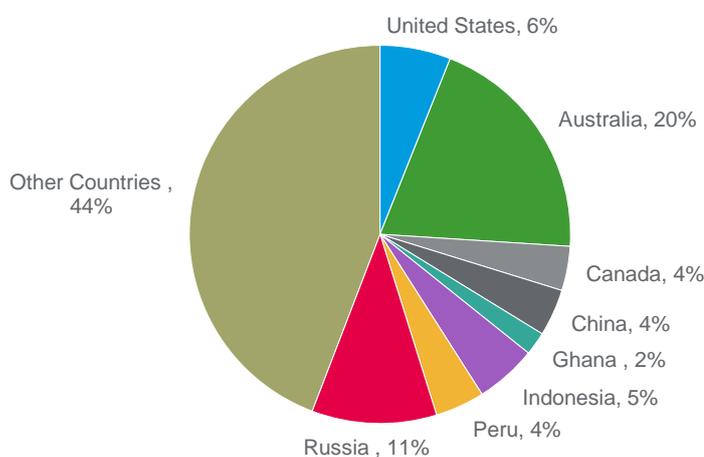


Source: United States Geological Survey

- 5.8 According to the USGS, the total estimated gold ore mined for 2019 was approx. 3,300 metric tons. China was the leading gold producer for 2019 accounting for 13% global production.
- 5.9 Indonesia accounted for 5% of global gold production in 2019, an increase from 4% in 2018.

5.10 Australia and Russia have the largest known gold reserves globally, accounting for around 31% collectively, with the remaining gold reserves by country summarised in the figure below.

Figure 3 Gold reserves by country 2019



Source: United States Geological Survey

Gold Prices

- 5.11 The end of 2015 saw gold prices being at an almost six year low, as the US dollar surged, placing downward pressure on the price of gold.
- 5.12 During 2016, gold price strengthened. This was likely due to the heightened uncertainty surrounding the outcome for the US election as well as the United Kingdom's exit from the European Union. The gold price had reached US\$1,628 in the later part of 2016 before stabilising at around \$1,200 for most of 2017.
- 5.13 The gold price reached US\$1,419 in early 2018, however shortly after there was a sharp decline that can be attributed to the US imposing additional tariffs on China. The trade war has had a negative effect on the price of gold as the US dollar strengthened during this time.
- 5.14 Gold price increased steadily from the end of 2018 averaging a 2019 gold price of approximately US\$1,400.
- 5.15 Since the end of the first quarter of 2020, gold prices increased sharply to record highs potentially due to the US elections drawing closer, increasing global uncertainty and investor appetite for gold.
- 5.16 The historical gold price since September 2015, together with forecast pricing through to January 2023 is depicted in the graph below:

Figure 4 Historical and forecast gold prices



Source: S&P Capital IQ RSM Analysis

6. Profile of Sihayo Gold Limited

Background

- 6.1 SIH is a Brisbane based company, that engages in the exploration and development of gold resources primarily located in Indonesia. The Company's flagship project is its 75% owned Sihayo Pungkut Gold Project located in Mangailing Natal, North Sumatra, Indonesia.
- 6.2 As at 30 June 2020, SIH held the following tenements:

Table 4 Tenement Schedule as at June 2020

Project	Location	Status	Grant	Expiry	Area	Equity
CoW, Sihayo Pungkut Gold Project, 96PK0042 Holder: PT Sorikmas Mining	Indonesia	Live	31-May-96	N/A	66,200ha	75%
Block D-7 Holder: Oropa Indian Resources	Option to increase interest to 18%					
	India	Live	22-Jan-00	N/A	4600km2	9%
Mt Keith Project M53/490	2% net smelter royalty					
Entitlement Issue	WA	Live	11-Jun-04	10-Jun-25	588.55ha	0%
Holder: Mr Michael John Photios	WA	Live	11-Jun-04	10-Jun-25	619.55ha	0%
Mulgabbie Project M28/364	2% net smelter royalty					
Holder: Pendragon (WA) Pty Ltd	WA	Live	25-Mar-09	24-Mar-30	54.62ha	0%

Sihayo Pungkut Contract of Work

- 6.3 The Sihayo Pungkut Joint Venture 7th generation Contract of Work ("CoW") was issued to PT Sorikmas Mining ("Sorikmas") on 19 February 1988 and initially covered an area of 201,600 hectares. Two partial relinquishments occurred in 1999 and 2001 which resulted in a reduction in the CoW to the current area of 66,200 hectares.

Sihayo Gold Project Joint Venture

- 6.4 SIH currently owns 75% of Sorikmas through its wholly owned subsidiary Aberfoyle Pungkut Investments Pte Ltd ("API"), with the remaining 25% owned by PT Aneka Tambang Tbk ("Antam"). API is responsible for 100% of the exploration and development funding of Sorikmas until the commencement of production.
- 6.5 The funding for the Sihayo Gold Project Joint Venture has been provided by way of loans to Sorikmas. Under the terms of the joint venture agreement Antam is required to repay its share of loans to API, or other lenders to Sorikmas, from 80% of its attributable share of available cash flow from production, until its 25% share of the loans are repaid in full. In effect, this would result in API receiving 95% of available cashflows from the Sihayo Gold Project until such loans are repaid, with Antam receiving only 5% of cashflows until that time.

6.6 The joint venture corporate structure showing SIH's ownership in the Sihayo Gold Project is shown below:

Figure 5 Joint Venture Corporate Structure



Other Projects

- 6.7 SIH also holds interests in a diamond project in India, and a net smelter royalty in three tenements in Western Australia.
- 6.8 The Indian project is currently dormant awaiting the outcome of negotiations with government bodies and no mining has been undertaken or planned on the Western Australian projects.

Directors and management

6.9 The directors and key management of SIH are summarised in the table below.

Table 5 SIH Directors

Name	Title	Experience
Mr Colin Moorhead	Executive Chairman	Mr Moorhead has over three decades of experience in project development and financing mining projects internationally. He also has experience with global mining operations as well as experience in mergers & acquisitions.
Misha Collins	Non-Executive Director	Mr Collins has financial and capital markets experience and a technical background in metallurgy. Mr Collins holds a Bachelor of Engineering in Metallurgy, graduating First Class Honours from the RMIT, a Graduate Diploma in Applied Finance and Investment from the Financial Services Institute of Australia and has been awarded the Chartered Financial Analyst designation (CFA)
Gavin Caudle	Non-Executive Director	Mr Caudle is a Director of Provident Minerals Limited and has over 30 years' experience in the finance and investment sectors in Australia, Singapore and Indonesia
Daniel Nolan	Executive Director, and Company Secretary	Daniel has 30 years of financial management experience and holds a Bachelor of Business (Accounting) from Monash University

Source: Company

Financial information of SIH

6.10 The information in the following section has been extracted from the audited financial statements of the Company.

6.11 The auditor of SIH, Stantons International Audit and Consulting Pty Ltd, has issued an unqualified audit opinion on the financial statements for the year ended 30 June 2020. However, Key Audit Matters set out in the financial statements included the following:

Key Audit Matters – Carrying Value of Mineral Exploration and Evaluation Expenditure

“As at 30 June 2020, Mineral Exploration and Evaluation Expenditure totals \$24,510,923 (refer to Note 6 of the financial report.

The carrying value of Mineral Exploration and Evaluation Expenditure is a key audit matter due to:

- The significance of the total balance (87% of total assets);
- The necessity to assess management’s application of the requirements of the accounting standard Exploration for and Evaluation of Mineral Resources (“AASB 6”) in light of any indicators of impairment that may be present; and
- The assessment of significant judgements made by management in relation to the capitalised exploration and evaluation expenditure.”

Financial performance

6.12 The following table sets out a summary of the consolidated financial performance of SIH for the years' ended 30 June 2020 and 2019.

Table 6 SIH historical financial performance

\$'000	Ref.	FY20 Audited	FY19 Audited
Revenue	6.14	1	1
Employee benefits expense		(708)	(873)
External consultancy expenses		(397)	(214)
Indirect taxes and penalties	6.15	(617)	(14)
Rental expense		(2)	(5)
Travel and entertainment expenses		(92)	(47)
Permit and licenses		(545)	(418)
Corporate secretarial expenses		(63)	(51)
Insurance expense		(26)	(20)
Provision for impairment of capitalised exploration costs		-	17
Foreign exchange gain / loss		356	204
Other expenses		(67)	(109)
EBITDA		(2,160)	(1,532)
Depreciation and amortisation		(13)	(11)
EBIT		(2,173)	(1,543)
Finance costs		(641)	(397)
Income tax expense		-	-
Net (loss) / profit	6.13	(2,814)	(1,940)

Source: Company Financials

6.13 SIH recorded a net loss of \$2.81 million in the year ended 30 June 2020 and \$1.90 million in the year ended 30 June 2019.

6.14 SIH revenue is comprised of interest income from bank deposits. The Company is yet to generate any operating revenue from its exploration activities.

6.15 Indirect taxes and penalties of (\$0.62) million in 30 June 2020 relate to withholding tax and VAT on contractor services performed in Indonesia.

Financial position

6.16 The table below sets out a summary of the consolidated financial position of SIH as at 30 June 2020 and 30 June 2019.

Table 7 SIH historical financial position

\$000's	Ref.	30-Jun-20 Audited	30-Jun-19 Audited
Assets			
Cash and cash equivalents	6.17	174	6,257
Trade and other receivables		251	361
Total current assets		425	6,618
Trade and other receivables		3,277	2,654
Capitalised exploration and evaluation costs	6.18	24,511	15,829
Claims for tax refund		-	555
Property, plant and equipment		97	96
Right-of-use asset		14	-
Total non-current assets		27,898	19,133
Total Assets		28,323	25,750
Liabilities			
Trade and other payables		5,994	5,437
Borrowings	6.19	7,193	5,244
Lease liability - current		3	-
Other liabilities		57	57
Total current liabilities		13,246	10,738
Employee entitlements and other provisions		643	615
Lease liability – non-current		12	-
Total non-current liabilities		654	615
Total Liabilities		13,901	11,354
Net Assets	6.17	14,423	14,397
Equity			
Contributed equity		115,604	112,848
Reserves		17,136	16,675
Accumulated losses		(95,535)	(93,086)
Non-controlling interest	6.21	(22,782)	(22,041)
Total Equity		14,423	14,397

Source: Company

6.17 At 30 June 2020, SIH had net assets of \$14.42 million, comprising cash of \$0.17 million, capitalised exploration and evaluation costs of \$24.51 million, and a net working capital deficit (current assets less cash less current liabilities) of \$13.0 million.

6.18 Capitalised exploration and evaluation costs of \$24.51 million at 30 June 2020 comprise of costs capitalised in relation to the Company's mineral assets. The auditors of SIH, Stanton's International Audit and Consulting

Pty Ltd cited the Company's carrying value of mineral exploration and evaluation expenditure as a key audit matter as noted above. However, no adjustment was made to the carrying value as at 30 June 2020.

- 6.19 Borrowings of \$7.19 million at 30 June 2020 relate to working capital loans from various lenders, as summarised in the table below:

Table 8 SIH Borrowings

\$000's	30-Jun-20 Audited	30-Jun-19 Audited
Provident Minerals Pte Ltd.	4,996	3,076
Asian Metal Mining Developments Ltd	860	855
PT Saragota Investama Sedaya, Tbk.	813	798
Goldstar Mining Asia Resources (L) Berhad	523	514
Total - Working capital loans	7,193	5,243

Source: Company

- 6.20 The working capital loans are classified as unsecured and incur an interest rate of 10% per annum. The lenders are not entitled to call on the loans under any circumstances before the final maturity date or any other date mutually agreed between the parties, except in the event of a default. The unsecured creditors are all shareholders of SIH and have elected to take up their entitlements under the Entitlement Offer by means of converting all of the existing debt owed to them into ordinary Shares at \$0.025 per share. As at the date of this Report, all loans in the above table have therefore been repaid.
- 6.21 The Non-Controlling Interest ("NCI") of \$22.78 million as at 30 June 2020 relates to the 25% interest in Sorikmas held by Antam.

Capital structure

6.22 SIH has 3,383,915,769 ordinary shares on issue. The top 20 shareholders of SIH as at 21 October 2020 are set out below.

Table 9 SIH Top 20 shareholders

Rank	Name	Total Units	% of Issued Share Capital
1	PROVIDENT MINERALS PTE LTD	936,920,394	27.69%
2	HSBC CUSTODY NOMINEES (AUSTRALIA) LIMITED	491,157,050	14.51%
3	PT SARATOGA INVESTAMA SEDAYA	350,008,819	10.34%
4	GOLDSTAR MINING ASIA RESOURCES (L) BHD	202,357,583	5.98%
5	UBS NOMINEES PTY LTD	177,000,000	5.23%
6	J P MORGAN NOMINEES AUSTRALIA PTY LIMITED	155,800,806	4.60%
7	CITICORP NOMINEES PTY LIMITED	115,862,373	3.42%
8	BNP PARIBAS NOMS PTY LTD <DRP>	98,017,212	2.90%
9	LION SELECTION GROUP LIMITED	76,738,654	2.27%
10	CS THIRD NOMINEES PTY LIMITED <HSBC CUST NOM AU LTD 13 A/C>	43,263,929	1.28%
11	MR KENNETH RUDY KAMON	42,000,000	1.24%
12	GOLDSTAR ASIA MINING RESOURCES (L) BHD	41,030,239	1.21%
13	MR CHEE SIEW YAW	31,515,151	0.93%
14	FATS PTY LTD <MACIB SUPER FUND A/C>	29,712,787	0.88%
15	PT SARATOGA INVESTAMA SEDAYA	28,420,378	0.84%
16	BNP PARIBAS NOMS PTY LTD <UOB KAY HIAN PRIV LTD DRP>	22,661,000	0.67%
17	MR ANDREW PHILLIP STARKEY <ANDREW PHILLIP STARKEY A/C>	21,500,000	0.64%
18	RAJESH BALRAJ AHUJA & TULIKA AHUJA JTWROS	20,015,750	0.59%
19	AREEN INVESTMENTS PTE LTD	20,000,000	0.59%
19	MR JON NICOLAI BJARNASON & MRS RINA EGHOJE BJARNASON <JARCK SUPER FUND A/C>	20,000,000	0.59%
19	LYNDHURST CAPITAL LTD (BVI)	20,000,000	0.59%
19	MR BRADLEY JOHN PETTERSSON	20,000,000	0.59%
20	MS CAROLINE LEONG	18,000,000	0.53%
Top 20 shareholders		2,981,982,125	88.12%
Others		401,933,644	11.88%
Total issued capital		3,383,915,769	100.00%

Source: Company

Share price performance

6.23 The figure below sets out a summary of SIH closing share prices and traded volumes for the 12 months to 20 October 2020.

Figure 6 SIH daily closing share price and traded volumes



Source: S&P Capital IQ/ ASX

6.24 In the 12 months period prior to the announcement of the Proposed Transaction on 20 August 2020, SIH shares traded between \$0.004 and \$0.035 per share. The most significant day during that period was on 6 August 2020, where approximately 0.30% of SIH's total volume of shares were traded.

6.25 Furthermore, over the 180 trading days prior to the announcement, 4.01% of SIH's Shares were traded, indicating that it is not a liquid stock.

6.26 The most significant announcements that have been summarised in the chart above are described as follows:

No.	Date	Comment
1	29-Oct-19	<p>Completion of buybacks and placement</p> <p>SIH announced that it had successfully completed the buyback and cancellation of shares, after receiving approval from shareholders at its General Meeting</p>
2	30-Oct-19	<p>Sihayo infill drilling update</p> <p>SIH provided its shareholders with an update in relation to the progress of its infill drilling program at the Sihayo Gold Project. The Company announced that 47 infill drill holes were complete and that significant results included:</p> <ul style="list-style-type: none"> • SHDD549 returned 18m @ 4.02 g/t from 111m; • SHDD553 returned 13m @ 3.30 g/t from 109m; • SHDD556 returned 11m @ 3.95 g/t from 84m; and • SHDD564 returned 23m @ 5.48 g/t from 88m.

3	21-Feb-20	<p>Update on funding</p> <p>SIH announced that it had reached an agreement with its largest shareholder, Provident Minerals Pte Ltd for the provision of an interim working capital facility of US\$1,000,000 to be used to complete advanced studies for the Sihayo Gold Project</p>
4	27-Feb-20	<p>Update on financing</p> <p>SIH provided additional information in relation to the terms of the US\$1,000,000 working capital facility and announced that it had utilised the first US\$200,000 of the facility, with the balance expected to be drawn in full by 31 May 2020</p>
5	23-Jun-20	<p>Results of feasibility study</p> <p>SIH announced the results of its Definitive Feasibility Study (“DFS”) and forward work plan for the Sihayo Gold Project. Amongst other things, the DFS confirmed:</p> <ul style="list-style-type: none"> • an updated Mineral Resource estimate of 24 million tonnes at 2.0 g/t Au containing 1.5 Moz insitu gold metal; • Updated Ore Reserves¹ estimate of 12 million tonnes at 2.1 g/t Au containing 840 koz insitu gold metal; and • A projected 8-year mine life producing approximately 635 koz recovered gold, gross sales and EBITDA estimated at over US\$1 billion and US\$630 million (at US\$1,700/oz gold) and an average AISC of US\$709/oz.
6	1-Jul-20	<p>Executive Chairman appointment and director resignation</p> <p>SIH announced the appointment of Mr Colin Moorhead as Executive Chairman and the resignation of Mr Stuart Gula from the Board effective immediately</p>
7	30-Jul-20	<p>Funding update</p> <p>SIH announced that Eastern Field Developments Limited, a wholly owned subsidiary of Indonesian listed mining company, Merdeka Copper Gold, had agreed to lend US\$1.5 million to the Company, to fund its operations and its exploration at Hutabargot Julu, a highly prospective target located approximately 10km south east of the proposed Sihayo Pungkut project.</p>
8	4-Aug-20	<p>Investor presentation</p> <p>SIH released its investor presentation, which provided an overview of its key investments, short term exploration strategy and information on its key strategic partners</p>
9	17-Aug-20	<p>Management changes</p> <p>SIH announced that Mr George Lloyd had resigned as CEO of the Company, effective 16 October 2020, and Executive Chairman, Mr Colin Moorhead would assume the role of CEO. In addition, the Board announced the appointment of Mr Rod Crowther as CFO effective from 7 September 2020</p>
10	18-Aug-20	<p>Trading halt</p> <p>The ASX announced that the securities of SIH were placed in trading halt at the request of the Company, pending the release of an announcement</p>
11	20-Aug-20	<p>Significant capital raising</p> <p>SIH announced that it was planning on undertaking a significant capital raising of up to \$38.8 million (before costs), with partial underwriting and other commitments received for approximately \$32.1 million. Approximately \$19.1 million would be raised by the way of a non-renounceable entitlement offer at \$0.025 per share on the basis of one (1) new share for every three (3) shares held by existing, eligible shareholders. The remaining \$19.7 million would be raised via a placement of shares in two tranches.</p>
12	20-Aug-20	<p>Entitlement Issue Prospectus</p> <p>The Company issued an Entitlement Issue Prospectus which, among other things, provided shareholders with information on the placement, details of the entitlement offer and the purpose and effect on the entitlement offer</p>

13	7-Sep-20	<p>Exploration Permit Received</p> <p>SIH announced that the exploration permit allowing the Company to commence its planned exploration program at Hutabargot Julu had been received</p>
14	8-Sep-20	<p>Entitlement Offer - Closing Date Extended</p> <p>SIH announced that due to delays experienced with Australia Post deliveries as a result of COVID19, the closing date for shareholders to take up the entitlement offer had been extended from 14 September 2020 until 21 September 2020</p>
15	15-Sep-20	<p>Entitlement Offer - Closing Date Extended</p> <p>SIH announced that the closing date for shareholders to take up their entitlement offer had been further extended from 21 September 2020 to 28 September 2020</p>
16	23-Sep-20	<p>Update on Upcoming Exploration Program</p> <p>SIH provided an update on its upcoming exploration program, which highlighted that the Company was well funded for systematic and aggressive exploration activities at Hutabargot Julu, step out drilling at the Sihayo project and further target generation work across the Contract of Work.</p>
17	1-Oct-20	<p>Entitlement Offer Results</p> <p>SIH released results of its entitlement offer, which highlighted the following:</p> <ul style="list-style-type: none"> • Entitlement Offer closed with a raising of \$9.1 million which, together with an additional \$4.2 million of investor shortfall commitments, resulted in a raising of \$13.3 million • Combined with the completed first tranche placement of \$14.3 million and the committed second tranche of \$5.4 million (subject to approvals), SIH expects to raise a total of approximately \$33 million • The Company anticipated having approximately \$20 million cash on hand and be debt-free on capital raising completion • The Company was fully funded for exploration activity and early works at the Sihayo Gold Project
18	5-Oct-20	<p>Commencement of Drilling</p> <p>SIH announced that it had commenced drilling at the first hole in the Hutabargot Julu exploration program. The drilling program will test a large gold-soil anomaly for potential bulk-tonnage disseminated gold mineralisation analogous to the large Martabe gold-silver deposit located in the same mineral district</p>

7. Profile of Provident and Merdeka

Provident

- 7.1 Provident is an associate and substantial shareholder of Merdeka, holding an approximate 23% relevant interest in the issued capital. Mr Gavin Caudle is a common director of Provident, Merdeka and SIH.
- 7.2 Provident Capital Partners (“Provident Capital”), a Singaporean investment firm, is the beneficial shareholder of Provident.
- 7.3 Provident Capital focuses its investments across a range of industries, including mining, telecommunications, real estate, infrastructure, plantation and biofuels.
- 7.4 Most of the businesses that Provident Capital has investments in are based in Indonesia.

Merdeka

- 7.5 Merdeka is a holding company with operating subsidiaries that engage in mining business activities that encompass the exploration and future production of gold, silver, copper and other related minerals as well as mining services. Merdeka is listed on the Indonesian Stock Exchange (IDX:MDKA).
- 7.6 Merdeka is currently involved with five core assets, as follows:
- Tujuh Bukit Copper;
 - Pani Joint Venture;
 - Wetar/Morowali Acid Iron Meral;
 - Tujuh Bukit Gold; and
 - Wetar Copper.

Directors and management

- 7.7 The directors of Merdeka are as follows:
- Mr Tri Boewondo – President Director;
 - Mr Simon Milroy – Vice President Director;
 - Mr Gavin Caudle – Director;
 - Mr David Fowler – Director;
 - Mr Michael Soeryadjaya – Director;
 - Mr Hardi Liong - Director; and
 - Mr Chrisanthus Supriyo – Director.

8. Valuation approach

Basis of evaluation

- 8.1 The valuation of SIH prior to and post the Proposed Transaction has been prepared on the basis of Fair Market Value being the value that should be agreed in a hypothetical transaction between a knowledgeable, willing but not anxious buyer and a knowledgeable, willing but not anxious seller, acting at arm's length.

Valuation methodologies

- 8.2 In assessing the Fair Market Value of an ordinary SIH Share prior to and immediately following the Proposed Transaction, we have considered a range of valuation methodologies. RG 111 proposes that it is generally appropriate for an expert to consider using the following methodologies:

- the discounted cash flow ("DCF") method and the estimated realisable value of any surplus assets;
- the application of earnings multiples to the estimated future maintainable earnings or cash flows added to the estimated realisable value of any surplus assets;
- the amount which would be available for distribution on an orderly realisation of assets;
- the quoted price for listed securities; and
- any recent genuine offers received.

- 8.3 We consider that the valuation methodologies proposed by RG 111 can be split into three valuation methodology categories, as follows.

Market based methods

- 8.4 Market based methods estimate the Fair Market Value by considering the market value of a company's securities or the market value of comparable companies. Market based methods include:

- the quoted price for listed securities; and
- industry specific methods.

- 8.5 The recent quoted price for listed securities method provides evidence of the Fair Market Value of a company's securities where they are publicly traded in an informed and liquid market.

- 8.6 Industry specific methods usually involve the use of industry rules of thumb to estimate the Fair Market Value of a company and its securities. Generally, rules of thumb provide less persuasive evidence of the Fair Market Value of a company than other market based valuation methods because they may not account for company specific risks and factors.

Income based methods

- 8.7 Income based methods estimate value by calculating the present value of a company's estimated future stream of earnings or cash flows. Income based methods include:

- discounted cash flow;
- capitalisation of future maintainable earnings.

- 8.8 The DCF technique has a strong theoretical basis, valuing a business on the net present value of its future cash flows. It requires an analysis of future cash flows, the capital structure and costs of capital and an assessment of the residual value or the terminal value of the company's cash flows at the end of the forecast

period. This method of valuation is appropriate when valuing companies where future cash flow projections can be made with a reasonable degree of confidence.

- 8.9 The capitalisation of future maintainable earnings is generally considered a short form DCF, where an estimation of the Future Maintainable Earnings (“FME”) of the business, rather than a stream of cash flows is capitalised based on an appropriate capitalisation multiple. Multiples are derived from the analysis of transactions involving comparable companies and the trading multiples of comparable companies.

Asset based methods

- 8.10 Asset based methodologies estimate the Fair Market Value of a company’s securities based on the realisable value of its identifiable net assets. Asset based methods include:
- orderly realisation of assets method;
 - liquidation of assets method; and
 - net assets on a going concern basis.
- 8.11 The value achievable in an orderly realisation of assets is estimated by determining the net realisable value of the assets of a company which would be distributed to security holders after payment of all liabilities, including realisation costs and taxation charges that arise, assuming the company is wound up in an orderly manner. This technique is particularly appropriate for businesses with relatively high asset values compared to earnings and cash flows.
- 8.12 The liquidation of assets method is similar to the orderly realisation of assets method except the liquidation method assumes that the assets are sold in a shorter time frame. The liquidation of assets method will result in a value that is lower than the orderly realisation of assets method and is appropriate for companies in financial distress or where a company is not valued on a going concern basis.
- 8.13 The net assets on a going concern method estimates the market values of the net assets of a company but, unlike the orderly realisation of assets method, it does not take into account realisation costs.
- 8.14 Asset based methods are appropriate when companies are not profitable, a significant proportion of the company’s assets are liquid, or for asset holding companies.

Selection of valuation methodologies

Valuation of a SIH Share pre the Proposed Transaction (control basis)

- 8.15 In assessing the value of a SIH Share prior to the Proposed Transaction we have selected the following valuation methodologies:
- sum of parts methodology which estimates the value of SIH by valuing the various assets and liabilities of SIH and aggregating these values (primary methodology); and
 - quoted price of listed securities (secondary methodology).

Primary methodology – Sum of parts

- 8.16 For SIH the sum of parts methodology comprises the following:
- Value of SIH’s 75% interest in the Sihayo Gold Project – using the discounted cash flow method based on the 11-year forecast cashflow model for the Sihayo Gold Project mine plan prepared by SIH (“the Sihayo Gold Model”), with the resource estimates, forecast production cash flows and technical assumptions reviewed by an independent technical specialist;

- Cash received from a notional capital raising and the relevant number of shares to be issued;
- Loan receivable from Antam arising from SIH funding 100% of the Sihayo Gold Project development costs in accordance with the Joint Venture Agreement terms;
- Present value of SIH's corporate costs using a discounted cash flow methodology; and
- Other assets and liabilities of SIH not associated with the Sihayo Gold Project – adopting a net assets on a going concern methodology.

8.17 Under RG111, ASIC recognises that there may be reasonable grounds for use of the DCF methodology before a project generates cashflows, as long as the expert has reasonable grounds for forward looking information, as at the date of the report.

8.18 As SIH has recently completed a DFS and announced its results, we consider that we have a reasonable basis under *Regulatory Guide 170 Prospective Financial Information* ('RG 170) and *Information Sheet 214 Mining and Resources – Forward – looking statements* ('IS 214') to apply the DCF methodology. We have instructed Mining Associates to act as an independent technical specialist to review the technical assumptions contained in the Sihayo Gold Model in order to calculate the Fair Market Value of SIH's 75% interest in the Sihayo Gold Project. The requirement to obtain funding for the development of the Sihayo Gold Project is reflected through a combination of notional debt and equity raising assumed to be undertaken by SIH.

Notional capital raising

8.19 In our approach we have assumed that SIH will need to raise the capital required for the development of the Sihayo Gold Project through a notional capital raising and have considered the likely price at which SIH would have to issue these shares. We have included this as RG 111.15 notes that the funding requirements for a company not in financial distress should be considered in the assessment of fairness.

Secondary methodology – Quoted prices of listed securities

8.20 SIH's securities are listed on the ASX. We have therefore also utilised the quoted market price methodology of SIH on the ASX as a secondary valuation methodology and to assess the market value as a cross check to our valuation of SIH derived under the sum of parts methodology.

Valuation of a SIH Share post the Proposed Transaction (non-control basis)

8.21 In assessing the value of SIH Share post the Proposed Transaction we have considered the following:

- The value of a 75% interest in the Sihayo Gold Project;
- Cash received from a notional capital raising and the relevant number of shares to be issued;
- Loan receivable from Antam arising from SIH funding 100% of the Sihayo Gold Project development costs in accordance with the Joint Venture Agreement terms;
- Present value of SIH's corporate costs using a discounted cash flow methodology;
- Other assets and liabilities of SIH not associated with the Sihayo Gold Project – adopting a net assets on a going concern methodology; and
- The effects of the Proposed Transaction, being the issue of 195,121,951 Shares to Merdeka at A\$0.025 per share.

9. Valuation of SIH Prior to the Proposed Transaction

9.1 As stated in Section 8 we have assessed the value of a SIH Share prior to the Proposed Transaction on a sum of parts basis and have also considered the quoted price of its listed securities.

Sum of parts valuation

9.2 In our sum of parts approach to valuing a SIH Share prior to the Proposed Transactions, we have considered the Fair Market Value of the following underlying assets and liabilities:

- Value of SIH's 75% interest in the Sihayo Gold Project;
- Cash received from a notional capital raising;
- Loan receivable from Antam arising from SIH initially funding 100% of the Sihayo Gold Project;
- Present value of SIH's corporate costs; and
- Value of other assets and liabilities of SIH.

9.3 We have assessed the value of a SIH Share on a control basis to be between A\$0.0285 and A\$0.0319 per Share, with a preferred value of A\$0.030 per Share prior to the Proposed Transactions, utilising the sum of parts valuation methodology, as summarised in the table below.

9.4 The sum of parts methodology is inclusive of a premium for control.

Table 10 Assessed Fair Market Value of a SIH Share

Valuation assessment A\$000's	Ref	Low	High	Preferred
Sihayo Gold Project (mine plan)		129,424	156,913	141,865
Sihayo Gold Project (100% interest)		129,424	156,913	141,865
Value of SIH's Interest in the Sihayo Gold Project (75%)	9.5	97,068	117,685	106,398
Value of SIH's interest in Exploration Assets of the Sihayo Gold Project (75%)	9.41	94	310	202
Add: Cash received from notional capital raising	9.43	69,041	69,041	69,041
Add: Loan receivable - Antam	9.55	17,260	17,260	17,147
Less: Present value of SIH's corporate costs	9.57	(23,428)	(23,880)	(23,654)
Add: Value of other assets and liabilities	9.60	17,656	17,656	17,656
Equity Value (control basis)		177,692	198,073	186,791
Number of Shares on issue (000's)	9.63	6,244,223	6,200,271	6,222,077
Sum of parts value per share \$		0.0285	0.0319	0.0300

Source: RSM Analysis

75% interest in the Sihayo Gold Project

- 9.5 We have assessed the value of a 75% interest in the Sihayo Gold Project at between A\$97.1 million and A\$117.7 million with a preferred value of \$106.4 million.
- 9.6 Management has prepared detailed cash flow projections for the extraction of resources from the Sihayo Gold Project based on current mine and operational plans. The cash flow for the Sihayo Gold Project comprises of USD denominated real after-tax cash flows for a 24-month construction period and nine years of production, when current proven and probable reserves are expected to be depleted.
- 9.7 The Sihayo Gold Project has a life of mine plan and DFS which provides support for technical and operational assumptions included in the Sihayo Gold Model.
- 9.8 Mining Associates has reviewed the technical assumptions included in the Sihayo Gold Model and has recommended changes to a number of these assumptions. We have incorporated these changes in our discounted cashflow valuation to arrive at an adjusted model ("Adjusted Model"). The assumptions reviewed by Mining Associates include resources and reserves, ore recovery and grade, processing assumptions including recoveries, operating costs, and capital expenditure including rehabilitation costs.
- 9.9 A copy of Mining Associates' Independent Technical Assessment is attached at Appendix F.

Future cash flows

- 9.10 We have performed an analysis of the cash flow projections and the Sihayo Gold Model prepared by management on the existing mine plan, including:
- analysing the Sihayo Gold Model, including limited procedures regarding the mathematical accuracy of the Sihayo Gold Model (but have performed neither a detailed review nor audit of the Sihayo Gold Model);
 - reviewing the basis of the underlying assumptions such as revenue, operating expenditure, capital expenditure and royalties;
 - conducting independent research on certain economic inputs such as exchange rates, inflation and the discount rate applicable to the future cashflows of the Sihayo Gold Project;
 - holding discussions with Management concerning the preparation of the projections, and their view regarding the assumptions on which they are based; and
 - updating the Sihayo Gold Model for changes arising from Mining Associates review of technical assumptions and our own work.
- 9.11 The key assumptions adopted in the preparation of the cash flow projections, and the adjustments we have made, are discussed below.
- 9.12 We note that any prospective financial information is dependent upon the outcome of many assumptions, some of which are outside the control of directors and management and may be affected by unforeseen events. Assumptions relating to the prospective financial information can be reasonable at the time of their preparation but can change materially over a relatively short period of time. Accordingly, actual results may vary materially from the forecasts included in the Adjusted Model.

Economic assumptions

Inflation

- 9.13 Management has provided us with the Sihayo Gold Model, which includes projected life of mine (“LOM”) cash flows in real terms for the Sihayo Gold Project mine plan. Therefore, we have applied a forecast inflation rate to the costs in the Adjusted Model to convert them to nominal cash flows.
- 9.14 The Sihayo Gold Project is situated in North Sumatra, Indonesia, as such we have applied an inflation rate based on the current trends and consensus forecasts for Indonesia. Accordingly, we have adopted an inflation rate of 2% per annum.

Foreign exchange

- 9.15 All figures including revenue, operational, tax and working capital costs and the underlying cashflows utilised in the Sihayo Gold Model are denominated in USD. As we are assessing the value of SIH, we have converted all cash flows to AUD in the Adjusted Model, using the forecast exchange rate assumptions shown below:

Table 11 USD:AUD Exchange Rates

Exchange rates	FY2021	FY2022	FY2023	FY2024	FY2025
USD:AUD	1.417	1.416	1.415	1.414	1.413

Source: Refinitiv Eikon and RSM Analysis

- 9.16 In deriving the exchange rates shown above, we have considered forecasts prepared by economic analysts as well as other publicly available industry estimates and commentary such as broker estimates and industry research.

Commodity Prices

- 9.17 The Sihayo Gold Project is expected to produce Gold (Au) over its expected life.
- 9.18 In assessing the commodity price assumptions, we have had regard to the following:
- consensus analysis price forecasts sourced from Consensus Economics; and
 - other publicly available industry estimates and commentary such as broker estimates and industry research.
- 9.19 SIH has adopted a long-term price for gold of US\$1,700/oz on a real basis in the Sihayo Gold Model. We have identified the following commodity price forecasts on a real basis from external sources.

Table 12 Commodity Forecasts

US\$/troy oz		Spot						Long Term
		13-Oct-20	2020	2021	2022	2023	2024	
	Nominal							
Au	S&P Capital IQ	1,929	1,742	1,853	1,815	1,762	1,613	1,573
Au	Consensus Economics - issued Sept-20		1,784	1,977	1,847	1,762	1,672	1,733
Au	Refinitiv Eikon		1,942	1,966	1,984	2,003	2,021	2,039
Au	SIH's Long Term Projection – Real							1,700

Source: Refinitiv Eikon, Consensus Economics and S&P Capital IQ

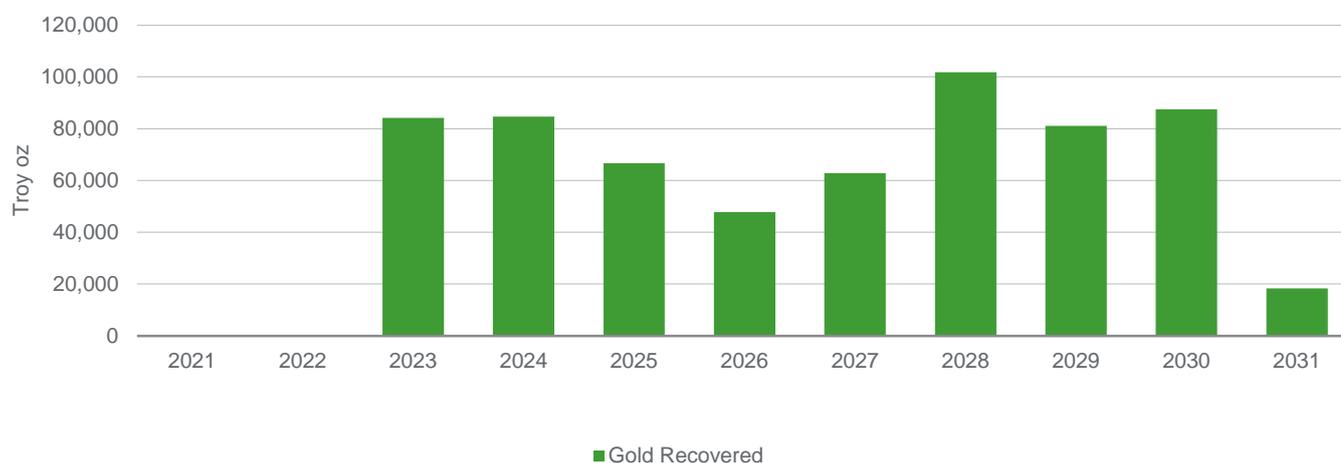
9.20 Based on our analysis, we have adopted Consensus Economics forecasts for Au, shown in the table above as we consider them to be broadly aligned to recent trends in gold price, and within the upper and lower boundaries of the S&P Capital IQ and Refinitiv Eikon forecasts. The long-term Consensus Economics forecast of US\$1,733/troy oz, although broadly consistent with the flat US\$1,700/troy oz (on a real basis) adopted by SIH, has been provided on a nominal basis.

Revenue

9.21 Revenue is a function of the quantity and price of saleable products, which are discussed in the following section. Total revenue over the life of the mine plan is projected to be US\$1.05 billion (in nominal terms).

9.22 The figure below shows the production volumes over the LOM of the Sihayo Gold Project (on a 100% basis). We have relied on the advice of Mining Associates with regard to the production assumptions in the Sihayo Gold Model.

Figure 7 Sihayo Gold Project - Production



Source: Adjusted Model and RSM Analysis

9.23 We note the following in relation to the figure above:

- The current mine plan assumes that mining at the Sihayo Gold Project will commence after a 24-month construction period and will continue for nine years. Au production in the Sihayo Gold Model is projected to be 19.7 tonnes.
- Mining Associates has reviewed SIH's resources, reserves and mining assumptions and has concluded that the mineral resource reporting strategy on which the Model is based is passable for a DFS level of study and meets the minimum requirements as set out by the JORC code. Upon review of the reserves assumptions, Mining Associates commented on a 4.5Mt plan discrepancy in waste movements in year 3 of the Model when compared to supporting documentation, however concluded that all waste movements reconciled by the end of life mine totals.
- Mining Associates is of the opinion that the technical project assumptions used in the Sihayo Gold Project Mine Project are reasonable, therefore, we have not made any adjustments to the resources, reserves and mining assumptions. However, Mining Associates did note that there is no allowance for a ramp up in productivity as the local workforce obtains operating proficiency on the use of mining equipment.

Adjustments – Operational and Capital expenditure

9.24 Mining Associates has noted a number of separate issues relating to projected operational expenditure and capital expenditure over the LOM which is likely to affect the final cashflows of the Sihayo Gold Project. We have listed these issues below and applied appropriate adjustments or contingencies in the Adjusted Model.

- Over-estimation in the number of effective hours per haul truck, as well as an under-estimation of the number of haul trucks required – Mining Associates has therefore recommended increases to the operating expenditure and capital expenditure over the LOM. Consistent with the Independent Technical Assessment prepared by Mining Associates, we have increased capital expenditure by the value of four additional haul trucks (assuming a fixed price), and incorporated additional operating expenses (on a nominal basis) which are associated with running costs of the trucks. This is summarised in the table below:

Table 13 Additional Haul truck capital expenditure and operational expenditure

	Year -1 2022	Year 1 2023	Year 2 2024	Year 3 2025
Number of additional haul trucks required	1	1	1	1
Additional haul truck capital expenditure required (\$000's)	453	453	453	453
Additional haul truck operational expenditure required (\$000's)	349	713	1,090	1,483

Source: Mining Associates

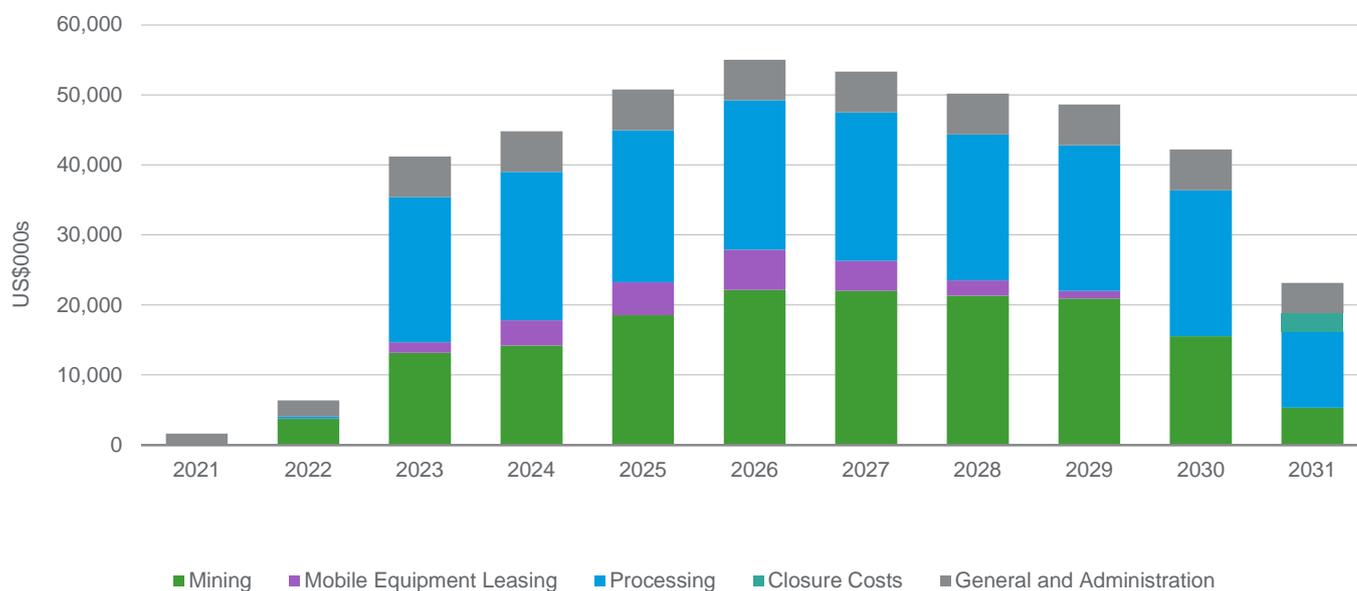
- A lack of provision for the ramp up of skill sets of mine operators as they gain proficiency. Mining Associates has concluded that ramp up generally varies depending on the on-boarding strategy of the mine owner. If the mine owner was to employ a local workforce with minimal experience, production in the first year of operations could be reduced by as much as 20%, dependent on the number of training staff, mix of experience and onboarding plan. Mining Associates notes that this reduction in production as a result of ramp-up is highly subjective and considers it to be a key risk which has not been reflected in the Sihayo Gold Model. We have not made a specific adjustment for the ramp-up of production, however have considered it in our assessment of an appropriate discount rate to apply to the project cashflows.
- No allowance for Reverse Circulation Drilling for Grade Control to allow for effective planning prior to blast hold drilling. Mining Associates notes that SIH proposes to include this cost in a further DFS update. As recommended by Mining Associates, reasonable assumptions for costs associated with a Reverse Circulation Drilling program include Capital expenditure of US\$1.5 million and associated operating expenses of \$1 million per annum for the life of the mine. We have included these additional costs in the Adjusted Model.
- The cost of engaging additional pre-strip mining contractors has not been included in the Sihayo Gold Model in years 3 to 5. Mining Associates considers a mark-up of 15% to waste mining costs per tonne should be applied during this period and, accordingly, we have increased the dollar per tonne costs relating to waste mining by this percentage for years 3 to 5 in the Adjusted Model.

Operational expenditure

9.25 Operating expenditure consists of mining, processing, mobile equipment leasing and general and administrative costs.

9.26 The following figure sets out the projected operating expenditure in the Adjusted Model.

Figure 8 Operational Expenditure



Source: Adjusted Model and RSM Analysis

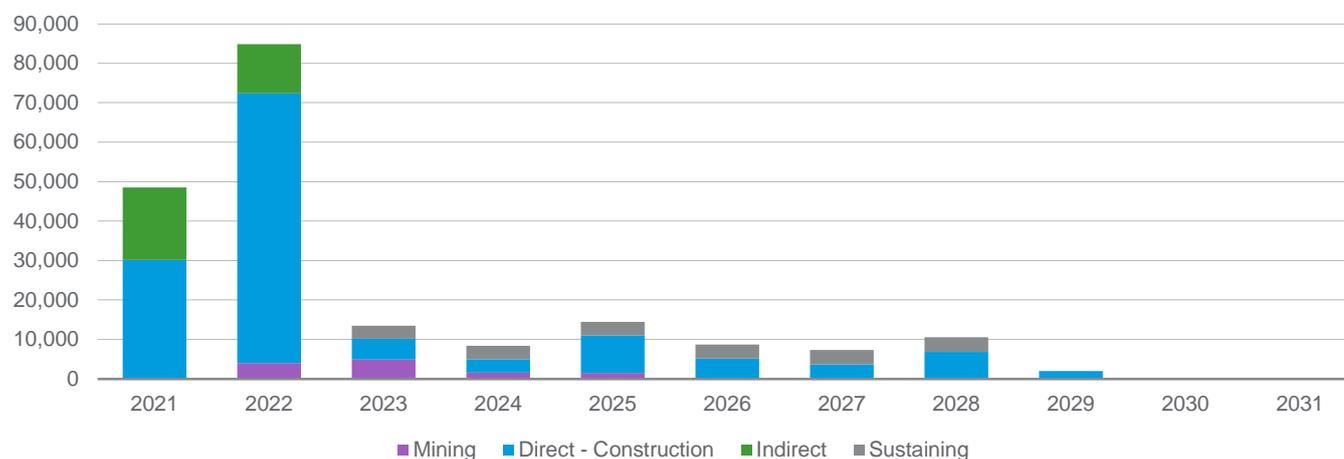
9.27 We note the following in relation to the figure above:

- Mining Associates recommended a number of adjustments to operating expense items which we have reflected in the Adjusted Model (as detailed above).
- Total operating expenditure over the life of mine plan is projected to be US\$449.44 million (in nominal terms)
- Mining costs relate to ore and waste mining expenses and represent 38% of total operating expenses.
- Processing costs represent 43% of total operating expenses and primarily comprise of costs relating to crushing, grinding, leaching and absorption, detox and tailing disposal and administration costs related to the mining operations.

Capital Expenditure

9.28 The following figure sets out the projected capital expenditure in the Adjusted Model, including sustaining capital expenditure.

Figure 9 Capital Expenditure



Source: Adjusted Model and RSM Analysis

9.29 We note the following in relation to the figure above:

- Capital expenditure relates to both development and sustaining capital expenditure. Total capital expenditure is projected to be US\$215.15 million (in nominal terms).
- This comprises of both direct and indirect capital expenditure items. Direct capital expenditure items are further split into mining and construction costs.
- Capital expenditure costs that are categorised under mining relate to leased mobile equipment, workshop tools and capitalised pre-strip costs.
- Capital expenditure costs that are categorised under construction relate to mine development, process plant, access roads, tailings storage facility (including foundation costs), utilities, supporting facilities and construction management.
- Indirect capital expenditure costs relate to overheads, mobilisation and demobilisation of equipment, freight, insurances and permits, approvals and land compensation.
- Sustaining capital expenditure of approximately US\$3.5 million per annum is forecast (in nominal terms) from the commencement of production for six years, resulting in a total of US\$21.0 million over the projected mine life.

Other assumptions

9.30 In addition to the assumptions discussed in the preceding sections, the following assumptions have also been applied in the Sihayo Gold Model:

- Cash flows are modelled on a post-tax basis based on taxable income and the local tax jurisdiction. Indonesia's corporate tax rate is 25%.
- The Sihayo Gold Project is subject to mining royalty payments to the Indonesian Government of 3.75% levied on Gross Revenue generated from the Project. Over the life of the Project, royalties of US\$40.41 million are expected to be paid (in nominal terms).

Discount rate

- 9.31 The discount rate we have selected allows for both the time value of money and the risks attached to future cash flows. The applicable discount rate is the likely rate of return an acquirer of the Sihayo Gold Project would require for the risks inherent in investing in the asset.
- 9.32 We have utilised the weighted average cost of capital (“WACC”) as our discount rate. We have assessed the WACC to be in the range of 9.8% to 11.5%. Details of our assessment of the preferred range for the WACC are included in Appendix D.

Sensitivity analysis

- 9.33 We have performed four key sensitivities on our DCF of the Sihayo Gold Project. We have selected our sensitivities based on the likelihood of changes in the key assumptions that underpin the Adjusted Model. We consider the key sensitivities to be:
- Commodity price – Au;
 - Operational expenditure;
 - Capital expenditure; and
 - Exchange rate.
- 9.34 The tables below summarise the high-level impact on the NPV assuming a range of discount rates and applying the relevant sensitivity to the Adjusted Model.

Table 14 Sensitivity of the Sihayo Gold Project (100% interest)

A\$000's	Discount rate				
	9.80%	10.25%	10.7%	11.10%	11.50%
NPV - 100% interest	153,003	145,366	138,019	131,722	125,637

Sensitivity (A\$000's)	Au Price	Opex	Capex	Exchange rate
-10%	79,723	137,345	141,410	127,062
-5%	108,924	137,682	139,714	132,620
0%	138,019	138,019	138,019	138,019
5%	167,066	138,356	136,324	143,261
10%	196,097	138,694	134,629	148,344

Source: Adjusted Model and RSM Analysis

- 9.35 As shown above, the net present value of the Adjusted Model is positive at each of the sensitised assumptions. We note that the value is most sensitive to changes in the commodity price, exchange rate and the applied discount rate.
- 9.36 Shareholders should note that each of the variables noted above is unlikely to move in isolation and they may have offsetting or compounding effects. The sensitivities performed do not cover the full range of possible outcomes and there is significant uncertainty involved with forecasting commodity prices in particular.
- 9.37 On the basis of our understanding of the Sihayo Gold Project, applicable Project risks and the gold industry, we consider that the assessed value of a 100% interest in the Sihayo Gold Project is in the range of A\$125.64 million to A\$153.00 million with a preferred midpoint value of A\$138.02 million.

Exploration assets

- 9.38 The mine plan presented in the Sihayo Gold Model only incorporates the DFS production plan of the current declared Mineral Resources of the Sihayo Gold Project. The majority of the remaining declared resources are classified as either Measured or Indicated Resources. In addition, SIH has other non-Indonesian mineral assets, located in India and Western Australia.
- 9.39 Therefore, we have also instructed Mining Associates to provide a valuation of the Sihayo Gold Project exploration assets not included in the mine plan and other mineral assets owned by SIH, as set out in its Report at Appendix F.
- 9.40 In forming its opinion on the market value of the Indonesian exploration assets, Mining Associates has relied on an income-based approach which utilises SIH's inferred resources outside the DFS production plan.
- 9.41 Mining Associates has attributed a valuation range of A\$0.09 million to A\$0.31 million for the Sihayo Gold Project's mineral assets outside of the mine plan, with a preferred value of A\$0.20 million based on SIH's 75% interest.
- 9.42 Mining Associates has attributed nil value to SIH's non-Indonesian mineral assets.

Notional Capital Raising

- 9.43 Guidance provided in RG 111.15 states that experts should consider the funding requirements of a company that is not under financial distress when considering its value using certain methodologies, such as the discounted cash flow methodology. We understand that SIH will require funds for the construction and development of the Sihayo Gold Project and would most likely fund this capital expenditure with a combination of equity and debt funding.
- 9.44 We have considered the equity portion of required funding to be the notional capital raising in our assessment of the value of a SIH share. We note that there will be a nil effect on the balance sheet from any debt raised, due to the increase in cash being offset by the borrowed amount.
- 9.45 We have formed an assessment of SIH's forecast capital structure based on our analysis of a basket of comparable company funding structures. The list below comprises gold producers that have funded the development of a project. Based on this analysis and discussions with SIH management, we have assessed a target debt to equity ratio for SIH when the development of the Sihayo Gold Project commences. A summary of the ratios of comparable companies at the date of initial debt funding drawdown is shown below:

Table 15 Comparable company debt ratios

Company ticker	Company	Commodity	D/E on initial drawdown
ASX:TRY	Troy Resources Limited	Gold	96.31%
ASX:GCY	Gascoyne Resources Limited	Gold	62.17%
ASX:DCN	Dacian Gold Limited	Gold	109.40%
ASX:WMX	Wiluna Mining Corporation Limited	Gold	81.34%
ASX:TBR	Tribune Resources Limited	Gold	50.65%
Mean			79.97%
Median			81.34%

Source: S&P Capital IQ and RSM Analysis

- 9.46 Based on our analysis and enquiries with management surrounding financing options, we have made an assumption that SIH could support a debt ratio of approximately 70% on development of the Sihayo Gold Project.

- 9.47 The Adjusted Model indicates that funding of A\$219.18 million (US\$154.75 million) will be required for the construction of the Sihayo Gold Project and initial costs. Although SIH holds a 75% interest in the Project, it will be required to fund 100% of expenditure until the Project has commenced production under the terms of the Joint Venture with Antam. Following commencement of production, Antam is entitled to receive 5% of available cashflow each year, with the remaining 20% of Antam's entitlement to be paid to SIH via its wholly owned subsidiary Aberfoyle Pungkut Investments Pte Ltd ("API") until the loan and interest is repaid. Therefore, SIH will be required to raise 100% of the required funding for the Sihayo Gold Project but 25% of the equity funding will be recognised as a loan receivable by SIH from Antam.
- 9.48 The required funding for the Sihayo Gold Project is A\$219.18 million. Based on the 70% debt funding assumption, we consider that SIH would need to raise A\$153.43 million of notional debt and A\$65.75 million through a notional capital raising to fund the Sihayo Gold Project. We consider an appropriate cost of capital raising to be approximately 5% of funds raised or A\$3.29 million, resulting in a required raising of A\$69.04 million (inclusive of placement fee) to meet SIH's 100% funding requirements of the SIH's Project prior to the Proposed Transaction.
- 9.49 Based on our assessment, a summary of the cash required to be raised via a notional placement is provided below:

Table 16 Notional capital raising – 100% interest

A\$000's	100% of Project
Equity required	65,754
Placement fee	3,288
Cash raised via notional capital raising	69,041

Source: Adjusted Model and RSM Analysis

- 9.50 In determining the price at which SIH should issue its Shares to Shareholders under a notional capital raising, we have considered the VWAP of SIH Shares, recent capital raisings by SIH and the discount at which comparable companies have issued new equity under a placement against their respective 30-day VWAP prior to the issue of equity.
- 9.51 On 20 August 2020, SIH received binding commitments for a placement of Shares at an issue price of \$0.025 per Share, a 21.8% discount on the publicly traded share price of \$0.032. We have analysed the discount at which ASX listed entities have issued new equity over the last three years and note that, on average, these discounts were between 15% and 20%.
- 9.52 Therefore, we consider that a placement discount of between 15% and 20% is appropriate to apply to the notional capital raising of SIH to fund the Sihayo Gold Project.
- 9.53 At paragraph 9.71, we have assessed the quoted market price of a SIH Share to be in the range of A\$0.031 and A\$0.034 per share with a midpoint value of A\$0.033 per share (on a portfolio basis). Therefore, by applying a discount of between 15% and 20% to the assessed value of a SIH Share immediately prior to the Proposed Transaction, we assess a notional capital raising price of between A\$0.025 and A\$0.029 per share.
- 9.54 Based on this assessment, the table below shows the number of Shares that SIH would have to issue to complete a A\$69.04 million notional capital raise and provide the required funding for 100% of the Sihayo Gold Project:

Table 17 Notional capital raising – Shares to be issued

Number of shares - Notional capital raise	Low	High	Midpoint
Equity funding required (A\$000's)	69,041	69,041	69,041
Quoted market price (A\$)	0.028	0.031	0.030
Assessed placement discount	15%	20%	17.5%
Price - capital raise (A\$)	0.024	0.025	0.024
Number of shares issued under notional capital raise (000s)	2,860,307	2,816,355	2,838,161

Source: RSM Analysis

Loan Receivable – Antam

- 9.55 As mentioned in paragraph 9.47 above, SIH is required to fund 100% of expenditure relating to the Sihayo Gold Project until it has commenced production. Following commencement of production, Antam is entitled to receive 5% of available cashflow each year, with the remaining 20% of its entitlement payable to SIH via API until the loan and interest associated with the initial funding is repaid.
- 9.56 Therefore, 25% of the equity funding which SIH will be required to raise will be recognised as a loan receivable by SIH from Antam. This equates to A\$17.26 million.

Present Value of Corporate costs

- 9.57 We note that SIH corporate costs are not included in the operating costs of the mine plan. We have therefore deducted the present value of the Company's corporate costs in our sum of parts valuation. We have considered the budgeted corporate costs of SIH for the 2020-21 year, other compliance costs of operating across multiple countries and the level of corporate costs incurred by comparable companies in production phase.
- 9.58 Based on this analysis we have estimated the corporate costs of SIH across the life of the Sihayo Gold Project to be between A\$27 million and A\$31.5 million on a real basis. We have applied an inflation rate of 2% per annum to these costs and incorporated the tax shield received by SIH on these costs.
- 9.59 We have discounted the projected corporate costs at our assessed midpoint WACC of 10.7% and therefore consider the present value of corporate costs to be in the range of A\$23.43 million to A\$23.88 million.

Value of other assets and liabilities of SIH

- 9.60 The value of other assets and liabilities of SIH which have not been specifically considered elsewhere in the sum of parts valuation should also be reflected in the value of a SIH share. Our analysis of the other assets and liabilities is shown in the table below, based on the audited balance sheet at 30 June 2020 and adjusted as noted.

Table 18 SIH Other Assets and Liabilities

\$000's	30-Jun-20 Audited	Adjustments	Assessed Value
ASSETS			
Current assets			
Cash and cash equivalents	174	20,407	27,774
Trade and other receivables	251	-	251
Total current assets	425	20,407	20,832
Non-current assets			
Trade and other receivables	3,277	-	3,277
Capitalised exploration and evaluation costs	24,511	(24,511)	-
Property, plant and equipment	97	(97)	(0)
Right-of-use asset	14	-	14
Total non-current assets	27,898	(24,608)	3,290
Total Assets	28,323	(4,201)	24,123
LIABILITIES			
Current liabilities			
Trade and other payables	5,994	-	5,994
Borrowings	7,193	(7,193)	-
Lease liability - current	3	-	3
Other liabilities	57	-	57
Total current liabilities	13,246	(7,193)	6,054
Non-current liabilities			
Employee entitlements and other provisions	643	-	643
Lease liability – non-current	12	-	12
Total non-current liabilities	654	-	654
Total Liabilities	13,901	(7,193)	6,708
Net Assets	14,423	2,992	17,415
Add: Adjustment for NCI (25%)	-	241	241
Adjusted Net Assets	14,423	3,233	17,656

Source: RSM Analysis and the Company

9.61 SIH had cash holdings of \$0.17 million as at 30 June 2020 and has since successfully completed the Entitlement Offer and Tranche 1 Placement, raising \$13.30 million and \$14.40 million respectively. As we have reflected the number of Shares on issue as at the date of this Report (i.e. incorporating the Capital Raising) we have also reflected the cash raised. We note that the shareholder loans of \$7.2 million as at 30 June 2020 were settled by way of equity conversion and therefore we have shown the cash raised after settlement of these debts.

9.62 All assets and liabilities relating to the Sihayo Gold Project have been eliminated as the value of SIH's interest in the Sihayo Gold Project has been considered separately.

Number of SIH Shares on issue

9.63 We have adjusted the number of Shares on issue to account for the notional capital raising detailed above at paragraph 9.43.

Table 19 Number of SIH Shares on issue

000's	Low	High	Preferred
Number of Shares on issue at date of this Report	3,383,916	3,383,916	3,383,916
Shares to be issued under notional capital raise	2,860,307	2,816,355	2,838,161
Notional number of Shares on issue prior to Proposed Transaction	6,244,223	6,200,271	6,222,077

Source: RSM Analysis

9.64 The lowest number of Shares on issue forms the basis for the high end of our valuation range, and the highest number of Shares on issue forms the low end of our valuation range.

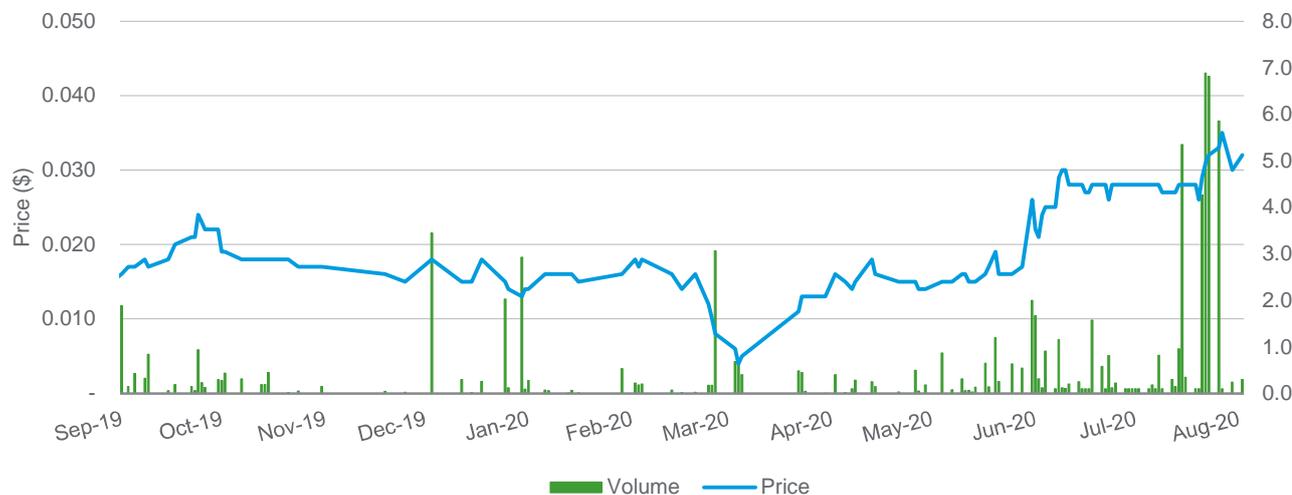
Quoted price of listed securities (secondary method)

9.65 In order to provide a comparison and cross check to our sum of parts valuation of SIH, we have considered the recent quoted market price for SIH shares on the ASX prior to the announcement of the Proposed Transaction.

Analysis of recent trading in SIH Shares

9.66 The figure below sets out a summary of the closing Share price and volume of SIH Shares traded in the 12 months to 17 August 2020, the last trading day prior to the announcement of the Proposed Transaction.

Figure 10 SIH daily closing Share price and traded volumes



Source: S&P Capital IQ/ ASX

9.67 During the 12-month period prior to the announcement of the Proposed Transaction, SIH's Shares traded between \$0.004 and \$0.035 per Share.

9.68 To provide further analysis of the quoted market prices for SIH's Shares, we have considered the VWAP over a number of trading day periods ending 17 August 2020. An analysis of the volume in trading in SIH's Shares for the 1, 10, 30, 60, 90, 180 and 360 day trading periods is set out in the table below:

Table 20 Traded volumes of SIH Shares to 17 August 2020

# of Days	1 Day	5 Day	10 Day	30 Day	60 Day	90 Day	120 Day	180 Day
VWAP	0.034	0.033	0.032	0.031	0.028	0.028	0.026	0.024
Total volume (000's)	299.5	870.9	24,797.3	35,054.2	48,487.1	51,410.4	57,638.6	68,537.6
Total volume as a % of total shares	0.01%	0.04%	1.08%	1.53%	2.12%	2.25%	2.52%	2.99%
Low price	0.031	0.030	0.026	0.022	0.015	0.013	0.004	0.004
High price	0.036	0.036	0.037	0.037	0.037	0.037	0.037	0.037

Source: S&P Capital IQ/ ASX

9.69 The analysis shows that SIH Shares are thinly traded with 2.99% of the issued capital being traded in the 180-day trading period prior to the announcement of the Proposed Transaction.

Value of SIH Share on a non-control minority basis

9.70 In our opinion, the weighted average share price of SIH over the 30 – 60 day period prior to the announcement of the Proposed Transaction is most reflective of the underlying value of a SIH Share. As such, we consider a range of values of between A\$0.028 and A\$0.031 (30 – 60 day VWAP) reflects the quoted market price valuation of a SIH Share on a minority basis prior to the Proposed Transaction.

Value of SIH Share on a control basis

9.71 Our valuation of a SIH Share, on the basis of the recent quoted market price including a premium for control is between \$0.035 and \$0.041, as summarised in the table below.

Table 21 Assessed value of a SIH Share – quoted price of listed securities

A\$	Low	High	Preferred
Quoted market price - minority basis	0.028	0.031	0.030
Control premium	25%	35%	30%
Quoted market price - control basis	0.035	0.041	0.038

Source: RSM Analysis

Key assumptions

Control Premium

9.72 The value derived at paragraph 9.70 is indicative of the value of a marketable parcel of shares assuming the Shareholder does not have control of SIH. RG 111.11 states that when considering the value of a company's Shares the expert should consider a premium for control. If the Proposed Transaction is approved, Merdeka and Provident will collectively hold a voting power of at least 31.6% in the issued capital of SIH. Therefore, as explained in Section 3, our assessment of the Fair Market Value of a SIH Share must include a premium for control.

9.73 RSM has conducted a study on 463 takeovers and schemes of arrangements involving companies listed on the ASX over the 11 years ended 30 June 2016¹. In determining the control premium, we compared the offer price to the closing trading price of the target company 20, 5 and 2 trading days pre the date of the announcement of the offer. Where the consideration included shares in the acquiring company, we used the

¹ RSM Control Premium Study 2017

closing share price of the acquiring company on the date prior to the date of the offer. Our study concluded that, on average, control premiums were paid in the range of 25% to 35%.

9.74 In valuing an ordinary SIH Share prior to the Proposed Transaction using the quoted price of listed securities methodology we have therefore reflected a premium for control in the range of 25% to 35%.

Valuation summary and conclusion

9.75 A summary of our assessed values of an ordinary SIH Share on a control basis pre the Proposed Transaction, derived under the two methodologies, is set out in the table below.

Table 22 SIH Share valuation summary

\$A	Low	High	Preferred
Net assets on a going concern - primary method	0.0285	0.0319	0.0300
Quoted price of listed securities - cross check	0.0355	0.0414	0.0384
Selected value per share	0.0285	0.0319	0.0300

Source: RSM Analysis

9.76 In our opinion, we consider that the sum of parts valuation methodology provides a better indicator of the Fair Market Value of a SIH Share as we consider our analysis of the trading of SIH's Shares prior to the announcement of the Proposed Transaction indicates that the market for SIH's Shares is not deep enough to provide an assessment of their Fair Market Value under the quoted market price methodology.

9.77 Therefore, in our opinion, the Fair Market Value of a SIH Share prior to the Proposed Transaction is between A\$0.0285 and A\$0.0319 on a controlling and undiluted basis, with a preferred value of A\$0.030.

10. Valuation of SIH Post the Proposed Transaction

10.1 We summarise our valuation of a SIH Share after the Proposed Transaction on a sum of parts basis in the table below.

Table 23 Assessed value of SIH post the Proposed Transaction

Valuation assessment A\$000's	Ref	Low	High	Preferred
Sihayo Gold Project (mine plan)		129,424	156,913	141,865
Sihayo Gold Project (100% interest)		129,424	156,913	141,864
Value of SIH's Interest in Sihayo Gold Project (75%)	10.3	97,068	117,685	106,398
Value of SIH's Interest in Sihayo Gold Project Exploration Assets (75%)	10.3	94	310	202
Add: Cash received from notional capital raising	10.4	69,041	69,041	69,041
Add: Loan receivable - Antam	10.5	17,260	17,260	17,147
Add: Cash received – Tranche 2 Placement	10.6	4,878	4,878	4,878
Less: Present value of SIH's corporate costs	10.7	(23,428)	(23,880)	(23,654)
Add: Value of other assets and liabilities	10.8	17,415	17,415	17,415
Equity Value (control basis)		182,329	202,710	191,427
Number of Shares on issue (000's)	10.9	6,439,345	6,395,393	6,417,199
Value per share (controlling basis) - \$		0.0283	0.0317	0.0298
Minority interest discount	10.10	26%	20%	23%
Value per share (minority basis) - \$		0.0210	0.0254	0.0230

Source: RSM Analysis

10.2 We consider that the value of a SIH Share post the Proposed Transaction is between \$0.0210 and \$0.0254 with a preferred value of A\$0.0230 on a minority basis.

Value of the Sihayo Gold Project

10.3 We have included 75% of the value of the Sihayo Gold Project (incorporating the DCF valuation of the mine plan and technical valuation of other exploration assets) assessed in Section 9.

Notional capital raising

10.4 We consider that the assumptions used to assess the notional capital raise prior to the Proposed Transaction are consistent with those applicable post the Proposed Transaction, therefore there is no change to the assessed value.

Loan Receivable – Antam

10.5 We consider that the assumptions used to assess the loan receivable from Antam prior to the Proposed Transaction are consistent with those applicable post the Proposed Transaction, therefore there is no change to the assessed value.

Cash - Tranche 2 Share Placement

10.6 We have made an adjustment to recognise A\$4.88 million received by SIH in exchange for issuing EFDL, a subsidiary of Merdeka, 195,121,951 Tranche 2 Placement Shares at an issue price of A\$0.025 per Share.

Present value of corporate costs

10.7 We consider that the assumptions used to assess the present value of corporate costs prior to the Proposed Transaction are consistent with those applicable post the Proposed Transaction, therefore there is no change to the assessed value.

Value of other SIH assets and liabilities

10.8 We do not consider any adjustments are necessary to the assessed value of other assets and liabilities held by SIH as set out in Section 9.

Number of SIH Shares on issue

10.9 We have adjusted the number of Shares on issue to account for the shares to be issued in the Proposed Transaction and the notional capital raising detailed above.

Table 24 Number of SIH Shares on issue Post Proposed Transaction (000's)

000's	Low	High	Preferred
Number of Shares on issue at date of this Report	3,383,916	3,383,916	3,383,916
Shares to be issued under notional capital raise	2,860,307	2,816,355	2,838,161
Shares to be issued under the Proposed Transaction	195,122	195,122	195,122
Notional number of Shares on issue post Proposed Transaction	6,439,345	6,395,393	6,417,199

Source: RSM Analysis

Minority interest discount

10.10 The value of a SIH Share derived under a sum of parts approach reflects a controlling interest. However, if the Proposed Transaction is approved then Merdeka and Provident will collectively hold an interest of 31.6% of the issued capital of SIH. Therefore, we have adjusted our valuation of a SIH share post the Proposed Transaction to reflect a minority interest holding for Non-Associated Shareholders.

10.11 In selecting a minority discount we have given consideration to our control premium applied in Paragraph 9.74 where we assessed a range for a control premium of between 25% and 35%. The resultant corresponding minority discount range based on said control premiums is between 20% and 26%.

11. Is the Proposed Transaction Fair to Shareholders?

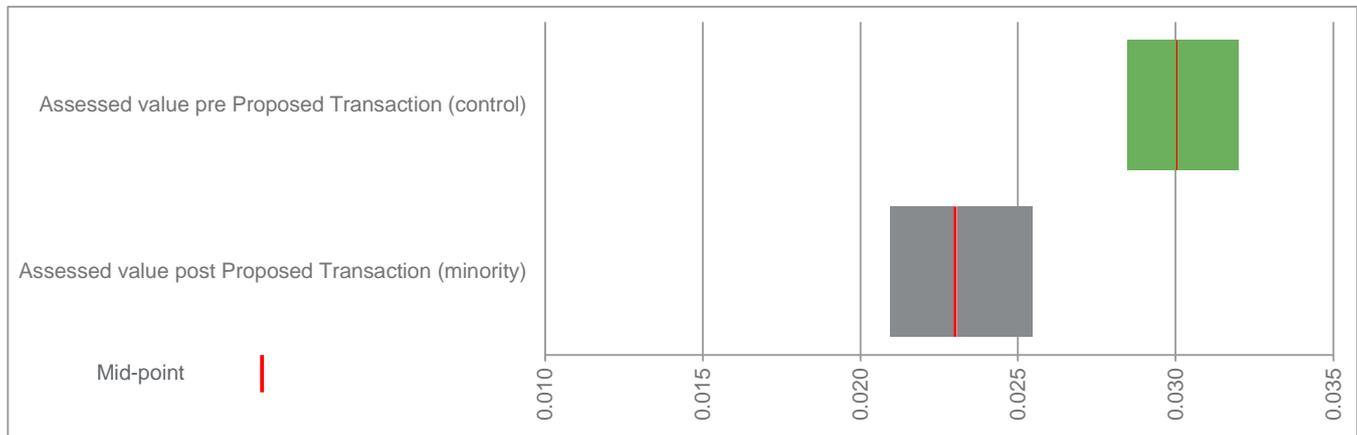
11.1 Our assessed values of a SIH Share prior to and immediately after the Proposed Transaction, are summarised in the table and figure below.

Table 25 Assessed values of a SIH Share pre and post the Proposed Transaction

Assessment of fairness	Ref	Value per Share		
		Low A\$	High A\$	Preferred A\$
Fair Market Value of a SIH Share pre the Proposed Transaction – Control basis	9.77	0.0285	0.0319	0.0300
Fair Market Value of a SIH Share post the Proposed Transaction – Minority basis	10.2	0.0210	0.0254	0.0230

Source: RSM Analysis

Table 26 SIH Share valuation graphical representation



Source: RSM Analysis

11.2 In accordance with the guidance set out in ASIC RG 111, and in the absence of any other relevant information, for the purposes of complying with s611 of the Act, we consider the Proposed Transaction to be **not fair** to the Non-Associated Shareholders of SIH as the value of a SIH Share post the Proposed Transaction is less than the value of a SIH Share prior to the Proposed Transaction.

12. Is the Proposed Transaction Reasonable to Shareholders?

12.1 RG111 establishes that an offer is reasonable if it is fair. If an offer is not fair it may still be reasonable after considering the specific circumstances applicable to the offer. In our assessment of the reasonableness of the Proposed Transaction, we have given consideration to:

- The future prospects of SIH if the Proposed Transaction does not proceed; and
- Other commercial advantages and disadvantages to the Non-Associated Shareholders as a consequence of the Proposed Transaction proceeding.

Future prospects of SIH if the Proposed Transaction does not proceed

12.2 If the Proposed Transaction does not proceed then the Company will be required to seek additional funding to further progress its development of the Sihayo Gold Project and ongoing exploration activities. Obtaining such funding from further capital raisings may dilute existing shareholders and there is no guarantee that sufficient funding will be obtained, or on acceptable terms.

Other Factors

12.3 If approved, the Proposed Transaction will result in Merdeka and Provident's collective voting power in SIH increasing from 27.7% to approximately 31.6%. RG111 states that it is important for an expert to focus on the substance of control, rather than the legal mechanism used to effect it. In this instance, control over SIH does not change significantly, as Provident already had the ability to block special resolutions of the Company prior to the Proposed Transaction.

12.4 However, RG 111 guides Independent Experts to assess the fairness of a control transaction under Item 7 of s611 as if it was a takeover bid. Accordingly, our assessment of fairness of the Proposed Transaction has compared the value of a SIH Share prior to the Proposed Transaction on a controlling basis, with the value of a SIH Share after the Proposed Transaction on a minority basis by applying a 20% to 26% minority discount.

12.5 The analysis below shows our assessed values of a SIH Share prior to and post the Proposed Transaction on a consistent basis, by adjusting our assessed value of a SIH Share prior to the Proposed Transaction to also reflect a 20% to 26% minority discount.

Table 27 Illustrative values of a SIH Share pre and post the Proposed Transaction on a minority basis

Assessment of fairness	Low A\$	High A\$	Preferred A\$
Fair Market Value of a SIH Share pre the Proposed Transaction - Minority basis	0.0211	0.0256	0.0231
Fair Market Value of a SIH Share post the Proposed Transaction - Minority basis	0.0210	0.0254	0.0230

Source: RSM Analysis

12.6 The above table shows that the assessed value of a SIH Share after the Proposed Transaction is broadly in line with the value prior when presented on a consistent minority interest basis.

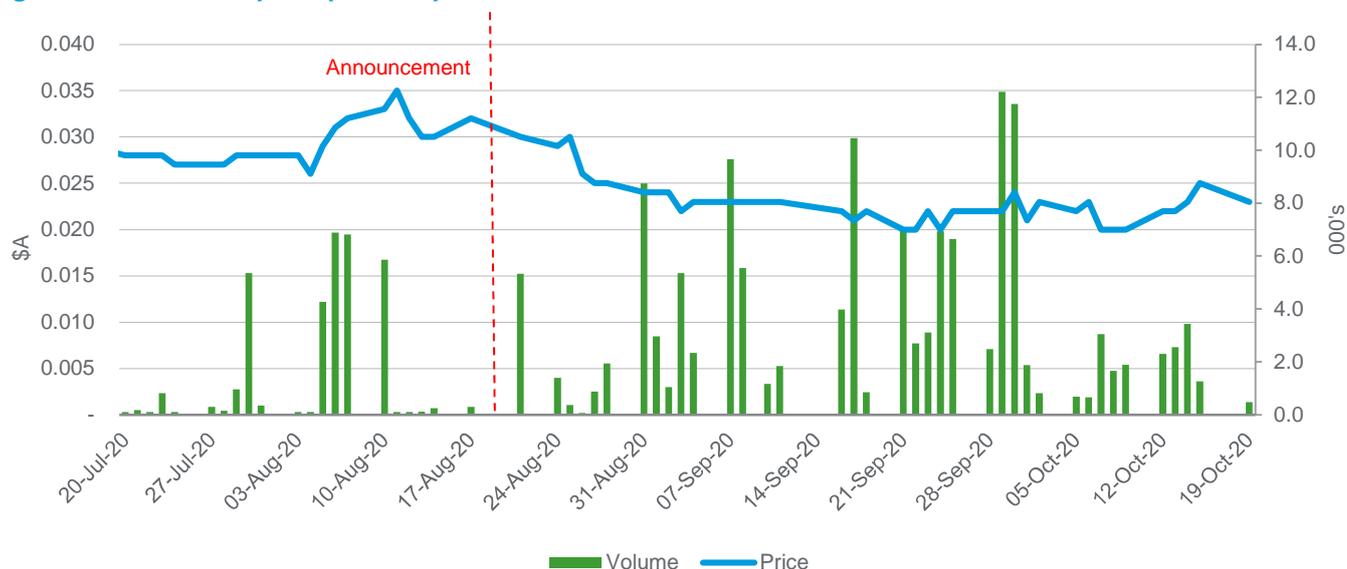
12.7 We note that the Company has recently given shareholders the opportunity to participate in an Entitlement offer at \$0.025 per Share, of which approximately 48% was taken up by existing Shareholders.

12.8 The issue of 195,121,951 Shares to Merdeka is also proposed to be at \$0.025 per Share, which is consistent with the Entitlement Offer made to existing Shareholders and also within the assessed range of values for a SIH Share prior to the Proposed Transaction on a minority interest basis as shown in the table above.

Trading in SIH shares following the announcement of the Proposed Transaction

12.9 We have reviewed the movements in the SIH Share price since the Proposed Transaction was announced on 20 August 2020. A graph of the closing Share price in the month prior to and post the announcement is shown below:

Figure 11 SIH Share price pre and post announcement



12.10 The closing Share price ranged from A\$0.026 to A\$0.035 in the period from 20 July to 19 August 2020, although for the 5-day period immediately prior to the announcement of the Proposed Transaction, the shares had been trading in a range of A\$0.030 and A\$0.032. The SIH share price closed at \$0.030 on the day following the announcement of the Proposed Transaction, when the Company resumed trading, and in the period since has trended down to a closing price as low as A\$0.020 on 8 October 2020.

12.11 The volume of SIH shares traded has increased when compared to trading levels immediately prior to the announcement of the Proposed Transaction. However, given the low liquidity of SIH Shares and extended Entitlement Offer period it is difficult to draw any firm conclusions on the impact of the Proposed Transaction in isolation from this analysis.

Considerations when determining reasonableness

12.12 RG111.13 states that an expert should consider a number of factors when determining whether a transaction is reasonable. In determining our reasonableness assessment, we have considered the following qualitative factors:

(a) *The bidders pre-existing voting power in securities in the target*

12.13 At the date of this Report Provident holds 27.7% of the issued Shares in SIH, which gives Provident the ability to block special resolutions in the Company. If approved, the Proposed Transaction will result in Merdeka and Provident's collective voting power in SIH increasing from 27.7% to approximately 31.6%, resulting in only a slight change in the level of control.

(b) *Other significant security holding blocks in the target*

12.14 After Provident, the next biggest shareholding in SIH is HSBC Custody Nominees (Australia) Limited, which holds 10.34% of the Shares in SIH. If the Proposed Transaction is approved by shareholders, there will be no significant impact on the spread of shareholdings.

(c) *The liquidity of the market in the target's securities*

12.15 As described in paragraph 6.25 above, over the 180 trading days prior to the announcement of the Proposed Transaction only 4.01% of SIH's Shares were traded, indicating that it is not a liquid stock. Our analysis also shows that SIH has a free float of less than 25% at the date of this Report. If the Proposed Transaction is approved by shareholders, we consider it unlikely to have a material impact on the liquidity of SIH Shares given the already low levels of liquidity.

Advantages and disadvantages

12.16 In assessing whether the Non-Associated Shareholders are likely to be better off if the Proposed Transaction proceeds, than if it does not, we have also considered various advantages and disadvantages that are likely to accrue to the Non-Associated Shareholders.

Advantages of approving the Proposed Transaction

Advantages	Details
No significant impact arising from the collective level of control held by Merdeka and Provident	Prior to the Proposed Transaction, Provident held 27.7% of the issued Shares in SIH which gives Provident the ability to block special resolutions in the Company. If the Proposed Transaction is approved by the Shareholders, Merdeka and Provident will collectively hold a voting power of 31.6% in SIH Shares, and a maximum of 32.99% if all Resolutions are approved, however, their level of control does not change significantly.
Secure funding for further exploration and evaluation of the Sihayo Gold Project	If the Proposed Transaction is approved by the shareholders, SIH will have secured the required funding to further progress exploration and evaluation activities at the Sihayo Gold Project.

Disadvantages of approving the Proposed Transaction

Disadvantages	Details
The Proposed Transaction is not fair	We have assessed that the Proposed Transaction is not fair to the Non-Associated Shareholders, on the basis that the assessed value of a SIH Share post the Proposed Transaction on a minority interest basis is less than the assessed value of a SIH Share prior to the Proposed Transaction on a control basis, in accordance with the guidance in RG 111 for control transactions.
Dilution of Non-Associated Shareholders	If the Proposed Transaction is approved, then the Non-Associated Shareholders interest in SIH will be reduced from 72.1% to 68.2%.

Alternative proposal

12.17 We are not aware of any alternative proposal at the current time which might offer the Non-Associated Shareholders of SIH a greater benefit than the Proposed Transaction.

Conclusion on Reasonableness

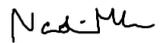
12.18 In our opinion, the position of the Non-Associated Shareholders if the Proposed Transaction is approved is more advantageous than the position if it is not approved. Therefore, in the absence of any other relevant information and/or a superior offer, we consider that the Proposed Transaction is **reasonable** for the Non-Associated Shareholders of SIH.

12.19 An individual Shareholder's decision in relation to the Proposed Transaction may be influenced by his or her individual circumstances. If in doubt, Shareholders should consult an independent advisor.

Yours faithfully

RSM CORPORATE AUSTRALIA PTY LTD

N MARKE

A handwritten signature in black ink, appearing to read "Ned Marke".

Director

G YATES

A handwritten signature in blue ink, appearing to read "Glyn Yates".

Director



APPENDICES

A. DECLARATIONS AND DISCLAIMERS

Declarations and Disclosures

RSM Corporate Australia Pty Ltd holds Australian Financial Services Licence 255847 issued by ASIC pursuant to which they are licensed to prepare reports for the purpose of advising clients in relation to proposed or actual mergers, acquisitions, takeovers, corporate reconstructions or share issues.

Qualifications

Our report has been prepared in accordance with professional standard APES 225 “Valuation Services” issued by the Accounting Professional & Ethical Standards Board.

RSM Corporate Australia Pty Ltd is beneficially owned by the partners of RSM Australia Pty Ltd (RSM) a large national firm of chartered accountants and business advisors.

Ms. Nadine Marke and Mr Glyn Yates are directors of RSM Corporate Australia Pty Ltd. Both Ms Marke and Mr Yates are Chartered Accountants with extensive experience in the field of corporate valuations and the provision of independent expert’s reports for transactions involving publicly listed and unlisted companies in Australia.

Reliance on this Report

This report has been prepared solely for the purpose of assisting Shareholders of the Company in considering the Proposed Transaction. We do not assume any responsibility or liability to any party as a result of reliance on this report for any other purpose.

Reliance on Information

Statements and opinions contained in this report are given in good faith. In the preparation of this report, we have relied upon information provided by the Directors and management of Sihayo Gold Limited and we have no reason to believe that this information was inaccurate, misleading or incomplete. RSM Corporate Australia Pty Ltd does not imply, nor should it be construed that it has carried out any form of audit or verification on the information and records supplied to us.

The opinion of RSM Corporate Australia Pty Ltd is based on economic, market and other conditions prevailing at the date of this report. Such conditions can change significantly over relatively short periods of time.

In addition, we have considered publicly available information which we believe to be reliable. We have not, however, sought to independently verify any of the publicly available information which we have utilised for the purposes of this report.

We assume no responsibility or liability for any loss suffered by any party as a result of our reliance on information supplied to us.

Disclosure of Interest

At the date of this report, none of RSM Corporate Australia Pty Ltd, RSM, Nadine Marke, Glyn Yates, nor any other member, director, partner or employee of RSM Corporate Australia Pty Ltd and RSM has any interest in the outcome of the Proposed Transaction, except that RSM Corporate Australia Pty Ltd are expected to receive a fee of approximately \$45,000 based on time occupied at normal professional rates for the preparation of this report. The fees are payable regardless of Sihayo Gold Limited receives Shareholder approval for the Proposed Transaction, or otherwise.

Consents

RSM Corporate Australia Pty Ltd consents to the inclusion of this report in the form and context in which it is included with the Notice of Extraordinary General Meeting and Explanatory Memorandum to be issued to Shareholders. Other than this report, none of RSM Corporate Australia Pty Ltd or RSM Australia Pty Ltd or has been involved in the preparation of the Notice of Extraordinary General Meeting and Explanatory Memorandum. Accordingly, we take no responsibility for the content of the Notice of General Meeting and Explanatory Statement.

B. SOURCES OF INFORMATION

In preparing this Report we have relied upon the following principal sources of information:

- Drafts and final copies of the Notice of Meeting;
- Audited financial statements for SIH for the years ended 30 June 2018, 30 June 2019 and 30 June 2020;
- Management prepared consolidation schedule for the SIH Group year ended 30 June 2020;
- Shareholders listing report;
- Copies of circular resolutions pertaining to the Merdeka loan agreement and entitlement issue;
- Copy of the joint venture agreement between P.T. Aneka Tambang and Aberfoyle Pungkut Investments Pte Ltd dated 23 July 1997;
- The Sihayo Gold Financial Model dated 18 May 2020;
- Independent Technical Assessment and Valuation of the Sihayo Gold Project;
- U.S. Geological Survey
- IBIS World;
- ASX announcements of SIH;
- S&P Capital IQ database; and
- Discussions with Directors, Management and staff of SIH

C. GLOSSARY OF TERMS

Term or Abbreviation	Definition
A\$	Australian dollar
Act	Corporations Act 2001 (Cth)
Adjusted Model	RSM adjustments to the Sihayo Gold Model
Antam	PT Aneka Tambang Tbk, an Indonesian based company that holds 25% interest in the Sihayo Gold Project
APES	Accounting Professional & Ethical Standards Board
ASIC	Australian Securities & Investments Commission
ASX	Australian Securities Exchange
ASX Listing Rules	The listing rules of ASX as amended from time to time
Au	Gold
Company	Sihayo Gold Limited
Control basis	As assessment of the Fair Market Value on an equity interest, which assumes the holder or holders have control of the entity in which the equity is held
CoW	Contract of Work at the Sihayo Gold Project
DCF	Discounted Cashflow
DFS	Definitive Feasibility Study
Directors	Directors of the Company
EFDL	Eastern Field Developments Limited, a 99.9% owned subsidiary of Merdeka
Explanatory Statement	The explanatory statement accompanying the Notice
Fair Market Value	The amount at which an asset could be exchanged between a knowledgeable and willing but not anxious seller and a knowledgeable and willing but not anxious buyer, both acting at arm's length
FIRB	Foreign Investment Review Board
FME	Future Maintainable Earnings
FOS	Financial Ombudsman Service
FSG	Financial Services Guide
IER	This Independent Expert Report
Non-Associated Shareholders	Shareholders who are not a party, or associated to a party, to the Proposed Transaction
Notice or NOM	The notice of meeting to vote on, inter alia, the Proposed Transaction
Option or Options	Unlisted options to acquire Shares with varying vesting conditions
Proposed Transaction	Approval of the issue of 278,745,644 Shares to Eastern Field Developments Limited at \$0.025 per Share.
Report	This Independent Expert's Report prepared by RSM dated [insert]
Resolution	The resolutions set out in the Notice
RG 111	ASIC Regulatory Guide 111 Content of Expert Reports

RSM	RSM Corporate Australia Pty Ltd
S&P Capital IQ	An entity of Standard and Poors which is a third party provider of company and other financial information
SIH	Sihayo Gold Limited
Sihayo Gold Model	11-year cashflow for the Sihayo Gold Project mine plan prepared by SIH
Sihayo Gold Project or the Project	The Sihayo Gold Project located in North Sumatra, Indonesia.
Share or SIH Share	Ordinary fully paid share in the capital of the Company
Shareholder	A holder of Share
US\$	US Dollar
VALMIN Code	Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (2015)
VWAP	Volume weighted average share price
WACC	Weighted average cost of capital

D. DISCOUNT RATE

The WACC represents the weighted rate of return required by providers of both debt and equity to compensate for the time value of money and the perceived risk of the associated cash flows. The discount rates required by providers of both debt and equity are weighted in proportion to the optimal proportions of debt and equity.

The WACC is calculated as follows:

$$\text{WACC} = [\text{Re} \times \text{E/V}] + [\text{Rd} \times (1 - \text{tc}) \times \text{D/V}]$$

Where:

WACC = post tax weighted average cost of capital

Re = required rate of return on equity capital

E = market value of equity capital

V = market value of debt and equity capital (D + E)

Rd = required rate of return on debt capital

D = market value of debt capital

tc = corporate tax rate

Required Rate of Return on Equity Capital (Re)

The Capital Asset Pricing Model (CAPM) can be used to estimate the cost of equity, being the required rate of return or cost of equity of a business.

The CAPM determines the cost of equity by the following formula:

$$\text{Re} = \text{Rf} + \beta(\text{Rm} - \text{Rf}) + \alpha$$

The components of the formula are as follows:

Re = Required return on equity;

Rf = Risk free rate of return;

Rm = the expected return from a market portfolio;

β = Beta, a measure of the systematic risk of a stock; and

α = specific company risk premium.

Risk Free Rate

The risk free rate of return compensates investors for the time value of money.

The Australian Government Bond rate is widely used and is an accepted benchmark for the risk free return. We have used the 10 year bond rate as this provides the best match against the timeframe of the cash flows being valued.

The 10 year Australian Government Bond rate as at 20 October 2020 was 0.76% (Source: Capital IQ). However, given the recent volatility in the global economy and the current historically low Government bond rates, we have also observed the yield on the 10 year Australian Government bond over a longer period.

The average 10 year Government bond rates for the 1 to 5 years to 20 October 2020 are set out in the table below.

Table 28 Risk-free rates

	%
1 year to 20 October 2020	0.97
2 years to 20 October 2020	1.36
3 years to 20 October 2020	1.81
4 years to 20 October 2020	2.01
5 years to 20 October 2020	2.09

Source: Reserve Bank of Australia

Based on the average yield for the 5 years to 20 October 2020, we consider it reasonable to adopt a risk free rate of 2.09% in the calculation of the WACC.

Market rate (R_m)

This represents the additional risk in holding the market portfolio of investments. The term (R_m–R_f) represents the additional return required, above the risk free rate, to hold the market portfolio of investments. (R_m–R_f) is known as the Equity Market Risk Premium.

There are a number of studies around the Equity Market Risk Premium (“EMRP”) with, generally, most estimates falling within a range of 6% to 8%.

Using our professional judgement, RSM has assessed the Equity Market Risk Premium (R_m–R_f) for SIH to be between 6% and 7%.

Whilst the current EMRP is generally considered to be higher than between 6% and 7% as a result of the economic uncertainty generated by COVID-19, as our assessment of the WACC has been based on adopting a long-term average risk free rate as an initial starting basis and therefore for consistency we have adopted a longer term average EMRP between 6% and 7%, notwithstanding the likely shorter term impact of COVID-19.

An alternative approach that can be adopted to assess WACC can be to use the current lower spot risk free rate and the current EMRP (considered to be around 7.25% to 7.75%). We consider that either approach would broadly derive the same WACC.

Beta (β)

The beta coefficient measures the systematic risk of a company compared to the market as a whole. A beta of 1 indicates that the company’s risk is comparable to that of the market. A beta greater than 1 represents higher than market risk and a beta below 1 represents lower than market risk.

In assessing beta, we have considered the betas for companies comparable to SIH (Column A). The equity betas are adjusted to remove the effect of company specific debt levels resulting in an ungeared beta (Column B). The ungeared betas are then “regeared” based upon an assessment the average industry gearing ratio and the assessed optimal capital structure which is discussed in more detail below (Column C).

The table below sets out the equity beta analysis in relation to the comparable companies.

Table 29 Equity Beta analysis

Comparable Company Betas	Country of domicile	Market Value of Net Debt \$m	Market Value of Equity \$m	Net Debt / Equity	Notional Tax Rate	(A) Levered Beta	(B) Unlevered Beta	(C) Relevered Beta
Troy Resources Limited	Australia	9.4	56.9	16.5%	30.0%	0.50	0.45	0.67
Gascoyne Resources Limited	Australia	76.6	39.2	195.4%	30.0%	0.81	0.34	0.51
Ramelius Resources Limited	Australia	(115.1)	1,674.3	(6.9%)	30.0%	0.89	0.89	1.33
Tribune Resources Limited	Australia	(6.5)	374.1	(1.7%)	30.0%	0.59	0.59	0.88
Resolute Mining Limited	Australia	259.7	1,026.6	25.3%	30.0%	1.07	0.91	1.35
Red 5 Limited	Australia	(93.3)	591.2	(15.8%)	30.0%	1.36	1.36	2.03
Regis Resources Limited	Australia	(154.8)	2,556.0	(6.1%)	30.0%	0.72	0.72	1.07
Perseus Mining Limited	Australia	1.3	1,673.0	0.1%	30.0%	0.40	0.40	0.60
Nusantara Resources Limited	Australia	(3.2)	65.9	(4.8%)	30.0%	0.66	0.66	0.98
Mean				22.4%		0.78	0.70	1.05
Median				-1.7%		0.72	0.66	0.98
Min				-15.8%		0.40	0.34	0.51
Max				195.4%		1.36	1.36	2.03

Source: Capital IQ and RSM calculations

The comparable company descriptions are included in Appendix E.

We have adopted 0.7 as the unlevered beta in our assessment of the appropriate WACC for the Sihayo Gold Project.

Specific company risk, size premium and country risk premium (α)

In considering appropriate the WACC for the Sihayo Gold Project, we have considered the specific risks in the Project which are not experienced by the listed comparable companies and are therefore not reflected in the reported betas or implied multiples derived from publicly available market data.

We have specifically considered the risk inherent with the size of SIH, as well as the execution risks of developing the Sihayo Gold Project and the fact that the Project is located in Indonesia. The comparable companies have a mix of exploration, development and production assets.

Aswath Damodaran, a Stern University professor and valuation subject matter expert, publishes specific country risk premiums based on analysis of bond ratings and default spreads for various countries. His July 2020 table provides a country risk premium of 2.80% for Indonesia.

Using our professional judgement, we have adopted a specific company risk factor of 4.8% to 6.8% for SIH which incorporates the country risk premium and our assessment of additional project risks not factored into the Sihayo Gold Model such as the lack of productivity ramp-up allowance for local labour and the inability to assess reduced throughput scenarios.

Required rate of return on debt (R_d)

The rate of return required by providers of debt includes a risk premium over and above the risk free rate that reflects the debt risk that is specific to the business being valued. This risk effectively represents the risk of default on payments.

In assessing an appropriate debt premium, we have considered a number of factors including:

- SIH's debt mix and current cost of debt;
- the cost of debt for Australian companies similar to SIH (publicly listed companies in production phase);
- the gearing levels adopted for the purposes of calculating the WACC; and
- the prevailing economic conditions as at the date of this report.

We have adopted a risk premium of 800 to 900 basis points over the 3-month Bank Bill Swap Rate ("BBSW"). Based on the 3 month BBSW of 0.08%, this equates to a pre-tax cost of debt of 8.08% to 9.08%.

Capital structure or Gearing Level (D/V)

The capital structure or gearing level adopted for the purposes of undertaking the valuation should generally reflect the level of debt that can be reasonably sustained by any company operating in a particular industry as opposed to the actual capital structure adopted by the business.

The optimal capital structure of a business is driven by two main considerations:

- the tax benefits of debt finance i.e. the deductibility of interest payments for the purposes of assessing corporate tax liabilities; and
- the financial risk to equity holders i.e. the risk of financial distress as a result of over-gearing.

In assessing the optimal capital structure of SIH, we have considered the following:

- the gearing levels of comparable companies as set out in Table 29; and
- the level of debt sustainable by the forecast earnings and cash flows of SIH.

For the purposes of this valuation we have assessed the optimal net debt to equity ratio (D/V) as 70% (resulting in E/V of 30%).

Corporate tax rate (tc)

We have utilised the Indonesian corporate tax rate of 25.0%.

Assessment of WACC

Based on the assumptions set out above, we have assessed the WACC of SIH to be in the range of 9.8% and 11.5%, with a mid-point of 10.7%, as set out in the table below:

Table 30 Assessment of WACC

WACC	Low	High
Target Capital Structure		
Debt to Total Capitalisation	70.0%	70.0%
Equity to Total Capitalisation	30.0%	30.0%
Cost of Debt		
Risk-free Rate	0.1%	0.1%
Debt Premium	8.0%	9.0%
Corporate Tax Rate	25.0%	25.0%
Post-Tax cost of Debt	6.1%	6.8%
Cost of Equity		
Risk-free Rate	2.1%	2.1%
Market Risk Premium	6.0%	7.0%
Levered Beta	1.93	1.93
Company Specific Risk Factor	4.8%	6.8%
Cost of Equity	18.6%	22.5%
WACC (Post Tax, Nominal)	9.8%	11.5%

E. COMPARABLE COMPANIES

Comparable Company	Description
Troy Resources Limited (ASX:TRY)	Troy Resources Limited engages in the exploration and production of gold in South America. It holds interest in the Karouni gold project located in Guyana. The company was founded in 1984 and is based in West Perth, Australia.
Gascoyne Resources Limited (ASX:GCY)	Gascoyne Resources Limited engages in the exploration, evaluation, and development of gold projects. It primarily focuses on exploring the Dalganga gold project located to the northwest of Mount Magnet in the Murchison gold mining region of Western Australia. The company was founded in 2009 and is headquartered in West Perth, Australia.
Ramelius Resources Limited (ASX:RMS)	Ramelius Resources Limited, together with its subsidiaries, engages in the exploration, mine development and operation, and production and sale of gold in Australia. It holds interests in the Edna May gold deposit located within the Westonia Greenstone Belt, Western Australia; the Marda gold project located in the Archaean Marda-Diemals Greenstone Belt, north-east of Perth; the Mt Magnet gold project located within the north-south striking Meekatharra-Mt Magnet greenstone belt of the Western Australian Murchison province; and the Vivien gold deposit located to the west of the town of Leinster in Western Australia, as well as Penny Gold Project. Ramelius Resources Limited was incorporated in 1979 and is based in East Perth, Australia.
Tribune Resources Limited (ASX:TBR)	Tribune Resources Limited, together with its subsidiaries, explores for and develops mineral properties in Australia. The company explores for gold and silver deposits. It holds 36.75% interest in the East Kundana joint venture and 24.5% interest in the West Kundana joint venture located in Western Australia; 50% interest in the Seven Mile Hill project situated in Western Australia; 100% interest in the Japa concession located in Ghana, West Africa; and 40% interest in Diwalwal Gold Project situated in Mindanao, Philippines. The company was incorporated in 1988 and is based in South Perth, Australia.
Resolute Mining Limited (ASX:RSG)	Resolute Mining Limited engages in mining, exploration, development, and production of gold properties in Africa and Australia. The company's flagship project is the Syama Gold Mine located in Mali, West Africa. It is also involved in the prospecting and exploration of minerals. Resolute Mining Limited was incorporated in 2001 and is based in Perth, Australia.
Red 5 Limited (ASX:RED)	Red 5 Limited, together with its subsidiaries, engages in the exploration, production, and mining of gold deposits and mineral properties in the Philippines and Australia. The company holds interests in the Siana Gold project located in the Island of Mindanao, the Philippines; King of the Hills Gold project located in the Eastern Goldfields of Western Australia; and Darlot Gold mine situated in the north-east of Perth in Western Australia. Red 5 Limited was incorporated in 1995 and is based in West Perth, Australia.
Regis Resources Limited (ASX:RRL)	Regis Resources Limited, together with its subsidiaries, engages in the exploration, evaluation, and development of gold projects in Australia. The company owns 100% interests in the Duketon project located in the North Eastern Goldfields of Western Australia; and the McPhillamys project situated in the Central Western region of New South Wales. Regis Resources Limited was incorporated in 1986 and is headquartered in Perth, Australia.
Perseus Mining Limited (ASX:PRU)	Perseus Mining Limited explores, evaluates, develops, and mines for gold properties in West Africa. It holds interests in the Edikan gold mine and Grumesa project located in Ghana; and Sissingué and Yaoure gold projects located in Côte d'Ivoire, as well as Mahalé, Mbengué, and Napié licenses in Côte d'Ivoire. The company was incorporated in 2003 and is based in Subiaco, Australia.
Nusantara Resources Limited (ASX:NUS)	Nusantara Resources Limited engages in the exploration, evaluation, and development of gold resources in Indonesia. It holds a 100% interest in the Awak Mas gold project covering an area of 14,390 hectares located in South Sulawesi, Indonesia. The company was formerly known as Awak Mas Holdings Pty Ltd. and changed its name to Nusantara Resources Limited in February 2017. Nusantara Resources Limited is based in South Melbourne, Australia.

F. INDEPENDENT TECHNICAL ASSESSMENT AND VALUATION REPORT BY MINING ASSOCIATES – THE SIHAYO GOLD PROJECT



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Assessment of Reasonableness of Technical Project Assumptions used in the Sihayo Gold Project Cash Flow Model

Opinion Report Prepared by
Mining Associates Pty Ltd

For RSM Corporate Australia Pty Ltd

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Contents

1	INTRODUCTION	8
1.1	SCOPE OF WORK.....	8
1.2	SOURCES OF INFORMATION.....	8
1.3	AUTHOR BIOGRAPHIES	9
2	PROJECT OVERVIEW	9
2.1	PROPERTY DESCRIPTION AND LOCATION	9
2.2	ACCESSIBILITY, CLIMATE, LOCAL RESOURCES AND PHYSIOGRAPHY	10
2.3	PROJECT HISTORY	10
2.4	EXPLORATION POTENTIAL	11
3	GEOLOGICAL SETTING AND MINERALISATION	12
3.1	REGIONAL GEOLOGY	12
3.2	PROJECT GEOLOGY	12
3.3	MINERALISATION.....	13
4	MINERAL RESOURCE ESTIMATE	14
4.1	OVERVIEW	14
4.2	HISTORICAL ESTIMATES.....	15
4.2.1	SGC March 2020.....	15
4.2.2	Sihayo and Sambung Mineral Resource Estimates	15
4.3	AVAILABLE DATA	15
4.3.1	Grid Convention	15
4.3.2	Drill Hole data.....	15
4.3.3	Collar and down-hole surveys.....	16
4.3.4	Collar Surveying Procedure	16
4.3.5	Bulk Density.....	16
4.3.6	Topography	17
4.4	SAMPLING AND ASSAYING	17
4.4.1	Drilling Methodology.....	17
4.4.2	Drill Core Orientation	18
4.4.3	Geotechnical Logging Procedures	18
4.4.4	Geological Core Logging	18
4.4.5	Sample Preparation.....	18

4.4.6	Database / data flow	19
4.4.7	Laboratory Methodology	19
4.4.8	Laboratory internal QAQC.....	19
4.4.9	QAQC Discussion of Historical ITS performance - 2013	19
4.4.10	QAQC Analysis – 2019 Infill Drilling.....	19
4.4.11	QAQC Discussion of 2019 Infill Drilling.....	20
4.5	PREPARATION OF GEOLOGICAL MODEL AND INTERPRETATIONS	20
4.5.1	Alteration Profiles	21
4.5.2	Oxidation Intensity and Profiles	21
4.5.3	Treatment of Un-Sampled Intervals.....	21
4.5.4	topics not covered in the report	22
4.6	SPATIAL CONTINUITY ANALYSIS	22
4.7	RESOURCE ESTIMATION METHODOLOGY	23
4.7.1	Modelling Parameters.....	24
4.8	RESOURCE CLASSIFICATION.....	24
4.9	RESOURCE ESTIMATES.....	26
4.9.1	DFS mineral resource estimate	26
4.9.2	Model Validation.....	26
4.10	DFS APPENDICES.....	27
4.10.1	Appendix 1	27
4.10.2	Appendix 2: Search Rotations	28
4.10.3	Appendix 4, 5 and 6.....	28
4.11	CONCLUSIONS AND RECOMMENDATIONS – RESOURCES	29
5	DFS ORE RESERVE ESTIMATE.....	30
5.1	AMC PROCESS TO ESTABLISH AN ORE RESERVES STATEMENT	31
5.2	PIT DESIGN	33
5.3	MINING SCHEDULE	33
6	MINING	36
6.1	DEPOSIT CHARACTERISATION	36
6.1.1	Topography	36
6.1.2	Lithology.....	36
6.1.3	Groundwater	36
6.1.4	Geotechnical	37
6.1.5	Hydrology	37

6.1.6	Ore Grade	38
6.2	CONSTRUCTION	38
6.3	MINING METHOD	39
6.3.1	Grade Control/Survey	40
6.3.2	Pre-Strip	40
6.3.3	Waste Removal	41
6.3.4	Wast Dump Construction	42
6.3.5	Ore Mining	43
6.3.6	Drill and Blast	44
6.4	MINE OPERATIONS	46
6.4.1	Labour availability	46
6.4.2	Mining Equipment.....	46
6.5	MINING SCHEDULE	52
6.6	REHABILITATION	55
6.7	ECONOMIC EVALUATION	55
6.8	CONCLUSIONS AND RECOMMENDATIONS - MINING	56
6.8.1	Effective Work Hours for Haultrucks/Truck Numbers	56
6.8.2	Ramp Up provision	57
6.8.3	Reverse Cycle Drilling	57
6.8.4	Waste Prestrip.....	57
7	MINERAL PROCESSING.....	59
7.1	SOURCES OF INFORMATION.....	59
7.2	ORE TYPES AND GOLD OCCURRENCE	59
7.3	RECOVERABLE GOLD	59
7.4	TESTWORK	59
7.5	PROCESS DESIGN	59
7.6	EQUIPMENT SELECTION	60
7.7	RISK REVIEW	61
7.8	CONCLUSIONS AND RECOMMENDATIONS	61
8	CAPITAL COST	62
8.1	MINE	62
8.2	PROCESSING PLANT	65
9	OPERATING COST	66
9.1	MINE	66

9.2	PROCESSING PLANT	67
10	CONCLUSIONS	68
10.1	RESOURCES AND RESERVES INCORPORATED IN THE CASHFLOW MODEL.....	68
10.1.1	Resources	68
10.1.2	Reserves	68
10.2	MINING PHYSICALS (INCLUDING TONNES OF ORE MINED, ORE PROCESSED, RECOVERY AND GRADE)	68
10.2.1	Effective Work Hours for Haultrucks & Truck Number estimates	69
10.2.2	Mining Contractors Waste Pre-strip	72
10.3	PROCESSING ASSUMPTIONS (INCLUDING ORE AND GRADE PROCESSED, RECOVERY AND GRADE)	72
10.4	OPERATING COSTS (INCLUDING BUT NOT LIMITED TO MINING, PROCESSING, HAULAGE, GENERAL SITE COSTS/ADMINISTRATION, PENALTIES, TRANSPORT, CONTINGENCIES, AND ROYALTIES)	72
10.5	CAPITAL EXPENDITURE (INCLUDING BUT NOT LIMITED TO PROJECT CAPITAL COSTS, SUSTAINING CAPITAL EXPENDITURE, SALVAGE VALUE, REHABILITATION, AND CONTINGENCY).....	73
10.6	ANY OTHER RELEVANT TECHNICAL ASSUMPTIONS NOT SPECIFIED ABOVE	73
10.6.1	Processing Risk (high risk)	73
10.6.2	Mining Risk	74

List of Figures

Figure 2-1.	Project Overview showing CoW and Regional Geology	10
Figure 3-1.	Project Overview showing COW and main prospects with geology.....	12
Figure 4-1.	Figure 56 Sectional view of infill and ore grade population strings	20
Figure 4-2.	Sihayo Sectional view 54500mE of the block model displaying block resource categorisation (Figure 61).	25
Figure 4-3.	Figure 66: Sambung Sectional oblique view 3 of the block model displaying block resource categorisation.....	26
Figure 4-4.	Sihayo Sectional Swath Plot (Figure 67)	27
Figure 6-1.	Sihayo and Sambung Mining Areas	36
Figure 6-2.	Groundwater Discharge Rates	37
Figure 6-3.	6 yr. average rainfall by Month at Sihayo Rain Station	38
Figure 6-4.	Typical Ore Rock Types and Grade	38
Figure 6-5.	Mine Development Infrastructure Plan.....	39
Figure 6-6.	Pioneering Works.....	40
Figure 6-7.	Sihayo Final Pit Design	41

Figure 6-8: Martabe Mine Terrace Mining	41
Figure 6-9. Sihayo and Sambung Pit and Waste Dump locations.....	42
Figure 6-10. Waste Dump Design x-Section.....	43
Figure 6-11. Rom Stockpile Location	43
Figure 6-12. Push Back Ore Production Schedule.....	44
Figure 6-13. Cat 345 Excavator loading Cat 745 ADT.....	47
Figure 6-14. Moxy MT51.....	49
Figure 6-15. Cat 345.....	49
Figure 6-16. Sihayo and Sambung Push Back Areas	53
Figure 6-17. Sihayo and Sambung Waste Movement Schedule.....	54
Figure 6-18. Sihayo and Sambung Ore Production Schedule	54
Figure 6-19. Sihayo Economic Evaluation	56

List of Tables

Table 4-1. DFS Mineral Resource Estimate by category	14
Table 4-2. DFS Mineral Resource Mineral Resource Estimate.....	14
Table 4-3. Dataset Summary.....	21
Table 5-1. Sihayo – Ore Reserves by category	30
Table 5-2. Sambung Ore Reserves by category	30
Table 5-3. Sihayo and Sambung Ore Reserves.....	30
Table 5-4. Whittle Study Input Costs	32
Table 5-5. Sihayo and Sambung LOM Mining Schedule	33
Table 5-6. AMC Key Assumptions	33
Table 5-7: Financial Model and Push Back Model Comparison.....	34
Table 5-8: AMC Push Back Material Movement Annual Summary.	35
Table 6-1. Sihayo Project Mining Push Back Schedule	43
Table 6-2. Ave. Equipment Mechanical Availability.....	51
Table 6-3. Equipment Effective Work Hours	52
Table 6-4. Sihayo Project Push Back Schedule Annualised.....	53
Table 6-5. Sihayo Project Financial Model DFS 2020 Mining Schedule and Major Fleet Numbers.....	57
Table 6-6. Sihayo Project Push Bach Schedule	58
Table 8-1. DFS 2020 Mobile Fleet Comparison.....	62
Table 9-1. Mining Fleet Hourly Operating Cost	67
Table 10-1: Reasonable effective work hours for Haul Trucks.	70
Table 10-2: Reasonable Operating costs for Excavators and Trucks.	70

Table 10-3: Reasonable Assumptions for truck numbers to meet current schedule. 71

Table 10-4: Reasonably assumed Truck Fleet Operating costs..... 71

Table 10-5: Financial model and pre-strip. 72

Table 10-6: Reasonable assumed additional pre-strip costs. 72

1 INTRODUCTION

Mining Associates (MA) was engaged by Nadine Marks of RSM Corporate Australia Pty Ltd (RSM) to undertake a high-level review of assumptions used in the Sihayo Gold Project cash flow model and produce a Technical Assessment Report of the reasonableness of those assumptions. The study was undertaken in September 2020.

1.1 SCOPE OF WORK

The Scope agreed with RSM was for MA to carry out a high-level review and produce an **Assessment Report** of the reasonableness of technical assumptions used in the cash flow model. The review was to include:

- Resources and reserves incorporated in the cashflow model
- Mining physicals (including tonnes of ore mined, ore processed, recovery and grade)
- Processing assumptions (including ore and grade processed, recovery and grade)
- Operating costs (including but not limited to mining, processing, haulage, general site costs/administration, penalties, transport, contingencies, and royalties)
- Capital expenditure (including but not limited to project capital costs, sustaining capital expenditure, salvage value, rehabilitation, and contingency)
- Any other relevant technical assumptions not specified above

This report is based on data supplied by Sihayo, public domain information and the authors prior experience. The main source used was the Sihayo Gold Project Definitive Feasibility Study. June 2020.

1.2 SOURCES OF INFORMATION

The DFS document provided is a PT Sorikmas Mining document although AMC Consultants did the ore reserves, pit design and mine schedule. Page 3 of the DFS states:

Notices

This document contains the expression of the professional opinion based on information available at the time of preparation. The quality of the information, conclusions and estimates contained herein is consistent with the intended level of accuracy as well as the circumstances and constraints under which the study was performed. The report includes information generated or provided by other outside sources identified herein. PT Sorikmas Mining does not warrant the accuracy or completeness of data supplied by outside sources. This report was prepared for the sole and exclusive benefit of PT Sorikmas Mining and its partners. Any other use or reliance on this report by any third party is at that party's sole risk.

The Report PT Sorikmas Sihayo CP Report PT Sorikmas Mining AMC Project 32001516 June 2020 states:

This report summarizes the work conducted by AMC Mining Consultants (Canada) Ltd (AMC) for PT Sorikmas on the Sihayo and Sambung deposits. AMC was tasked by PT Sorikmas to run a mine plan to the standard expected of a Feasibility Study. PT Sorikmas provided Resource block models for both the Sihayo and Sambung deposits, located in Sumatra, Indonesia. These Resource block models were given a high-level review by AMC and are deemed to be free of any fatal flaws. AMC believes that the recommended additional work undertaken in the detailed engineering phase will result in greater project value for the Sihayo and Sambung deposits.

PT Sorikmas provided the following main information:

- *Resource models of both the Sihayo and Sambung deposits*
- *Topography.*
- *Equipment performance assumptions.*

- *Geotechnical guidance based on recommendations from previous geotechnical studies.*
- *Capital and Operating Cost estimates party is at that party's sole risk*

1.3 AUTHOR BIOGRAPHIES

Bruce Wright *JD, MEngSc, MBA, FAICD, MAusIMM, R.P.E.Q*

Bruce is a career mining professional with over 30 years of experience as a business executive, mine manager, mining engineer and mining consultant. He is experienced at developing surface and underground mining projects from the exploration stage through the planning and approval stage to construction mobilisation and mine production. Bruce has senior management experience as Company Director, General Manager and Opencut Mine Manager and Project Manager in QLD and NSW. Bruce works for Wright Mining Consultants that provide a full range of services to the mining industry. Bruce has consulted on projects in coal, gold, manganese, nickel, iron ore, bauxite, silver-lead, copper, rare earths and uranium projects Bruce has undertaken mining projects in QLD, NSW, NT, SA, WA, New Zealand, Ghana, New Caledonia, Papua New Guinea, Sierra Leone, Saudi Arabia and the Philippines. Bruce's recognised skills include mining operations management, mining performance improvement, contract mining, project management, mining economic evaluations, feasibility studies, mining engineering, blasting engineering, mining risk and safety management, safety training course development and delivery, due diligence of mining acquisitions, mining equipment selection and performance.

Craig Brown: **B.E. (Chem. Eng.) Grad.Dip.(Geosci), MAusIMM** **Associate Consultant**
 Craig has over 30 years' experience in metallurgical engineering, management and consulting in the mineral processing / mining industries. Experience includes management levels for operating companies, project design and engineering through to commissioning for both smaller and major complex processing facilities and provision and management of consulting services to new projects and current operations. His technical expertise includes alluvial processing, heap leaching and concentrator design and operation; covering Crushing, Grinding and Classification, Heavy Medium Separation, Gravity Separation, oxide and sulphide Flotation, Leaching, Thickening, Tailings Treatment, Filtration and Process Control. He has direct experience in recovery of, and commercial aspects of, many mineral commodities including gold, copper, silver-lead-zinc, nickel, magnesium, tin, iron-ore, mineral sands, industrial minerals, uranium and coal.

Ian Taylor: **BSc (Geology) Hons, MAusIMM (CP), MAIG** **Principal Consultant**
 Ian's expertise covers resource estimation, geostatistics, geological modelling, mine production geology, mine reconciliation, exploration geology and feasibility studies. He has 20 years' experience in the minerals industry working in open pit and underground mines and exploration roles. Ian has experience in a range of commodity styles including orogenic gold, epithermal gold and silver, intrusion related gold, porphyry copper-gold-molybdenum and komatiitic nickel sulphide. He meets JORC CP and NI 43-101 QP requirements for reporting of resources for orogenic gold, epithermal gold, intrusion related gold, porphyry copper-gold-molybdenum and komatiitic nickel mineralisation styles. Career highlights include resource modelling for feasibility studies at Runruno and Taysan, designing and implementing grade control systems at Toka Tindung, geology and resource management at Long Shaft nickel mine and managing grade control, QAQC and geological models at the Super Pit in Kalgoorlie.

Tony Woodward: **BSc (Geology) Hons, MSc Expl & Mining, MAusIMM** **Principal Consultant**
 Tony's expertise is in project management from greenfields exploration to mine development and production, project evaluation and training/mentoring. He has over 35 years' experience including exploration management, technical services management at copper and gold mining operations and exploration geology roles at various levels. Tony has worked in a variety of different commodity styles, including epithermal gold, porphyry gold-copper-molybdenum, sediment-hosted copper, granite-related and alluvial tin, heavy mineral sands and alluvial gold. Career highlights include managing technical services at the Kinsevere Copper Mine in DRC, managing geology and technical services at Vatukoula Gold Mine in Fiji, and direct participation in discoveries at Esperanza (copper), Enaabba (heavy mineral sands) and Baie N'Go (lateritic nickel).

2 PROJECT OVERVIEW

2.1 PROPERTY DESCRIPTION AND LOCATION

Sihayo Gold Limited (ASX: SIH) owns a 75% interest in PT Sorikmas Mining which in turn holds the Sihayo Pungktu 7th Generation Contract of Work (COW). The remaining 25% interest is held by joint venture partner PT Aneka Tambang Tbk. Sihayo Gold Limited (formerly Oropa Limited) acquired control of the project in April 2004 and is currently managing the project.

The Project is in Mandailing Natal District of North Sumatra Province, Republic of Indonesia.

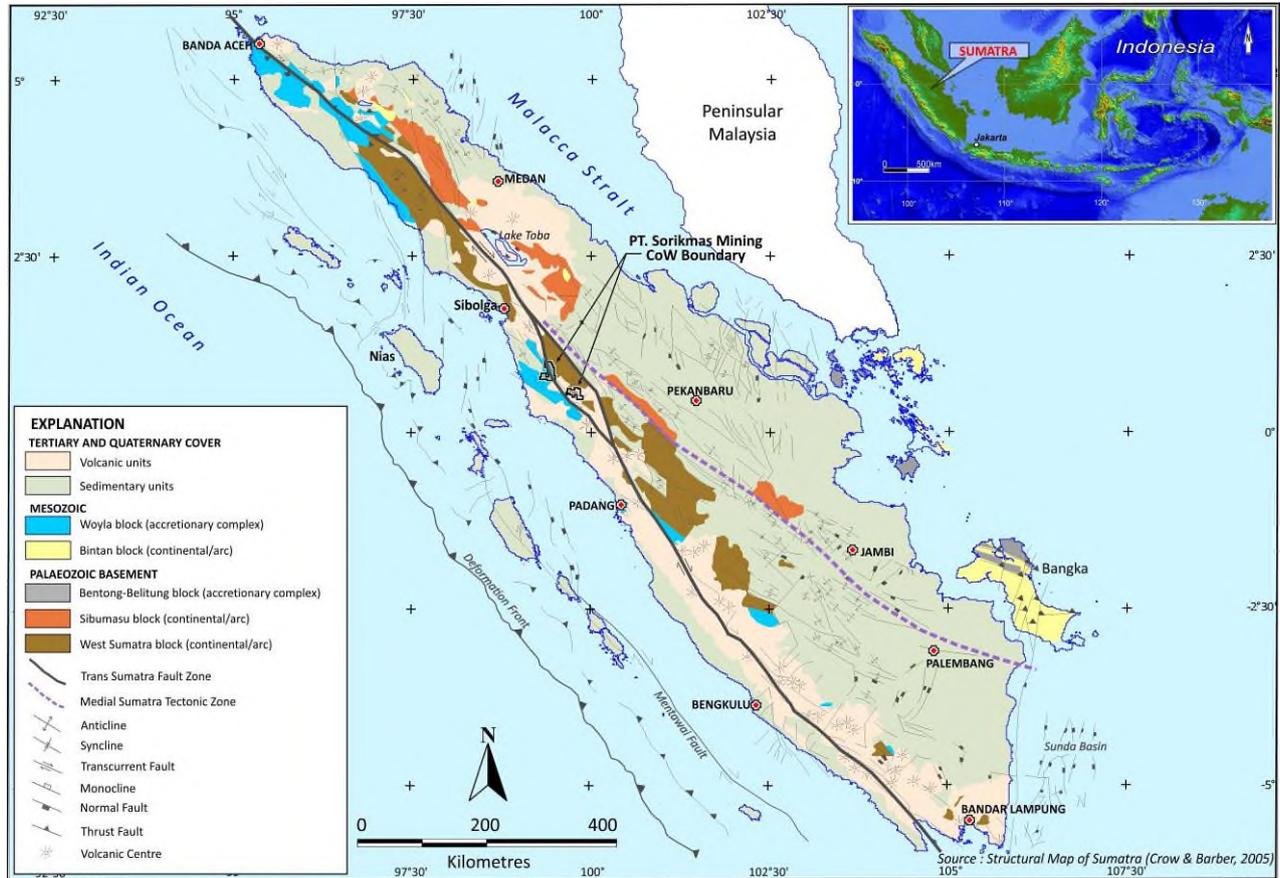


Figure 2-1. Project Overview showing CoW and Regional Geology

Source: Sihayo 2020 DFS

2.2 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES AND PHYSIOGRAPHY

The Sihayo and Sambung gold resources, which are the focus of the DFS, are in the northern block of the CoW. The Project is in the forested terrain of the Barisan Mountains, which lie along the NW-SE trending Trans Sumatran Fault Zone (TSFZ). Elevations at the Project site range from about 985m to 1,300m above sea level. Villages are located on the eastern side of the mountain range at an elevation of about 250m with the closest village being 3.5km from the Sambung resource. Access to the resource area is currently by steep walking trails (about 3 hours) from the surrounding villages.

The Sihayo resource and eastern access area is located within “Protected Forest”. The Pungkut CoW contains caveats that allow the company to conduct open cut mining in “Protected Forest”.

2.3 PROJECT HISTORY

An exploration license under a seventh generation Contract of Work (CoW) was granted in February 1998 to PT Sorikmas Mining (PTSM). The initial CoW granted in 1998 covered an area of 201,600 hectares. The CoW currently covers an area of 66,200 hectares, in two blocks: Sihayo (North Block) and Pungkut (South Block). The CoW was converted into operation production phase on 7 December 2017, which runs until 6 October 2049. Exploration and development activities up to this time have been mainly focused on the North Block, where the Sihayo and Sambung deposits are located.

Regional exploration (follow up of regional stream sediment gold anomalies) by Aberfoyle Resources Ltd between 1995 and 1998 led to the discovery of the Sihayo and Sambung prospects. Detailed surface exploration work (geological mapping, grid soil sampling, detailed rock chip and trench geochemical sampling, ground magnetic, IP and Resistivity surveys) was undertaken by Aberfoyle between late 1997 and 1999. Initial drilling at Sihayo and Sambung commenced in 1999. Work re-commenced in 2003 and steadily increased until 2013.

A total of 783 holes were completed for 79,765 metres of drilling on the Sihayo and Sambung deposits between 1999 and 2019. A total of 66,815 metres of diamond drilling in 619 holes have been drilled to date on the Sihayo gold resource. A total of 12,950 metres of diamond drilling in 164 holes have been drilled on the Sambung gold resource.

2.4 EXPLORATION POTENTIAL

There is potential to discover additional sediment-hosted jasperoid gold resources within a 5km radius of the Sihayo resource. The prime exploration targets identified by historical work are along two mineralised trends, Sihayo-Hutabargot and Sihayo 3-4-5, which comprise the Sihayo gold belt. The initial focus for near-mine exploration is on the 800m long Sihayo-Sambung Link Zone. This target contains abundant, large residual jasperoid boulders in regolith and sporadic jasperoid outcrops in limestone.

The Hutabargot epithermal style prospect currently provides the highest level of interest and is located within 10km of the Sihayo deposit.

MA Comment:

Exploration programs over three decades have identified numerous sediment-hosted gold, epithermal gold, and potential porphyry-style copper-gold mineralisation prospects within the CoW. As a result, the company has many potential prospects including several drill targets which are yet to be tested.

Intense artisanal mining activity is reported at Hutabargot.

MA notes that the surface rights are valid until 2049. The DFS states the company has the right under the prevailing Indonesian Mining Law to apply for two ten-year extensions.

3 GEOLOGICAL SETTING AND MINERALISATION

3.1 REGIONAL GEOLOGY

The Sihayo and Sambung gold deposits are situated on the north western end of the 15 km long Sihayo - Hutabargot mineralised trend of Permian calcareous volcano-sedimentary rocks and associated intrusions and directly adjacent to a major dilational basin that is controlled by the Trans Sumatran Fault Zone (TSFZ). The TSFZ and associated deep seated dilatational structures are interpreted to be the macro mineralisation controls of the Sihayo – Sambung gold resource.

A regional metal zonation is apparent from immediate flanking skarn (Sihayo North) and epithermal gold vein deposits to distant porphyry Au-Cu deposits (Singalancan and Rura Balancing) 12–15 km to the southwest.

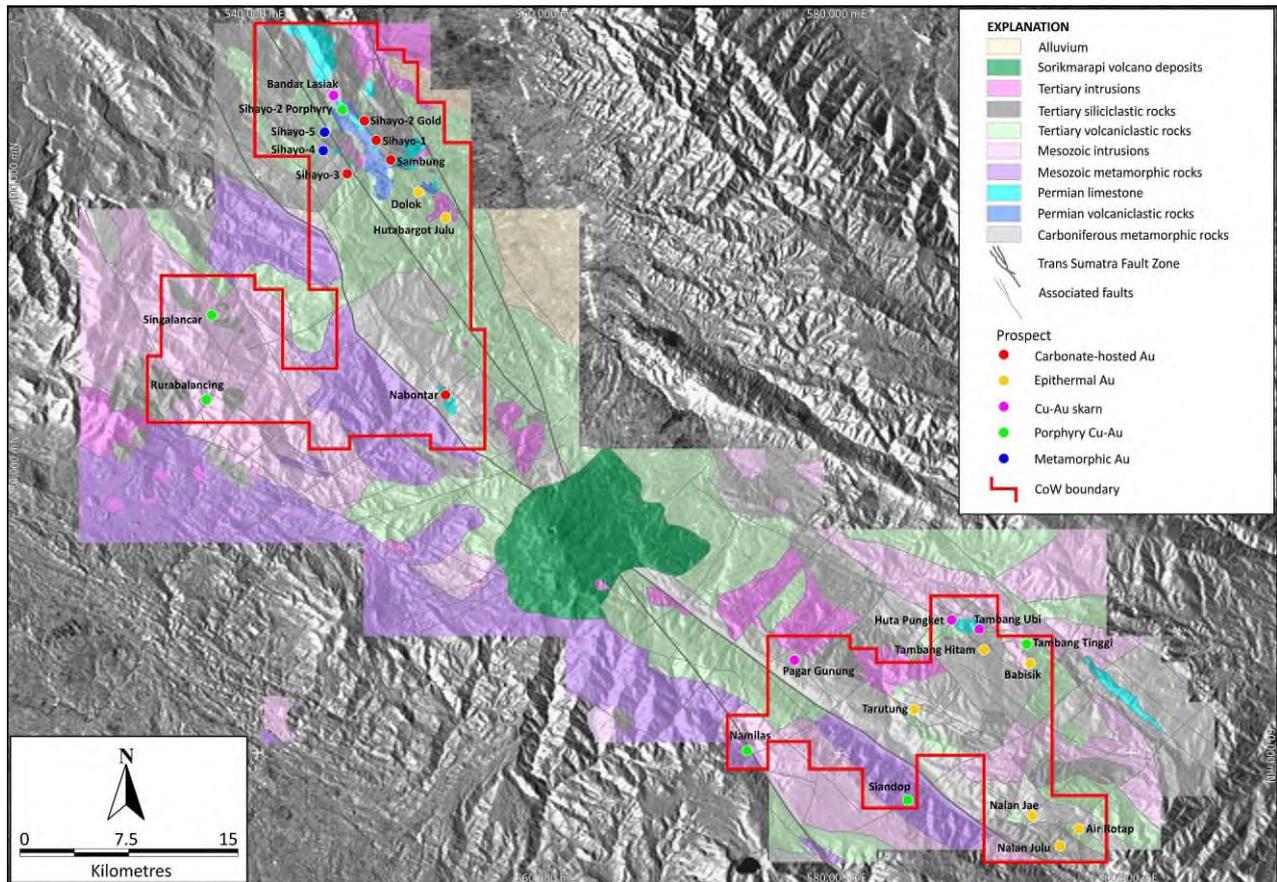


Figure 3-1. Project Overview showing CoW and main prospects with geology

Source: Sihayo 2020

3.2 PROJECT GEOLOGY

The Sihayo and Sambung resources are classified as sediment-hosted gold (SHG) deposits. The Sihayo and Sambung resources are located about 800m apart but are interpreted to occur at about the same stratigraphic position and on the same controlling regional fault structures.

Disseminated gold mineralisation is associated with jasperoid replacement of preferred carbonate units within a Permian-age sequence of fossiliferous silty limestone and marble, with deeper volcanogenic sediments, tuffs, and agglomerate. The Permian sequence is unconformably overlain by Tertiary-age siltstone, sandstone, and conglomerate that partly cover the mineralisation.

In addition to primary ore, oxidized regolith deposits of uncemented jasperoid and clay cover much of the area and constitute a significant part of the initial open pit resource. In places, the regolith deposits accumulated in deep sinkholes formed in the Permian carbonates.

Factors affecting continuity both of grade and geology are most likely to be associated with structural controls and local complexity, the knowledge of which is limited with the current spacing of information.

The degree of weathering and oxidation state of the mineralised zones is highly variable and irregularly distributed both laterally and vertically within the Sihayo and Sambung gold resources. Complete or near complete oxidation is best developed in regolith mineralisation.

The Competent Person for the Mineral Resource Estimate considered the geological interpretation based on structure, oxidation, alteration, and geology was robust and alternative interpretations would not have a material effect on the Mineral Resource.

3.3 MINERALISATION

The general characteristics of the Sihayo deposit are summarised as:

- Submicron size gold locked in disseminated fine-grained arsenian pyrite or pyrite
- Extremely fine native gold within oxidised units interstitial to microcrystalline quartz, sulphide and organic residues
- Anomalous Ag, As, Hg and Sb
- Low base metal occurrence
- Associated realgar (arsenic sulfide), orpiment (arsenic sulfide) and stibnite (antimony sulfide)
- Sedimentary host sequence that includes silty carbonates and calcareous siltstones
- Intensely silicified zones historically referred to as jasperoid
- Pervasive carbonate dissolution (decalcification)
- Complex geological structure

The oxidation state of the mineralised zones is highly variable and irregularly distributed both laterally and vertically within the Sihayo deposit. The bulk of the deposit is classed as transitional or partially oxidised and fresh. The amount of free gold increases with increasing weathering intensity and the liberation of gold from sulphides into limonite in oxidised zones

MA Comment:

The deposit geology is well documented as a sedimentary rock hosted disseminated gold deposit that has many features in common with Carlin-type deposits in the western United States.

The information provided is of sufficient detail for a DFS and the level of description shows good understanding of the deposit model. No alternate interpretations are proposed as geological confidence in the model is moderate to high.

MA notes the oxidation state will likely affect recovery of gold.

4 MINERAL RESOURCE ESTIMATE

4.1 OVERVIEW

The Mineral Resource Estimate (MRE) used in the Sihayo DFS were prepared by Spiers Geological Consultants Pty Ltd (SGC) as at the 12th March 2020. The Sihayo MRE is compiled in accordance with the guidelines defined in the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

Table 4-1. DFS Mineral Resource Estimate by category

Source: Sihayo – 2020 DFS

	Measured			Indicated			Inferred			Total		
	Mt	g/t	Moz	Mt	g/t	Moz	Mt	g/t	Moz	Mt	g/t	Moz
Sihayo deposit												
Oxide	1.6	1.8	0.09	1.8	1.5	0.09	0.5	1.5	0.02	4.0	1.6	0.21
Transitional	2.4	2.4	0.19	5.0	1.8	0.29	1.8	1.6	0.09	9.2	1.9	0.57
Fresh	0.9	2.8	0.08	4.3	2.3	0.32	3.2	2.0	0.20	8.4	2.2	0.60
Sub-total	4.9	2.3	0.36	11.2	2.0	0.70	5.5	1.8	0.31	21.5	2.0	1.4
Sambung deposit												
Oxide	0.5	1.6	0.02	0.3	1.5	0.02	0.1	1.4	0.00	0.9	1.5	0.04
Transitional	1.0	1.6	0.05	0.5	1.8	0.03	0.1	1.8	0.00	1.6	1.7	0.08
Fresh	0.0	1.3	0.00	0.0	1.8	0.00	0.0	2.2	0.00	0.1	1.5	0.00
Sub-total	1.5	1.6	0.08	0.8	1.7	0.04	0.2	1.6	0.01	2.5	1.6	0.13
Combined resources												
Total	6.4	2.1	0.44	12.0	2.0	0.75	5.6	1.8	0.32	24.0	2.0	1.5

- Figures may not sum due to rounding and significant figures do not imply an added level of precision
- Reported at a cut-off grade of 0.6 g/t for gold
- Oxide<=1.50gm/cc, transition>=1.51<=2.50gm/cc and Fresh>=2.51gm/cc
- Numbers for the Sambung deposit are local mine depleted

Table 4-2. DFS Mineral Resource Mineral Resource Estimate

Source: Sihayo – 2020 DFS

Deposit	Measured			Indicated			Inferred			Total		
	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)
Sihayo	4.9	2.3	0.36	11.2	2.0	0.70	5.5	1.8	0.31	21.5	2.0	1.4
Sambung	1.5	1.6	0.01	0.8	1.7	0.04	0.2	1.6	0.01	2.5	1.6	0.13
Total	6.4	2.1	0.44	12.0	2.0	0.75	5.6	1.8	0.32	24.0	2.0	1.5

Figures may not sum due to rounding. Significant figures do not imply an added level of precision. Estimates at Sambung are depleted by local mining.

Illegal miners are operating in the area especially around the Sambung deposit. Their activity has a direct economic impact on the project and as such the top 5m of the deposit has been assumed to be already mined out.

4.2 HISTORICAL ESTIMATES Four resource models have been created for the deposit over time by external consultants and one in-house: Runge (2011), H&SC (2013), PTSM (2018) and the current SGC (2020) resource estimate. Summary tables of previous mineral resource estimates and the assumptions are contained in this section. MA concurs with SGC's review of the PTSM resource.

4.2.1 SGC March 2020

The section refers to a 0.4 g/t cut off as being defined by engineers as the likely marginal lower cut-off grade in accordance with project economics. Then presents resource figures at a 0.6g/t Au cut-off grade put forth by the client as being consistent with the likely economic scenario.

4.2.2 Sihayo and Sambung Mineral Resource Estimates

This section puts forward the key assumptions, input criteria, model constraints and economic considerations and outputs which have led to the inherent differences between the 2011 Runge resource model, 2012 H&SC resource model, the 2018 PTSM resource model and the current 2020 SGC resource models for Sihayo and Sambung

MA Comment: Information and clarification provided under project historical estimates is of sufficient detail for a DFS.

4.3 AVAILABLE DATA

4.3.1 Grid Convention

The horizontal coordinate system is Universal Transverse Mercator zone WGS84 47N, Indonesian National Datum (DGN95). Elevations are based on LiDAR survey.

4.3.2 Drill Hole data

Diamond Drilling is the sole drill technique used to obtain samples to inform the resource estimate.

The deposits were initially drilled in 1999, with a hiatus between 2000 and 2002. In 2003 drilling increased and peaked in 2010 and continued until 2013. 74 additional holes were drilled in 2019 to strengthen the resource categories. All 783 holes are utilised by SGC in the current resource estimate.

- 619 holes for, approximately 66.8 km of drilling
- 164 holes for approximately 12.9 km of drilling

MA Comment: Drill methods employed are suitable industry standard drilling techniques for the use in mineral resources.

MA recommends the close off date for the data used in this resource be included in this section, the close of date is disclosed in Section 12.2 Oxidation intensity and profiles. The close off data for the resource is the 8th December 2019.

Drill hole Spacing

The drilling density is considered appropriate at this stage of development to appropriately define the geometry and extent of the larger scale continuity and smaller scale local variability of the mineralisation for the purpose of resource estimation given the understanding of the local project geology, structure and confining formations.

Infill drilling designed to increase confidence in the models at Sihayo showed the continuity of the defined cavity fill zones to be less continuous, resulting in the breaking up of previously defined continuous mineralisation. This is an understood risk in mineralisation reliant on cavity filling karsts.

MA Comment: MA agrees with SGC recommendation that further drill testing be undertaken to define more clearly the limits, geometry and style of the short scale mineralisation continuity present in all project areas with particular emphasis on the ore zones with the least apparent continuity such as unconformity and cavity fill related ore zones

4.3.3 Collar and down-hole surveys

Heading should read 9.1.4 Down Hole Surveys.

SGC give the assumption that no validation of historical collars has been undertaken” “SGC are not aware of the extent to which PTSM have taken steps to account for the accuracy of the survey database.”

Downhole orientation readings were taken at approximately every 40 to 50 m down each hole at Sihayo and 25 or 50 m intervals at Sambung. Suitable quality assurance procedures are in place to ensure readings showing magnetic interference are validated. Down hole surveys are consistently recorded. Shorter holes (30 -40 m and some 80 m holes) do not have down hole surveys

MA Comment: Down hole survey methods are in-line with suitable industry standard surveying techniques, and the data is suitable for use in mineral resources. MA notes this level of down hole accuracy is sufficient for a DFS within a Sediment hosted gold deposit.

4.3.4 Collar Surveying Procedure

No information is offered in this section other than to note that “Some key discrepancies were recognised in the datum for the original dataset and that of the recent survey passes.”

All drill hole collars at Sihayo have been subsequently resurveyed by Total Station electronic transit theodolite and a distance meter.

MA Comment: No survey qualifications are offered for Sambung drill holes.

4.3.5 Bulk Density

Density measurements are consistently collected and determined using Archimedes principal. During the 2019 drill program PTSM a density samples were send samples off for umpire check at PT Intertek (Jakarta). Whole core is used for the density sample, a core block is inserted where the core is taken from. (Figure 34). TPSM have a procedure for determining moisture content.

MA Comment: It is unclear if the density sample is returned to the tray before the core is cut for assay analysis. The information provided is of sufficient detail for a DFS.

4.3.6 Topography

The Sihaya and Sambung project topographic surface was established in October 2010 by an airborne LiDAR (Laser Detection and Ranging) survey.

“The survey datum for the LiDAR is ‘Indonesian National Datum’ (DGN95). The control point differential GPS surveying highlighted base station reduced level (mRL) errors of approximately two metres”

MA Comment: MA agrees with SGC recommendation that PTSM engage a suitably qualified surveyor to review all collar and LiDAR surveying as mining studies are undertaken.

LiDAR is a suitable level of topographic detail for a DFS Study, all data should be adjusted to the LiDAR survey.

4.4 SAMPLING AND ASSAYING

4.4.1 Drilling Methodology

Drill holes are routinely orientated, geologically and geotechnically logged photographed and sampled.

HS&C inspected the PTSM drilling protocols during the February 2013 site inspections and found that drilling sites and core handling practices were well organised and effective systems were in place to ensure the maximisation of core recovery and sample integrity.

A summarised sampling procedure is documented below:

- All core logging including core sampling was conducted at the Sihayo or Sambung core facility which is on site within several hundred metres of the resource drill program pads.
- Pre 2013 drill holes were orientated with a spear and chinagraph pencil, 2019 infill drill program was orientated with Coretell ORIsht.
- All drill core trays were digitally photographed – in wet and dry condition – before and after cutting and sampling – and the photographic record is kept on file in the master database.
- Project Geologists marked up the sample interval on core based on geological logging and defined mineralised and waste intervals.
- Pre 2004, samples were mixed interval lengths based on geology. From 2005 to 2013, samples in mineralisation were generally 1 metre +/- 0.5 metre intervals taken on the measured down-hole metre. 2m +/- 0.5 metre intervals were used for samples taken in hanging and footwalls adjacent to mineralisation on respective down-hole metre marks.
- A core cutting line was marked on core by a geologist or senior field assistant so the sample was not biased / unbiased for vein or structure orientation.

In 2011, H&SC in conjunction with PTSM site geologists designed the current logging system. All historic data was migrated into this electronic database system and validated.

MA Comment: MA consider the drilling and sampling procedures provided are adequate to define the geometry of the known mineralisation and a Mineral Resource Estimate with sufficient confidence to classify the estimate for the Sihayo & Sambung in accordance with JORC Guidelines.

4.4.2 Drill Core Orientation

Pre 2013 drill holes were orientated with a spear and chinagraph pencil, 2019 infill drill program was orientated with Coretell ORIshot. Lithological contacts and structural defects were then manually recorded for alpha and beta measurements by the logging geologists and geotechnicians at the core shed.

MA Comment: Information provided under drill core orientation is of sufficient detail for a DFS.

4.4.3 Geotechnical Logging Procedures

The geotechnical logging was captured on handwritten log sheets by senior field assistants. Specific data captured included interval, core recovery, fracture density, core competency and structure orientation and hardness. Additional information expected would be specific defect types and details, eg. fracture infill, fracture orientation and shape, types, joint roughness, joint filling, cemented/open, degree of weathering and fault structures.

MA Comment: MA is not a geotechnical expert and does not offer an opinion of this risk, however it is expected that core recovery and RQD is calculated from this data. MA has not been provided with the database to know if this is the case.

4.4.4 Geological Core Logging

All drill core is processed at facilities onsite at either the Sihayo or Sambung core facilities.

PTSM have undertaken qualitative and semi quantitative geological logging of the drillholes used in the MRE2020. The data captured throughout the life of the Sihayo - Sambung project included drill-hole summary, collar, logging tasks, drill information, down-hole survey, colour, lithology, weathering, alteration, veining, sulphide minerals, fracture, competency, structure, hardness, recovery, orientation measurements, density, sample information and strength.

The current final logging system is either paper based with subsequent data entry or directly into a MSExcel spread sheet. MSExcel spread sheets are uploaded into a MSAccess front end to a SQLServer database.

Summary details of the logging procedures of PTSM are presented. PTSM digitally photograph the drill core for future records.

MA Comment: No comment is provided on if or how the physical ½ core not sampled is stored or discarded.

4.4.5 Sample Preparation

Typically, ½ core is sent to the laboratory. In poorly consolidated core it is divided down the core centre line and subsampled using paint scrapers/spatulas.

The subsampling protocols employed by PTSM, have maintained a consistent, secure and reliable subsampling methodology over the 20 year duration of exploration at the Sihayo and Sambung Deposits. The procedures and workflow are well documented by PTSM and show sound quality control principles to ensure that subsamples are representatively collected from each stage of the preparation scheme.

Chain of Custody and Security of Samples is documented, improvements to the chain of custody between site and PT Intertek (Medan) were implemented with the 2019 drill program.

Site visits were conducted by SGC staff (11 days onsite) during the period June 2019 through to December 2019. No SGC opinion of drilling or sample techniques is offered in the DFS.

MA Comment: MA concludes the sample preparation procedures witnessed by independent consultant, HS&C (2013), is appropriate to define a mineral resource suitable for a DFS Study.

4.4.6 Database / data flow

This section describes the creation of the data management system implemented by HSC. The current site based drill-hole database system comprises a ‘front end’ Interface to a backend MSSQL Server data storage. The ‘frontend’ Interface only allows authorised site personnel to add, edit and extract data. The MSSQL Server database has added validation processes post data entry.

4.4.7 Laboratory Methodology

HS&C and SGC do not address laboratory methodology stating it is not included in their scope of works. All aspects pertaining to (but not limited to) sampling, assaying and laboratory handling and QAQC remain the responsibility of PTSM and as such are not covered in detail in this report by SGC.

Table 29 in section 10.1 summaries PT Intertek (Medan) procedures for sample preparation and lists nine analytical methods. It is unlikely that all core sent to PT Intertek underwent nine analytical techniques.

Different assay techniques have different detection limits. Generally cheaper methods do not recover total gold and will have an impact on the resource estimate.

MA Comment: MA notes the detail of pertaining to sample and assaying and laboratory procedures are pertinent to a DES study and should be included.

No details or summary is provided on assay method or procedures.

4.4.8 Laboratory internal QAQC

This section provided by Mr Manuel Corpuz, Mr Joko Prayitno, geologists employed by PTSM who are not considered CPs under JORC guidelines, they are listed as Co-Authors. R. Spiers is accepting responsibility as CP for this section.

MA Comment: Internal laboratory procedures and QAQC procedures implemented by PT Intertek are appropriate and are industry standard for a commercial laboratory.

4.4.9 QAQC Discussion of Historical ITS performance - 2013

This section details a review by HS&C of the QAQC steps undertaken by PTSM.

Up to 2013 a total of 27,632 drill core samples have been collected with 2902 QAQC samples inserted and analysed to give an average ratio of 1 QAQC to 10 drill core samples. The summary implies the QAQC samples are submitted by PTSM.

MA Comment: A 10% insertion rate is above the industry accepted practice of 5%.

MA accepts the opinion of H&SC (2013) that the Sihayo & Sambilan drilling had sufficient QAQC samples inserted to adequately test the ITS laboratory preparation and analysis procedures.

4.4.10 QAQC Analysis – 2019 Infill Drilling

This section provided by Mr Manuel Corpuz, Merdeka Mining Service representative on behalf of PTSM 2019 to 2020 who is not considered a CP under JORC guidelines, he is listed as a co-author. R. Spiers is accepting responsibility as CP for this section.

The QAQC procedures followed during the 2019 drill program are documented in SMM-GEO-SOP-004-Core Sampling, a significant improvement to the QAQC procedures included the inclusion of field duplicates. A detailed report of the QAQC data is provided in Appendix 6.

4.4.11 QAQC Discussion of 2019 Infill Drilling

This section discusses the results of the 2019 infill drilling QAQC program. SGC does not offer an opinion.

MA Comment: MA has reviewed the discussion and read Appendix 6. No major issues regarding accuracy or precision of analyses were detected. MA concurs with the findings of the reviews that the analytical data is suitable for use in resource estimation and that QAQC programs were carried out in accordance with the JORC (2012) guidelines.

4.5 PREPARATION OF GEOLOGICAL MODEL AND INTERPRETATIONS

This section describes how the various geological domains were defined from drill hole logging and analytical data. A great deal of effort has been made to subdivide the deposit into domains that share common characteristics of lithology. Key lithological domains are Regolith, Jasperoid and cavity / cave fill. Lithological domains were interpreted on 25 m section at Sihayo and 20 m section at Sambung.

Final domains used during resource estimation refined considering “ore and waste population”, intermediate sections were interpreted on 12.5 m sections and 6.25m where drilling was sufficiently detailed. The use of “ore” is a misnomer at this stage as no reserves have been defined here. No details of what grade cut offs are considered in the definition of mineralisation and waste domains.

Sectional domain strings were subsequently wireframed in Micromine software. (Report figure 56)

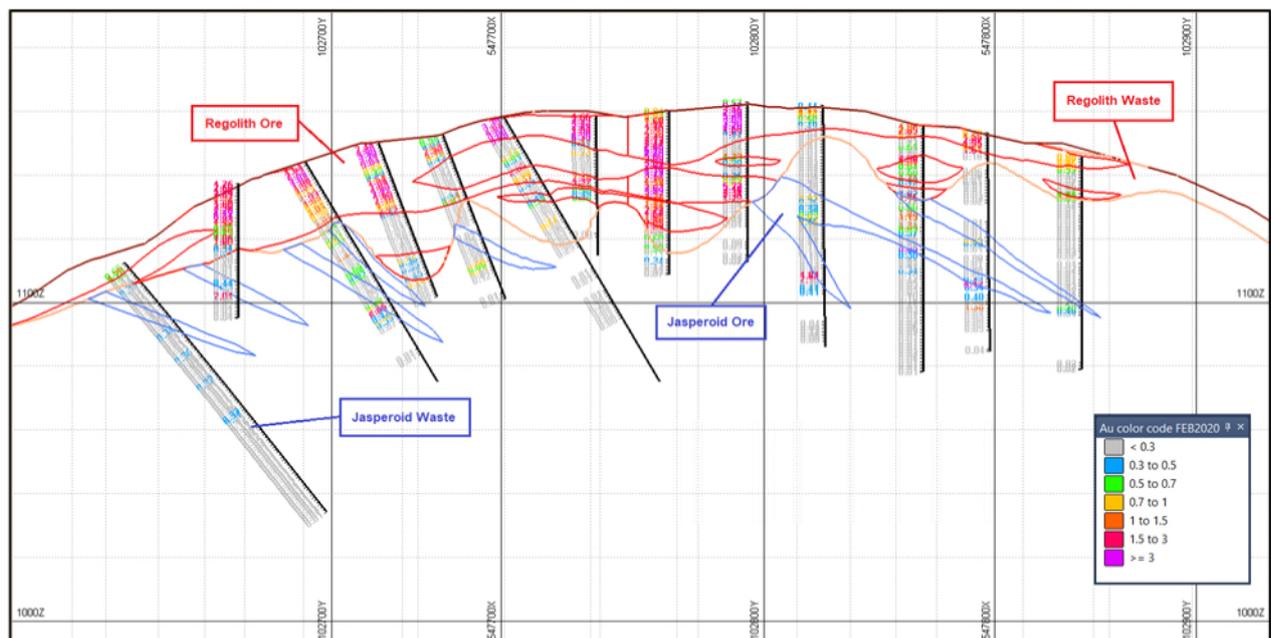


Figure 4-1. Figure 56 Sectional view of infill and ore grade population strings

MA Comment: The SGC recommendation “that further internal grade definition be undertaken during the next round of resource estimation over the Sambung area in order to better confine the estimates within the primary domains and to minimise the smoothing of grades from high to low grade samples which is inherent of the estimation approach employed” concerns MA as it implies the level of detail incorporated in the Resource estimate is not sufficient for a DFS study. Without specified cut off grades used to define the final domains defining “ore and waste population” MA cannot comment on the risk associated with this decision.

MA considers that the geological domains reflect the data and have been defined at a suitable level of detail for a resource as defined by JORC Guidelines.

4.5.1 Alteration Profiles

This section details the alteration domains and is better placed in section 6.3, Deposit geology.

MA Comment: MA notes that no alteration profiles have been constructed, thus this section is mute here and is more appropriate in section 6.3.

4.5.2 Oxidation Intensity and Profiles

Weathering profiles at Sihayo and Sambung are highly variable, SGC in consultation with PTSM geologists decided that oxidation should be modelled as an attribute of the model.

SGC does not detail how the oxidation states are modelled, only that an upper and lower limit for each oxidation code was used to define the oxidation intensity which was subsequently grouped to form the three main codes.

MA Comment: The report needs more details to determine if this approach is appropriate, MA notes oxidation states affect recoveries, and therefore how oxidation state is assigned to the model is an important consideration.

4.5.3 Treatment of Un-Sampled Intervals

This section details the number of missing records in the various datasets, no commentary is provided on the total number of data available except for Sambung metallurgical recoveries where there is a total of 12,963 records, thus 1,410 records are available. Information in this section is incomplete thus no context can be concluded.

Table 4-3. Dataset Summary

Incomplete Datasets	Total	Sihayo	Total	Sambung
Non sampled Au	???	34,741	???	5,910
Oxidation State	???	200	???	5,901
Density	???	598	???	3,443
Metallurgical recovery	???	59,958	12,963	11,553
SCIS*	???	58,673		11,640

* Sodium Carbonate Insoluble Sulphur

SGC used available data (not related to gold) to populate the block model with these attributes, ie missing data did not imply the geologist thought the area was barren of mineralisation or will have low recoveries.

For gold, over the Sihayo and Sambung Project areas, on the rare occasions, blank records occurred within the Jasperoid Domain (likely to be mineralized) the absent values were ignored allowing estimates to populate these zones based on mineralised samples with in the search ellipse. Missing data from outside the Jasperoid Domain were set to half the detection limit of the assay technique, ie accepted as non-mineralised.

MA Comment: MA agrees with this approach, these decisions are suitable in a Resource estimate.

4.5.4 topics not covered in the report

Compositing

How composite lengths were selected and justification of appropriateness. A nominal composite length of one metre down hole was used for input of Au, met recovery and oxidation which reflects the dominant sampling interval and provides flexibility of use into the predicted grade control sampling regime and proposed mining bench heights.

Statistical Analysis

No statistical analysis of individual domains and summary statistics provided. Appendix 3 provides the coefficient of variation for 31 Regolith domains and 99 jasperoid domains at the Sihayo deposit and three Sambung regolith domains, coefficients of variation are also provided for Sambung Mined domains.

Top cut analysis

Justification for not applying a top-cut, top cut analysis appears to rely solely on the CV. The CV does not provide a guide to skewness. Histograms, log probability plots, considerations of common definitions of outliers, (that use interquartile ranges, standard deviations).

References

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- Parrish, I., 1997, Geologist's Gordian Knot: to cut or not to cut, *Mining Engineering* April 1997 pp 45-49

4.6 SPATIAL CONTINUITY ANALYSIS

Spatial continuity analysis (variograms) were generated in HS&C proprietary software, GS3.

Experimental variogram details for Sihayo and Sambung Project areas are summarised in the DFS document. Variogram models were completed for gold, oxidation, density, metallurgical recovery and SCIS for all domains (as deemed appropriate by SGC in-line with the informing data).

The Sihayo has 17 gold variograms have been defined for the regolith domains and 51 gold variograms defined or the jasperoid domains. One gold variogram defined for regolith and one for jasperoid waste areas.

The Sambung deposit has 3 regolith and one waste gold variogram. There are also 2 variograms for Sambung mined domain. This domain is not explained.

Variograms generally have nuggets less than 20% and as low as a few percent, models usually consisted of one exponential structure and two spherical structures, with a relatively low proportion of the sill assigned to the final structure. Ranges are as expected for a sediment hosted gold deposit, generally the ranges are between 100 and 400 m with the maximum at 1454 m.

MA Comment: No variograms for oxidation, density, metallurgical recovery of SCIS were provided in the report.

MA notes selected variogram models describe the spatial continuity of the gold mineralisation, deposit and are suitable for estimation of mineral resources to be used in a DFS study. SGC does not indicated which variograms are used for the domains where variograms could not be generated.

4.7 RESOURCE ESTIMATION METHODOLOGY

Ordinary kriging is appropriate for estimation on the basis that coefficients of variation are generally low to moderate within the deposit, with top cuts used where required to control the influence of outlier grades. OK was utilised to estimate gold grades, oxidation, density, met recovery and SCIS.

Following is a general summary of the methodology used:

- Attributes were compiled for, Au, oxidation, density, met recovery and SCIS across all domain objects.
- The data was provided by the Client to SGC (and taken in good faith) in the WGS84_47N (call it "WGS84 zone 47N" for consistency) grid projection for modelling.

MA Comment: no data validation was undertaken by SGC, Table 1 Verification of sampling and assaying. Significant intersections have been verified by alternative senior company personnel and an independent resource consultant. Which independent resource consultant and more importantly were they a CP.

- Sectional interpretation was completed by the Client and subsequent domaining was undertaken on section and in plan, drawing together 3 generations of modelling from others.

MA Comment: "others" specify, Runge 2012, HS&C,2013. PTSM 2018.

- Recent theories put forth by the current site geologists and subsequent sectional interpretation has resulted in material changes to the interpretation and subsequent solid model. Datasets are composited to a 1m composite for domain coding.
- Statistical distribution analysis was completed and high grade end members and outliers were analysed. Top cut analysis was reviewed.

MA Comment: no statistical summaries were provided, input or output.

- Data substitutions were undertaken, and dataset was coded by domain objects for further detailed statistical analysis
- Statistical analysis was undertaken utilising univariate and conditional statistics (were appropriate) to provide guidance as to the population distributions both globally and locally within ore domains.
- Where appropriate data was transformed and experimental variograms of the variables were calculated and modelled. (for the weathering profile?)
- Ordinary kriging of the variables was performed in the WGS84 zone 47N grid. Block dimensions were selected in line with data density and modelling methodology and with previous modelling in mind.

MA Comment: MA agrees that Ordinary Kriging is a suitable estimation technique for this resource model.

- Search and data criteria were assessed and implemented, in-line with modelling strategy.
 - Models were constructed and iteration undertaken to assess modelling sensitivities to data and search criteria.
1. The block estimates were validated against the informing data to ensure that they were consistent with the original informing data in a three dimensional sense and within the search neighbourhood via data analysis.

2. The block estimates were exported to Micromine and where appropriate a topographic surface was applied as were any other solids which may have acted upon the estimates such as barren intrusive, mined surfaces or underground workings and stopes where appropriate.

4.7.1 Modelling Parameters

The block model contains information relevant to the project; Au, oxidation, density, met recovery and sodium carbonate insoluble sulphur. There is no mention of additional attributes assigned to the model, such as lithological units, from the first phase of interpretation.

Model extents are provided in this section along with block size and search radii and data criteria.

MA Comment: The model fits the resource shapes and is likely to have sufficient waste blocks, the model parameters are suitable for a DFS

No informing sample statistics by domain are provided in the report – vital or comparing model results to input data. (Coefficient of variations are provided, providing limited information about the dispersion within domains)

No grade capping was applied to Sihayo, this is unusual in a gold deposit, there needs to be some level of control on outlier samples, with out statistical evidence an Opinion cannot be provided, Sambung one sample was capped, given the grade difference between the sample and value applied (172 g/t capped 1.1 g/t) the original assay is likely to be erroneous. It is not common to cap that harshly.

Without basic statistics, histograms and log probability plots, MA cannot judge the consequence not capping the grade.

MA notes the LiDAR survey was undertaken in October 2010, the model has been truncated to the trimmed 2013 surface ground surface by a topographic model constructed from a combination of ground corrected (bench marked) LiDAR data and drill-hole collar readings supplied by the client and are believed by SGC to be a fair depiction of the known ground surface at the time of the investigation. The model is not trimmed to the revised 2019 surface.

MA considers this a minor risk, consider Section 9.1.7, The control point differential GPS surveying highlighted base station reduced level (mRL) errors of approximately two metres. This error is unlikely to materially affect the modelled grades and tonnes, given the pit is based on this model it is also unlikely to affect the pit schedule. The issue won't become apparent until mining commences.

Block Size, 12.5 x 12.5 x 2.5 m (XYZ) with a minimum sub block size of 2.5 x 2.5 x 0.5 m (XYZ) is appropriate for the level of drilling available at both deposits. Discretization is appropriate set at 5 x 5 x 2.

Number of informing samples (minimum 12 and maximum 32) using an octant search requiring a sample in at least 4 sectors is appropriate for the level of drilling available.

4.8 RESOURCE CLASSIFICATION

Blocks in the resource models (Sihayo and Sambung) have been allocated a Measured, Indicated and Inferred confidence category based on a consideration of the number and location of data used to estimate the grade of each block, and with consideration of all other key modelling inputs such as but not limited to geological constraints, oxidation profile development, structural modelling, recovery data and density modelling.

Mineralisation and the waste domains have been classified. Technically the waste domain should not be classified, only resources can be classified, the waste domain clearly does not meet the criteria for eventual economic extraction.

Figure 61 to Figure 66 should be the representative section only, not a screen-dump of the entire screen. Sambung sections do not show the legend. The location of the cross sections is not clearly identified.

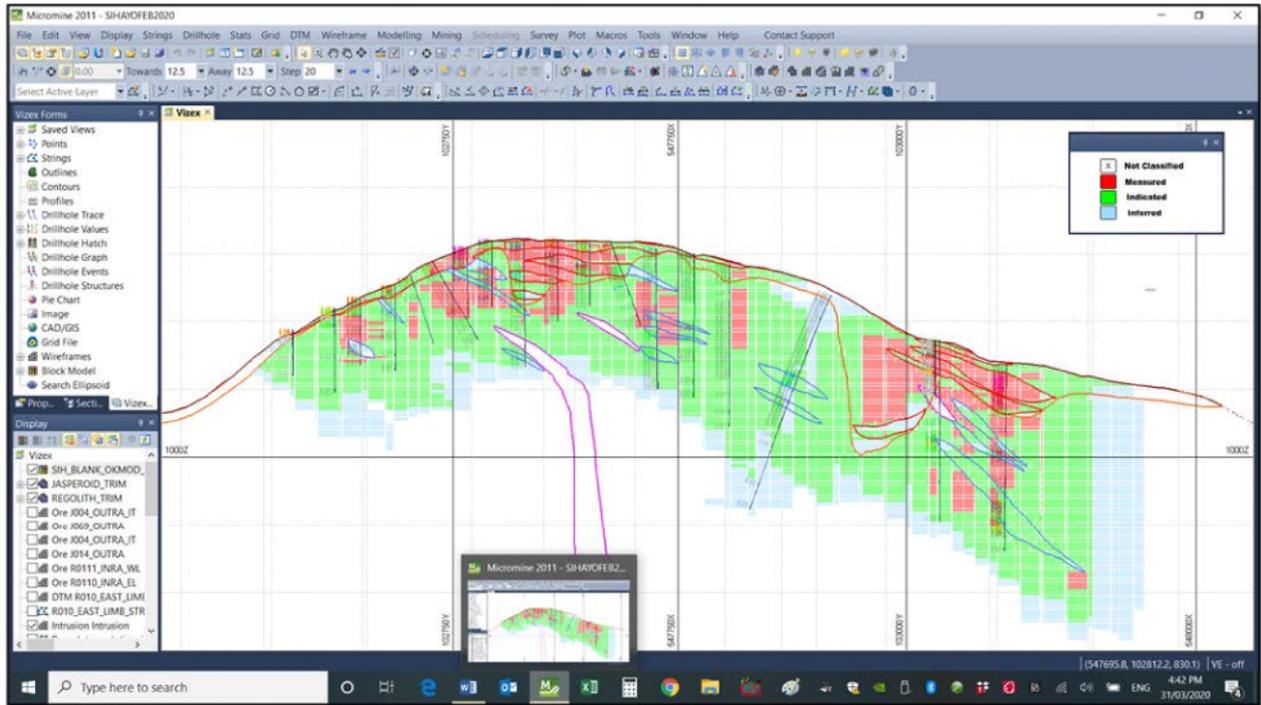


Figure 4-2. Sihayo Sectional view 54500mE of the block model displaying block resource categorisation (Figure 61).

Figure 61 of the DFS clearly shows measured resource categories following drill holes. Note in the lower left corner several isolated blocks on the periphery of the indicated resource are shown as measured. MA does not believe this to be a true reflection of a measured resource as defined by JORC item 23.

MA Comment: MA agrees with SGC that the cavity fill domains remain inferred.

MA notes the resource classifications do not appear to represent the geological or grade continuity. The resource classification represents a “Spotty Dog”, an issue highlighted by Stephenson et al (2006).

- Stephenson, P.R., Allman, A., Carville, D.P., Stoker, P.T, Mokos, P. Tyrrell, J. and Burrows, T., 2006, Mineral Resource Classification – It’s time to shoot the “Spotted Dog” 6th International Mining Geology Conference, AusIMM Proceedings.

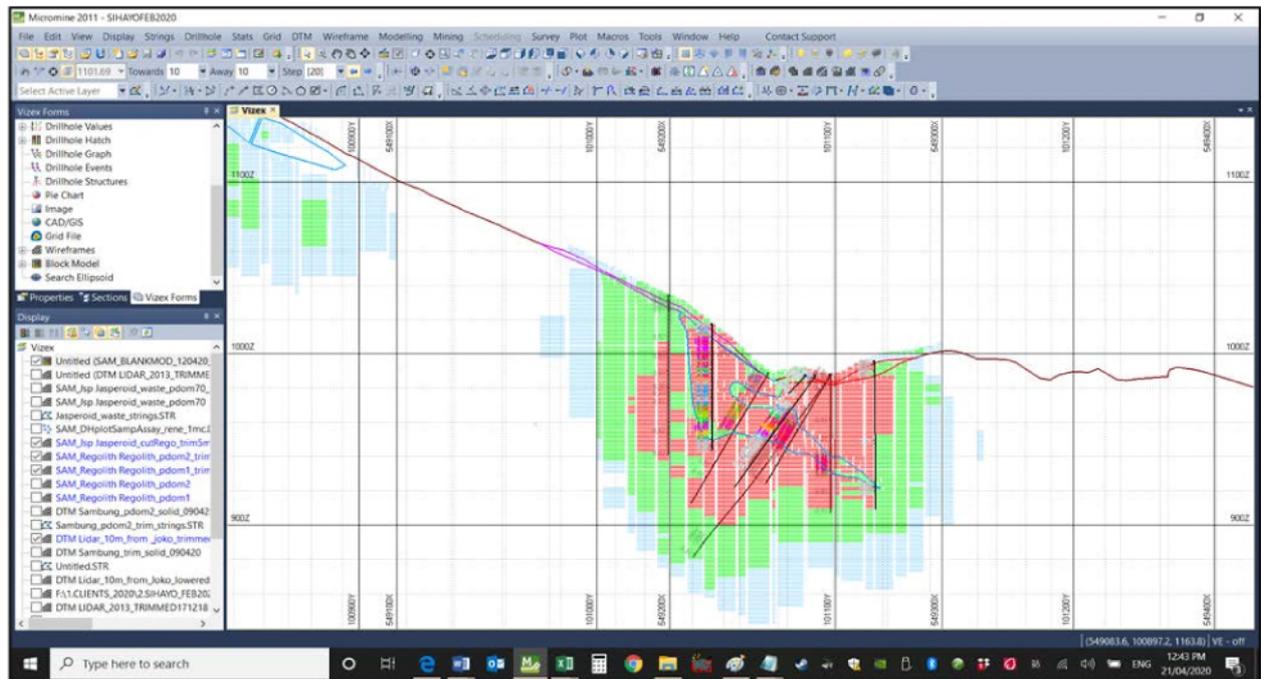


Figure 4-3. Figure 66: Sambung Sectional oblique view 3 of the block model displaying block resource categorisation

4.9 RESOURCE ESTIMATES

4.9.1 DFS mineral resource estimate

SGC had some concerns with the data supplied. The detailed geology / lithology logs put forth by the Client representatives and the resulting interpretation upon which the block model estimated are deemed interim until such a time as further definition drilling can be completed to further understand the geometry of the cavity / cave fill mineral occurrences.

In addition, the density profiles need to be finalised and comparison of historical density data to new density data completed and reconciled and final density matrix created.

MA Comment: Investigating these issues are not covered in a high-level review of the PFS documentation

4.9.2 Model Validation

This section is not directly discussed in the DFS report.

- Model validation is an important criterion of the JORC code, *“The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.”*
- SGC states *“The model was validated in Micromine using section and plan comparisons back to original informing data as well as with the use of swath plots to assess local grade variability between the model and informing data.”*

MA Comment: MA concludes that model validation consists of:

- A poorly presented swath plot of Sihayo (Figure 67), The chart does not include axis labels or units.
- Section numbers along the X-axis do not relate to the section numbers provided in Figures 68-97.

- No definition of how wide the swaths are.
- Mean assay grade cut by pdom -> What is pdom? There has been no discussion regarding pdom. Section 14.1 states no top cutting was applied to Sihayo; however the mean block grade reflects the mean assay cut by pdom better. There is a significant departure from the average assay grade on sections 11 and 12.
- Poorly presented cross sections are provided in Figure 68 to 97, Figures 69 to 97 require legends. (a direct screen dump is not an acceptable standard for a DFS report).
- No swath plot for Sambung is provided.
- No plan view of Sihayo deposit showing oblique section locations, a plan view of Sambung showing oblique sections is provided in Figure 98.
- MA concludes the mineral resource reporting strategy is passable (meets the minimum requirements set out by JORC Code because the minimum requirement is Table 1.) for a DFS level of study.

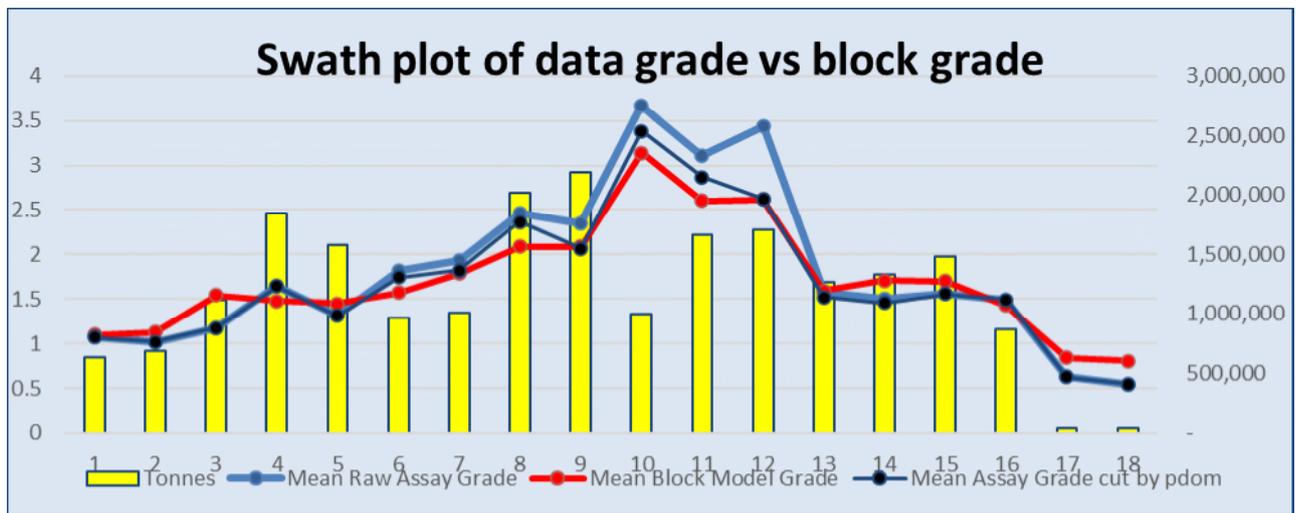


Figure 4-4. Sihayo Sectional Swath Plot (Figure 67)

(comparison of assay data Aug/t (both raw and cut by domain verses block model grade Aug/t with tonnage per section)

4.10 DFS APPENDICES

4.10.1 Appendix 1

Sihayo and Sambung Variograms by primary domain for gold (where R = regolith ore and J = Jasperoid ore). This section summarises the variogram models for the gold domains.

Sihayo: 52 jasperoid domains and 18 regolith domains, one jasperoid waste domains and one regolith waste domain.

Sambung: two regolith, one jasperoid, two mined, one jasperoid waste and one waste domain.

MA Comment: MA notes the use of the word “ore” is not appropriate in this context.

The Sambung mined domains have not been discussed in the body of the report. The report does not specify if a mine at Sambung or if the resource is depleted for mining activities.

4.10.2 Appendix 2: Search Rotations

Pdom appears to be a specific numeric code for the Sihayo solid names, ie R1 = 1, J1 = 201, waste domains have a pdom of 50 and 70. Search rotations for 31 Regolith domains and 99 Jasperoid domains have been defined. Approximately twice the number of variograms defined, MA would expect a summary of which variograms were used to inform which domains. It is not unusual to have to “borrow” variograms, which variogram to borrow depends on sample statistics within each domain.

All Sambung domains use the same solid and pdom code in each domain identified in Appendix 1. All use R1 solid and pdom 1. This requires confirmation, Sambung used one solid and one pdom but varying search ellipses.

It is not clear how pdom is used in the resource estimate.

4.10.3 Appendix 4, 5 and 6

Appendix 4 QAQC Analysis and Discussion – Intertek investigation,

Appendix 4 and 5 is a series of graphs showing Intertek’s internal QAQC results referred to in Section 10.8.

The reader can infer from the presented table the number, maximum, minimum, and average assay grade returned by Intertek for each standard submitted. The second section shows insertion rates for standards blanks, duplicates, and umpire checks. The appendix does not inform the reader of time frames, what period or drill program does the report apply to. The final section of the appendix is an excerpt from SMM-GEO-SOP-004-core sampling procedure, describing the when to insert certified reference material and blanks into the sample stream. No procedure is provided or duplicates or umpire checks.

Appendix 5 QAQC Analysis – Laboratory blanks, standards, duplicate, repeats.

This Appendix is referred to in Section 10.8, as internal laboratory QAQC, yet this section includes field duplicates and includes the infill drill program of 2019. The analysis was updated on the 8th February 2020 and includes Holes SDHH548 to SDHH621.

There is no introduction to this appendix the reader is left to infer this Appendix may relate to the failed CRMs in the first table and measures taken to rectify the fails.

Without explanation Z scores, scatter plots and ARD plots are presented, actual charts and conclusions are well presented and would likely be cut and paste from more comprehensive QAQC report prepared by the site geologists.

Appendix 6 Infill drilling QAQC Analysis.

Appendix 6 is a better presentation of 2019 infill drilling QAQC presented in Appendix 5. Appendix 6 only shows the QAQC data for the 2019 Infill drill-holes SHDD548 to SHDD613.

MA Comment: MA recommends Appendix 5 be presented in the way that Appendix 6 is presented, and Appendix 6 be removed.

4.11 CONCLUSIONS AND RECOMMENDATIONS – RESOURCES

The deposit geology is well documented as a sedimentary rock hosted disseminated gold deposits that has many features in common with Carlin-type deposits in the western United States.

The information provided is of sufficient detail for a DFS and the level of description shows good understanding of the deposit model. No alternate interpretations are proposed as geological confidence in the model is moderate to high.

MA agrees with SGC recommendation that further drill testing be undertaken to define more clearly the limits, geometry and style of the short scale mineralisation continuity present in all project areas with particular emphasis on the ore zones with the least apparent continuity such as unconformity and cavity fill related ore zones. MA agrees with SGC that the cavity fill domains remain inferred.

MA consider the drilling and sampling procedures provided are adequate to define the geometry of the known mineralisation and a Mineral Resource Estimate with sufficient confidence to classify the estimate for the Sihayo & Sambung in accordance with JORC Guidelines.

MA concurs with the findings of the reviews that the analytical data is suitable for use in resource estimation and that QAQC programs were carried out in accordance with the JORC (2012) guidelines.

The SGC recommendation “that further internal grade definition be undertaken during the next round of resource estimation over the Sambung area in order to better confine the estimates within the primary domains and to minimise the smoothing of grades from high to low grade samples which is inherent of the estimation approach employed” concerns MA as it implies the level of detail incorporated in the Resource estimate is not sufficient for a DFS study. Without specified cut off grades used to define the final domains defining “ore and waste population” or statistical summaries of the defined populations. MA cannot comment on the risk associated with this decision.

MA considers that the geological domains reflect the data and have been defined at a suitable level of detail for a resource as defined by JORC Guidelines. MA agrees that Ordinary Kriging is a suitable estimation technique for this resource model.

MA concludes the mineral resource reporting strategy is passable for a DFS level of study. It meets the minimum requirements set out by JORC Code which is completion of Table 1.

However, there are concerns around transparency:

*“Transparency requires that the reader of a Public Report is provided with sufficient information, **the presentation of which is clear and unambiguous**, to understand the report and not be misled by this information or by omission of material information that is known to the Competent Person.”*

MA considers the report not clear and unambiguous, domain names change without explanation, limited detail as to how oxidation was estimated, sufficient detail is provided for oxidation classification once estimated. Grade shell used could be 0.4g/t->0.45g/t or 0.3 g/t. Charts commonly are presented without labelled axis. Cross sections are below acceptable standard, often without legends.

It also fails the definition of Materiality:

*“Materiality requires that a Public Report contains all the **relevant information that investors and their professional advisers would reasonably require, and reasonably expect to find in the report**, for the purpose of making a reasoned and balanced judgement regarding the Exploration Results, Mineral Resources or Ore Reserves being reported. Where relevant information is not supplied an explanation must be provided to justify its exclusion”*

The lack of summary statistics for the input data is a material oversight, there is insufficient details provided on model validation for MA to make a fair assessment of the models.

5 DFS ORE RESERVE ESTIMATE

As part of this Sihayo project DFS, a revised mining assessment was undertaken by AMC Mining Consultants (Canada) Ltd (AMC). The assessment has included pit optimisation, detailed pit design, estimation / classification of Reserves as per JORC 2012, stage planning, and mine scheduling. AMC were engaged by PT Sorikmas Mining (PTSM) to produce a detailed mine production schedule for the Ore Reserves Statement included in the Sihayo Gold Project DFS (July 2020). AMC used the updated Ore Resources Estimate provided by Spiers Geological Consultants (SCG) (30 April 2020) which included the results of the 2019 infill drilling campaign.

The Ore Reserves stated by AMC in the Sihayo Gold Project DFS (July 2020) have been reported in the following tables. The use of Inferred Resources as part of the Mining Schedule has been reported as 5.6% of the LOM ore production (13.677Mt) with only 3.4% Inferred Resources appearing in the first two years.

Table 5-1. Sihayo – Ore Reserves by category

Table 17 Sihayo Deposit – Ore Reserves

Type	Proven		Probable			Total			
	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)
Oxide	1.6	1.6	0.09	1.8	1.3	0.08	3.5	1.5	0.16
Transitional	2.1	2.4	0.17	2.7	2.1	0.18	4.8	2.2	0.35
Fresh	0.9	2.6	0.07	1.9	2.8	0.17	2.7	2.7	0.24
Total	4.6	2.2	0.33	6.4	2.1	0.43	11.0	2.1	0.75

Table 5-2. Sambung Ore Reserves by category

Table 18 Sambung Deposit – Ore Reserves

Type	Proven		Probable			Total			
	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)
Oxide	0.4	1.6	0.02	0.2	1.5	0.01	0.5	1.5	0.03
Transitional	0.7	1.8	0.04	0.3	2.0	0.02	1.0	1.8	0.06
Fresh	0.0	1.5	0.00	0.0	2.0	0.00	0.0	1.5	0.00
Total	1.1	1.7	0.06	0.4	1.8	0.03	1.5	1.7	0.08

Table 5-3. Sihayo and Sambung Ore Reserves

Table 16 Sihayo Gold Project – Ore Reserves

Deposit	Proven		Probable			Total			
	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)
Sihayo	4.6	2.2	0.33	6.4	2.1	0.43	11.0	2.1	0.75
Sambung	1.1	1.7	0.06	0.4	1.8	0.03	1.5	1.7	0.08
Total	5.7	2.1	0.39	6.8	2.1	0.45	12.5	2.1	0.84

5.1 AMC PROCESS TO ESTABLISH AN ORE RESERVES STATEMENT

The process of developing the project DFS 2020 Ore Reserves Statement has been summarized in the following steps. MA have only undertaken a high-level review of the DFS 2020 work and have not independently modelled the source data nor has the operating and cost information been independently verified. The process undertaken to determine the Ore Reserves however appears to be comprehensive and of a standard expected of a DFS. A number of factors that may affect the fleet size and performance have been noted at the end of this comments section that could not be identified in the source data provided.

Steps to establish the Ore Reserves for the Sihayo Gold Project DFS 2020

1. Re-block the 2020 Resource Block Model developed by Spiers Geological Consultants (SGC) to closely resemble the mining method (4m Benches mined in 2m flitches) – AMC has used 5m x 5m x 2m SMU using Geovia Whittle computer software for resource model LG_SIH_3.dm for Sihayo and LG_SAM.dm for Sambung. The block models were regularized prior to running Lerchs-Graussman algorithm in Whittle. Following this exercise, pit, waste dump and general mine site infrastructure designs were created in Datamine.
2. Determine the location of mining areas, Ore Stockpile pad and waste dumps - PTSM have in previous studies located the Mining Areas, the Site Access Roads, the Mine site Roads, mine site infrastructure including Camp, Mine Office, Core Shed, Fuel Storage, Processing Plant, Stockpile Pad, Waste Dumps, Magazines, Fresh Water Dam, Tailing Storage Facility(TSF) and Environmental Catchment Dam.
3. Apply Pit Slope Angles to the Mine Design to comply with geotechnical requirements – PTSM have relied upon a January 2014 geotechnical report from Ground Risk Management (GRM) for Sihayo pit slope angles. GRM were engaged to review the March 2011 work undertaken by GHD and recommended a number of refinements which were incorporated into the 2020 DFS. AMC have used an overall slope angle of 40 degrees for all Oxide material within 30m of the original topography, 12m high stacked benches at 54 degrees interspersed with 5.7m berms. An overall slope angle of 50 degrees for all other areas with 12m height stacked benches at 70 degrees interspersed with 5.7m berms.
4. Incorporate into the model Lidar Surface Terrain – PTSM have provided AMC with the latest Lidar Surface Terrain Grid (ground truthing algorithm used to provide actual ground surface through vegetation).
5. Incorporate into the block model Ore Grade adjusted for Ore Loss and Dilution – AMC have used 6.8% ore loss and 15% dilution however previous studies have indicated that Oxide material may have up to 30% dilution in wet conditions.
6. Determine the Bulk Density of material to be mined – PTSM undertook 182 bulk density measurements of lithology during the 2019 infill drilling program.
7. Strategic mine plans were conducted by AMC using Minemax Scheduler in quarterly increments to provide guidance to the tactical schedule to match the in-feed capacity of the Mineral Processing Plant. - PTSM have nominated a strategic in-feed processing plant capacity of 1.5 to 2.0Mtpa
8. Select suitable mining equipment for conventional open pit mining – AMC have relied upon 40t class excavators together with 40t articulated dump trucks and ancillary support equipment and this class of equipment are commonly used in gold mine production in Indonesia and has been used in a number of previous studies (Entech Pty 2014 Feasibility Study). An equipment based; life-of-mine plan was then run by AMC in monthly increments in Deswik. Ore Reserves for both the Sihayo and Sambung deposits are included in Table 9.3 below.

9. Assign Cost Factors – AMC were provided with Mine Operating and Capital costs by PTSM, Primero Group and Merdeka Mining Services (MMS) who operate similar mining operations at Wetar and Tuju Bukit mines in Indonesia. Inputs into their Pit Optimisation Whittle study dated 25 May 2020 have been included in Table 9.4 below.

Revenue – The revenue received was assumed to be based on gold sales only at \$1450 UD\$/Oz.

Table 5-4. Whittle Study Input Costs

Regularisation size	
X	5 m
Y	5 m
Z	2 m
Grade control cost ore t only	\$0.5/t
Mining overhead cost	\$1.22/t
TSF costs ore t only	2.82/t
Drill and blast cost	
Oxide	\$0.25/BCM
Transition	\$1/BCM
Fresh	\$1/BCM
Processing cost	
Oxide	\$10.95/t
Transition	\$13.61/t
Fresh	\$13.61/t
Gold price (per troy ounce)	\$1,450
Discount rate	8%
Royalty	3.75%
Realisation cost	0.50%
Water treatment discharge cost per ore tonne	\$0.2/t
Rehabilitation cost per ore tonne	\$0.14/t
Annual G&A cost site total	\$4.8 m

These assumptions resulted in an overall mining cost of \$2.41/t (ore and waste) and an overall processing cost of \$19.14/t.

10. Develop a LOM Mining Schedule to meet the PTSM Tactical Plan for 1.5 to 2.0Mtpa in-feed into the Gold Plant. AMC developed a LOM Schedule that provided 1.5 to 1.8Mtpa ore in-feed into the plant at an average head grade of 2.04gm/t (See Table 5.5 below). AMC included 1.2Mt of Inferred Resources not included in the Ore Reserves Statement to complete the mine plan and mining schedule used in the financial evaluation. This material comes from a combination of interpolated material between drilling sections in Sihayo pit (0.8Mt) and material from Sihayo South satellite pit (0.4Mt) which has been exclude pending further geotechnical investigations. The JORC Code Ore Reserves Code allows for the inclusion of diluting material which will be mined in conjunction with the Reserves and delivered to the treatment plant however there is a low level of confidence associated with the use of Inferred Mineral Resources.

This scheduling process resulted in a LOM Schedule of 8 years plus 3 months pre-production to produce 13.7Mt of Ore and 59.8Mt of waste for the combined Sihayo and Sambung pits.

Table 5-5. Sihayo and Sambung LOM Mining Schedule

Sihayo and Sambung Production Schedule DFS June 2020													
Mine Production		kt	Total	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Oxidised Ore		kt	4,392	112,126	1,155,620	467,715	1,185,720	619,241	541,278	82,913	46,588	68,014	112,937
Transitional Ore		kt	6,399	27,608	715,498	1,047,382	612,332	733,574	756,882	862,684	717,879	825,935	99,225
Fresh Ore		kt	2,872	296	22,576	155,593	4,860	27,011	308,740	890,826	452,428	1,005,074	4,814
Unclassified		kt	14	2,841	2,217	6,661	0	812	1,431	0	0	0	0
Total Ore		kt	13,677	142,872	1,895,911	1,677,350	1,802,911	1,380,639	1,608,333	1,836,423	1,216,895	1,899,022	216,976
Waste		kt	53,292	509,764	2,781,647	2,838,171	3,107,397	9,475,011	9,588,513	9,661,032	9,862,183	5,258,408	210,047
Waste Bulk Strip		kt	6,500	0	0	0	4,500,000	1,400,000	600,000	0	0	0	0
Total Waste		kt	59,792	509,764	2,781,647	2,838,171	7,607,397	10,875,011	10,188,513	9,661,032	9,862,183	5,258,408	210,047
Total Mine Movement		kt	73,470	652,635	4,677,558	4,515,521	9,410,308	12,255,649	11,796,845	11,497,455	11,079,078	7,157,431	427,023
Waste:Ore Ratio		t:t	4.37	3.57	1.47	1.69	4.22	7.88	6.33	5.26	8.10	2.77	0.97

Mill/Feed			Total	Year 2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Tonnage	Oxidised	tonnes	4,392,152			1,098,534	548,982	1,193,109	699,736	541,184	77,436	51,597	67,487	114,029
	Transitional	tonnes	6,398,999			585,809	945,331	604,084	951,664	776,478	706,901	903,453	605,921	258,299
	Fresh	tonnes	2,872,219			16,744	143,431	2,275	25,021	319,133	738,867	562,740	787,206	277,797
	Unclassified	tonnes	13,963			89	2,404	378	1,114	1,420	0	0	123	8,439
	Total Direct Mill Feed	tonnes	13,677,332			1,701,237	1,640,147	1,799,906	1,677,535	1,638,214	1,523,204	1,516,796	1,520,737	659,536
Head Grade	Oxidised	g/t Au	1.63			1.87	2.09	1.38	1.14	1.54	3.34	2.95	1.94	1.08
	Transitional	g/t Au	2.06			1.90	2.15	1.43	1.16	1.62	3.29	2.70	2.55	1.39
	Fresh	g/t Au	2.62			1.96	1.81	1.39	1.17	1.85	3.45	2.49	2.98	1.14
	Unclassified	g/t Au	1.56			2.00	2.44	1.62	1.23	1.37	0.00	0.00	2.71	1.36
	Total Direct Mill Feed	g/t Au	2.04			1.77	1.62	1.67	1.69	1.25	3.10	3.21	2.60	1.14
Recovered Grade	Oxidised	g/t Au	79.5%	1.29		1.54	1.61	1.15	0.89	1.19	2.08	1.66	1.79	0.85
	Transitional	g/t Au	70.3%	1.45		1.54	1.61	1.15	0.89	1.19	2.08	1.66	1.79	0.85
	Fresh	g/t Au	63.4%	1.66		1.54	1.61	1.15	0.89	1.19	2.08	1.66	1.79	0.85
	Unclassified	g/t Au	66.6%	1.04		1.54	1.61	1.15	0.89	1.19	2.08	1.66	1.79	0.85
	Total Direct Mill Feed	g/t Au	70.8%	1.44		0.00	1.54	1.61	1.15	0.89	1.19	2.08	1.66	1.79

5.2 PIT DESIGN

AMC used Geovia Whittle computer software to determine the optimum pit shell suitable for the resource which would provide the best economic solution for the longest Life of Mine. Inferred Mineral Resources were treated as waste material in the pit optimisation and economic evaluation. AMC inputted the optimum pit shell from the Whittle study into Datamine computer software, included highwall angles from GRM, access ramps (8m wide for single lane traffic and 15.7m wide for dual lane traffic) and pit staging to minimize the strip ratio and allow backfilling with waste into mined out pits to provide short haulage cycles for waste emplacement.

5.3 MINING SCHEDULE

The following table contains the assumptions used by AMC in optimising the mine design to provide the best NPV and longest Life-of-Mine.

Table 5-6. AMC Key Assumptions

Table 20 Sihayo Deposit - key ore reserve assumptions

Assumption	2018 Ore Reserve	2020 Ore Reserve
Gold price	1,300 US\$/oz	1,450 US\$/oz
Mining method	Conventional open cut mining	Selective mining + bulk waste stripping
SMU	5x5x5 m	5x5x2 m
Mining dilution	10%	15%
Mining recovery	95%	93%
Excavators	50 t	40 t
Haul trucks	38 t	40 t
Overall pit slope	52.5°	50° with 40° in upper oxide
Bench height	15.0 m	12.0m
Batter angle	65°	70° with 57° in upper oxide
Berm width	5.0 m	5.7 m

Ore Reserves LOM Schedule – AMC used Minemax Scheduler software to integrate the strategic mine plan and the optimized mine design to meet mining, blending and processing requirements which would subsequently deliver the maximum NPV for the project. The production schedule was then developed in Deswik scheduling software following the Minemax schedule as a guide. The project is divided into 13 Push Back areas with ore and waste being removed with excavators and trucks in a series of 2m deep fitches (See Figure 5.1) with Sihayo and Sambung being mined concurrently.



Figure 5-1. Sihayo and Sambung Push Backs

The Minemax Push Back Schedule spreadsheet¹ output is within 99.7% of the total ore and waste movements in the Sihayo DFS Financial Model², however the Push Back Waste movement schedule is 4,500,000t less in Year 4 (Probably due to the deferring of the contractor bulk waste movement program by one year). There is a 99.8% correlation in the two spreadsheets by the end of the waste movement program. (See Table 5-7 for annual comparison).

Table 5-7: Financial Model and Push Back Model Comparison

Sihayo Gold Mine DFS 2020 Production Schedule											
Financial Model	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Waste Movement (t)	509.8	2,781.6	2,838.2	7,607.4	10,875.0	10,188.5	9,661.0	9,862.2	5,258.4	210.0	59,792.2
Ore Production (t)	142.9	1,895.9	1,677.4	1,802.9	1,380.6	1,608.3	1,836.4	1,216.9	1,899.0	217.0	13,677.3
Total Material Movement (t)	652.6	4,677.6	4,515.5	9,410.3	12,255.6	11,796.8	11,497.5	11,079.1	7,157.4	427.0	73,469.5
Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Total Waste Mined kt	509.8	2,781.6	2,838.2	3,107.4	10,475.0	14,088.5	10,661.0	9,862.2	5,258.4	75.2	59,657.3
Total Ore Mined Sihayo kt	140.2	1,894.6	1,466.1	1,544.9	1,137.8	1,181.7	1,626.2	1,002.5	1,907.5	123.2	12,024.6
Total Ore Mined Sambung kt	-	-	208.1	258.6	242.1	425.3	210.2	214.5	-	-	1,558.9
Total Ore Mined kt	140.2	1,894.6	1,674.2	1,803.5	1,379.9	1,607.0	1,836.4	1,217.0	1,907.5	123.2	13,583.5
Total Material Movement (t)	650.0	4,676.3	4,512.3	4,910.9	11,855.0	15,695.5	12,497.5	11,079.2	7,165.9	198.4	73,240.9

¹ Project Sihayo Minemax Results MII_V6 Expit by Ore Type.xlsx

² Sihayo Financial Model 12 May 2020- 1700 and 1890 AU Prices.xlsx

Table 5-8 shows the breakdown of material mined in each Push Back and the annual schedule of work.

Table 5-8: AMC Push Back Material Movement Annual Summary.

Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Ore Mined kt	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Sihayo PB1	3.9	10.0	-	-	142.7	289.9	42.8	0.2	-	-	489.4
Sihayo PB2	-	-	0.2	523.8	75.2	-	-	-	-	-	599.2
Sihayo PB3	87.6	1123.5	220.2	57.1	-	-	-	-	-	-	1488.3
Sihayo PB4	47.6	654.1	1000.2	59.1	0.2	-	-	-	-	-	1761.3
Sihayo PB5	1.2	107.1	-	-	33.4	-	-	-	-	-	141.6
Sihayo PB6	-	-	-	-	68.5	474.3	-	-	-	-	542.8
Sihayo PB7	-	-	245.5	904.9	571.6	-	-	-	-	-	1722.0
Sihayo PB8	-	-	-	-	-	-	0.0	125.0	678.4	-	803.4
Sihayo PB9	-	-	-	-	246.2	417.5	1496.0	497.3	153.5	-	2810.5
Sihayo PB10	-	-	-	-	-	-	-	0.0	176.3	123.2	299.5
Sihayo PB11	-	-	-	-	-	-	87.4	380.0	899.3	-	1366.7
Sambung PB12	-	-	208.1	257.3	-	-	-	-	-	-	465.4
Sambung PB13	-	-	-	1.3	242.1	425.3	210.2	214.5	-	-	1093.5
Total Ore Mined kt	140.2	1894.6	1674.2	1803.5	1379.9	1607.0	1836.4	1217.0	1907.5	123.2	13583.5
Ave Grade to crusher g/t	0.00	1.88	2.10	1.40	1.15	1.64	3.37	2.63	2.74	1.18	2.04

Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Ore Grade g/t	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Sihayo PB1	0.99	1.31	0.00	0.00	1.19	2.03	1.60	1.00	0.00	0.00	1.72
Sihayo PB2	0.00	0.00	1.65	1.64	1.39	0.00	0.00	0.00	0.00	0.00	1.61
Sihayo PB3	1.77	1.75	1.43	1.50	0.00	0.00	0.00	0.00	0.00	0.00	1.69
Sihayo PB4	1.16	1.82	2.48	1.72	1.39	0.00	0.00	0.00	0.00	0.00	2.17
Sihayo PB5	0.80	1.10	0.00	0.00	1.18	0.00	0.00	0.00	0.00	0.00	1.12
Sihayo PB6	0.00	0.00	0.00	0.00	0.70	1.14	0.00	0.00	0.00	0.00	1.08
Sihayo PB7	0.00	0.00	1.16	1.13	1.02	0.00	0.00	0.00	0.00	0.00	1.10
Sihayo PB8	0.00	0.00	0.00	0.00	0.00	0.00	1.42	1.43	2.16	0.00	2.04
Sihayo PB9	0.00	0.00	0.00	0.00	1.32	2.35	3.31	4.01	6.09	0.00	3.27
Sihayo PB10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68	1.05	1.28	1.14
Sihayo PB11	0.00	0.00	0.00	0.00	0.00	0.00	1.29	2.33	2.33	0.00	2.26
Sambung PB12	0.00	0.00	1.80	1.75	0.00	0.00	0.00	0.00	0.00	0.00	1.77
Sambung PB13	0.00	0.00	0.00	1.04	1.66	1.28	1.61	2.82	0.00	0.00	1.73
Ave. Project Grade g/t	1.53	1.73	2.06	1.40	1.21	1.65	2.98	3.01	2.45	1.28	2.04

Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Waste Mine kt	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Sihayo PB1	215.8	132.2	-	-	1440.3	1196.2	66.2	0.5	-	-	3051.2
Sihayo PB2	-	-	60.0	824.9	69.4	0.3	-	-	-	-	954.5
Sihayo PB3	13.8	376.6	65.3	9.5	-	-	-	-	-	-	465.3
Sihayo PB4	230.9	2191.5	1813.9	77.4	2.1	-	-	-	-	-	4315.8
Sihayo PB5	49.2	81.4	-	-	96.7	-	-	-	-	-	227.4
Sihayo PB6	-	-	-	-	322.6	361.6	-	-	-	-	684.2
Sihayo PB7	-	-	580.2	1342.2	536.2	-	-	-	-	-	2458.6
Sihayo PB8	-	-	-	-	-	-	838.8	2106.3	1884.3	-	4829.5
Sihayo PB9	-	-	-	-	6041.6	11375.2	7116.1	2487.7	193.6	-	27214.2
Sihayo PB10	-	-	-	-	-	-	-	454.9	1524.2	75.2	2054.3
Sihayo PB11	-	-	-	-	-	-	1895.1	4560.9	1656.3	-	8112.3
Sambung PB12	-	-	318.7	79.4	-	-	-	-	-	-	398.1
Sambung PB13	-	-	-	774.0	1966.0	1155.1	744.8	251.8	-	-	4891.8
Total Waste Mined kt	509.8	2781.6	2838.2	3107.4	10475.0	14088.5	10661.0	9862.2	5258.4	75.2	59657.3

Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Total Material Moved kt	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Sihayo PB1	219.6	142.2	-	-	1583.0	1486.1	109.1	0.6	-	-	3540.6
Sihayo PB2	-	-	60.2	1348.7	144.6	0.3	-	-	-	-	1553.7
Sihayo PB3	101.4	1500.1	285.5	66.6	-	-	-	-	-	-	1953.6
Sihayo PB4	278.5	2845.6	2814.1	136.5	2.4	-	-	-	-	-	6077.1
Sihayo PB5	50.4	188.5	-	-	130.1	-	-	-	-	-	369.0
Sihayo PB6	-	-	-	-	391.1	836.0	-	-	-	-	1227.0
Sihayo PB7	-	-	825.7	2247.1	1107.8	-	-	-	-	-	4180.6
Sihayo PB8	-	-	-	-	-	-	838.9	2231.3	2562.7	-	5632.9
Sihayo PB9	-	-	-	-	6287.8	11792.7	8612.1	2985.0	347.1	-	30024.7
Sihayo PB10	-	-	-	-	-	-	-	454.9	1700.5	198.4	2353.8
Sihayo PB11	-	-	-	-	-	-	1982.4	4941.0	2555.6	-	9479.0
Sambung PB12	-	-	526.8	336.7	-	-	-	-	-	-	863.5
Sambung PB13	-	-	-	775.3	2208.2	1580.4	955.0	466.3	-	-	5985.3
Total Material Moved kt	650.0	4676.3	4512.3	4910.9	11855.0	15695.5	12497.5	11079.2	7165.9	198.4	73240.9

MA Comment:

The process undertaken to determine the Ore Reserves appears to be comprehensive and of a standard expected of a DFS.

6 MINING

6.1 DEPOSIT CHARACTERISATION

6.1.1 Topography

The project is characterized by rugged mountains and generally densely vegetated terrain. Some farms exist on the lower and flatter mountain slopes but much of the higher and steeper slopes consisting of native tropical forest. The surface elevations of the resource are from RL985m to RL1298.75m above sea level with the highest point being around 1100m above the adjacent farmland and populated areas to the east. Most mining in the early stages is terrace mining down the slope of the ridge. It is only in later stages of the mine that a pit will be formed at the southern end of the mining area.

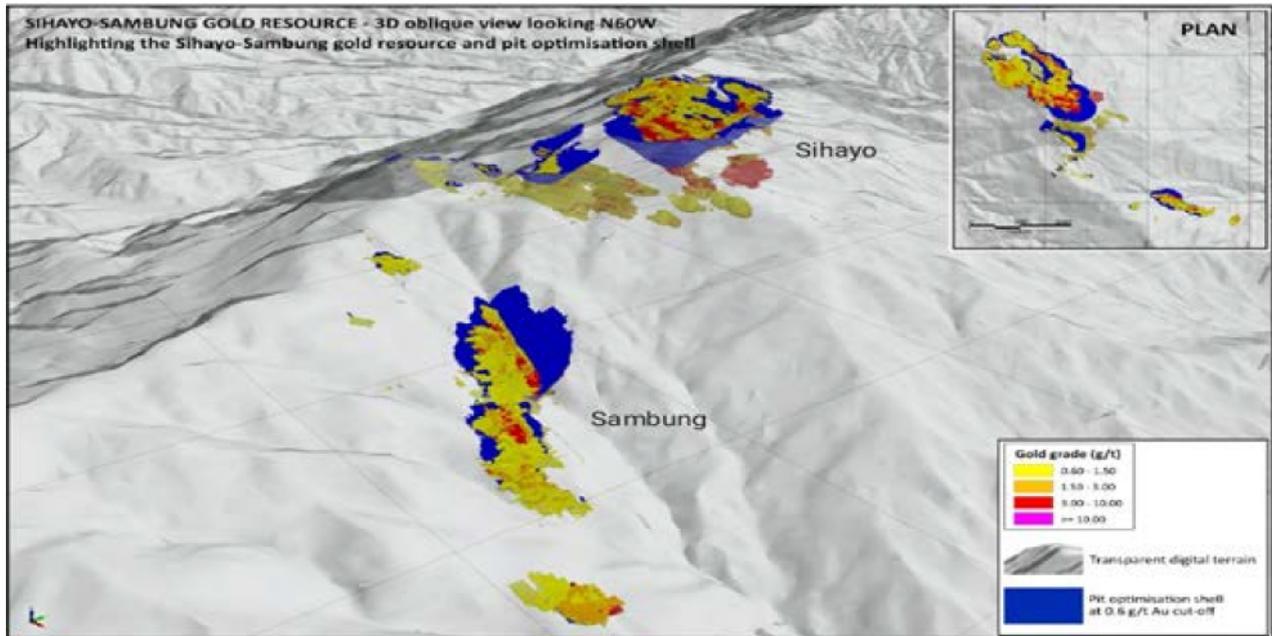


Figure 6-1. Sihayo and Sambung Mining Areas

6.1.2 Lithology

The stratigraphy of the open pit area can be generally described as a <1m to 3m of shallow unconsolidated bouldery-sandy clay regolith mantle, 15m to 25m of very low to medium strength Tertiary quartz sandstone and mudstone, 1m to 6m of unconsolidated palaeokarst bouldery sandy clay at the basal unconformity, overlying a high strength Permian limestone rock mass. The limestone is karstified and brecciated in places and sinkholes are common. Uplift and erosion have removed most of the caprock at Sambung, but about 70% of Sihayo is covered by Tertiary caprock. Illegal miners have been working at Sambung and the top 5m of the pit area has been removed for the purposes of the DFS 2020 study.

6.1.3 Groundwater

Because of the prevalence of intensive rock fracturing and cavities associated with the underlying limestone, the Sihayo pit area is believed to be a single, hydraulically interconnected, aquifer zone³ and groundwater flows are controlled by the structure of the rock mass, rather than lithology.

³ Sihayo DFS Volume 1 v2 optimised, Pg. 6-28

Results of groundwater discharge modelling, shown in the Sihayo DFS 2020 Figure 6-20, indicates that the maximum groundwater discharge (inflow to pit) of 20.61 Ltr/sec occurs in the first year of operation when the aquifer is first exposed and gradually drawing down to 8-9 Ltr/sec over the life of mine. The installation of angled holes from the sides of the Sihayo Ridge up to the pit perimeter may afford ground water drawdown prior to the commencement of mining. It is anticipated that mining will take place in accordance with the project Water Management Plan that requires the inclusion of in-pit drains and catchment dams fitted with dewatering pumps to facilitate the removal of ground water to designated ex-pit dirty water catchment dams for processing and release.

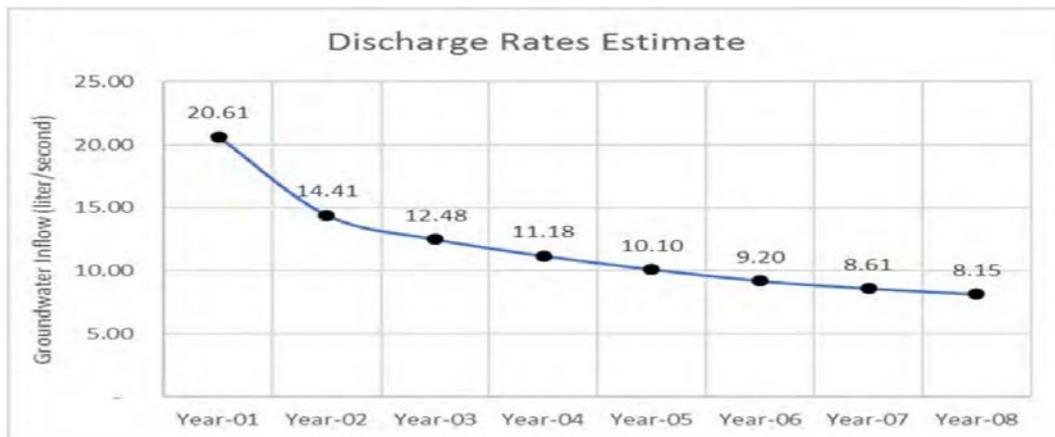


Figure 6-20 Groundwater inflow rates of Sihayo pit

Figure 6-2. Groundwater Discharge Rates

6.1.4 Geotechnical

The probability of a seismic event occurring in the project area is relatively high because of its close proximity to the Trans Sumatran Fault Zone. Other mines in the area have historically reported landslides therefore pit slope stability would be a prime concern. PT Solusi Tambang (PTST) undertook kinematic slope stability analysis from a number of geotechnical holes drilled as part of the 2019 infill drilling program. The Karstification of the Permian limestones in Sihayo pit area may present slope stability issues through potential collapse of highwalls, cavities and sinkholes. PTSM have received considerable geotechnical advice from consultants to form the basis of their mine plans including:

- GHD Preliminary Slope Stability Analysis and TSF Design 2011 (Appendix 5-H)
- Ground Risk Management (GRM) 2014 Review of the GHD slope stability at Sihayo proposed mine infrastructure sites, tailings and waste stockpiles design
- PTST Slope Stability analysis of the proposed Sihayo and Sambung pits 2019
- Golder preliminary waste dump design

6.1.5 Hydrology

The DFS July 2020 Appendix 4C Table 5.2 'Sihayo Rain Station Records' has indicated the project area has been subjected to an average annual rainfall of 2,418.8mm over a 6-year period ending 2019. Rain delays to mining operations can be expected if rainfall intensity (20mm-56mm/hr.)⁴ affect the safety of mining activities. Drainage channels and catchment dams have all been designed to accommodate the anticipated rainfall with major infrastructure such as the Freshwater Storage Dam and Tailings Storage

⁴ Sihayo DFS Volume 1 v2 optimised Table 4-14, Pg 4-18

Facility designed to a 1:100year rain event. The average monthly rainfall records for this period have been included in the figure below.

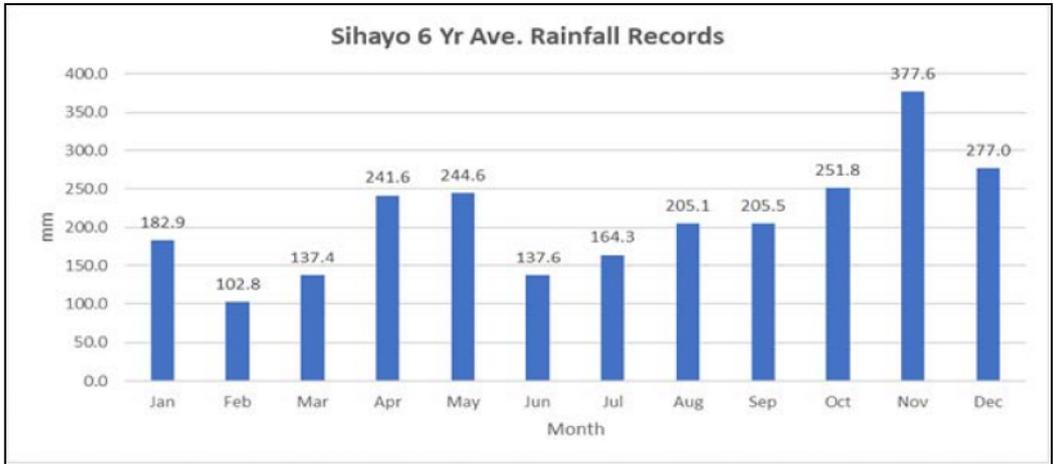


Figure 6-3. 6 yr. average rainfall by Month at Sihayo Rain Station

6.1.6 Ore Grade

Extensive drilling and core analysis have been undertaken at Sihayo with the following ore grades being typical for the rock types in the project area (See Figure 6.4).

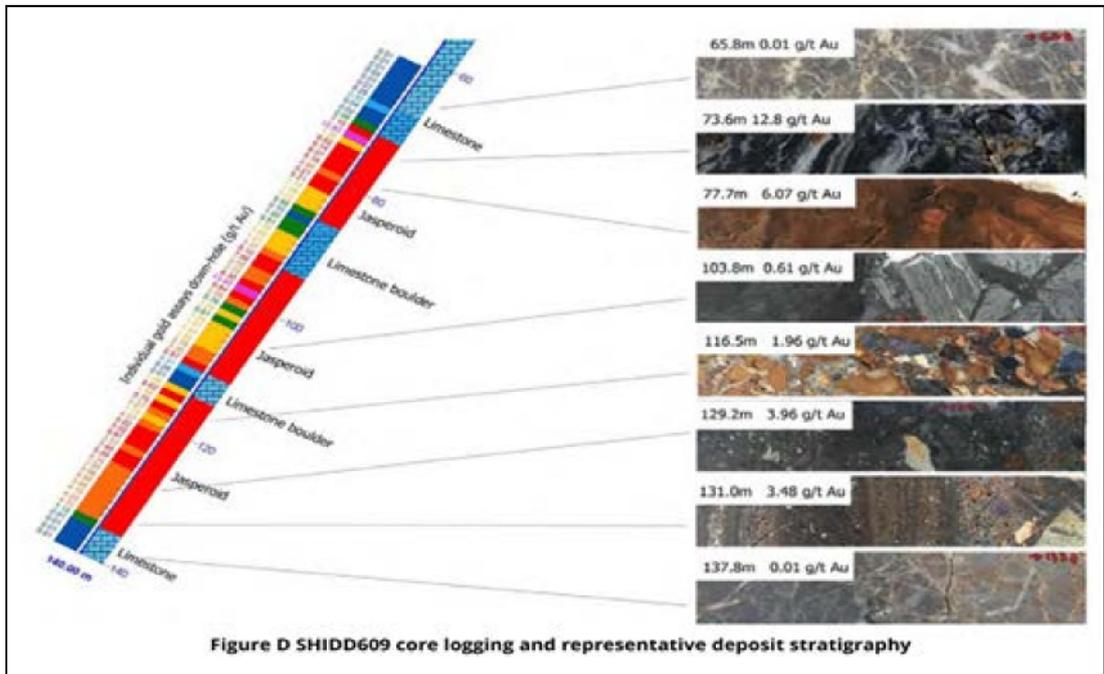


Figure 6-4. Typical Ore Rock Types and Grade

6.2 CONSTRUCTION

A comprehensive Construction Management Plan (52-CON-MP-001) has been developed by PT Merdeka Mining Services (a subsidiary of PT Merdeka Copper Gold who owns a 7.1% stake in the project and previously managed the Sihayo exploration and resource definition drill-out process) and PT Sorikmas Mining (PTSM) and will act as a working guideline to develop and construct the project infrastructure.

It is expected that the project will commence construction in Q3/Q4 2020 and will be completed ready for the start of mining in Q3 2022.

The construction phase of the project encompasses:

1. Completion of services for power, IT communications, water, sewage, quarry and crushing.
2. Completion of design and construction of project infrastructure works including:
 - Access Roads
 - Site Facilities
 - Fuel Farm
 - Magazine
 - Process Plant
 - Mine Infrastructure Area (MIA)
 - ROM Pad
 - Sediment Ponds, Raw Water Ponds, Waste Dumps
3. Establishment of systems and processes to ensure safe construction works, as well as engagement / training of workforce personnel.
4. Mobilization and site establishment of construction personnel, construction materials, heavy earthmoving plant, concrete batch plant, crushing equipment, tools, and consumables.

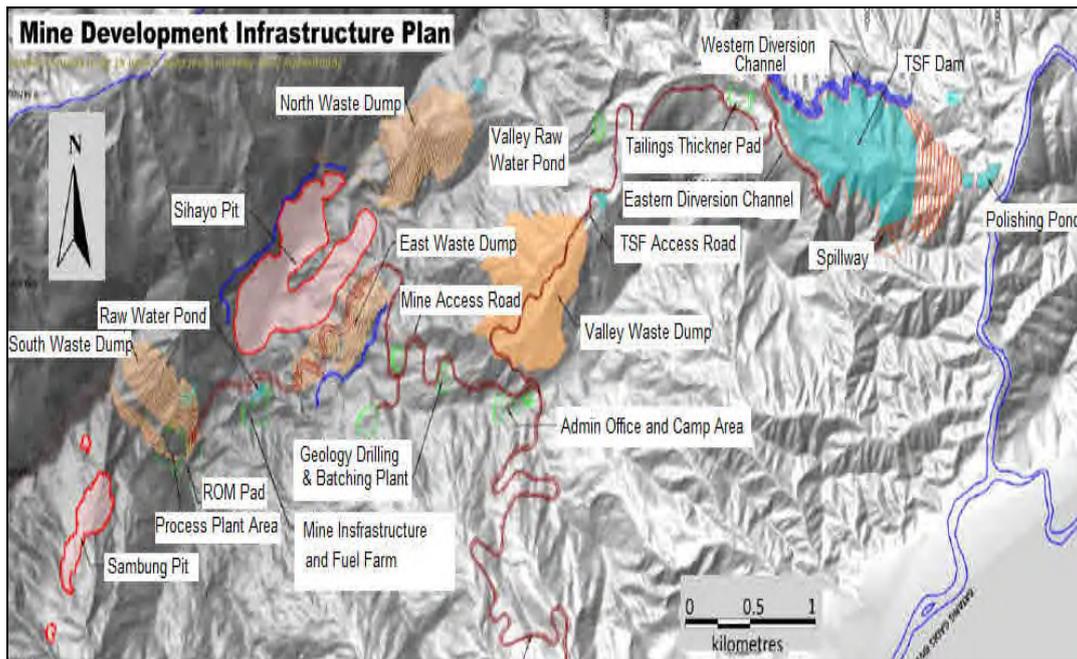


Figure 6-5. Mine Development Infrastructure Plan

6.3 MINING METHOD

The mining method selected for the project is a conventional owner operator truck and excavator method using 40t class diesel powered Articulated Dump Trucks (ADTs) and 40t class diesel hydraulic excavators to mine ore and waste from the Sihayo and Sambung pits. The excavators will operate in backhoe configuration on 2m flitches loading the haul trucks on the bench below for the majority of the time and on the same bench for ‘goodbye pit’ work at the bottom of the designed pit floor.

Mining preparation work includes the following:

1. Survey and marking out the area to be cleared
2. Construction of necessary drains and sediment controls
3. Logging any valuable trees and storage for later disposal
4. Removal and disposal of other vegetation
5. Grubbing stumps with dozers
6. Clearing topsoil to a minimum depth of 50cm and stockpiled for future rehabilitation.
7. Pioneering work to establish working platforms and road access with dozers, excavators and trucks (See example Figure 6.6 below). Prepare the construction of toe berms, drains and catchment dams at the waste emplacement areas.



Figure 6-6. Pioneering Works

6.3.1 Grade Control/Survey

Undertake Grade Control drilling. Normally Reverse Circulation (RC) drilling is undertaken to identify the depth of waste material cover and ore zones. It is understood that RC drilling has not been included in the project economics at this time as grade control will be undertaken by analysis of trench samples and blast hole drill cuttings.

6.3.2 Pre-Strip

The project will commence free digging of overburden waste material to expose the ore. Material which is not able to be freedug will be ripped with dozers and removed by excavators or drilled and blasted. Where required bulk mining of waste occur, waste will be removed to within 0.5m of the ore before final clean-up of the ore surface to 150mm offset using selective mining with small excavators or small dozers. See Figure 6.7 for the naming convention in the Sihayo Pit.

6.3.3 Waste Removal

Waste removal will generally take place with the main production excavators and haultrucks working from the North to South in 4m bench heights (2x2m flitches) with the material being trucked to the nearest waste dump. It is expected that 59.7Mt of Waste material will be moved over the LOM.



Figure 6-7. Sihayo Final Pit Design

Terrace mining is proposed for the North West pit to follow the Martabe experience where waste material is allowed to fall over the pit edge to form a bund along the mined area. Ore is then mined right up to the outer mine terraces (See Figure 6.8 Martabe Mine example).



Figure 6-8: Martabe Mine Terrace Mining

Waste from the Sihayo Pits will be taken to adjacent out of pit waste dumps (See Figure 6.9) with the potential for in-pit dumping to occur in year 5 in North West area on completion of ore production.

Waste from the Sanbung pit will be trucked to the Sanbung Dump in close proximity to the pit with some material taken to the further South Dump as required (See Figure 6.9).

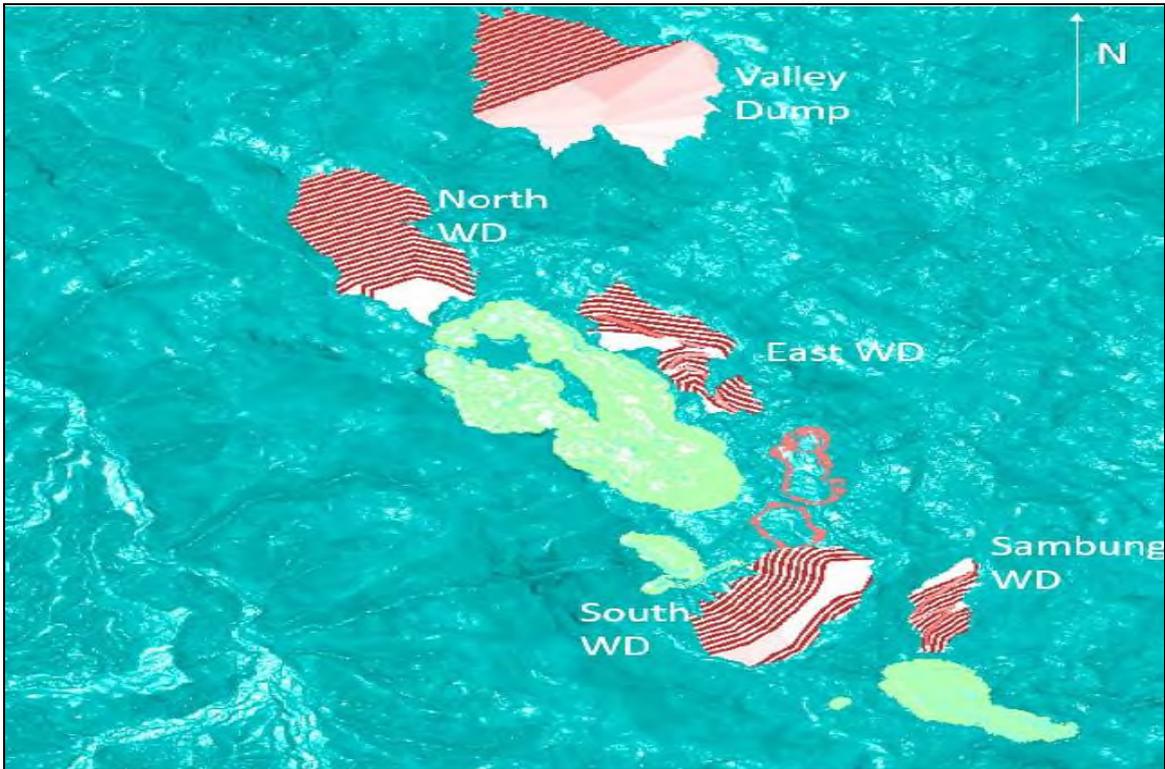


Figure 6-9. Sihayo and Sambung Pit and Waste Dump locations.

6.3.4 Waste Dump Construction

The foundation of the dumps will be cleared and stripped of all organic material and topsoil to a depth of 2 m prior to commencing waste dumping operations. A 1.5m dump toe will be formed of competent clay free rock followed by subsequent 1.5m layers of compacted waste material to a height of 10m. The remainder of the dump face will then be constructed in 30m lifts of waste material compacted in 1.5m increments. A skin of 15m compacted material will then encase free dumped material in a succession of lifts. (See Figure 6.10 for the proposed waste dump designment arrangements).

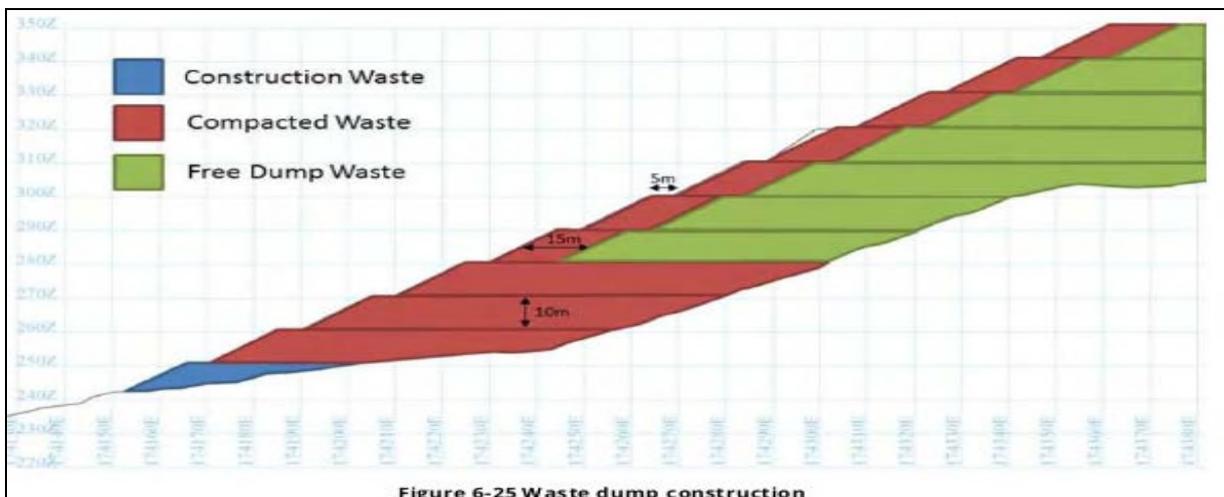


Figure 6-25 Waste dump construction

Figure 6-10. Waste Dump Design x-Section

6.3.5 Ore Mining

Once the upper surface of the ore zone is exposed, a grade control technician will mark out blocks of ore for mining using high visibility tape, indicating the destination i.e. ROM pad or LG stockpile.

A production excavator will excavate the ore and load it into a haul truck. Generally, the excavator will work from one side of the pit to the other, removing a strip of ore approximately 6-8 m wide in 2.0 m flitches. Where floaters of hard Jasperoid or other rock ore are encountered, they will be broken up into manageable lumps with a rock breaker.

Ore material will be transported to the 250,000t ROM pad (22day production capacity) and blended for infeed grade before being processed by a conventional CIL processing plan (See Figure 6-11 below for location of Stockpile Pad/Plant Infeed).

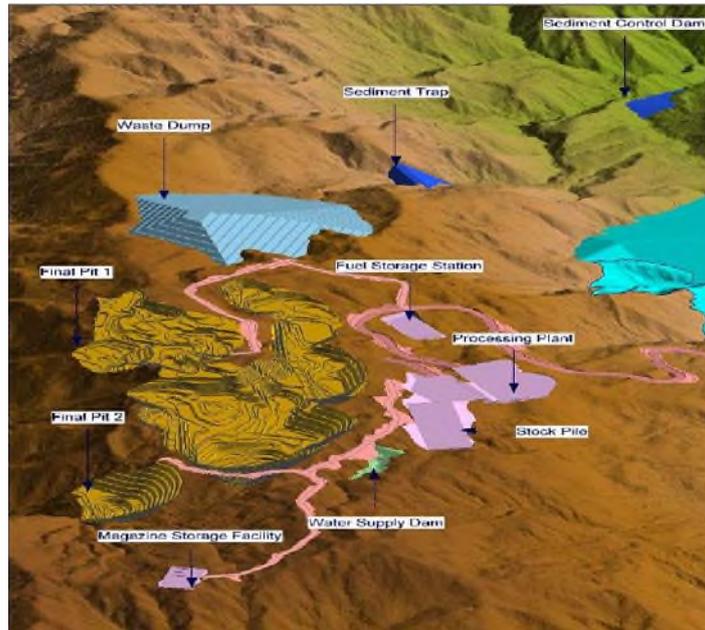


Figure 6-11. Rom Stockpile Location

The AMC ‘Project Sihayo Minemax Results MII_V6 Expit by Ore Type.xlsx’ spreadsheet (See Table 6.1 below) estimates that 13.6Mt of ore and 59.7Mt of waste will be moved from the Sihayo and Sambung pits over a 9-year life-of -mine.

Table 6-1. Sihayo Project Mining Push Back Schedule

Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Sihayo Project Mining Summary	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Total Ore Mined Sihayo kt	140.2	1894.6	1466.1	1544.9	1137.8	1181.7	1626.2	1002.5	1907.5	123.2	12024.6
Sihayo Ave Ore Grade Mined g/t	1.53	1.73	2.10	1.34	1.12	1.79	3.16	3.05	2.45	1.28	2.08
Total Ore Mined Sambung kt	-	-	208.1	258.6	242.1	425.3	210.2	214.5	-	-	1558.9
Sambung Ave Ore Grade g/t	0.00	0.00	1.80	1.74	1.66	1.28	1.61	2.82	0.00	0.00	1.74
Total Ore Mined kt	140.2	1,894.6	1,674.2	1,803.5	1,379.9	1,607.0	1,836.4	1,217.0	1,907.5	123.2	13,583.5
Ave. Project Grade g/t	1.53	1.73	2.06	1.40	1.21	1.65	2.98	3.01	2.45	1.28	2.04
Total Waste Mined kt	509.8	2,781.6	2,838.2	3,107.4	10,475.0	14,088.5	10,661.0	9,862.2	5,258.4	75.2	59,657.3
Strip Ratio t/t	3.6	1.5	1.7	1.7	7.6	8.8	5.8	8.1	2.8	0.6	4.4
Total Material Moved t	650	4,676.3	4,512.3	4,910.9	11,855.0	15,695.5	12,497.5	11,079.2	7,165.9	198.4	73,240.9

During the project 12.02Mt of ore at an average grade of 2.1g/t will be mined from Sihayo Pits and 1.56Mt of ore at an average grade of 1.7 g/t will be mined from Sambung Pit(See Figure 6.12 for the proposed Push Back Ore Production Schedule).

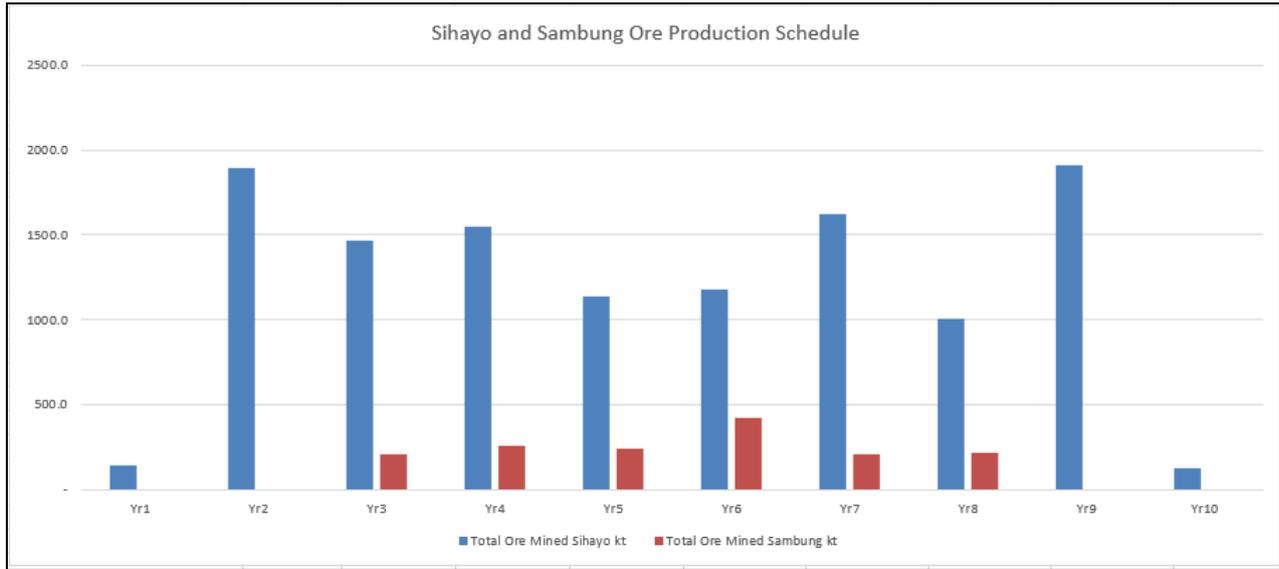


Figure 6-12. Push Back Ore Production Schedule

6.3.6 Drill and Blast

Blast Hole Drilling is to be undertaken as an owner operation while explosive supply will be a full Down-the-Hole service supplied by DNX⁵ Indonesia including.

- Supply Explosives (AN, Accessories and Booster) to Sorikmas' Magazine.
- Delivery of Trojan407OGi an emulsion product
- Production of emulsion manufacturing services using onsite Emulsion Plant.
- Provision of 1 x mobile processing units (MPU) with minimum quantity: 200 MT/month.
- Full Blasting Services including the following activities:
 - Priming of the holes with boosters and detonators
 - Loading of emulsion product into the hole including gassing of the product.
 - Stemming of the holes using drill cuttings (ideally using aggregate)
 - Tie up and firing

Three owner operated PowerRoc T50 Blasthole Drill Rigs have been selected to meet the expected blasting requirements. The timing of these drills appears to be out of sync with the mining schedule as the first drill in the DFS 2020 study is not purchased until year -1. Table 6.2 below provides a schedule of the blasting requirements and it indicates that 66.7% to total material moved (435,361t) will require blasting in Year -2 (Year 2021). The DFS 200 Study provided a target of 6119 hrs/yr. effective work hours on that basis, three drills will meet the drilling requirements of the DFS 2020 blasting schedule if working 2x12 hr shifts per day, working all 15 public holidays but losing 10.9days per year to wet weather . If however the effective work hours are corrected to include time lost for unscheduled stoppages (waiting for mark out, walk time, blast stoppages etc.) the anticipated effective drill work hours per year is reduced to 4446 hrs and this indicates that an additional drill may be required in year 3 to complete the blasting schedule.

⁵ Sihayo DFS 2020 Appendix 6L

Table 6-2. Sihayo Project Mining and Blasting Schedule

Sihayo and Sambung Production Schedule DFS June 2020			Yr-2	Yr-1	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	
Mine Production		kt	Total	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Oxidised Ore		kt	4,392	112,126	1,155,620	467,715	1,185,720	619,241	541,278	82,913	46,588	68,014	112,937
Transitional Ore		kt	6,399	27,608	715,498	1,047,382	612,332	733,574	756,882	862,684	717,879	825,935	99,225
Fresh Ore		kt	2,872	296	22,576	155,593	4,860	27,011	308,740	890,826	452,428	1,005,074	4,814
Unclassified		kt	14	2,841	2,217	6,661	0	812	1,431	0	0	0	0
Total Ore		kt	13,677	142,872	1,895,911	1,677,350	1,802,911	1,380,639	1,608,333	1,836,423	1,216,895	1,899,022	216,976
Waste		kt	53,292	509,764	2,781,647	2,838,171	3,107,397	9,475,011	9,588,513	9,661,032	9,862,183	5,258,408	210,047
Waste Bulk Strip		kt	6,500	0	0	0	4,500,000	1,400,000	600,000	0	0	0	0
Total Waste		kt	59,792	509,764	2,781,647	2,838,171	7,607,397	10,875,011	10,188,513	9,661,032	9,862,183	5,258,408	210,047
Total Mine Movement		kt	73,470	652,635	4,677,558	4,515,521	9,410,308	12,255,649	11,796,845	11,497,455	11,079,078	7,157,431	427,023
Waste:Ore Ratio		t:t	4.37	3.57	1.47	1.69	4.22	7.88	6.33	5.26	8.10	2.77	0.97
Free Dig and Blasted Material			Total	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Free Dig	Oxide Ore t	50.0%	2,196,076	56,063	577,810	233,857	592,860	309,620	270,639	41,456	23,294	34,007	56,469
	Transitional Ore t	30.0%	1,919,700	8,282	214,649	314,215	183,699	220,072	227,065	258,805	215,364	247,780	29,767
	Oxide Waste	30.0%	15,987,652	152,929	834,494	851,451	932,219	2,842,503	2,876,554	2,898,310	2,958,655	1,577,523	63,014
	Total Free Dig		20,103,427	217,275	1,626,954	1,399,523	1,708,778	3,372,196	3,374,258	3,198,571	3,197,313	1,859,310	149,250
Blast Material	Oxide Ore t	50.0%	2,196,076	56,063	577,810	233,857	592,860	309,620	270,639	41,456	23,294	34,007	56,469
	Transitional Ore t	70.0%	4,479,299	19,326	500,849	733,167	428,632	513,502	529,818	603,879	502,515	578,154	69,457
	Fresh Ore t	100%	2,872,219	296	22,576	155,593	4,860	27,011	308,740	890,826	452,428	1,005,074	4,814
	Unclassified t		13,962	2,841	2,217	6,661	0	812	1,431	0	0	0	0
	Waste t	70.0%	37,304,520	356,835	1,947,153	1,986,720	2,175,178	6,632,508	6,711,959	6,762,722	6,903,528	3,680,886	147,033
	Waste Bulk Strip t	100.0%	6,500,000	0	0	0	4,500,000	1,400,000	600,000	0	0	0	0
	Total Blasted Material t		53,366,076	435,361	3,050,605	3,115,998	7,701,530	8,883,454	8,422,588	8,298,884	7,881,765	5,298,121	277,772
Total Ore t			13,677,331	142,872	1,895,911	1,677,350	1,802,911	1,380,639	1,608,333	1,836,423	1,216,895	1,899,022	216,976
Total Material Moved t			73,469,503	652,635	4,677,558	4,515,521	9,410,308	12,255,649	11,796,845	11,497,455	11,079,078	7,157,431	427,023
% of TMM Blasted			72.6%	66.7%	65.2%	69.0%	81.8%	72.5%	71.4%	72.2%	71.1%	74.0%	65.0%
Epiroc T50 Drills	Purchase Schedule		3	0	1	0	1	1	0	0	0	0	0
DFS 2020 Study	Drill Fleet Number		3	0	1	1	2	3	3	3	3	3	3
Drill Capacity Calculations	Effective Work Hrs	6,119	3	0.1	0.8	0.8	2.0	2.3	2.2	2.2	2.1	1.4	0.1
Drill Capacity Calculations	Effective Work Hrs	4446	4	0.2	1.1	1.1	2.8	3.2	3.0	3.0	2.8	1.9	0.1

Blasting designs in the DFS 2020 have been matched to the rock type for 4m bench height (plus 1m of subdrilling) using the PowerRoc T50 Blasthole Drill Rigs (See Table 6.3 below). These designs and productivities appear to be consistent with other gold projects with similar ground types.

Table 6-3. Blasting Parameters for the Sihayo Project

Parameter	Units	Weak	Medium	Hard
Blast pattern				
Burden (B)	m	5	4.5	4
Spacing (S)	m	4.5	4.5	3.5
Bench Height (H)	m	4	4	4
Subdrill (Sub)	m	1	1	1
Blast Size				
Blast volume per hole (B x Sc H)	m ³	113	101	70
Rock density	t/m ³	2.15	2.4	2.5
Tonnes blasted per hole	tonnes	242	243	175
Drilling cycle time				
Drill-metres per hole (H + Sub)	m/hoie	5	5	5
Penetration rate	m/h	45	38	35
Drilling	mm/hole	6.67	7.89	8.57
Relocation between holes	mm/hole	5	5	5
Setup	mm/hole	1	1	1
Total drilling time	mm/hole	12.67	13.89	14.57
Effectiveness	%	83%	75%	83%
Holes per SO-minute hour	holes	3.9	3.2	3.4
Productivity				
Volume per operating hour	bcm/h	354	262	191
Tonnes per operating hour	t/h	761	630	478
Tonnes per hole	t/hole	194	194	140
Tonnes per drill-metre	t/m	38.7	38.9	28
Drill-metres per operating hour	m/h	19.7	16.2	17.1

6.4 MINE OPERATIONS

6.4.1 Labour availability

The DFS 2020 mining operations are based on working 2 x 12 hour shifts per day, 365 days per year. Although Indonesia has 15 Public Holidays per years, all holidays are planned to be worked at the Sihayo Project. Time available for work has been calculated at 9 hours and 48minutes per shift after allowing for scheduled non-work time of 130mins per shift (inclusive of Pre-start checks and refuelling, travel to/from workplaces and one 50 minute meal break). This amounts to 81.9% of total time available for work or 7178 labour hours per year See Table 6.4 for labour hours). Mine operations labour is driven by the number of pieces of manned equipment being used and the work roster.

It is understood that the workforce will be drawn from local labour with on the job training during the mine development and pioneering phases. No allowances have been made for a ramp up in skills development in the time available for work.

Table 6-4. Sihayo Labour Hours Calculations

Production Roster	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hrs/Week	Weeks/yr	Hrs/Yr
DS (Hrs)	12	12	12	12	12	12	12	84	52.1	4380
AS (Hrs)	12	12	12	12	12	12	12	84	52.1	4380
Total Hrs	24	24	24	24	24	24	24	168	52.1	8760
Equipment Inspection/Refueling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	3.5		
Travel to Work	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.8		
Travel to Crib 1	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1.2		
Crib 1	0.83	0.83	0.83	0.83	0.83	0.83	0.83	5.8		
Travel back fro Crib 1	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1.2		
Travel to Crib 2								0.0		
Crib2								0.0		
Travel back fro Crib 2								0.0		
Travel at End of Shift	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.8		
Total Machine Hrs Avail/ Shift	9.8	9.8	9.8	9.8	9.8	9.8	9.8	68.8	52.1	3589
Total Machine Hrs Avail/ Day	19.7	19.7	19.7	19.7	19.7	19.7	19.7	137.7	52.1	7178

Available work hours could be improved by hot seat changeover at shift end or providing backup crews for work-through-crib (meal breaks) but this can be achieved once basic operational proficiency has been achieved.

6.4.2 Mining Equipment

The choice of mining equipment was largely based upon the advice of Merdeka Mining Services (MMS) who operate similar mining operations at Wetar and Tuju Bukit mines in Indonesia.

Conventional 40t class excavators (Cat 345 Excavators) and 40t class articulated dump trucks (Cat 745 ADT's) have been selected to undertake the mining (See Figure 6.13).



Figure 6-13. Cat 345 Excavator loading Cat 745 ADT

Table 6.5 below contains a full list of equipment included in the Financial Model.

Table 6-5. Sihayo Project Mining Equipment

Sihayo Financial Model -12 May 2020-1700 and 1890 AU Prices			Year -2	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
			Jun-21	Jun-22	Jun-23	Jun-24	Jun-25	Jun-26	Jun-27	Jun-28	Jun-29	Jun-30
Mining Mobile Equipment		Number	Number									
Item	Model											
Drills	Epiroc T50	3		1		1	1					
Soft Ore Sampler	Trenching Sampler	1		1								
Production Excavator - Waste Removal	0	0										
Production Excavator - Selective Mining	Cat 345GC	6		1	2	2	1					
Secondary Excavator/Rockbreaker	Cat 330	2		1		1						
Secondary Excavator-Long Reach	Cat 320 D2	2		1		1						
Haultruck	Cat 745	17		3	4	3	7					
Dozer	D8T	2			2							
Dozer	D6T	5		2		2	1					
ROM Loader	966H	2			2							
Tyre Handler/ATC	950L	1		1								
Grader	14M3	2		1	1							
Compactor	CS533E	3			2	1						
Backhoe	428F2	1			1							
Water Truck	Iveco AD410T44W 8x4	2		1	1							
Service Truck	Iveco AD380T44W 6x6	1		1								
Crane Truck	Iveco AD380T44W 6x6	1			1							
30 tonne road truck	Iveco AD410T44W 8x4	2			2							
Manhaul	Iveco HD9 44.42 4x4	1			1							
Low Loader	Iveco HD9 66.54T 6x6	1			1							
Lighting Plant	JCB LT9 AL4000H	18		6	12							
Forklift	Manitou 5 tonne	1		1								
Forklift	Cat 3 tonne	1			1							
25t Crane	Terex Franna MAC25	1			1							
70t Crane	Tadano 60t GR-600EX	1			1							
Sump Pump	Multiflo	3		1	1	1						
Total Cost		22,937,527	80	-	5,786,778	8,331,785	4,463,200	4,355,764	-	-	-	-

Cat 345 Hydraulic Excavator

The prime mining equipment is made up of 6 x Caterpillar 345GC hydraulic excavators fitted with 2.41m³ buckets loading 17 x Cat 745 41t Articulated all-wheel drive haultrucks. It is expected that the excavators

will be capable of loading each truck with 10 passes at 2.6 m³ (4.3t) per pass. Excavator productivity has been calculated by AMC from first principles in Table 6.6⁶ below.

Table 6-6. DFS 2020 Cat 345GC Excavator Productivity

Parameter	Units	Ore			Waste		
		Oxidised	Trans.	Fresh	Oxidised	Trans.	Fresh
Heaped bucket capacity	m ³	2.6	2.6	2.6	2.6	2.6	2.6
In situ density	t/m ³	2.15	2.38	2.49	2.15	2.38	2.49
Swell	%	30	30	30	30	30	30
Loose density	t/m ³	1.65	1.83	1.92	1.65	1.83	1.92
Fill factor	%	100	90	90	100	90	90
Effective bucket capacity	m ³	2.6	2.3	2.3	2.6	2.3	2.3
	t	4.3	4.3	4.5	4.3	4.3	4.5
Number of passes		10.0	10.0	10.0	10.0	10.0	10.0
Truck load	m ³	26.0	21.1	21.1	26.0	21.1	21.1
	t	43.0	38.6	40.3	43.0	38.6	40.3
Nominal truck capacity	m ³ SAE heaped	25.0	25.0	25.0	25.0	25.0	25.0
	t	40.0	40.0	40.0	40.0	40.0	40.0
Capacity utilisation	%	108	96	101	108	96	101
Bucket fill time	min	0.20	0.20	0.17	0.20	0.23	0.17
Swing time, loaded	min	0.07	0.07	0.07	0.07	0.07	0.07
Dump time	min	0.02	0.02	0.02	0.02	0.02	0.02
Swing time, empty	min	0.06	0.06	0.06	0.06	0.06	0.06
Total time per bucket	min	0.35	0.35	0.32	0.35	0.38	0.32
Truck loading time	min	3.50	3.50	3.20	3.50	3.80	3.20
Spot time	min	0.75	0.75	0.75	0.75	0.75	0.75
Wait time	min	1.00	1.00	1.00	1.00	1.00	1.00
Total time	min	5.25	5.25	4.95	5.25	5.55	4.95
Effectiveness	%	65	65	65	75	83	83
Trucks per effective hour		7.4	7.4	7.9	8.6	9.0	10.1
Excavator productivity	m ³ /h	193	156	166	223	189	212
	t/h	319	286	318	369	346	406

Loading productivity could be improved if 80t class excavators are used (Cat 390F exc. with 4.6m³ bucket) to load the 40t ADT's in 4 passes. The 80t class excavator has a much larger breakout force (365kN) over the 40t class excavators (235kN) and therefore is capable of greater free dig and less demand on blasting. Ground bearing pressure could be an issue with larger excavators when working on Oxide ore and Oxide Waste.

The larger excavator such as a Cat 390F could also be matched with larger haultrucks such as a Moxxy MT51 (50t class) to achieve a 6-pass payload (Moxxy's have all enclosed oil cooled wet multiple disc brakes on all 6 wheels for greater safety in wet and steep road conditions) and similar widths to the Cat 745 ADT so roadway width design would not need to be altered (See Figure 6.14).

⁶ Sihayo DFS Volume 1 v2 optimised Table 6-17, Pg. 6-43



Figure 6-14. Moxy MT51

Cat 745 haul trucks

The Cat 745 ADT has a 45-tonne rated capacity and is widely used in Indonesia for mining, especially at sites impacted by frequent wet weather and poor trafficability such as expected at Sihayo (See Figure 6.13). The Cat 745 sealed wet disc brakes and three axle all-wheel-drive capability are excellent safety features. These trucks are required to operate at altitude of 1300m RL maximum and although truck engine output is de-rated because of altitude, it is not usually an issue unless the equipment is working above +2500m RL.



Figure 6-15. Cat 345

Table 6.7 below provides the assumptions used in determining truck productivity. Truck cycle times from each pit for waste to the adjacent waste dump and ore to the crusher have been calculated to determine the material movements. AMC have indicated that 6 excavators and 17 haultrucks will be required to meet the production schedule based upon 6000 Service Metre Units (SMUs) hours of operation each year.

Table 6-7. DFS 2020 Cat 745 Haul Truck Productivity Inputs

Factor	Units	Value
On-bench travel time	seconds	20
On-dump travel time	seconds	20
Crusher spot time	seconds	45
Loader spot time	seconds	45
Waste dumping spot time	seconds	30
Tray raise time	seconds	30
In-pit speed limit	km per hour	30
Ex-pit speed limit	km per hour	40
Passes to fill truck		10
Time per pass	seconds	30
First pass delay	seconds	10
Cleanup-reposition per truck (truck wait time)	seconds	45
Efficiency factor	%	83
Average truck payload	tonnes	40

The 6000 average operating hours per annum over a 7-year equipment life has been based upon a sliding mechanical availability 93% in the first year when equipment is new, declining each year by 1 % to a minimum of 87%. Net hours after mechanical downtime was then adjusted for time lost to weather. Applying an equipment utilisation of 80% gives the net usable operating hours per year used in the study as shown in Table 10.8⁷.

Table 6-8. DFS 2020 Available Equipment Hours

Parameter	Year 1	Year 2	Year 3	Year 4	Comment
Total hours	8,760	8,760	8,760	8,760	Two 12 hours shifts
Mechanical availability	93%	92%	91 %	90%	365 days per year operation
Available machine hours	8,322	8,059	7,884	7,621	-
Lost time to weather (hours)	333	322	315	305	4%
Utilisation	80%	80%	80%	80%	-
Net available hours	6,391	6,189	6,055	5,853	-

It is not common for articulated haultrucks to consistently achieve 6000 effective work hours per annum particularly when working in small pit with steep wet conditions. Small pits are commonly affected by delays due to blasting, relocation delays to new work faces, shovel idle time, haul road repairs, single road access, non-productive travel time at the start and end of the shift and to and from meal breaks.

Table 6.9 is a typical breakdown of non-productive times that may affect the equipment available work hours working 2 x 12 hr shifts with 1 x 50minute meal breaks per shift. Large efficient mining operations commonly have an efficiency derating factor of around 7% where as small, inefficient pit mining scenarios can have an efficiency de-rating factors as high at 30%. It is estimated that if blasting occurs during meal breaks and no ‘hotseat changeover’ or ‘work-through-crib’ with backup crews is available, 6905 operating hours would be available for work after accounting for planned scheduled downtime.

⁷ Sihayo DFS Volume 1 v2 optimised Table 6-16, Pg 6-39

Table 6-9. Equipment Effective work Hours

Sihayo Gold Project Equipment SMU per Year										
Production Roster	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hrs/Week	Weeks/yr	Hrs/Yr
DS (Hrs)	12	12	12	12	12	12	12	84	52.1	4380
AS (Hrs)	12	12	12	12	12	12	12	84	52.1	4380
Total Hrs	24	24	24	24	24	24	24	168	52.1	8760
Equipment Inspection/Refueling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	3.5		
Travel to Work	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.8		
Travel to Crib 1	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1.2		
Crib 1	0.83	0.83	0.83	0.83	0.83	0.83	0.83	5.8		
Travel back fro Crib 1	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1.2		
Travel to Crib 2								0.0		
Crib2								0.0		
Travel back fro Crib 2								0.0		
Travel at End of Shift	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.8		
Total Machine Hrs Avail/ Shift	9.8	9.8	9.8	9.8	9.8	9.8	9.8	68.8	52.1	3589
Total Machine Hrs Avail/ Day	19.7	19.7	19.7	19.7	19.7	19.7	19.7	137.7	52.1	7178
Shut down due blasting (5blastsx40mins = 3.3 hrs/wk)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.1	0
Relocate to new dig area (4 hrs/wk)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	4.0	52.1	209
Shut down due safety concern (0.25hr/wk)	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.3	52.1	13
Other delays (1 hr/week i.e. Tool Box Talks)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	1.0	52.1	52
Total Machine Hrs.Avail /Day	18.9	18.9	18.9	18.9	18.9	18.9	18.9	132.4	52.1	6905
Effective Work Hr/Day Factor %										78.8%
Mine Site Work Hr/Day Derating Factor%										21.2%

Based on historical rainfall records, the Sihayo Project is expected to experience approximately 2400mm of rain each year. Delays to mining operations can be expected if rainfall intensity (20mm-56mm/hr.) affect the safety of mining activities. The DFS 2020 has indicated that 10.9 days per annum⁸ could be lost due to wet weather (Table 6.10 below).

Table 6-10. Sihayo Lost Time due to Rain Intensity

Daily rainfall (mm/day)	Time lost per Incident	Time lost				
		Q1 (hours)	Q2 (hour)	Q3 (hours)	Q4 (hours)	Total (hours)
>20	4	28	36	32	60	156
Oct-20	2	12	16	22	22	72
5-Oct	1	7	11	10	13	41
<5	0	0	0	0	0	0
None	0	0	0	0	0	0
Total		40	63	64	95	262
Lost Days/Qtr	(24hr days)	1.7	2.6	2.7	4.0	10.9
Lost Days/Month		0.6	0.9	0.9	1.3	10.9

Down Rating Factors

Other down rating factors for equipment include:

Mechanical Availability.

Using the sliding scale provides in DFS 2020 Section 6.5.1.2⁹ The average Mechanical Availability for the equipment is 90% (See Table 6.9 below).

Table 6-2. Ave. Equipment Mechanical Availability

	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Ave.
Mec Availability	93%	92%	91%	90%	89%	88%	87%	87%	90%

⁸ Sihayo DFS Volume 1 v2 optimised Table 6-7, Pg. 6-24

⁹ Sihayo DFS V1 V2 optimized Section 6.5.1.1.2 pg. 6-39

Utilisation

Section 6.5.1.2 of the DFS 2020 has assigned 80% Utilisation Factor for mining equipment.

Public Holidays

Indonesia has 15 recognised Public Holidays per year, however the DFS 2020 has planned to work 365 days per year so therefore all holidays will be worked.

Table 6.10 below has included wet weather delays, Public Holidays, Mechanical Availability, Utilisation, and the site work derating factor to establish 4823 annual effective work hours to determine the number of haultrucks needed to match the production schedule.

Table 6-3. Equipment Effective Work Hours

2021 Target 600 SMU Work Holidays	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total	Calc.
Days/Month	31	28	31	30	31	30	31	31	30	31	30	31	365	
Hours/Month	744	672	744	720	744	720	744	744	720	744	720	744	8760	8760
Wet Days	0.6	0.6	0.6	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.3	10.9	3.0%
Public Holidays														
New Years Day	0													
Luna New Year		0												
Profet's Ascension			0											
Good Friday				0										
Labour Day					0					0				
Lebaran					0									
Ascension Day					0									
Vesak					0									
Pancasila Day						0								
Eid al-Adha							0							
Islamic New Year								0						
Independence Day								0						
Profets's Birthday										0				
Christmas Day												0		
Total Holidays	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Available Work Days	30.4	27.4	30.4	29.1	30.1	29.1	30.1	30.1	29.1	29.7	28.7	29.7	354	97.0%
Avail Work Hours	731	659	731	699	723	699	723	723	699	712	688	712	8498	8498
Availability%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%		
Utilisation%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%		
Actual Work Hrs	526	474	526	503	521	503	520	520	503	513	496	513	6119	
Operating Factor for SMU(Adjustment for walking, idling & Inspections etc.)	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%		
Equipment Effective work Hours	415	374	415	397	410	397	410	410	396	404	391	404	4823	56.75%

MA comment on Equipment Availability

MA Comment: The net effect of this reduction in operating hours for haul trucks is that additional units would be required to meet the mining schedule adding additional costs to the project CAPEX and OPEX.

It is recommended that the equipment Effective Operating Hours be reviewed and a final Deswik Schedule be prepared to determine how many diggers and trucks are required to meet the Financial Model Production Schedule. At present, 17 ADT’s haultrucks nominated in the Financial Budget may not be enough to achieve the mining schedule. Sihayo Gold have plans to rerun the mining schedule using 5000 effective work hours per haultruck.

6.5 MINING SCHEDULE

There has been considerable work undertaken by AMC in Deswik and Minemax mining software to establish a mine schedule in support of the Ore Reserves statement.

The AMC Ore Reserve Statement contained in - /Detailed schedule /Sorikmas Tactical Plan Physicals_05June2020_V07 6month edit.xlsx formed the basis for the Financial Modelling. There is no annual breakdown of what ore and waste came from Sihayo pit or from Sambung pit and the sequence of work could not be identified. Upon request by MA, a later spreadsheet version was received on 6 October 2020 (AMC Project Sihayo Minemax Results MII_V6 Expit by Ore Type.xlsx – ‘Push Back Schedule’) This spreadsheet provides a mining sequence of 13 Pushbacks with 11 Push Backs being in Sihayo Pit and the final 2 Push Backs being in Sambung Pit (See Push Back areas in Figure 6.16).



Figure 6-16. Sihayo and Sambung Push Back Areas

The Push Back life of mine schedule provides for 9 years of mining production work with a small amount of pre and postproduction amounting to an additional 6 to 9 months. It is expected to deliver 13.6Mt ore at an average grade of 2.04 g/t and move 59.7Mt of waste at a ave. strip ratio of 4.4:1 (See Table 6.11).

[The Push Back Schedule is based of a flat 6000 hours per annum work for excavators and trucks].

It is expected that 12.0Mt of ore at an average grade of 2.1 g/t will be mined at Sihayo Pits and 1.6Mt of ore at an average grade of 1.7 g/t will be mined from the Sambung Pit.

The mining program from AMC Minemax was developed in quarters but has been aggregated into Calendar Years for comparison to information contained in the Financial Model.

Table 6-4. Sihayo Project Push Back Schedule Annualised

Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Total Ore Mined Sihayo kt	140.2	1894.6	1466.1	1544.9	1137.8	1181.7	1626.2	1002.5	1907.5	123.2	12024.6
Total Ore Mined Sambung kt	-	-	208.1	258.6	242.1	425.3	210.2	214.5	-	-	1558.9
Total Ore Mined kt	140.2	1,894.6	1,674.2	1,803.5	1,379.9	1,607.0	1,836.4	1,217.0	1,907.5	123.2	13,583.5
Ave Grade to crusher g/t	-	1.88	2.10	1.40	1.15	1.64	3.37	2.63	2.74	1.18	2.04
Sihayo Pit Waste kt	509.8	2,781.6	2,519.5	2,254.0	8,509.0	12,933.4	9,916.3	9,610.4	5,258.4	75.2	54,367.4
Sambung Pit Waste kt	-	-	318.7	853.4	1966.0	1155.1	744.8	251.8	-	-	5289.9
Total Waste Mined kt	509.8	2,781.6	2,838.2	3,107.4	10,475.0	14,088.5	10,661.0	9,862.2	5,258.4	75.2	59,657.3
Strip Ratio	3.6	1.5	1.7	1.7	7.6	8.8	5.8	8.1	2.8	0.6	4.4
Total Material Moved kt	650.0	4,676.3	4,512.3	4,910.9	11,855.0	15,695.5	12,497.5	11,079.2	7,165.9	198.4	73,240.9

It is understood that mining will be undertaken on an owner operator basis with mining contractors being used to augment prestrip from Year 5. Figure 6.17 shows the proposed waste movement schedule and Figure 6.18 the planned ore production from each pit.

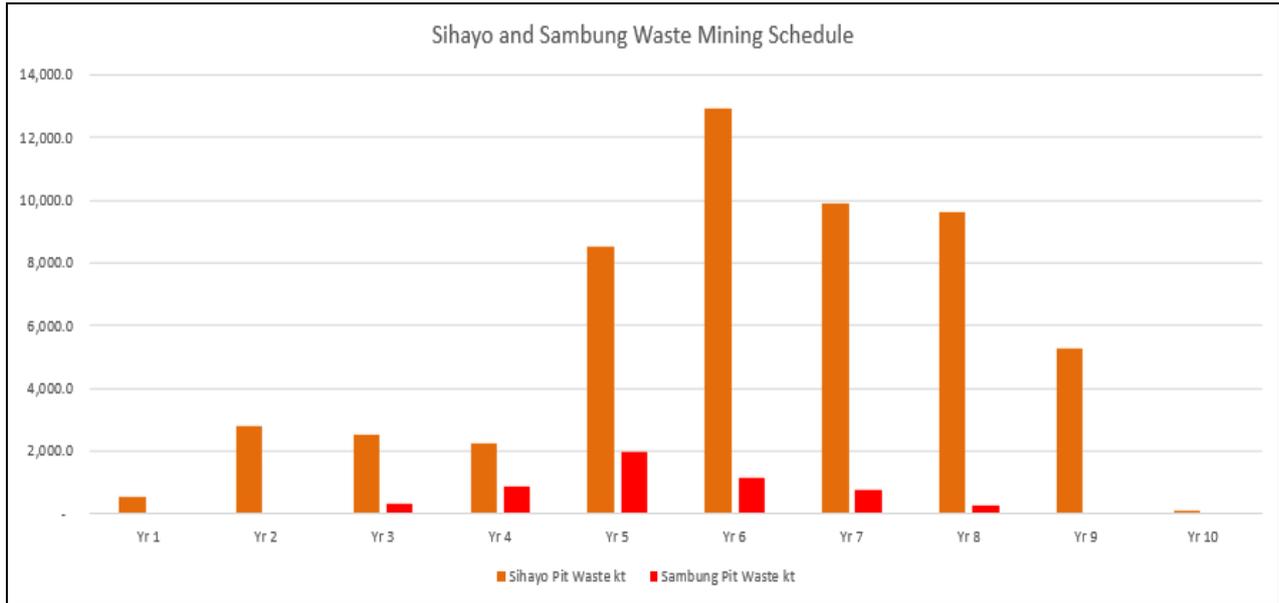


Figure 6-17. Sihayo and Sambung Waste Movement Schedule

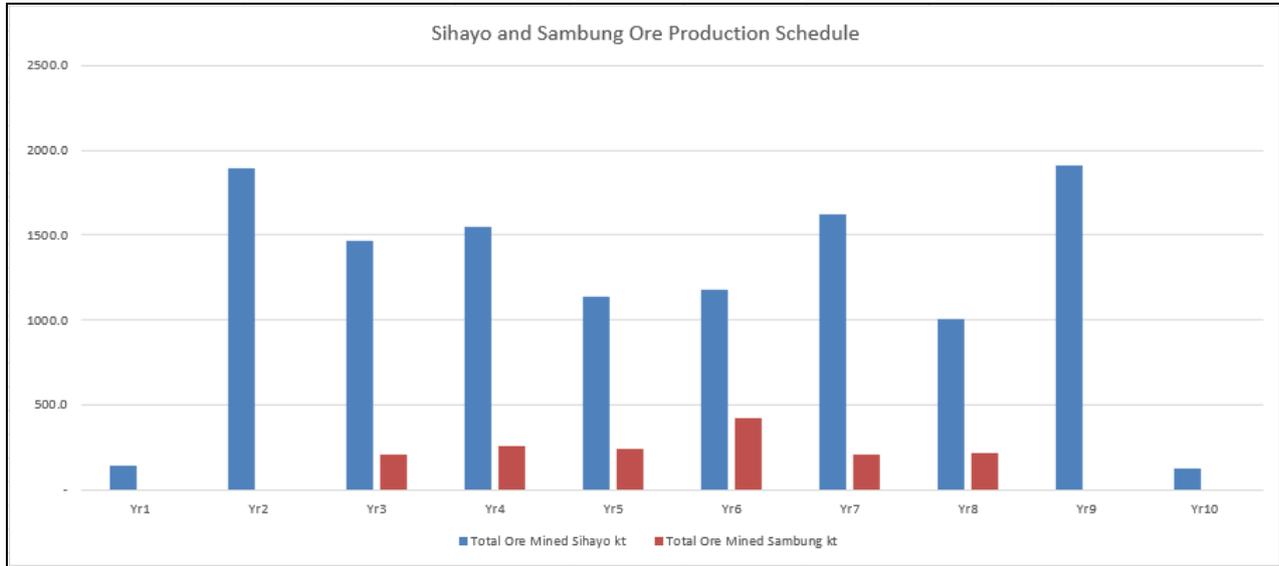


Figure 6-18. Sihayo and Sambung Ore Production Schedule

MA Comment:

The list of documents in the data room initially did not however provide sufficient source documents to support the Financial Model LOM Schedule at 13.7Mt or ore produced that included mining Measured, Indicated, and Inferred resources. (See Table 14-14 below). There is no annual breakdown of what ore and waste from Sihayo pit or from Sambung pit and the sequence of work and the production from each pit could not be identified. Upon request, MA obtained a further spreadsheet **Project Sihayo Minemax Results MII_V6 Expit by Ore Type.xlsx (Push Back spreadsheet)** on 6 October 2020 which was a Minemax quarterly output indicating 13 Pushbacks for the project, 11 in Sihayo Pits and 2 in Sambung Pit. This spreadsheet used the updated assumptions 5x5x2 from SGC2020 block model, re-designed the Sihayo main pit to add inferred material and was run on Measured, Indicated, and Inferred basis that matches Minemax run V5 but with manual addition of Sambung satellite and Sihayo pit design changes for Inferred material.

The **Push Back** spreadsheet provided contained 13.6Mt of Ore and 59.7 tonnes of Waste and is close to the figures used in the **Sihayo Financial Model 12 May 2020- 1700 and 1890 AU Prices.xlsx** (13.7Mt of ore produced and 59.792 tonnes of Waste) but the results were reported quarterly. These results were aggregated on an annual basis to provide a direct comparison with the Financial Model Annual LOM production.

There is a 4.5Mt reduction in the amount of prestrip waste movement in Year 4 of the above **Push Back** Schedule when compared to the **Financial Model** although complete prestrip of waste is achieved by the end of the project. This would affect the Operating Cash Flow for the project when compared to the DFS

6.6 REHABILITATION

The closure and reclamation of the haul roads, waste dumps and other facilities and infrastructure will be undertaken in accordance with the AMDAL document. Generally this work will be undertaken at the closure of the mine. Waste storage rehabilitation, however, is a continuous process during mining operations. Final rehabilitation of the dump is completed at the end of the dump life and involves rounding of the dump crest providing rock of fabric lined drainage channels for water management and erosion control and reforming faces to improve the long-term erosion stability. The reformed faces are then spread with suitable topsoil to a 0.5 m thick cover and revegetated with indigenous grasses, shrubs or trees. Ongoing geotechnical and environmental monitoring is conducted to ensure that slope stability, sediment control and quality objectives are met.

6.7 ECONOMIC EVALUATION

AMC provided the following economic evaluation based on Revenue on Gold Sales at US\$1700 and US\$1890/oz:

The Project has a strong NPV of US\$151M at US\$1700/oz and US\$204M at US\$1890/oz based on a hurdle rate of 8% (See Table 6.19 below). The assumptions used in the Economic Evaluation appear reasonable with the gold price as of 7 October 2020 being USD 1879.10 /oz.

Production				
Life of Mine	years	9		
Recovered Gold	oz	633,493		
Ore	million tonnes	13.7		
Grade	g/t Au	2.04		
Metallurgical Recovery	%	74%		
Recovered Gold Grade	g/t Au	1.44		
Waste	million tonnes	59.8		
W:O Ratio	t:t	4.4		
Gold Price	US\$/oz	1,700		CRU -1890
Revenue and Cash Costs				
Average Annual Revenue (excl yr9, part year)	US\$ million	130		145
Revenue per tonne Ore	US\$/tonne	78		88
Average Annual Operating Costs	US\$ million	46		46
Cash Costs per Oz Production	US\$/oz	632		632
Cash Costs per tonne Ore	US\$/tonne	29		29
Financial Results				
NPV @ 5%	US\$ million	205		267
NPV @ 8%	US\$ million	151		204
IRR		28%		34%
Payback from First Production	months	32		25
-Production Funding Requirements				
Preproduction Capital excluding Contingency	US\$ million	132.9		
Contingency	US\$ million	11.1		
Working Capital	US\$ million	4.5		
Preproduction Operating Costs	US\$ million	4.3		
Total Funding Requirement	US\$ million	152.7		

Figure 6-19. Sihayo Economic Evaluation

6.8 CONCLUSIONS AND RECOMMENDATIONS - MINING

At this stage MA is of the opinion that the technical project assumptions used in the Sihayo Gold Project are reasonable however the following issues may affect the final Cash Flow Model pertaining to mining CAPEX and OPEX:

6.8.1 Effective Work Hours for Haultrucks/Truck Numbers

It is not common for articulated haul trucks to consistently achieve 6000 effective work hours per annum particularly when working in small pit with steep wet conditions. Small pits are commonly affected by delays due to blasting, relocation delays to new work faces, shovel idle time, haul road repairs and non-productive travel time at the start and end of the shift and to and from meal breaks. The net effect of this reduction in operating hours for haul trucks is that additional units would be required to meet the mining schedule adding additional costs to the project CAPEX and OPEX.

It is recommended that the equipment Effective Operating Hours be reviewed and a final Deswik Schedule be prepared to determine how many diggers and trucks are required to meet the Tactical Schedule for plant infeed. Sihayo Gold have agreed to rerun the Push Back Schedule to determine detail cycle times and fleet numbers for each pushback using 5000 hours per haultruck.

There has been considerable work undertaken by AMC in Deswik mining software to establish a mine schedule in support of the Ore Reserves statement. There is conflicting information in several documents about truck numbers (AMC have higher numbers than the below DFS Financial model).

Table 6-5. Sihayo Project Financial Model DFS 2020 Mining Schedule and Major Fleet Numbers

Sihayo Gold Mine DFS 2020 Production Schedule											
	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Waste Movement (t)	509,764	2,781,647	2,838,171	7,607,397	10,875,011	10,188,513	9,661,032	9,862,183	5,258,408	210,047	59,792,172
Ore Production (t)	142,872	1,895,911	1,677,350	1,802,911	1,380,639	1,608,333	1,836,423	1,216,895	1,899,022	216,976	13,677,331
Total Material Movement (t)	652,635	4,677,558	4,515,521	9,410,308	12,255,649	11,796,845	11,497,455	11,079,078	7,157,431	427,023	73,469,503

Sihayo Gold Mine Production Schedule DFS 2020										
	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Fleet Numbers										
Cat 345GC 42t Exc-2.41m3 bucket	1	3	5	6	6	6	6	6	6	6
Cat745 ADT-41t	3	7	10	17	17	17	17	17	17	17
Epiroc T50 Drill	1	1	2	3	3	3	3	3	3	3

6.8.2 Ramp Up provision

The current **Financial Model** does not make provisions for a ramping up of the skill sets of the mine operators as they gain proficiency. This should be reflected by the downrating of equipment productivity over the first 6 to 12 months.

6.8.3 Reverse Cycle Drilling

There has been no allowance for Reverse Cycle Drilling for Grade Control to allow effective planning before blast hole drilling. Sihayo Gold propose to include this cost in a further DFS update.

6.8.4 Waste Prestrip

The 7.6Mt waste movements in Year 3 of the **Financial Model** have been reduced to 3.1Mt in the **Push Back** Schedule (See direct annual comparison in Table 6.13 below). It is assumed that this waste movement shortfall (4.5Mt) is made up by mining contractors engaged in prestrip operations from year 5 onwards. The cost of engaging Mining Contractors does not appear in the Financial Model Operating Costs.

Table 6-6. Sihayo Project Push Bach Schedule

Sihayo Gold Mine DFS 2020 Production Schedule											
Financial Model	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Waste Movement (t)	509.8	2,781.6	2,838.2	7,607.4	10,875.0	10,188.5	9,661.0	9,862.2	5,258.4	210.0	59,792.2
Ore Production (t)	142.9	1,895.9	1,677.4	1,802.9	1,380.6	1,608.3	1,836.4	1,216.9	1,899.0	217.0	13,677.3
Total Material Movement (t)	652.6	4,677.6	4,515.5	9,410.3	12,255.6	11,796.8	11,497.5	11,079.1	7,157.4	427.0	73,469.5
Push Back Schedule	Yr1	Yr2	Yr3	Yr4	Yr5	Yr6	Yr7	Yr8	Yr9	Yr10	Total
Total Waste Mined kt	509.8	2,781.6	2,838.2	3,107.4	10,475.0	14,088.5	10,661.0	9,862.2	5,258.4	75.2	59,657.3
Total Ore Mined Sihayo kt	140.2	1894.6	1466.1	1544.9	1137.8	1181.7	1626.2	1002.5	1907.5	123.2	12024.6
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Total Ore Mined kt	140.2	1,894.6	1,674.2	1,803.5	1,379.9	1,607.0	1,836.4	1,217.0	1,907.5	123.2	13,583.5
Total Material Movement (t)	650.0	4,676.3	4,512.3	4,910.9	11,855.0	15,695.5	12,497.5	11,079.2	7,165.9	198.4	73,240.9

7 MINERAL PROCESSING

7.1 SOURCES OF INFORMATION

The latest Feasibility Study (FS_2020) relies on a previous feasibility study of 2018 for interpretation of metallurgical testwork and for process design inputs. This work was undertaken by PT Green Gold Engineering. Metallurgical testing had been quite extensive over a period from 2005 to 2015. Recently, further work has been proposed to provide specific recovery vs grind size data to match recent ore-type classifications.

7.2 ORE TYPES AND GOLD OCCURRENCE

The ore has been classified variously as Oxide, Transitional and Fresh. More recently this has been more definitively assigned nomenclature of:

- TOX – Totally oxidized
- POX – Partially oxidized
- Fresh

Gold has been described as occurring in “sulfidic microcrystalline silicification (“jasperoid”) and in surrounding residual hydrothermal clay-sulfide alteration zones within decalcified limestone and other calcareous rocks.”

Gold occurrence has been studied by detailed electronic mineralogy techniques. It has been shown that gold is mostly ‘invisible’ concentrated in arsenian pyrite rims of pyrite crystals. It has been likened to mineralization from the Carlin deposits in Nevada, USA. The amount of free gold present was found to increase with increasing oxidation intensity.

7.3 RECOVERABLE GOLD

Due to the nature of the gold occurrence, the gold content of samples from exploration was largely determined by LeachWell direct cyanidation testing. Significant domaining of the resource was undertaken and gold recovery determined in relation to the geological domains. Testing of small interval samples, demonstrated a high degree of variability on small scale. A large number of tests were undertaken to provide statistically significant outcomes for assigning recoverable gold values across the deposit.

Gold recovery varied from as high as ~91% to a low of ~20%, with a calculated overall average of 70%.

7.4 TESTWORK

The historical testwork has been comprehensive in assessing alternate treatment methods and establishing the treatment characteristics.

These included:

- Comminution testing to provide input to power determination.
- Gravity Separation.
- Cyanide Leaching and Carbon Adsorption and optimization.
- Sulfide Flotation.
- Tailings - Cyanide Detoxification, Settling, Arsenic and Mercury removal.

7.5 PROCESS DESIGN

Flotation has been rejected based on the results to date.

Established conditions to form the basis of design criteria were:

- Size reduction – Crushing and Grinding to 80% passing (P80) 106 micron.
- Whole ore leaching with cyanide at 0.05% and pH 10.5.
- Leach residence time of 24-30 hours.
- Carbon concentration of 8-10 g/L.
- Reagent consumptions:
 - o Cyanide - 0.8-1.5 kg/t
 - o Hydrated Lime – 2-3 kg/t.

The plant is designed as a simple CIL circuit with thickening and detoxification of tailings, incorporating precipitation of any leached mercury and arsenic to a stable form.

The nominal processing rates, and attendant recoveries, for the design are:

- ‘Soft’ Ore – 2.0 Mtpa, 250 t/h, 85% Au recovery
- ‘Hard Ore’ – 1.5 Mtpa, 188 t/h, 66% Au recovery

The process design is based on the original Green Gold design which has been reviewed by Primero. Primero have also adapted the design for the replacement of Recyn with CN destruction and for a new TSF location.

MA Comment: The chosen plant design is classified as very standard.

Selection of grind size of P80 of 106 micron is seen as a reasonable compromise between throughput and recovery. Testwork indicated little increase in recovery for finer grind.

7.6 EQUIPMENT SELECTION

The Design Philosophy and Process Selection sections of the FS refer to the complexity due to range of ore hardness and tonnage rates.

The FS states that a large jaw crusher has been selected to handle the anticipated wide variation in tonnage and material hardness. However, an earlier report stated: “Based on the softness and expected high moisture content of the highly oxidised material.....it is expected that a jaw crusher... will experience severe materials handling problems...”

The Plant Layout and Equipment List show the absence of a stockpile between crushing and grinding. It is assumed that this is driven by desire to reduce capital cost but may also be due to topographical constraints. The ROM Stockpile is to be used to provide blending of feeds.

The Equipment List indicates a sizable ROM bin (180 t) ahead of the crusher. The representation in the Layout shows a tall bin.

MA Comment: If ore hang-ups were to be experienced in the ROM Bin, digging-out this bin could be time consuming. Any disruptions to feeding and crushing operations will immediately manifest to the SAG mill, compromising steady operation and overall plant utilisation / operating hours.

Selection of the comminution circuit, and size and power of mill/s, is considered to be a major design element. The Green Gold Process Design Criteria (PDC) references a report from OMC. “**OMC 7879-RPT-0 December 2017**”.

Unfortunately, this report was not available at time of reporting.

The Grinding circuit selected is a Single-Stage SAG Mill (7.92 m diam. X 4.56 m EGL; 75% critical speed, 3,780 kW) in closed circuit with hydrocyclones. This would provide operating power of ~18.1 kWh/t for the 'Hard Ore' blend, and ~13.6 kWh/t for the 'Soft Ore' blend.

MA Comment: The selected circuit has limited 'degrees of freedom' in operation. It will require consistent blending of feed types to smooth out variations in processing characteristics. Any fluctuations in blend, may result in sub-optimal grinding conditions, that could result in reduced throughput.

Leach volume capacity, and volume capacity of pumping and piping, is driven by the higher feed rate and lower density (due to higher viscosity) when processing oxidized feed. Thus, the achieved residence time when processing fresher ore is considerably higher.

MA Comment: Care will be required in detailed design to ensure installed equipment can accommodate the wide range in volume flows for different feed types. For some critical components (such as tailings lines), installation of parallel equipment may be required if a compromise design cannot be achieved.

A standard AARL stripping plant has been selected, with electrowinning of gold, followed by sludge drying and smelting.

The Inco process, utilizing sodium metabisulphite as the source of SO₂, has been selected for cyanide destruction. Tailings treatment will include soluble mercury and arsenic precipitation.

The treated tailings will be thickened prior to pumping to the TSF. As the TSF is to be below the processing plant, no decant will be returned to the plant.

Raw Water will be sourced from a dam close to the plant.

Process Water will be contained in a pond and distributed from a tank.

As the Tailings Dam will be 800m below the plant elevation, no decant will be returned. Due to a positive water balance around the TSF, decant water will be treated by a wastewater treatment plant.

7.7 RISK REVIEW

The results of a facilitated risk review are summarised in Ch 15 of the FS and the detailed risk register is in Appendix 15.

Notable identified Processing risks with a High Residual Risk on Throughput after assessment of proposed mitigating actions are:

Mill sizing / Material hardness - Mitigation: More testwork on comminution. Assessment of alternate designs including multistage crushing.

Sticky Material – Mitigation: Blend ore. Run ROM stockpiles to control feed characteristics. Circuit design to suit material type.

Feed variation was also seen as a source of risk to Throughput. It was noted that Single-Stage Mill can be difficult to operate.

MA Comment: The identified risks match with MA assessments as noted in sections above.

7.8 CONCLUSIONS AND RECOMMENDATIONS

The metallurgical characteristics of the Sihayo mineralization have been extensively investigated. The key outcomes are that the ore displays varied 'hardness' and gold recovery in relation to fresh sulphide content. Also, materials handling aspects of oxide ore are recognized as an operational risk.

To mitigate the effects of these features, it is proposed to control feed blends through ROM stockpile management. If this is compromised due to mine scheduling difficulties in operation, plant throughput and / or utilization (operating hours) could be negatively impacted.

MA Comment: It is recommended that economic sensitivity be assessed with respect to reduced annual throughput (combination of treatment rate and operating hours).

This requires both a rerun of production schedules and adjustment to Operating Costs calculation. It appears that Operating Costs in the current model are inputted as unit costs per tonne per plant section. In reality, most costs other than reagents, are time dependent costs, rather than tonnage dependent. The total annual processing costs would only fall marginally for reduced throughputs. The LOM would be extended.

Possible scenarios for modelling:

- A. Reduce Operating Hours by 2%; reduce Treatment Rates by 3%; **Increase** Unit Processing Operating Costs by 1.5%.
- B. Reduce Operating Hours by 4%; reduce Treatment Rates by 6%; **Increase** Unit Processing Operating Costs by 3.0%.

Other key processing inputs to the model - Recoverable Gold, Capex and Opex – are appropriately assessed for sensitivity in the FS. Unfortunately, the feed ‘blend’ presented in the financial evaluation (FS Chapter 16) is a blend of ore based on resource category rather than ore type. It is therefore difficult to audit with respect to derived treatment characteristics.

8 CAPITAL COST

8.1 MINE

AMC were provided with Mine Capital costs by PTSM, Primero Group and Merdeka Mining Services (MMS) who operate similar mining operations at Wetar and Tuju Bukit mines in Indonesia.

The fleet size used in the **Sihayo Financial Model 12 May 2020- 1700 and 1890 AU Prices.xlsx** appears to be at a disconnect when compared to other AMC studies (Sihayo DFS Vol 2 Ver 2.1 PTSM July 2020 App 6B Mining -Capital Costs).

The Financial Model 2020 contains 80 items of plant in the mining fleet while the Sihayo DFS Vol 2 Ver 2.1 PTSM July 2020 App 6B Mining -Capital Costs contains 64 items of plant (See table 16.1 below).

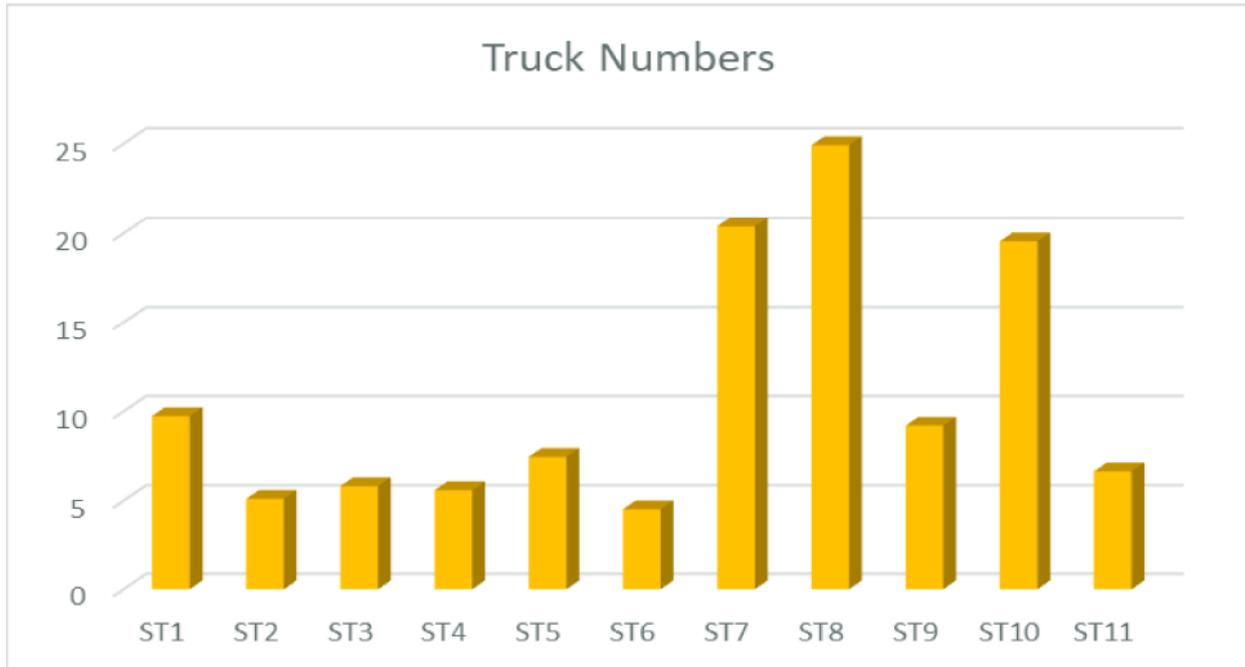
Table 8-1. DFS 2020 Mobile Fleet Comparison

Sihayo Financial Model -12 May 2020-1700 and 1890 AU Prices					Sihayo DFS Vol2 Ver 2.1 PTSM July2020 App 6B Mining -Capital Costs	
Mining Mobile Equipment		Unit Cost (US\$)	Number	Total Cost (US\$)		
Item	Model					
Drills	Epiroc T50	545,000	3	1,635,000		
Soft Ore Sampler	Trenching Sampler	200,000	1	200,000		
Production Excavator -Waste Removal	0	0	0	0		
Production Excavator -Selective Mining	Cat 345GC	353,784	6	2,122,704	Cat 340D2L	5
Secondary Excavator/Rockbreaker	Cat 330	273,492	2	546,984	Rock Breaker Attac	1
Secondary Excavator-Long Reach	Cat 320 D2	181,505	2	363,010	Cat 320D	3
Haultruck	Cat 745	452,860	17	7,698,620	Cat 745	23
Dozer	D8T	519,547	2	1,039,094	Cat D8R	2
Dozer	D6T	286,960	5	1,434,800	Cat D6R	2
ROM Loader	966H	350,944	2	701,888	Cat 980 H FEL	2
Tyre Handler/ITC	950L	363,696	1	363,696	Tyre Handler Attac	1
Grader	14M3	568,835	2	1,137,670	Cat 14M Grader	2
Compactor	CS533E	118,135	3	354,405	Compactor	4
Backhoe	428F2	128,757	1	128,757		
Water Truck	Iveco AD410T44W 8x4	179,500	2	359,000	Water Cart	2
Service Truck	Iveco AD380T44W 6x6	258,600	1	258,600	Fuel Truck	1
Crane Truck	Iveco AD380T44W 6x6	249,200	1	249,200		
30 tonne road truck	Iveco AD410T44W 8x4	158,700	2	317,400		
Manhaul	Iveco HD9 44.42 4x4	188,300	1	188,300		
Low Loader	Iveco HD9 66.54T 6x6	254,300	1	254,300		
Lighting Plant	JCB LT9 AL4000H	19,235	18	346,230	Lighting Plants	10
Forklift	Manitou 5 tonne	109,456	1	109,456		
Forklift	Cat 3 tonne	29,770	1	29,770		
25t Crane	Terex Franna MAC25	431,143	1	431,143		
70t Crane	Tadano 60t GR-600EX	552,500	1	552,500		
Sump Pump	Multiflo	705,000	3	2,115,000	Dewatering Pump	6
Total Cost			80	22,937,527		64

AMC have indicated that 6 excavators and 17 haul trucks will be required to meet the production schedule based upon 6000 Service Metre Units (SMU's) hours of operation each year.

The **Sorikmas Tactical Plan Physicals_05June2020_v07_6month.xlsx** provided information on Resources, Trucks, Material Types, Benches, Stages, Expit, Process, Financial and Dumps but contained an error in calculating truck numbers as the calculation in the spreadsheet did not cover the entire project life. Once corrected the average truck numbers for the project averaged 18 with the peak truck numbers being 25 in Stage 8 work (See Figure 16_1 below).

Figure 8-1. DFS 2020 Truck Numbers



The Sihayo DFS App 6-H Mining Fleet Capital Costs (April 2020) provided for a mining fleet of 52 pieces of plant (See Table 16-2).

Table 8-2. DFS 2020 Mining Fleet Listing

Class	Cost Area	Model	Comment	Number
Blasthole DTH Drill	Drill and Blast	Epiroc PowerRoc750	ex-China, Duty Free	2
Grade Control RC Drill	Grade Control	TBA	ex-China, Duty Free	0
Primary Excavator	Load and Haul	Cat 390/PC850	ex-China, Duty Free	0
Haultruck	Load and Haul	Cat 745/HM400	Ex-Uk, Duty	10
Secondary Excavator/Rockbreaker	Ancillary	Cat 345/PC400		4
Secondary Excavator	Ancillary	Cat 330/PC300 with QDS/hammer	ex-China, Duty Free	1
Secondary Excavator	Ancillary	Cat 320 D2 Long Reach/PC210	ex-China, Duty Free	1
Dozer	Ancillary/TSF	Cat D8T/D155	ex-Thailand, Duty Free	1
Dozer	Ancillary/TSF	Cat D6T/D85	ex-China, Duty Free	3
Front End Loader	ROM/TSF	Cat 966H/WA380	ex-China, Duty Free	2
Tyre Handler	Maintenance	Cat 950L Tyre Handler/TBA	ex-USA, 10% Duty	1
Integrated Tool Carrier	Maintenance	Cat 950L ITC	ex-USA, 10% Duty	0
Grader	Ancillary	Cat 14M3/GD825	ex-USA, 10% Duty	2
Compactor	Ancillary/TSF	Cat CS533E	ex-China, Duty Free	2
Backhoe	Ancillary	Cat 428F2	ex-USA, 10% Duty	1
Watercart	Ancillary/TSF	Iveco Trakker AD410T44 8x4/Scania P410-B8X4	Ex Indonesia	1
Service Truck	Maintenance	Iveco Trakker AD380T44W 6x6/Scania P360-B6X6	Ex Indonesia	1
Crane Truck	Maintenance	Iveco Trakker AD380T44W 6x6/ScaniaP360-B6X6	Ex Indonesia	1
40t On-road Haultruck	Ancillary/TSF	Iveco Trakker AD410T44 Bx4	Ex Indonesia	0
33t On-road Haultruck	Ancillary/TSF	Iveco Trakker AD410T44 8x4/No Scania	Ex Indonesia	0
Manhaul	Ancillary	Iveco Astra HD9 44.42 4x4/ScaniaP410-B4X4	Ex Indonesia	1
Low Loader	Maintenance	Iveco HD9 66.54T 6x6/ScaniaP460-B6X6	Ex Indonesia	1
Light Vehicle	Ancillary	TBA	Leased	0
Lighting Plant	Ancillary	JCB LT9 Lighting Plants AL4000H		12
Lighting Tower	Ancillary	TBA		0
Welder	Maintenance	TBA		0
EWP	Maintenance	JLG 660SJ		0
Forklift	Maintenance	Mantiou 5 tonne all terrain		1
Forklift	Maintenance	Cat 3 tonne		1
25t Crane	Maintenance	Terex Franna MAC25 Pick & Carry Crane	Ex Indonesia	1
70t Crane	Maintenance	Tadano 60 tonne GR-600EX		1
Fuel Cell	Maintenance	Epiroc 38,000 litres with pumps		1
Compressor	Maintenance	Atlas XATS 69		0
Mine Dewatering Pumps	Ancillary	Multiflow 210 or 420		0
				52

The spreadsheet **11-B Heavy Equipment List.xlsx** contains an itemised list of mining equipment capital that contains 108 pieces of plant (See Table 16.3 Heavy Equipment List).

Table 8-2. DFS 2020 Heavy Equipment List

PROJECT SCHEDULE		Month																															
		Q1-20			Q2-20			Q3-20			Q4-20			Q1-21			Q2-21			Q3-21			Q4-21			Q1-22			Q2-22				
		Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22		
SUMMARY RESOURCES'S REQUIREMENT																																	
Main Fleet		0	0	0	8	10	10	15	15	21	35	35	35	78	81	83	89	89	89	90	90	90	90	90	90	90	90	90	90	90			
40T Excavator	Komatsu PC400	-	-	-	-	-	-	-	-	-	-	-	1	1	1	4	4	6	6	6	6	6	6	6	6	6	6	6	6	6			
30T Excavator	Komatsu PC300	-	-	-	-	-	-	-	-	-	2	3	3	3	5	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6			
20T Excavator	Komatsu PC200	-	-	-	3	3	3	6	6	6	6	7	7	7	14	15	15	15	15	15	15	15	15	15	15	15	15	15	15	15			
ADT40T	Komatsu HM400-3R	-	-	-	-	-	-	-	-	4	7	7	7	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19			
DT 16T	Nissan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4			
DT 5T	Hino	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3			
D9R	Caterpillar D9R	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
D155 / D8R	Komatsu D155A-G	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
DZ85 / D7	Komatsu D85 ESS	-	-	-	2	2	2	2	2	2	2	4	4	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8			
Compactor	Bomag BW 211D-40	-	-	-	1	1	1	1	1	1	2	2	2	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7			
Grader	u GD705-S / Volvo G930	-	-	-	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Lighting Plant	JCB LT9E	-	-	-	-	-	-	-	-	2	2	2	6	6	6	15	16	18	18	18	18	18	18	18	18	18	18	18	18	18			
Support		0	0	0	1	1	1	6	6	6	8	8	8	11	11	11	18	18	18	18	18	18	18	18	18	18	18	18	18	18			
LV Fuel	LV 4x4	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Fuel Truck - Nissan	UD Nissan CW33370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Fuel Truck - ADT	Komatsu HM400-3R	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Water Truck - 30KL	UD Nissan CW33370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Water Truck - SKL	Hino	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Lowboy		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Drilling Machine		-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
LV Manhaul		-	-	-	-	-	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Buses		-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
Wheel Loader	SEM 656D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Backhoe Loader	JCB 30X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
3x Keestrack Crusher	SEM 656D	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
Universal Thumb 20T	Komatsu	-	-	-	-	-	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
Log Grapple 20T	Komatsu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Rotating Grapple 20T	Komatsu	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Rock Breaker 20T	Komatsu	-	-	-	-	-	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2			
Rock Breaker 30T	Komatsu	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1			
		0	0	0	9	11	11	21	21	27	43	43	43	89	92	94	107	107	107	107	108	108	108	108	108	108	108	108	93	93	86	39	29

The Spreadsheet 11-A Summary of Cost Estimate.xlsx contains 89 pieces of mobile plant (See Table 16-3 below).

Table 16-3 11-A Summary of Cost Estimate Mobile Equipment

2374	201	MOBILE EQUIPMENT	Number
2375	1	Loading Unit-Cat 390	4
2375	2	Ancillary Excavator-Cat 330	2
2375	3	Ancillary Excavator-Cat 320	2
	4	FEL-Cat 966	1
2375	5	Hau0ruclr-Cat 745	17
2375	6	Blasthole Drill-Epiroc PowerRoc T50	3
2375	7	Dozer-Cat 06	3
2375	8	Dozer-Cat 08	3
2375	9	Grader-Cat 14M	2
2375	10	Compactor-Cat CS533E	4
2375	11	Bachhoe-Cat 428	1
2375	12	Integrated Tool Carrier-Cat 950	1
2375	13	Tyre Handler-Cat 950	1
2375	14	haultruck-Iveco ex Wetar	6
2375	15	Water Truck-Iveco 301dL	2
2375	16	Fuel Truck-Iveco	1
2375	17	Service Truck-Iveco	2
2375	18	Crane Truck-Iveco	1
2375	19	Manhaul-Iveco	3
2375	20	Lowloader-Iveco	1
2375	21	Crane 70t-TBA	1
2375	22	Crane 25t-Franna	1
2375	23	Lighting Plant-TEA	10
2375	24	Light Vehicles-TEA	15
2375	25	Miscellaneous-TEA	2
		Total	89

MA Comment:

The variation in mobile fleet numbers can greatly affect the ability to meet the mining schedule and the Capital requirements for the project.

MA would seek clarification on mobile fleet numbers – which list is the correct list?

There appears to be no provision for Mobilisation and Demobilisation in the Financial Model.

8.2 PROCESSING PLANT

The project Capital Cost estimate has been provided by Merdeka Mining Services (MMS), based on engineering design from MMS and specialist external consultants.

Process Plant engineering was provided by Primero Engineering (Primero) based on Green Gold Engineering (GGE) design and included updating the material takeoffs and M&E equipment pricing. Primero also adapted the design for the replacement of Recyn with CN destruction, and the new TSF location.

Knight Piesold provided TSF design.

To support engineering, geotechnical investigations were undertaken by Ground Risk Management.

The Sihayo Project has significant infrastructure costs due to the difficult topography of the site, compounded by high rainfall. Earthworks for the site access roads, plant site, and the TSF make up the main capital costs of the project.

The Process Plant capital cost is based on vendor quotes for major equipment and rates applied to design-estimated quantities for civil works, structural steel and platework. Electrical costs were a mixture of

priced quantities for switchyards and substations, but general electrical and instrumentation cost estimates were derived by factored percentage of mechanical costs.

MMS have appropriate experience from similar projects to produce a sound, unbiased estimate.

Table 13.10 in the FS provides the project cost summary. The estimated Total, including mobile equipment and Contingency, is US\$159.87M. (The total included contingency is US\$13.87M – 9.5%.)

The Process Plant estimate is US\$32.6M excluding contingency.

MA Comment: It has not been possible to review a complete Capital Cost estimate breakdown for the Process Plant. Presumably as this is considered confidential, being basis for an EPC delivery? Given some of the uncertainties in design, a higher contingency would be appropriate. The use of factoring for cost estimating some elements reduces the overall accuracy range.

9 OPERATING COST

9.1 MINE

AMC were provided with Mine Operating costs by PTSM, Primero Group and Merdeka Mining Services (MMS) who operate similar mining operations at Wetar and Tuju Bukit mines in Indonesia. The project **Sihayo Minemax Results MII_V6.xlsx** spreadsheet contained 13.663Mt of Ore and 59.792 tonnes of Waste as a LOM Schedule and defines the quantities of materials produced and this forms the basis for determining the fleet size and operating costs for the project.

PTSM obtained Explosives Supply Quotation (December 19) from DNX¹⁰ Indonesia for a full Down-the-Hole service where the mine owner would drill the blast holes and DNX would prime, load and shoot each blast to provide rock-on-ground.

PT AKR Corporindo Tbk in Indonesia provided a quote in October 2019 to supply diesel to the project.

Labour costs were provided by Merdeka which included Management, Supervisors, Technical staff, Operators and Maintenance labour costs.

Mining Equipment Operating Costs contained Preventative Maintenance costs, Major Change out costs, Miner Maintenance costs, Undercarriage, GET/Tyres cost, consumables costs such as tyres and fuel. There appears to be no apportioned costs for equipment servicing and workshop costs.

¹⁰ Sihayo DFS 2020 Appendix 6L

Table 9-1. Mining Fleet Hourly Operating Cost

Class	Cost Area	Model	Comment	PM (\$/hour)	Maj Comp (\$/hour)	Min Comp (\$/hour)	Undercarriage (\$/hour)	GET/Liners (\$/hour)	Unsorted Repairs (\$/hour)	Total Mech/Elec (\$/hour)	Tyres (\$/hour)	Fuel (\$/hour)	Total (\$/hour)	Fuel	
														Air Consumption (L/hour)	Cost (\$/hour)
Blashtec DTH Drill	Drill and Blast	Blashtec PowerDrill750	Merdeka Actuals	13.47	39.48	28.92	0.00	0.00	0.00	79.35	0.00	11.90	101.15	31	21.90
Haultruck	Load and Haul	Cat 745	Supplier	4.84	10.67	3.92	0.00	9.94	0.00	24.27	8.25	12.32	54.84	32	22.32
Selective Mining Excavator	Load and Haul	Cat 345	Supplier	1.67	6.88	6.19	2.50	15.38	0.00	32.12	0.00	24.72	56.84	35	24.72
Secondary Excavator	Ancillary	Cat 330	Supplier	2.36	2.75	4.21	1.23	7.08	0.00	17.93	0.00	15.98	33.13	22	15.98
Secondary Excavator	Ancillary	Cat 300 Long Reach	Supplier	1.97	1.55	4.85	1.90	4.08	0.00	18.95	0.00	12.71	26.66	18	12.71
Doser	Ancillary	D5	Supplier	9.96	6.31	6.99	9.17	9.10	0.00	39.13	0.00	25.74	58.07	36	25.74
Doser	Ancillary	D5	Supplier	8.99	9.35	9.69	6.88	2.14	0.00	34.44	0.00	16.44	40.88	29	16.44
Front-End Loader	TCM	Cat 195E	Supplier	2.99	3.91	6.40	0.00	19.75	0.00	27.14	4.20	18.01	49.21	25	18.01
Integrated Tool Carrier	Maintenance	Cat 950L ITC	Supplier	4.43	9.08	4.91	0.00	0.00	0.00	11.97	1.25	19.90	28.70	18	19.90
Grader	Ancillary	34M	Supplier	6.83	8.34	8.91	0.00	4.70	0.00	28.68	2.39	14.78	46.03	21	14.78
Compactor	Ancillary/TSF	C338E3	Supplier	3.48	1.76	3.20	0.00	0.00	0.00	8.42	0.25	9.18	17.65	13	9.18
Backhoe	Ancillary	42B	Supplier	3.48	1.90	4.52	0.00	0.00	0.00	9.28	0.75	7.42	17.48	11	7.42
Watercart	Ancillary/TSF	Iveco A2420T44W 6x4	Supplier	2.58	3.31	1.69	0.00	0.00	0.00	7.58	4.13	10.60	22.31	15	10.60
Service Truck	Maintenance	Iveco A230T44W 6x4	Supplier	2.55	4.07	4.39	0.00	0.00	0.00	11.01	4.13	6.98	21.90	9	6.98
Crane Truck	Maintenance	Iveco A230T44W 6x4	Supplier	2.55	4.07	4.39	0.00	0.00	0.00	11.01	4.13	6.98	20.79	8	6.98
300 On-road Haultruck	Ancillary/TSF	Iveco A2420T44W 6x4	Supplier	2.58	3.31	1.69	0.00	1.88	0.00	9.46	4.13	8.48	22.07	12	8.48
Mantrac	Ancillary	Iveco H20 44 42 404	Supplier	2.60	3.69	3.69	0.00	0.00	0.00	10.22	2.75	6.71	19.68	10	6.71
Low Loader	Maintenance	Iveco H20 36 347 6x6	Supplier	5.34	5.93	0.68	0.00	0.00	0.00	11.95	3.75	18.37	34.07	26	18.37
Light Vehicle	Ancillary	TBA	Estimated Cost per hour	2.50					0.00	2.50	0.20	3.93	6.23	5	3.93
Lighting Plant	Ancillary	JCB L75 AL4000H	Estimated Cost per hour	2.50					0.00	2.50	0.04	9.53	6.07	5	9.53
Forklift	Maintenance	TBA	Estimated Cost per hour	2.50					0.00	2.50	0.20	3.93	6.23	5	3.93
25t Crane	Maintenance	Tarex Panna MAC35 Pox & Carry Crane	Estimated Cost per hour	5.00					0.00	5.00	0.75	7.06	13.81	10	7.06
70t Crane	Maintenance	Tadano 60 tonne GP-600E1	Estimated Cost per hour	5.00					0.00	5.00	1.00	7.06	13.06	10	7.06
Mine Dewatering Pumps	Ancillary	TBA	Estimated Cost per hour	2.50					0.00	2.50	0.00	9.53	6.03	5	9.53

Fuel Price	9.889 P/L
	14,000 P/L US\$
	0.71 \$/L
	0.71

MA Comment:

Operating costs coming from Merdeka (7.1% shareholder in the project) could be relied upon. An updated fuel supply cost and explosives costs to the end of 2020 however may be required before a final project economic evaluation can be relied upon.

Rerunning the **Push Back** production model using 5000 effective work hours per annum for haultrucks may affect the fleet numbers and therefore Operating Costs.

9.2 PROCESSING PLANT

The FS states that the Process Plant Operating Cost has been developed from first principles, based on expected ore characteristics, design criteria and quoted unit costs for inputs.

Throughput rates and cost inputs during any scheduled period are based on a weighted average of the different ore types processed.

The estimated power consumption for the project is ~10MW. This will be sourced from a local supplier of geothermal power, “PLN”. Estimated cost is 0.083 US\$/kW.

Costs are calculated by Area, including Administration and Laboratory costs, as annual cost for the Base Case production schedule.

MA Comment: The Operating Cost Estimate appears to be complete and developed on a sound basis. However, the designation between Fixed and Variable requires further analysis to be able to accurately assess different production scenarios.

10 CONCLUSIONS

MA have undertaken a technical review of the project, to establish the reasonableness of technical assumptions used in the cash flow model.

The main source of technical information was the Sihayo Gold Project Definitive Feasibility Study. June 2020 and supporting information as requested.

The cashflow model referred to is the '**Sihayo Financial Model 12 May 2020- 1700 and 1890 AU Prices.xlsx**'.

10.1 RESOURCES AND RESERVES INCORPORATED IN THE CASHFLOW MODEL

10.1.1 Resources

MA concludes the mineral resource reporting strategy is passable for a DFS level of study. It meets the minimum requirements set out by JORC Code which is completion of Table 1.

However, MA considers there is risk and concerns around transparency and the lack of summary statistics for the input data is a material oversight, there is insufficient details provided on model validation for MA to make a fair assessment of the models. This is of concern as inferred material is included in the Mining Schedule.

10.1.2 Reserves

MA Comment: The process undertaken to determine the Ore Reserves appears to be comprehensive and of a standard expected of a DFS. The assumptions used in determining a JORC Ore Reserves Statement appear to be appropriate.

The process followed by AMC to establish an Ore Reserves Statement compliant with JORC appears to be appropriate. AMC used the updated SGC Block Model, re-blocked it to match mining blocks(5x5x2m), obtained mining costs from PTSM, Primero Group and Merdeka Mining Services (MMS) (a local mining contractor), used Geovia Whittle to determine the optimum pit shell followed by Deswik and Minemax software to determine a mining schedule and economic reserves. Only Measured and Indicated ore were used to establish 12.5Mt of Ore Reserves. The 2020 Ore Reserves assumptions of 15% Mining Dilution, 93% Mining Recovery are acceptable.

However:

The '**Sihayo Financial Model 12 May 2020- 1700 and 1890 AU Prices.xlsx**', contains a LOM Schedule with 13.7Mt of ore produced and 59.792 tonnes of Waste that included mining Measured, Indicated, and Inferred ore resources. It was originally thought that no source document in the Data Folder supports this schedule however, the **Financial Model** production spreadsheet has been corroborated by an additional spreadsheet called '**Project Sihayo Minemax Results MII_V6 Expit by Ore Type.xlsx**' received on **6 October 2020** in which mining from 13 Push Backs matches the Financial Model quantities. There still remains a 4.5Mt schedule discrepancy in waste movements in Year 3. The **Push Back** Schedule has been reduced to 3.1Mt in that year but all waste movements compare by the end of the mine life totals.

10.2 MINING PHYSICALS (INCLUDING TONNES OF ORE MINED, ORE PROCESSED, RECOVERY AND GRADE)

MA Comment: At this stage MA is of the opinion that the technical project assumptions used in the Sihayo Gold Project are reasonable.

However there are several issues that may affect the final Cash Flow Model pertaining to mining CAPEX and OPEX. The key areas of concern as described below.

Technical parameter	Implication	Impact on mining physicals inputs
Effective Work Hours for Haultrucks/Truck Numbers	<p>It is not common for articulated haul trucks to consistently achieve 6000 effective work hours per annum particularly when working in small pit with steep wet conditions. Small pits are commonly affected by delays due to blasting, relocation delays to new work faces, shovel idle time, haul road repairs and non-productive travel time at the start and end of the shift and to and from meal breaks. The net effect of this reduction in operating hours for haul trucks is that additional units would be required to meet the mining schedule adding additional costs to the project CAPEX and OPEX.</p> <p>There has been considerable work undertaken by AMC in Deswik mining software to establish a mine schedule in support of the Ore Reserves statement. There is conflicting information in several documents about truck numbers (AMC have higher numbers than the below DFS Financial model).</p>	<p>Underestimation of Capex – additional mine equipment will likely be required to meet production schedule.</p> <p>Underestimation of Opex – additional operating costs required.</p> <p>It is recommended that the equipment Effective Operating Hours be reviewed and a final Deswik Schedule be prepared to determine how many diggers and trucks are required to meet the Tactical Schedule for plant infeed. Sihayo Gold have agreed to rerun the Push Back Schedule to determine detail cycle times and fleet numbers for each pushback using 5000 hours per haultruck.</p>
Ramp Up provision	<p>The current Financial Model does not make provisions for a ramping up of the skill sets of the mine operators as they gain proficiency. This should be reflected by the downrating of equipment productivity over the first 6 to 12 months.</p> <p>A ramp up on productivity is commonly used in mining project to reflect the proficiency of the local workforce in operating the mining equipment. A reasonable assumption (for a new workforce) is that the production in Year 1 might be reduced by as much as 20% depending upon the number of trainers, the mix of experience and the on-boarding schedule.</p>	<p>Increased Opex Schedule delays</p>
Reverse Circulation Drilling	<p>There has been no allowance for Reverse Circulation Drilling for Grade Control to allow effective planning before blast hole drilling. Sihayo Gold propose to include this cost in a further DFS update.</p> <p>An RC Grade control program should be costed from the market. Reasonable assumptions would include capex of \$1.5M and opex of \$1M pa for the LOM (ore production period - not including construction period).</p>	<p>Increased capex (mine equipment) Increased opex (mine equipment)</p>
Waste Prestrip	<p>The 7.6Mt waste movements in Year 3 of the Financial Model have been reduced to 3.1Mt in the Push Back Schedule (See direct annual comparison in Table 6.13 below). It is assumed that this waste movement shortfall (4.5Mt) is made up by mining contractors engaged in prestrip operations from year 5 onwards. The cost of engaging Mining Contractors does not appear in the Financial Model Operating Costs.</p>	<p>Increased capex (mine equipment) Increased opex (mine equipment)</p>

10.2.1 Effective Work Hours for Haultrucks & Truck Number estimates

Following discussions Sihayo MA was provided with an operating cost spreadsheet (based on 17 Haul trucks working 6000 Effective work hours per year.

MA adjusted the meal time to 50minutes (as per DFS) and allowed 10.9 days average time lost for wet weather (3%) and 3.5 days lost to Fog (1%) with no public holidays being worked. MA concludes that reasonable effective work hours subsequently available for haultrucks could be estimated at 4775 hours per year (Table 10-1).

Table 10-1: Reasonable effective work hours for Haul Trucks.

Sihayo Gold Project Equipment SMU per Year																						
Production Roster	Mon	Tue	Wed	Thu	Fri	Sat	Sun	Hrs/Week	Weeks/yr	Hrs/Yr												
DS (Hrs)	12	12	12	12	12	12	12	84	52.1	4380												
AS (Hrs)	12	12	12	12	12	12	12	84	52.1	4380												
Total Hrs	24	24	24	24	24	24	24	168	52.1	8760												
Equipment Inspection/Refueling	0.5	0.5	0.5	0.5	0.5	0.5	0.5	3.5														
Travel to Work	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.8														
Travel to Crib 1	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1.2														
Crib 1	0.83	0.83	0.83	0.83	0.83	0.83	0.83	5.8														
Travel back fro Crib 1	0.17	0.17	0.17	0.17	0.17	0.17	0.17	1.2														
Travel to Crib 2	na	0.0																				
Crib2	na	0.0																				
Travel back fro Crib 2	na	0.0																				
Travel at End of Shift	0.25	0.25	0.25	0.25	0.25	0.25	0.25	1.8														
Total Machine Hrs Avail/ Shift	9.8	9.8	9.8	9.8	9.8	9.8	9.8	68.8	52.1	3589					10.5							
Total Machine Hrs Avail/ Day	19.7	19.7	19.7	19.7	19.7	19.7	19.7	137.7	52.1	7178												
Shut down due blasting (5blastsx40mins = 3.3 hrs/wk)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	52.1	0								Assumes blast during shift change				
Relocate to new dig area (4 hrs/wk)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	4.0	52.1	209												
Shut down due safety concern (0.25hr/wk)	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.3	52.1	13												
Other delays (1 hr/week i.e. Tool Box Talks)	0.14	0.14	0.14	0.14	0.14	0.14	0.14	1.0	52.1	52												
Total Machine Hrs.Avail /Day	18.9	18.9	18.9	18.9	18.9	18.9	18.9	132.4	52.1	6905												
Effective Work Hr/Day Factor %																			78.6%			
Mine Site Work Hr/Day Derating Factor%																			21.2%			
2021 Target 600 SMU Work Holidays																						
Days/Month	31	28	31	30	31	30	31	31	30	31	30	31	30	31	31	30	31	365				
Hours/Month	744	672	744	720	744	720	744	744	720	744	720	744	720	744	720	744	744	8760	8760			
Wet Days	0.6	0.6	0.6	0.9	0.9	0.9	0.9	0.9	0.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	10.9	3.0%			
Fog				0.3	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	3.5	1.0%			
Public Holidays																						
New Years Day	0																					
Luna New Year		0																				
Profets's Ascension			0																			
Good Friday				0																		
Labour Day						0						0										
Lebaran					0																	
Ascension Day					0																	
Vesak					0																	
Pancasila Day						0																
Eid al-Adha							0															
Islamic New Year								0														
Independence Day								0														
Profets's Birthday												0										
Christmas Day														0								
Total Holidays	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
Available Work Days	30.4	27.4	30.4	28.8	29.5	28.5	29.5	29.5	28.5	29.5	28.7	29.7	29.7	28.7	29.7	29.7	29.7	351	96.1%			
Avail Work Hours	731	659	731	692	709	685	708	708	684	708	688	712	712	688	712	712	712	8414	8414			
Availability%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%					
Utilisation%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%					
Actual Work Hrs	526	474	526	498	510	493	510	510	493	509	496	513	513	496	513	513	513	6058				
Operating Factor for SMU(Adjustment for walking, idling & inspections etc.)	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%	21.2%					
Equipment Effective work Hours	415	374	415	393	402	389	402	402	388	402	391	404	404	391	404	404	404	4775	56.75%			

The Operating costs for Excavators and Trucks (see extract below) are also reasonably adjusted:

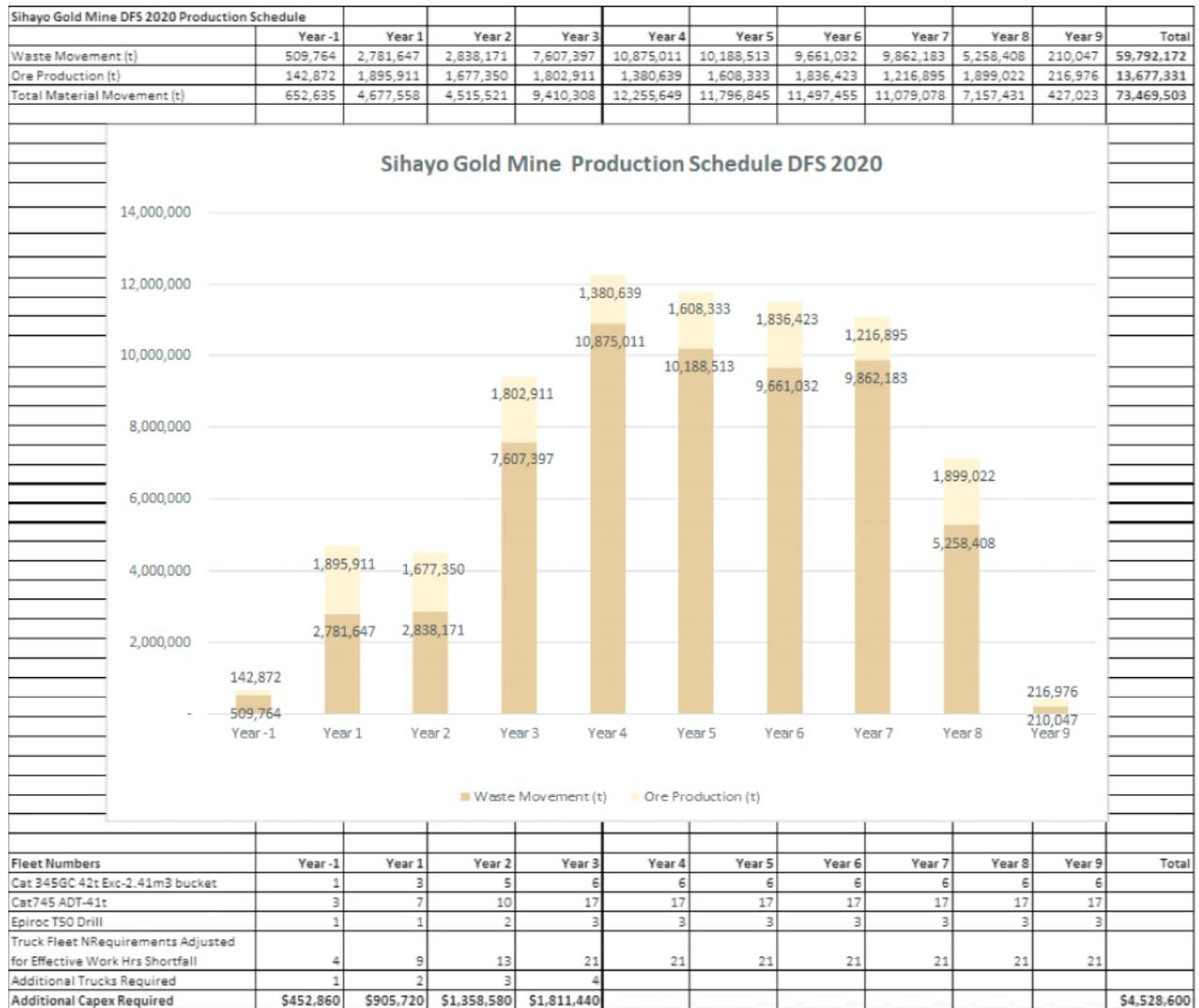
Table 10-2: Reasonable Operating costs for Excavators and Trucks.

Unit Operating Costs for Haultrucks	
Truck Operating Costs /yr	\$315,682.12
Truck Operator Cost/Yr	\$26,795.08
Total Truck OPEX/Yr	\$342,477.20

MA has pro-rata the Truck Fleet Numbers in the Financial Model to determine the truck shortfall to meet the Financial Model Production Schedule a (4775 hours is a 20.4% shortfall over 6000 hours used by AMC)(Table 10-3). MA considers that a reasonable assumption that a further 4 more trucks are required to meet the production schedule. MA cautions that this is a rudimentary calculation only and is no

substitute for rerunning the mining schedule in Deswik Mining Software over the myriad of haul routes required to move ore and waste.

Table 10-3: Reasonable Assumptions for truck numbers to meet current schedule.



MA has applied the truck operating costs to the new fleet numbers to determine the new truck fleet operating costs (Table 10-4).

Table 10-4: Reasonably assumed Truck Fleet Operating costs.

Fleet Numbers											
	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Total
Cat 345GC 42t Exc-2.41m ³ bucket	1	3	5	6	6	6	6	6	6	6	6
Cat745 ADT-41t	3	7	10	17	17	17	17	17	17	17	17
Epiroc TSO Drill	1	1	2	3	3	3	3	3	3	3	3
Truck Fleet NRequirements Adjusted for Effective Work Hrs Shortfall	4	9	13	21	21	21	21	21	21	21	21
Additional Trucks Required	1	2	3	4							
Additional Capex Required	\$452,860	\$905,720	\$1,358,580	\$1,811,440							\$4,528,600
Additional Opex Required											
Truck Operating Cost /Year/Truck	\$315,682	\$631,364	\$947,046	\$1,262,728	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Truck Labour Cost /Yr/truck	\$26,795	\$53,590	\$80,385	\$107,180	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total Truck Costs /Yr	\$342,477	\$684,954	\$1,027,432	\$1,369,909	\$0	\$0	\$0	\$0	\$0	\$0	\$3,424,772

MA Comment: Other cost estimates appear reasonable.

10.5 CAPITAL EXPENDITURE (INCLUDING BUT NOT LIMITED TO PROJECT CAPITAL COSTS, SUSTAINING CAPITAL EXPENDITURE, SALVAGE VALUE, REHABILITATION, AND CONTINGENCY)

MA Comment: There is some uncertainty as to the number of haultrucks required to meet the Financial Model production schedule and as such the project CAPEX requirements may be affected. There appears to be no provision for mobilisation and demobilisation of mining equipment in the CAPEX Spreadsheet. The Operating Cost Spreadsheet appears not to contain Contract Mining costs for Waste Prestrip from Year 5.

It has not been possible to review a complete Capital Cost estimate breakdown for the Process Plant. Presumably as this is considered confidential, being basis for an EPC delivery. MA has re-examined the model and the contingency is actually applied in the Capex sub-model at 15% for both the Process Plant and the TSF (rather than the 10% shown but not used in the 'Model'). MA considers this contingency is sufficient. The use of factoring for cost estimating some elements reduces the overall accuracy range. Costs used looks reasonable.

Capital cost for the infrastructure is significant. This is provided by an in country source and seems appropriate given the access, terrain and climate.

10.6 ANY OTHER RELEVANT TECHNICAL ASSUMPTIONS NOT SPECIFIED ABOVE

Performance sensitives have not been adequately addressed (worse case scenario) due to disruptions from rain and access and other

10.6.1 Processing Risk (high risk)

The throughput and operating hours cannot be readily adjusted in this financial model to assess sensitivities (i.e. lower throughput so moving ore into later years). Cost per year would reduce and unit operating cost would go up, fixed costs would run for another year.

It is recommended that economic sensitivity be assessed with respect to reduced annual throughput (combination of treatment rate and operating hours). This requires both a rerun of production schedules and adjustment to Operating Costs calculation. It appears that Operating Costs in the current model are inputted as unit costs per tonne per plant section. In reality, most costs other than reagents, are time dependent costs, rather than tonnage dependent. The total annual processing costs would only fall marginally for reduced throughputs. The LOM would be extended.

Possible scenarios for modelling:

- A. Reduce Operating Hours by 2%; reduce Treatment Rates by 3%; **Increase** Unit Processing Operating Costs by 1.5%.
- B. Reduce Operating Hours by 4%; reduce Treatment Rates by 6%; **Increase** Unit Processing Operating Costs by 3.0%.

Other key processing inputs to the model - Recoverable Gold, CAPEX and OPEX – are appropriately assessed for sensitivity in the FS. Unfortunately, the feed 'blend' presented in the financial evaluation (FS

Chapter 16) is a blend of ore based on resource category rather than ore type. It is therefore difficult to audit with respect to derived treatment characteristics.

MA notes that Plant production sensitivity cannot be assessed. Unfortunately the mechanics of the model structure - relying on input of values from the AMC schedule for tonnages and grades of different feed types - means it is not possible to readily adjust the production schedule. Presumably, if mill demand was lower, then either mining schedule would be adjusted to reduce rate (which feed types and grades delayed?), or stockpiles would be built up considerably. The overall outcome would be to model up to an additional year to process the 'reserve'.

10.6.2 Mining Risk

Productivity ramp up

There has been no allowance to ramp up productivity as the local workforce obtains operating proficiency on the mining equipment.

Ability to of production to provide scheduled feed grade

There is currently no mining schedule and sequence that breaks down the movements of material from Sihayo and Sambung on an a monthly/annual basis. This may result in head grade feed into the plant errors which may affect gold production. Balancing production by ore grade on a bench by bench basis would lead to better short term mine planning, a reliable head grade delivered to the Processing Plant and more efficient mining operation.

Grade control

Advance drilling with RC Drills and analysis would enable more effective Grade Control planning and blast management practices. This has not been budgeted and should be included (in capex and opex). The current mining plan relies upon the analysis of blasthole drill cuttings for Grade Control. It is hard to be proactive with blasting powder factors if the holes are already drilled to an assumed rock type pattern.

Pit wall angles

The mine design has included GRM geotechnical advice to provide pit wall stability however in MA's opinion karstification of the overlying limestone may cause sink holes and landslides therefore MA would recommended that highwall monitoring with radar or extensometers be used in problem areas.

This is a catastrophic risk and may require evaluation.

Reducing the overall pit slope angle from 50o to 40o in the upper oxide ore and batter angles of 70o in prime ore and 57o in upper oxide along with Berm widths of 5.7m appear appropriate to reduce the projects slope stability risk. Other impacts may include: Increased pre-strip and waste (impact on capex, opex and delay in commencement of processing schedule), Increased capex (mine equipment), Increased opex (mine equipment).

Ability to meet scheduled production

The mining operations is subject to the following risks that may affect safety and projected production. It is not clear if these have been reasonably addressed in sensitivities.

- Highwall slope stability
- Excessive rainfall delays
- Geohydrology and mine water management

- Seismic activity
- Waste dump Stability
- Wet and slippery ground and road conditions
- Blasting delays due to small pit dimensions
- Experienced plant operators

Valuation of Resources outside Sihayo DFS and Non-Indonesian Exploration Interests of Sihayo

Opinion Report Prepared by
Mining Associates Pty Ltd

For RSM Corporate Australia Pty Ltd

Author:
James Lally

Effective Date: 30th August 2020
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Contents

1	SUMMARY	4
1.1	SIHAYO RESOURCES NOT USED IN DFS	4
1.2	SIHAYO INTEREST IN NON-INDONESIAN TENEMENTS	4
2	INTRODUCTION AND TERMS OF REFERENCE.....	5
2.1	COMMISSIONING ENTITY AND SCOPE	5
2.2	VALUATION MANDATE.....	5
2.3	PURPOSE	5
2.4	VALUATION DATE	6
2.5	QUALIFIED VALUATOR AND QUALIFIED PERSON	6
2.6	DEFINITION OF VALUATION TYPES.....	6
2.7	OTHER DEFINITIONS USED IN THE REPORT.....	7
2.8	SITE VISIT BY QUALIFIED PERSON.....	10
2.9	COMPLIANCE WITH THE VALMIN CODE.....	10
3	SIHAYO GOLD DEPOSIT	10
3.1	PROPERTY DESCRIPTION AND LOCATION	10
3.2	REGIONAL AND PROJECT GEOLOGY	10
3.3	EXPLORATION OF SIHAYO AND SAMBANG RESOURCE	11
3.4	2020 MINERAL RESOURCE ESTIMATE	12
3.5	RESOURCES NOT INCLUDED IN SIHAYO CASH FLOW MODEL	13
4	OTHER NON-INDONESIAN EXPLORATION ASSETS	16
4.1	INDIA DIAMOND EXPLORATION	16
4.2	MT KEITH GOLD PROJECT	17
4.2.1	Project Description.....	17
4.2.2	Local Geology	18
4.2.3	Mineralisation	19
4.2.4	Exploration History.....	19
4.2.5	Resource Estimate.....	20
4.2.6	Exploration Targets	20
4.3	MULGABBIE GOLD PROJECT	22
4.3.1	Regional Geology.....	23
4.3.2	Exploration History.....	23
4.3.3	Local Geology and Mineralisation	24

5	VALUATION	25
5.1	INCOME APPROACH – SIHAYO INFERRED RESOURCES	25
6	VALUATION SUMMARY	25
7	REFERENCES	27
8	CERTIFICATE OF QUALIFICATIONS	28

List of Figures

Figure 1.	Project Overview showing COW and Regional Geology	11
Figure 2.	Project Overview showing deposits and potential	12
Figure 3.	Sihayo Resource Pit Outlines	14
Figure 4.	Mt Keith Project Location Plan (Source: Torian, 2016).....	17
Figure 5.	Mt Keith Project Geology (Source: AM&A, 2016).....	18
Figure 6.	Mt Keith Exploration Target Location Plan (Source: Torian, February 2019)	21
Figure 7.	Mulgabbie Project location Plan	22
Figure 8.	Mulgabbie Tenements and Prospects	23

List of Tables

Table 1.	Sihayo Gold Project 2020 Mineral Resource Estimate (Source: Sihayo DFS, 2020).....	13
Table 2.	Inferred Resource (Source: Sihayo DFS, 2020).....	13
Table 3.	Whittle Optimisation Results (Source: AMC Consultants, 2020)	15
Table 4.	Non-Indonesian Tenements (Source: Sihayo Annual Report, 2019).....	16
Table 5.	India Tenements (Source: Sihayo, 2019).....	16
Table 6.	Mt Keith Project Current Tenements (Source: WA Govt, 2020)	17
Table 7.	Mt Keith Project Significant Drill Intersections >1 g/t Au	20
Table 8.	Torian Mt Keith Exploration Targets 2016 (Source: AM&A, 2016)	20
Table 9.	Exploration Targets for the Mt Keith Prospect 2019.	21
Table 10.	Mulgabbie Tenements	22
Table 11.	Summary of MA’s opinion on the market value of Sihayo non-DFS Mineral Assets	26

1 SUMMARY

Mining Associates (MA) was contracted by RSM Corporate Australia Pty Ltd to undertake a high-level valuation of resources and exploration properties of Sihayo Gold (“Sihayo”) excluding those assets used in the 2020 DFS. The study was undertaken in September 2020. MA has conducted the technical review and valuation assessment in accordance with the VALMIN Code (2015).

1.1 SIHAYO RESOURCES NOT USED IN DFS

Sihayo Gold Limited (ASX: SIH) owns a 75% interest in PT Sorikmas Mining which in turn holds the Sihayo Pungkut 7th Generation Contract of Work (CoW). The Sihayo and Sambung gold resources, which are the focus of the DFS, are in the northern block of the CoW.

The AMC mining schedule in the 2020 DFS includes approximately 1.2 Mt of material not included in the Ore Reserve. Most of the additional plant feed comes from Inferred Resources. Remaining inferred resources not used in the DFS total 4.20 Mt at Sihayo and 79,000 tonnes at Sambang.

The Whittle Pit Optimisation results can be used to estimate that:

- An additional 210 ozs Au could be produced from the remaining 4.20 Mt of Inferred resource remaining at Sihayo assuming a grade of 1.8 g/t Au if all the remaining resources could all be mined.
- An additional 3 ozs Au could be produced from the 79,000 tonnes of Inferred Resource remaining at Sambung assuming a grade of 1.6 g/t Au assuming all remaining resources can be mined.

A total of 213 ozs of recovered gold can be valued at a maximum of \$1700/oz minus C1 cash costs of \$632/oz (as per the DFS financial model) for \$1067/oz. A minimum value can be derived from using the base case NPV divided by total produced ounces (\$205m / 633,490) or \$324/oz. This gives a range of values between US\$69,000 (AUD94,000) and US\$227,000 (AUD310,000), with the preferred value at the mid-point of US\$149,000 (AUD202,000)

There is a low level of confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the resource being upgraded to Indicated Mineral Resources or that the production target itself will be realised.

1.2 SIHAYO INTEREST IN NON-INDONESIAN TENEMENTS

Sihayo holds some interests in non-Indonesian tenements that are detailed in the table below.

Non-Indonesian Tenements (Source: Sihayo Annual Report, 2019)

Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Equity
Oropa Indian Resources						
	Block D-7	22.01.00	N/A	4,600 km ²		10%
Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Sihayo Equity
Sihayo Gold Limited						
Mt. Keith	M53/490	11.06.04	10.06.25	582 ha	Michael John Photios	2% NSR
	M53/491	11.06.04	10.06.25	621 ha	Michael John Photios	2% NSR
Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Equity
Excelsior Resources Pty Ltd						
Mulgabbie	ML28/364	25.03.09	24.03.30	54.3 ha	Pendragon (WA) Pty Ltd/Andrew Pumphrey	2% NSR
	PL28/1078	22.09.08	21.09.12	98.0 ha	Expired	
	PL28/1079	22.09.08	21.09.12	143.7 ha	Expired	
	PL28/1080	22.09.08	21.09.12	140.7 ha	Expired	
	PL28/1081	22.09.08	21.09.12	191.4ha	Expired	
	PL28/1082	22.09.08	21.09.12	120.0ha	Expired	
Gullewa	ML59/394			200.0 ha	Expired	

No information is available on the status of the Indian exploration tenement in which Sihayo believes it has a 10% interest.

The Mt Keith Project (Sihayo 2% Net Smelter Royalty) is approximately 60 km south of Wiluna in the northern part of the Eastern Goldfields of Western Australia. The two Mining Leases at Mt Keith are prospective for gold and the tenements have been the subject of intensive exploration including drilling.

An Inferred Resource (JORC 2004 compliant) of 165,000 tonnes at 3.11 g/t Au for 16,500 oz was estimated in 2013 by Cascade Resources. The option to purchase the tenements held by Toran Resources was allowed to lapse in 2019.

The Mulgabbie project (Sihayo 2% Net Smelter Royalty) is 130 km north east of Kalgoorlie, Western Australia. It lies within the North East Coolgardie Mineral Field at the Mulgabbie Mining centre. No mineral resources have been estimated within the Mining Lease.

In MA's opinion the Net Smelter royalties held by Sihayo on the West Australian properties have a zero value because of the lack of recent work and the low probability of near to medium term gold production.

The Preferred value for Sihayo's non-Indonesian Assets is AUD202,000, which is based on a consideration of ranges determined by income methods.

2 INTRODUCTION AND TERMS OF REFERENCE

2.1 COMMISSIONING ENTITY AND SCOPE

RSM Corporate Australia Pty Ltd have engaged Mining Associates Pty Ltd ("MA") to prepare an Independent Valuation Report in relation to the exploration assets of Sihayo outside Indonesia and a valuation of any resources not evaluated in the DFS.

MA has conducted the technical review and valuation assessment in accordance with the VALMIN Code (2015).

The scope of the Valuation agreed with Sihayo for MA was an independent valuation:

- The resources of deposits that were not evaluated in the DFS and cash flow model
- Other exploration assets if considered material

MA was not requested to comment on the Fairness or Reasonableness of any vendor or promoter considerations, and therefore no opinion on these matters has been offered.

This report is based on data supplied by Sihayo, public domain information and the authors prior experience.

2.2 VALUATION MANDATE

MA was requested to provide an Independent Valuation of the exploration assets of Sihayo outside Indonesia and a valuation of any resources at the Sihayo Project not evaluated in the DFS.

2.3 PURPOSE

The valuation report is to be appended to the Independent Expert's Report (IER) in relation to a proposed share placement ("Proposed Transaction").

2.4 VALUATION DATE

Time-sensitive data used in this Valuation, including metal prices, cost-of-living indices etc. were taken as at 5pm Sydney time on 30th August, 2020. Accordingly, this valuation is valid as of 30th August 2020 and refers to the writer's opinion of the value of the Projects at this date. Currency conversions for transaction amounts used the applicable exchange rate on the date of the transaction.

This valuation can be expected to change over time having regard to political, economic, market and legal factors. Most importantly, the valuation can also vary due to the success or otherwise of any mineral exploration that is conducted either on the properties concerned or by other explorers on prospects in the near environs. The valuation could also be affected by the consideration of other exploration data, not in the public domain, affecting the properties which have not been made available to the author.

2.5 QUALIFIED VALUATOR AND QUALIFIED PERSON

This Valuation was prepared by Dr James Lally. Dr Lally has no direct or indirect interest in the properties which are the subject of this Valuation, nor does he hold, directly or indirectly, any shares in Sihayo Gold any associated company, or any direct interest in any mineral tenements in Australia.

The technical review and valuation of the Project was conducted by Dr James Lally. Dr Lally has sufficient experience which is relevant to the styles of mineralisation and deposits under consideration and to their valuation 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' (Australia) and is a Qualified Person as defined in NI43-101 (Canada). He is a Member of The Australian Institute of Geoscientists and a Member of the Society of Economic Geologists (Denver). Dr Lally is employed by Mining Associates Pty Ltd of Brisbane, Australia.

2.6 DEFINITION OF VALUATION TYPES

The three generally accepted Valuation approaches under VALMIN are:

- Income Approach.
- Market Approach.
- Cost Approach.

The *Income Approach* is based on the principle of anticipation of benefits and includes all methods that are based on the income or cash flow generation potential of the Mineral Property. This method provides an indication of the value of a property with identified reserves. It utilises an economic model based upon known resources, capital and operating costs, commodity prices and a discount for risk estimated to be inherent in the project. Alternatively, a value can be assigned on a royalty basis commensurate with the in situ contained metal value. Although underground development is ongoing at the Project, there are no declared mineral reserves that meet the standards of the JORC 2012 Code and MA considers the Income Approach is not an appropriate valuation method.

The *Market Approach* is based primarily on the principle of substitution and is also called the Sales Comparison Approach. The Mineral Property being valued is compared with the transaction value of similar Mineral Properties, transacted in an open market. Methods include comparable transactions and option or farm-in agreement terms analysis. The terms of a proposed joint venture agreement may be used to provide a fair market value based upon the amount an incoming partner is prepared to spend to earn an interest in part or all of the property. This pre-supposes some form of subjectivity on the part of the incoming party when grass roots properties are involved.

An extension to the Market Approach is to rate transactions in terms of a dollar value per unit area or dollar value per unit of resource in the ground. This includes the range of values that can be estimated for an exploration property based on current market prices for equivalent properties, existing or previous joint

venture and sale agreements, the geological potential of the properties, regarding possible potential resources, and the probability of present value being derived from individual recognised areas of mineralisation. This method is sometimes termed a “*Yardstick*” approach. It allows recent transactions to be related to the property in question even if they are not strictly comparable in terms of size of resources and/or exploration area. However, the results should be confirmed using other methods.

The *Cost Approach* is based on the principle of contribution to value. The appraised value method is one commonly used method where exploration expenditures are analysed for their contribution to the exploration potential of the Mineral Property. The multiple of exploration expenditure method (‘MEE’) is used whereby a subjective factor (also called the prospectivity enhancement multiplier or ‘PEM’) is based on previous expenditure on a tenement with or without future committed exploration expenditure and is used to establish a base value from which the effectiveness of exploration can be assessed. Where exploration has produced documented positive results a MEE multiplier can be selected that takes into account the valuer’s judgment of the prospectivity of the tenement and the value of the database. MEE factors typically range from 0 to 3.0 and occasionally up to 5.0 applied to previous exploration expenditure to derive a dollar value.

Valuation methodology of mineral properties is highly subjective. If an economic reserve or resource is subsequently identified, then there is likely to be a substantial increase in the Project’s value and this valuation will be dramatically low relative to any later valuations. Alternatively, if further exploration is unsuccessful it is likely that the Project’s value will decrease, and this valuation will be higher than later valuations.

Market Value is the estimated amount (or the cash equivalent of some other consideration) for which the Mineral Asset should exchange on the date of Valuation between a willing buyer and a willing seller in an arm’s length transaction after appropriate marketing where the parties had each acted knowledgeably, prudently and without compulsion. This is the required basis for the estimation to be in accordance with the provisions of VALMIN (2015).

There are several generally accepted procedures for establishing the value of mineral properties with the method employed depending upon the circumstances of the property. When relevant, MA uses the appropriate methods to enable a balanced analysis. Values are presented as a range and the preferred value is identified.

The readers should therefore form their own opinion as to the reasonableness of the assumptions made and the consequent likelihood of the values being achieved.

2.7 OTHER DEFINITIONS USED IN THE REPORT

Commissioning Entity means the organization, company or person commissioning a Valuation.

Competence or Competent means having relevant qualifications and relevant experience.

Current means current with respect to, and relative to, the Valuation Date.

Data Verification means the process of confirming that data has been generated with appropriate procedures, has been accurately transcribed from the original source and is suitable to be used.

Development Property means a Mineral Property that is being prepared for mineral production and for which economic viability has been demonstrated by a Feasibility Study or Prefeasibility Study and includes a Mineral Property which has a Current positive Feasibility Study or Prefeasibility Study but which is not yet financed or under construction.

Exploration Property means a Mineral Property that has been acquired, or is being explored, for mineral deposits but for which economic viability has not been demonstrated.

Fair Market Value means the highest price, expressed in terms of money or money's worth, obtainable in an open and unrestricted market between knowledgeable, informed and prudent parties, acting at arm's length, neither party being under any compulsion to transact.

Feasibility Study means a comprehensive study of a deposit in which all geological, engineering, operating, economic and other relevant factors are considered in sufficient detail that it could reasonably serve as the basis for a final decision by a financial institution to finance the development of the deposit for mineral production.

Guideline means a best practices recommendation, which, while not mandatory in the Valuation of Mineral Properties, is highly recommended.

Independence or Independent means that, other than professional fees and disbursements received or to be received in connection with the Valuation concerned, the Qualified Valuator or Qualified Person (as the case requires) has no pecuniary or beneficial (present or contingent) interest in any of the Mineral Properties being valued, nor has any association with the Commissioning Entity or any holder(s) of any rights in Mineral Properties which are the subject of the Valuation, which is likely to create an apprehension of bias. The concepts of "Independence" and "Independent" are questions of fact. For example, where a Qualified Valuator's fees depend in whole or in part on an understanding or arrangement that an incentive will be paid based on a certain value being obtained, such Qualified Valuator is not Independent.

Materiality and Material refer to data or information which contribute to the determination of the Mineral Property value, such that the inclusion or omission of such data or information might result in the reader of a Valuation Report coming to a substantially different conclusion as to the value of the Mineral Property. Material data and information are those which would reasonably be required to make an informed assessment of the value of the subject Mineral Property.

Mineral Property means any right, title or interest to property held or acquired in connection with the exploration, development, extraction or processing of minerals which may be located on or under the surface of such property, together with all fixed plant, equipment, and infrastructure owned or acquired for the exploration, development, extraction and processing of minerals in connection with such properties. Such properties shall include, but not be limited to, real property, unpatented mining claims, prospecting permits, prospecting licences, reconnaissance permits, reconnaissance licences, exploration permits, exploration licences, development permits, development licences, mining licences, mining leases, leasehold patents, crown grants, licences of occupation, patented mining claims, and royalty interests

Mineral Reserves and Mineral Resources. The terms Mineral Reserve, Proven Mineral Reserve, Probable Mineral Reserve, Mineral Resource, Measured Mineral Resource, Indicated Mineral Resource, and Inferred Mineral Resource and their usage have the meaning ascribed by the JORC Code (2012).

Mineral Resource Property means a Mineral Property which contains a Mineral Resource that has not been demonstrated to be economically viable by a Feasibility Study or Prefeasibility Study. Mineral Resource Properties may include past producing mines, mines temporarily closed or on care-and-maintenance status, advanced exploration properties, projects with Prefeasibility or Feasibility Studies in progress, and properties with Mineral Resources which need improved circumstances to be economically viable.

Prefeasibility Study and Preliminary Feasibility Study mean a comprehensive study of the viability of a mineral project that has advanced to a stage where the mining method, in the case of underground mining, or the pit configuration, in the case of an open pit, has been established, and which, if an effective method of mineral processing has been determined, includes a financial analysis based on reasonable assumptions of technical, engineering, operating, economic factors and the assessment of other relevant factors which are sufficient for a Qualified Person, acting reasonably, to determine if all or part of the Mineral Resource may be classified as a Mineral Reserve. A Prefeasibility Study is at a lower confidence level than a Feasibility Study.

Preliminary Assessment means a preliminary economic study by a Qualified Person that includes Inferred Mineral Resources. The Preliminary Assessment must include a statement that the Inferred Mineral Resources are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves, outlines the basis for the Preliminary Assessment and any qualifications and assumptions made, and specifies that there is no certainty that the Preliminary Assessment will be realized.

Production Property is a Mineral Property with an operating mine, with or without processing plant, which has been fully commissioned and is in production.

Professional Association is a self-regulatory organization of engineers, geoscientists or both engineers and geoscientists that (a) has been given authority or recognition by law; (b) admits members primarily on the basis of their academic qualifications and experience; (c) requires compliance with the professional standards of competence and the code of ethics established by the organization; and (d) has disciplinary powers, including the power to suspend or expel a member.

Qualified Person is an individual who (a) is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operations or mineral project assessment, or any combination of these; (b) has experience relevant to the subject matter of the mineral project and the Technical Report; and (c) is a member in good standing of a Professional Association

Qualified Valuator is an individual who (a) is a professional with demonstrated extensive experience in the Valuation of Mineral Properties, (b) has experience relevant to the subject Mineral Property or has relied on a Current Technical Report on the subject Mineral Property by a Qualified Person, and (c) is regulated by or is a member in good standing of a Professional Association or a Self-Regulatory Professional Organization.

Reasonableness, in reference to the Valuation of a Mineral Property, means that other appropriately qualified and experienced valuers with access to the same information would value the property at approximately the same range. A Reasonableness test serves to identify Valuations which may be out of step with industry standards and industry norms. It is not sufficient for a Qualified Valuator to determine that he or she personally believes the value determined is appropriate without satisfying an objective standard of proof.

Report Date means the date upon which the Valuation Report is signed and dated.

Self-Regulatory Professional Organization means a self-regulatory organization of professionals that (a) admits members or registers employees of members primarily on the basis of their educational qualifications, knowledge and experience; (b) requires compliance with the professional standards of competence and code of ethics established by the organization; and (c) has disciplinary powers, including the power to suspend or expel a member or an employee of the member.

Standard means a general rule which is mandatory in the Valuation of Mineral Properties.

Technical Report means a report prepared, filed and certified in accordance with NI 43-101 and Form 43-101F1 Technical Report or JORC Code (2012) guidelines.

Transparency and Transparent means that the Material data and information used in (or excluded from) the Valuation of a Mineral Property, the assumptions, the Valuation approaches and methods, and the Valuation itself must be set out clearly in the Valuation Report, along with the rationale for the choices and conclusions of the Qualified Valuator.

Valuation is the process of estimating or determining the value of a Mineral Property.

Valuation Date means the effective date of the Valuation, which may be different from the Report Date or from the cut-off date for the data used in the Valuation.

Valuation Report means a report prepared in accordance with the VALMIN (2015) Standards and Guidelines.

Sihayo made available all information that, in MA's opinion, was relevant and material to the Valuation. Although Mining Associates has made diligent efforts to cross-check and compare the CGN data with available material from other sources, the reader should bear in mind that this report is, by its nature, heavily reliant on the data supplied by Sihayo.

Maps in this report are generally in Universal Transverse Mercator ("UTM") projection. Maps shown in this report are for illustration only and should not be relied upon for navigation.

2.8 SITE VISIT BY QUALIFIED PERSON

No MA employee has visited any of the sites described in this valuation.

2.9 COMPLIANCE WITH THE VALMIN CODE

This Valuation complies with the VALMIN Code (2015 Edition) in its entirety. The author has taken due note of Regulatory Guide ("RG") 111 "Content of Expert Reports" (October 2007 & March 2011) and RG 112 "Independence of Experts" (March 2011 update) promulgated by the Australian Securities and Investments Commission ("ASIC") and this report meets the guidelines set out in RG 111 and RG 112.

3 SIHAYO GOLD DEPOSIT

3.1 PROPERTY DESCRIPTION AND LOCATION

Sihayo Gold Limited (ASX: SIH) owns a 75% interest in PT Sorikmas Mining which in turn holds the Sihayo Pungkut 7th Generation Contract of Work (CoW). The remaining 25% interest is held by joint venture partner PT Aneka Tambang Tbk. Sihayo Gold Limited (formerly Oropa Limited) acquired control of the project in April 2004. The Sihayo and Sambung gold resources, which are the focus of the DFS, are in the northern block of the CoW. The Project is in Mandailing Natal District of North Sumatra Province, Republic of Indonesia.

3.2 REGIONAL AND PROJECT GEOLOGY

The Sihayo and Sambung gold deposits are situated on the north western end of the 15 km long Sihayo - Hutabargot mineralised trend of Permian calcareous volcano-sedimentary rocks and associated intrusions and directly adjacent to a major dilational basin that is controlled by the Trans Sumatran Fault Zone (TSFZ). The TSFZ and associated deep seated dilatational structures are interpreted to be the macro mineralisation controls of the Sihayo – Sambung gold resource.

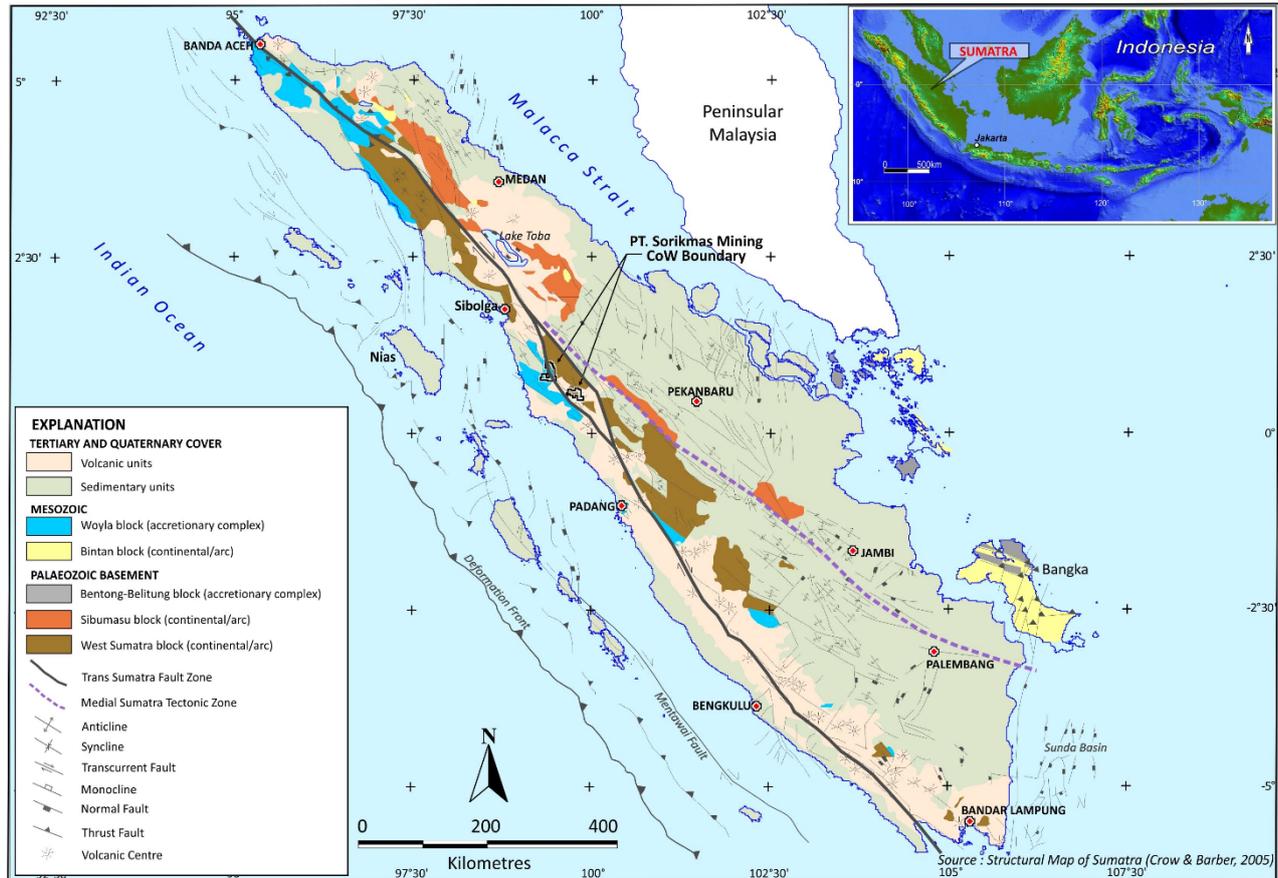


Figure 1. Project Overview showing CoW and Regional Geology

Source: Sihayo 2020 DFS

The Sihayo and Sambung resources are located about 800m apart but are interpreted to occur at about the same stratigraphic position and on the same controlling regional fault structures. Disseminated gold mineralisation is associated with jasperoid replacement of preferred carbonate units within a Permian-age sequence of fossiliferous silty limestone and marble, with deeper volcanogenic sediments, tuffs, and agglomerate. The Permian sequence is unconformably overlain by Tertiary-age siltstone, sandstone, and conglomerate. Mineralisation is classified as a sediment-hosted gold (SHG) deposit type.

In addition to primary ore, oxidized regolith deposits of uncemented jasperoid and clay cover much of the area and constitute a significant part of the initial open pit resource. In places, the regolith deposits accumulated in deep sinkholes formed in the Permian carbonates. The degree of weathering and oxidation state of the mineralised zones is highly variable and irregularly distributed both laterally and vertically within the Sihayo and Sambung gold resources. Complete or near complete oxidation is best developed in regolith mineralisation.

3.3 EXPLORATION OF SIHAYO AND SAMBANG RESOURCE

Regional exploration (follow up of regional stream sediment gold anomalies) by Aberfoyle Resources Ltd between 1995 and 1998 led to the discovery of the Sihayo and Sambung prospects. Detailed surface exploration work (geological mapping, grid soil sampling, detailed rock chip and trench geochemical sampling, ground magnetic, IP and Resistivity surveys) was undertaken by Aberfoyle between late 1997 and 1999. Initial drilling at Sihayo and Sambung commenced in 1999.

A total of 783 holes were completed for 79,765 metres of drilling on the Sihayo and Sambung deposits between 1999 and 2019. 66,815 metres of diamond drilling in 619 holes have been drilled to date on the

Sihayo gold resource and 12,950 metres of diamond drilling in 164 holes have been drilled on the Samburg gold resource.

There is potential to discover additional sediment-hosted jasperoid gold resources within a 5 km radius of the Sihayo resource. The prime exploration targets identified by historical work are along two mineralised trends, Sihayo-Hutabargot and Sihayo 3-4-5, which comprise the Sihayo gold belt. The initial focus for near-mine exploration is on the 800m long Sihayo-Sambung Link Zone. This target contains abundant, large residual jasperoid boulders in regolith and sporadic jasperoid outcrops in limestone.

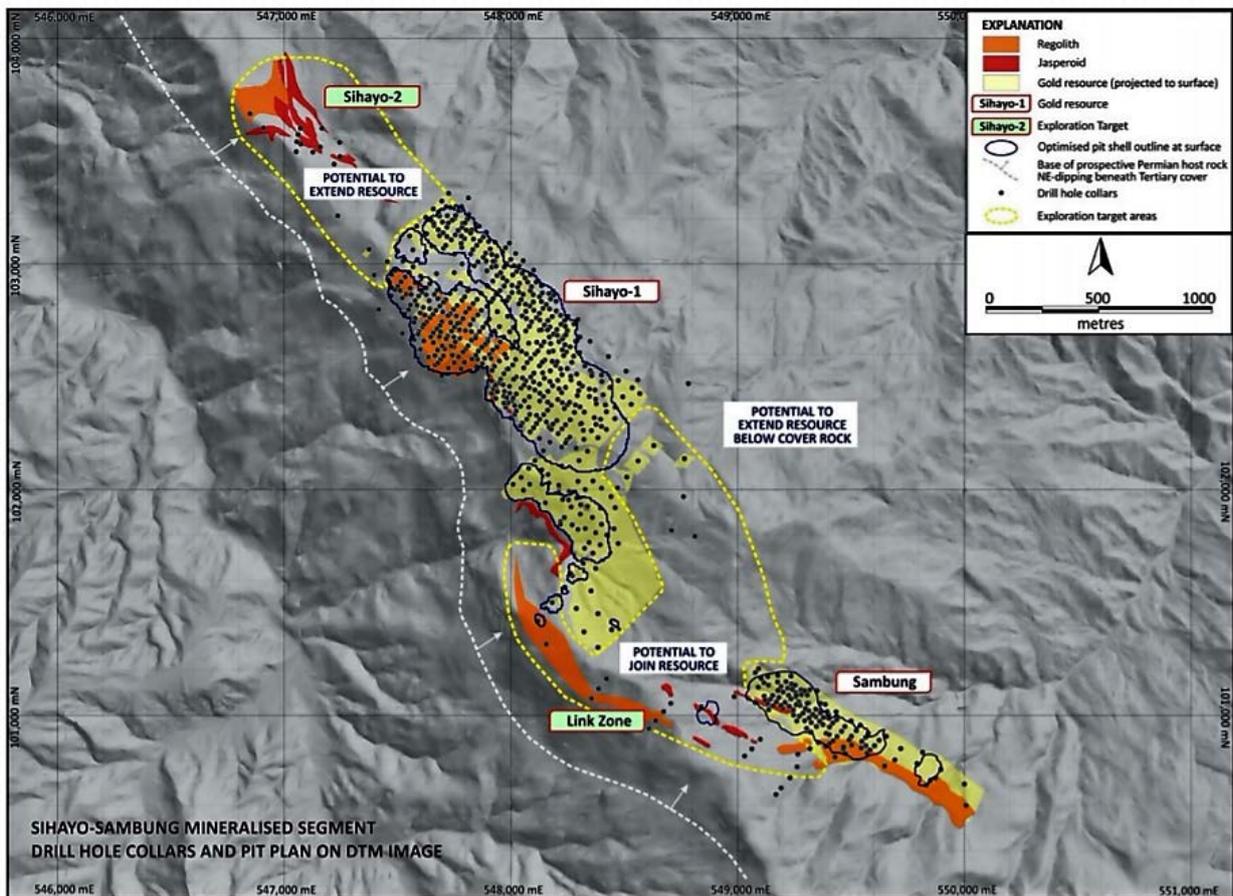


Figure 2. Project Overview showing deposits and potential

Source: Sihayo 2020 DFS

3.4 2020 MINERAL RESOURCE ESTIMATE

The combined Sihayo and Samburg Mineral Resource estimate at a 0.6 g/t Au cut-off grade for gold reported in March 2010 is presented in Table 1. The Mineral Resource estimates were prepared by Spiers Geological Consultants (SGC) and reported in accordance with the 2012 edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

Table 1. Sihayo Gold Project 2020 Mineral Resource Estimate (Source: Sihayo DFS, 2020)

Deposit	Measured			Indicated			Inferred			Total		
	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)	Tonnes (Mt)	Gold (g/t)	Gold (Moz)
Sihayo	4.9	2.3	0.36	11.2	2.0	0.70	5.5	1.8	0.31	21.5	2.0	1.4
Sambung	1.5	1.6	0.01	0.8	1.7	0.04	0.2	1.6	0.01	2.5	1.6	0.13
Total	6.4	2.1	0.44	12.0	2.0	0.75	5.6	1.8	0.32	24.0	2.0	1.5

Figures may not sum due to rounding. Significant figures do not imply an added level of precision. Estimates at Sambung are depleted by local mining.

The 2019 infill drilling has allowed for a significant revision of the geological model. This revised model has, in general, resulted in a more confident definition of the shape and continuity of the mineralised regolith and jasperoid domains. However, it has also restricted continuity in the less common irregularly shaped, mineralised karst cave-fill domains which did not feature in the geological modelling of previous resource estimates. The upper 5m of the Sambung deposit have been excluded from the Mineral Resource Estimate because of intense artisanal mining activity.

3.5 RESOURCES NOT INCLUDED IN SIHAYO CASH FLOW MODEL

Total Inferred Mineral Resources at the Sihayo Project reported as at March 2020 are shown below.

Table 2. Inferred Resource (Source: Sihayo DFS, 2020)

Deposit	M Tonnes	Grade g/t Au	Mozs Au
Sihayo	5.45	1.8	0.31
Sambung	0.19	1.6	0.01
Combined	5.6	1.8	0.32

Proposed pit outlines for the Sihayo and Sambung deposits are shown in Figure 3. The AMC mining schedule in the 2020 DFS includes approximately 1.2 Mt of material not included in the Ore Reserve. Approximately 0.8 Mt (5.6% of the LOM ore production) of the additional plant feed comes from Inferred Resources, and the balance is material from the Sihayo South satellite pit that was excluded as it requires further geotechnical investigation.

Remaining inferred resources not used in the DFS total 4.20 Mt at Sihayo and 79,000 tonnes at Sambung.

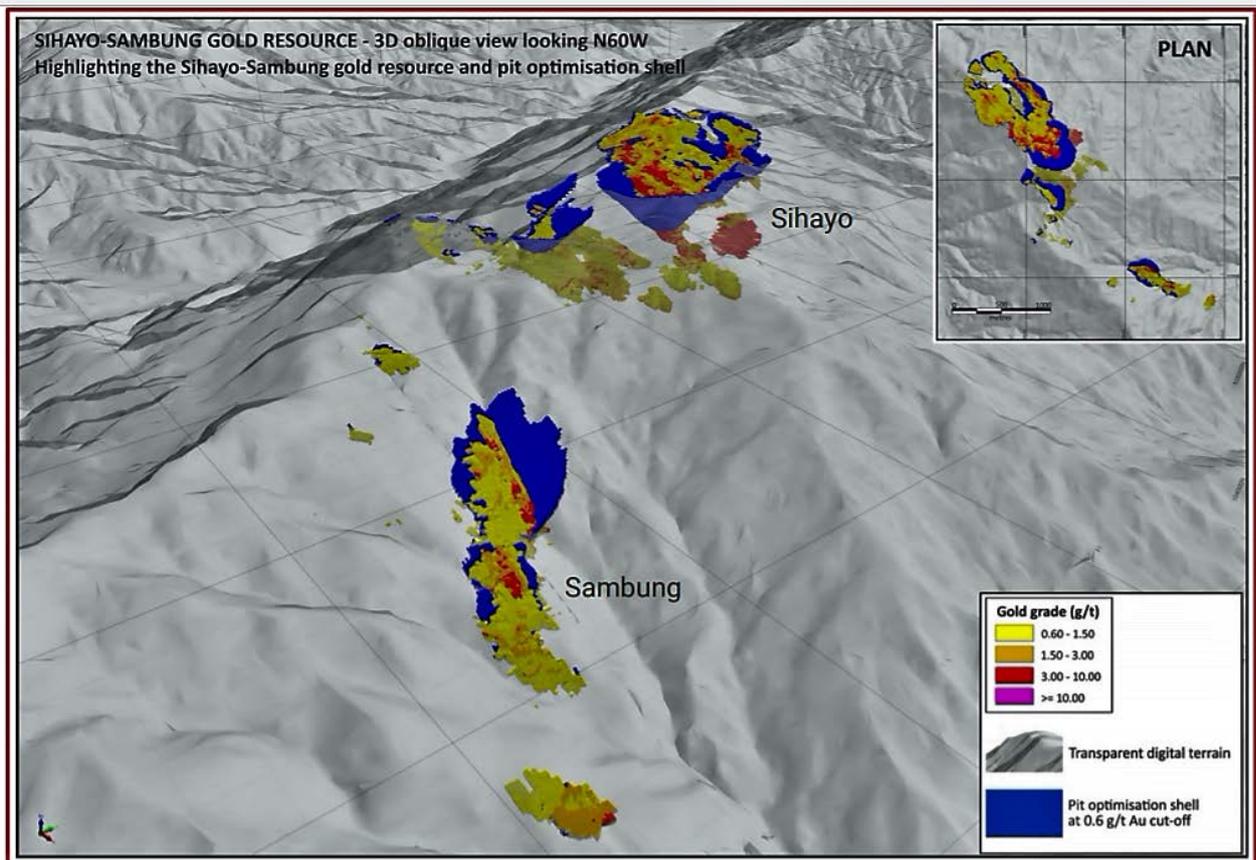


Figure 3. Sihayo Resource Pit Outlines

(Source: Sihayo DFS, 2020)

There is a low level of confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the resource being upgraded to Indicated Mineral Resources or that the production target itself will be realised.

However, AMC concluded that Inferred Mineral Resources were a very minor contribution to achieving the production target during the first two years of operation (3.4% of annual target). Furthermore, any Inferred Resources relied on in the first two years of operation are interpolated (not extrapolated) between drilling sections and as such are likely to improve to an Indicated classification.

Table 3. Whittle Optimisation Results (Source: AMC Consultants, 2020)

PT Sorikmas – Sihayo and Sambung Whittle Statement					
PT Sorikmas Mining				319064	
Table 1.2 Whittle optimisation results					
Measured, Indicated, Inferred			Measured, Indicated		
Sihayo MII	Ore tonnes (Mt)	12,436	Sihayo MI	Ore tonnes (Mt)	11,189
	Waste tonnes (Mt)	54,382		Waste tonnes (Mt)	51,634
	Recovered ounces (Koz)	587		Recovered ounces (Koz)	539
	Processing recovery	71%		Processing recovery	71%
Sambung MII	Ore tonnes (Mt)	1,750	Sambung MI	Ore tonnes (Mt)	1,638
	Waste tonnes (Mt)	5,268		Waste tonnes (Mt)	5,196
	Recovered ounces (Koz)	68		Recovered ounces (Koz)	64
	Processing recovery	71%		Processing recovery	71%

These optimisations will now form the basis of detailed pit designs and a life-of-mine schedule for the Sihayo and Sambung deposits.

The Whittle optimisation results in Table 3 above indicates that

- The 1.247 Mt of Inferred Resource used from Sihayo would recover an extra 48 ozs of gold
- The 112,000 tonnes of Inferred Resource from the Sambang deposit would recover an extra 4 ozs of gold.

These Whittle Optimisation results can be used to estimate that:

- An additional 210 ozs Au could be produced from the remaining 4.20 Mt of Inferred resource remaining at Sihayo assuming a grade of 1.8 g/t Au if all the remaining resources could all be mined.
- An additional 3 ozs Au could be produced from the 79,000 tonnes of Inferred Resource remaining at Sambung assuming a grade of 1.6 g/t Au if all the remaining resources could all be mined...

There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or an Ore Reserve.

4 OTHER NON-INDONESIAN EXPLORATION ASSETS

Sihayo Gold Annual Reports indicate that the company has held equity in the tenements listed in Table 4 since at least 2011. Sihayo states that no mining has been undertaken on the West Australian projects.

A check of current live tenements on the WA Government website shows that:

- All five Prospecting Licences (PL28/1078 to PL28/1082) at the Mulgabbie Project expired on 21 September 2016.
- Mining Lease ML59/394 at the Gullewa Project expired on 21 April 2017.

Table 4. Non-Indonesian Tenements (Source: Sihayo Annual Report, 2019)

Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Sihayo Equity
Oropa Indian Resources			India			
	Block D-7	22.01.00	N/A	4,600 km		10%
Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Sihayo Equity
Sihayo Gold Limited			Western Australia			
Mt. Keith	M53/490	11.06.04	10.06.25	582ha	Michael Photios John	2% Net Smelter Royalty
	M53/491	11.06.04	10.06.25	621 ha	Michael Photios John	2% Net Smelter Royalty
Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Sihayo Equity
Excelsior Resources Pty Ltd			Western Australia			
Mulgabbie	ML28/364	25.03.09	24.03.30	54.3 ha	Pendragon (WA) Pty Ltd/Andrew Ian Pumphrey	2% Net Smelter Royalty
	PL28/1078	22.09.08	21.09.12	98.0 ha	Expired	
	PL28/1079	22.09.08	21.09.12	143.7 ha	Expired	
	PL28/1080	22.09.08	21.09.12	140.7 ha	Expired	
	PL28/1081	22.09.08	21.09.12	191.4 ha	Expired	
	PL28/1082	22.09.08	21.09.12	120.0 ha	Expired	
Gullewa	ML59/394			200.0 ha	Expired	

4.1 INDIA DIAMOND EXPLORATION

The Sihayo Gold 2015 Annual Report states it has a 10% interest in B Vijaykumar Technical Services Pvt Limited, a company involved in diamond exploration in India, with an option to purchase a further 10% interest. Oropa Indian Resources Pty Ltd, Sihayo Gold Limited's wholly owned subsidiary, no longer has significant influence over B Vijaykumar Technical Services Pvt Limited.

Sihayo state that no progress has been made since 2011 in resolving the legal status of the Indian tenement.

Table 5. India Tenements (Source: Sihayo, 2019)

Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Sihayo Equity
Oropa Indian Resources			India			
	Block D-7	22.01.00	N/A	4,600 km ²		10%

4.2 MT KEITH GOLD PROJECT

4.2.1 Project Description

The Mt Keith Project consists of two granted Mining Leases, M53/490 and 491, which are registered in the name of Michael John Photios and cover 12.09 km² with both leases granted on 11th June 2004. The Project is approximately 60 km south of Wiluna and some 60 km north of Leinster in the northern part of the Eastern Goldfields of Western Australia. The project has good access since it is only a few kilometres east of the bitumen Goldfields Highway to Wiluna.

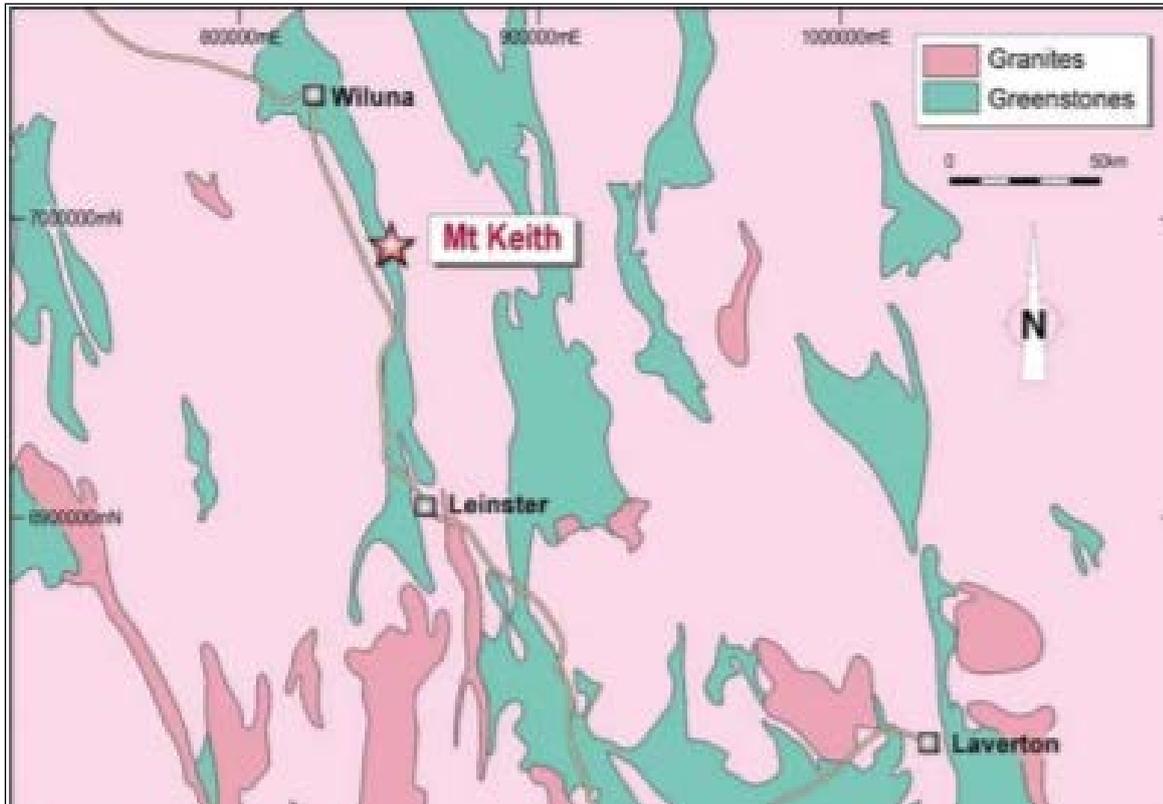


Figure 4. Mt Keith Project Location Plan (Source: Torian, 2016)

Table 6. Mt Keith Project Current Tenements (Source: WA Govt, 2020)

Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Sihayo Equity
Sihayo Gold Limited			Western Australia			
Mt. Keith	M53/490	11.06.04	10.06.25	582 ha	Michael John Photios	2% Net Smelter Royalty
	M53/491	11.06.04	10.06.25	621 ha	Michael John Photios	2% Net Smelter Royalty

In March 2013, the two leases were the subject of an option to purchase agreement with Cascade Resources Ltd and then Torian Resources Ltd (following the takeover in March 2017 of Cascade Resources by Torian Resources). The option agreement expired in the December Quarter 2019.

A check of current live tenements on the WA Government website shows that applications for exemption from Labour Conditions on the Mount Keith Mining Leases were lodged on 06 August 2020 suggesting that exploration work on the tenements was not planned in the near term.

4.2.2 Local Geology

The Mt Keith Project lies in the northern part of the Archaean Norseman-Wiluna Greenstone Belt. The geology can be divided into two metamorphic domains, the Wiluna Domain in the east and the Matilda Domain to the west. The major NW trending Perseverance Fault (also known as the Erawalla Fault) separates the domains. The project is located within the attenuated southern continuation of the Wiluna Domain and is interpreted to host the same stratigraphy of tholeiitic basalts and dolerites that host the Wiluna Gold Mine. The Mt Keith domain nickel bearing ultramafic and felsic rock types are located immediately west of the tenements (Figure 5).

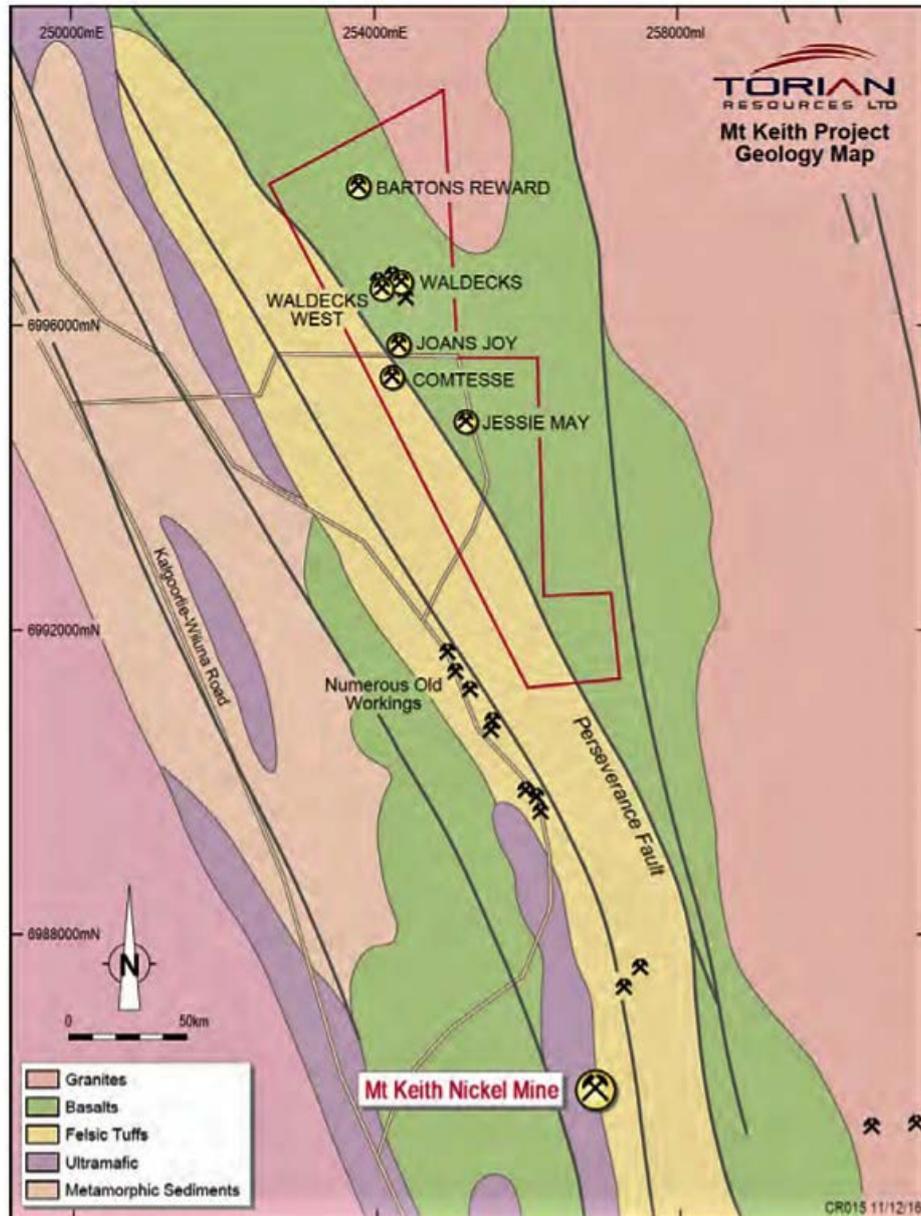


Figure 5. Mt Keith Project Geology (Source: AM&A, 2016)

The project area lies along a significant northwest-trending deflection of the main Agnew-Wiluna greenstone belt in a structurally complex and elongated greenstone stratigraphy disrupted by granitoid intrusions of various ages and textures. Three main lithological associations are found in the area: a sequence of predominantly ultramafic rocks to the west, a continuation of the units hosting nickel

mineralisation at Mt Keith and Yakabindie, a central sequence of felsic and mafic volcanics which may be part of a bimodal volcano stratigraphic package, and granitoid rocks in the east containing numerous greenstone belt xenolithic remnants. Faults are found along stratigraphic contacts. A Proterozoic dyke cross cuts the stratigraphy in a north-northwest orientation.

4.2.3 Mineralisation

Several significant deposits and operating mines occur in the area, with BHP Billiton's Mt Keith nickel mine approximately 5 km to the south of the project and the +1 Moz Wiluna gold deposits to the north. Several other significant gold and nickel deposits occur within 100 km of the project, such as the Cosmos Nickel Mine and the closed Thunderbox gold mine.

Mineralisation located to date occurs along an 8 km strike, with the greatest concentration of known gold mineralisation occurring within the western part of the area in association with a strong NNW trending magnetic lineament. This lineament is thought to be related to the regional Perseverance fault, but this relationship is yet to be proven.

The Project occurs in a belt with a significant previous production history of gold and nickel including the historic Barton's Reward, Waldecks, Comtesse and Kerry's Find gold mines. In addition, several zones have been outlined to contain significant deposits of gold nuggets in areas where traditional exploration methods only returned mixed results. Prospects within the tenements include:

At Bartons Reward the gold is hosted within a sheared granite adjacent to a felsic tuff-granite contact. Controlled by quartz veining and porphyry intrusion along a sheared contact between mafic rocks and granite with a thin zone of felsic volcanics squeezed between them. Continuous zone of mineralisation of over 30m down dip and up to 100m along strike. Best intersection of 9m @ 1.61 g/t from 30m.

At Bartons Reward North a major shear zone is associated with a highly weathered tuff overlying a highly weathered foliated granite. Mineralisation is associated with the tuff/granite contact.

Mineralisation at Waldecks is associated with shears and quartz veining within felsic porphyry and granite. The mineralised zone is continuous over 30m down dip and up to 100m along strike

At Joans Joy mineralisation is associated with a distinct shear zone with quartz/kaolin and a biotite rich zone of granite. Drilling has returned intersections of 4m @ 0.55 g/t from 22m, 1m @ 0.55 g/t from 34m, and 6m @ 0.57 g/t from 64m. Mineralisation may be open at depth along dip and strike.

4.2.4 Exploration History

The project area has unknown potential to host significant gold deposits. Little exploration to date has been focussed on the nickel potential.

RC drilling completed to date has been limited to generally above 100 m in depth and a significant number of RAB holes drilled in the 1980s did not penetrate to semi-fresh or fresh bedrock, and so were largely ineffective.

Previous explorers that included Barrick Exploration, Gascoyne Gold Mines NL and Finders Gold NL have conducted geochemical sampling programs, aerial magnetic surveys, mapping, and several phases of both RC and RAB drilling.

The many low order soil anomalies and areas where gold nuggets have been found are unrelated to existing workings and have not yet been drill tested. Key RAB and RC drillhole intersections from 15,875m (495 holes) drilled at the Bartons Reward ("BR"), Bartons Reward South ("BRS"), Waldecks ("WD"), Waldecks West ("WW") and Jessie May ("JM") Prospects are presented in Table 7.

Table 7. Mt Keith Project Significant Drill Intersections >1 g/t Au
(Source AM&A, 2016)

HOLE	E GDA9 4	N GDA94	EOH (m)	AZIMUT H	DI P	TYP E	From (m)	To (m)	Interval (m)	Au g/t	Deposit
B005	25308 8	6997613	84	55	-60	RC	81	83	2	1.62	BR
B013	25316 5	6997516	120	55	-60	RC	17	18	1	24.00	BR
MK131	25303 8	6997649	25	70	-60	RAB	10	12	2	1.03	BR
MK149	25313 9	6997519	44	70	-60	RAB	20	26	6	1.40	BR
MKC026	25312 7	6997514	70	70	-60	RC	33	35	2	8.70	BR
RMK007	25300 1	6997652	89	70	-60	RC	50	52	2	2.50	BR
MKC032	25313 0	6997501	53	70	-60		35	37	2	3.42	BR
MKC040	25335 2	6997125	80	70	-60	RC	36	38	2	1.83	BS
MK028	25423 2	6996440	60	90	-60	RAB	44	46	2	4.14	WD
MK044	25420 5	6996698	60	70	-60	RAB	56	58	2	2.46	WD
MKC007	25570 4	6993215	50	70	-60	RC	19	21	2	2.93	WD
MKC035	25412 9	6996681	70	70	-60		56	57	1	3.06	WD
MKC051	25420 1	6996434	80	70	-60	RC	28	30	2	3.07	WD
RMK009	25419 9	6996689	94	70	-60		56	66	10	Stope	WD
						and	66	68	2	15.00	WD
W2	25421 4	6996750	60	70	-60	RC	41	43	2	7.48	WD
W4	25420 5	6996728	120	70	-60	RC	60	64	4	2.93	WD
MKC045	25374 1	6996411	80	70	-60	RC	18	20	2	1.11	WW
MKC007	25570 4	6993215	50	70	-60	RC	19	21	2	2.93	JM

4.2.5 Resource Estimate

The Torian-Cascade Independent Technical Valuation Report (December 2016) compiled by AL Maynard and Associates Pty Ltd (AM&A) reported that in 2013 Cascade Resources had estimated an Inferred Resource that was JORC (2004) compliant of 165,000 tonnes at 3.11 g/t Au for 16,500 oz for the Mt. Keith Project.

4.2.6 Exploration Targets

An Exploration Target potential for the 8 km strike with 20% pay between 2– 4 g/t Au with lode widths between 1 m to 5 m and SG of 2.5 t/m³ was used at the Bartons, Waldecks, Jessie May and Waldecks West deposits in the valuation assessment by AM&A in 2016. A target of 32,000 ozs to 163,000 ozs was estimated.

Table 8. Torian Mt Keith Exploration Targets 2016 (Source: AM&A, 2016)

Prospect name	Minimum Ozs Au	Maximum Ozs Au	Preferred Ozs Au
Bartons	17,130	64,237	35,687
Waldecks	6,906	46,615	21,581
Jessie May	1,507	10,174	4,710
Waldecks West	6,199	41,841	19,371
Total	31,742	162,867	81,349

*Note that an Exploration Target estimate is only conceptual in nature as it is estimated without sufficient verifiable accurate data for a reliable resource estimate and so it cannot be assumed that all or any part of an Exploration Target estimate will eventually be converted to a resource after further exploration.

An independent review of the prospects undertaken by BMGS was announced by Torian in February 2019. All available results from previous exploration drilling were compiled and an Exploration Target defined for the Mt Keith Project. BMGS estimated the Exploration Targets in these two tenements to be between 95,000 and 130,000 tonnes at a grade of between 1.1 g/t to 1.4 g/t Au (Table 9), highlighting the region’s potential to host a large gold deposit. The Exploration Targets describing the potential quantity and grade, are conceptual in nature. BMGS concluded there has been insufficient exploration completed to estimate a Mineral Resource and it is uncertain if further exploration will result in the estimation of a Mineral Resource.

Table 9. Exploration Targets for the Mt Keith Prospect 2019.

Prospect	Rank	Low (T)	High (T)	Low (Gold)	High (Gold)
Bartons	Medium	84,300	114,000	1.32 g/t	1.78 g/t
Waldecks	Medium	10,900	14,800	2.36 g/t	3.20 g/t

(Source: BMGS, Torian Resources, 2019)

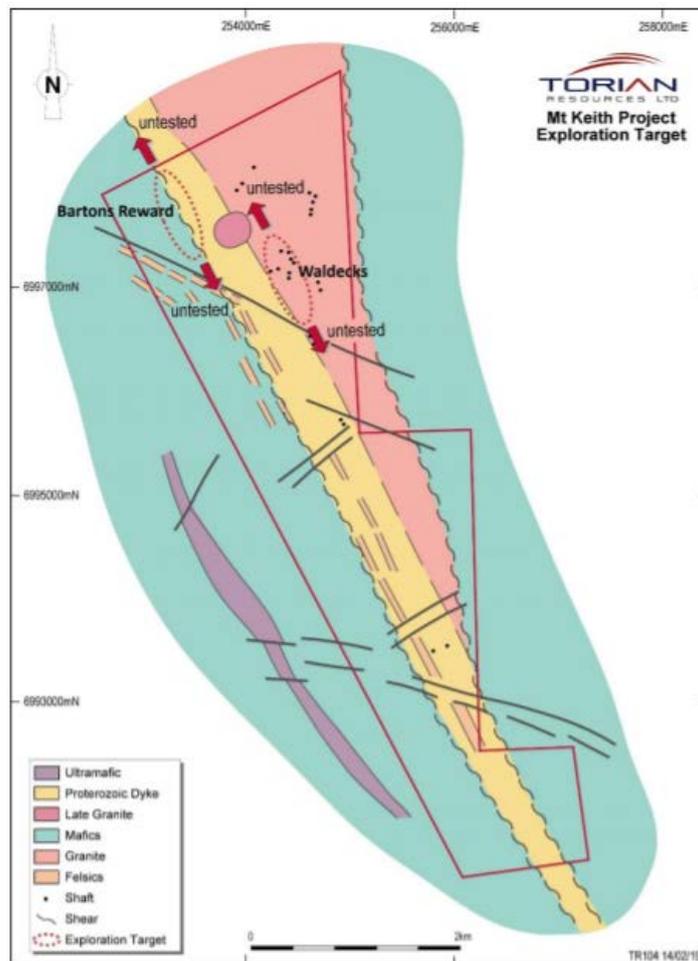


Figure 6. Mt Keith Exploration Target Location Plan (Source: Torian, February 2019)

The Torian- Cascade Independent Technical Valuation Report –compiled by AL Maynard and Associates Pty Ltd (AM&A) in December 2016 concluded the Mt Keith Project has the potential for additional economic gold discoveries in areas that have not yet been adequately explored, and for the further definition of narrow but high grade deposits beneath existing areas of workings. The project warranted further exploration.

A review by BMGS of exploration targets for Torian Resources in 2019 concluded that additional investigation and drilling is warranted to check all the soil gold anomaly targets. Torian Resources announced at the end of 2019 that the option to acquire the Mount Keith project tenements had expired unexercised.

4.3 MULGABBIE GOLD PROJECT

The Mulgabbie project is 130km north east of Kalgoorlie, Western Australia. It lies within the North East Coolgardie Mineral Field, on the Pinjin Pastoral Station at the Mulgabbie Mining centre (Figure 7). Access is by the unsealed Kalgoorlie-Pinjin road and then via tracks through to the Mulgabbie Mining centre.

Table 10 shows detail of the sole tenement, Mining Lease M28/364 held by Andrew Pumphrey (51%), Pendragon (WA) Pty Ltd (44%) and Civil and International (Aust) Pty Ltd (5% free carried). All prospecting licences have expired.

Table 10. Mulgabbie Tenements

Project Name	Tenement	Approval Date	Expiry Date	Area	Registered Owner	Sihayo Equity
Excelsior Resources Pty Ltd			Western Australia			
Mulgabbie	ML28/364	25.03.09	24.03.30	54.3 ha	Pendragon (WA) Pty Ltd/Andrew Ian Pumphrey	2% Net Smelter Royalty

Source: WA Govt, 2020



Figure 7. Mulgabbie Project location Plan

Source: Pumphrey, 2014

4.3.1 Regional Geology

The Mulgabbie project lies in the Kurnalpi-Edjudina region to the east of the Norseman-Wiluna greenstone belt. The Kurnalpi-Edjudina region has been divided into several greenstone terranes by regional geological mapping by the GSWA.

The project area is situated within the Mulgabbie Formation immediately to the east of the contact with the Gundockerta Formation. The Mulgabbie Formation is characterised by altered mafic to ultramafic rocks including basaltic flows, intruded dolerite and interbedded cherts. A 1.5 km wide shear zone of well foliated schistose rocks which is correlated with the Keith-Kilkenny Lineament runs through the project area.

4.3.2 Exploration History

Payable gold was discovered at Mulgabbie in 1897. Several outcropping leaders and veins were discovered that yielded rich gold specimens. Rich patches of gold and telluride ore occurred where steeply dipping quartz veins and leaders intersected the near vertical pyrite chlorite schist.

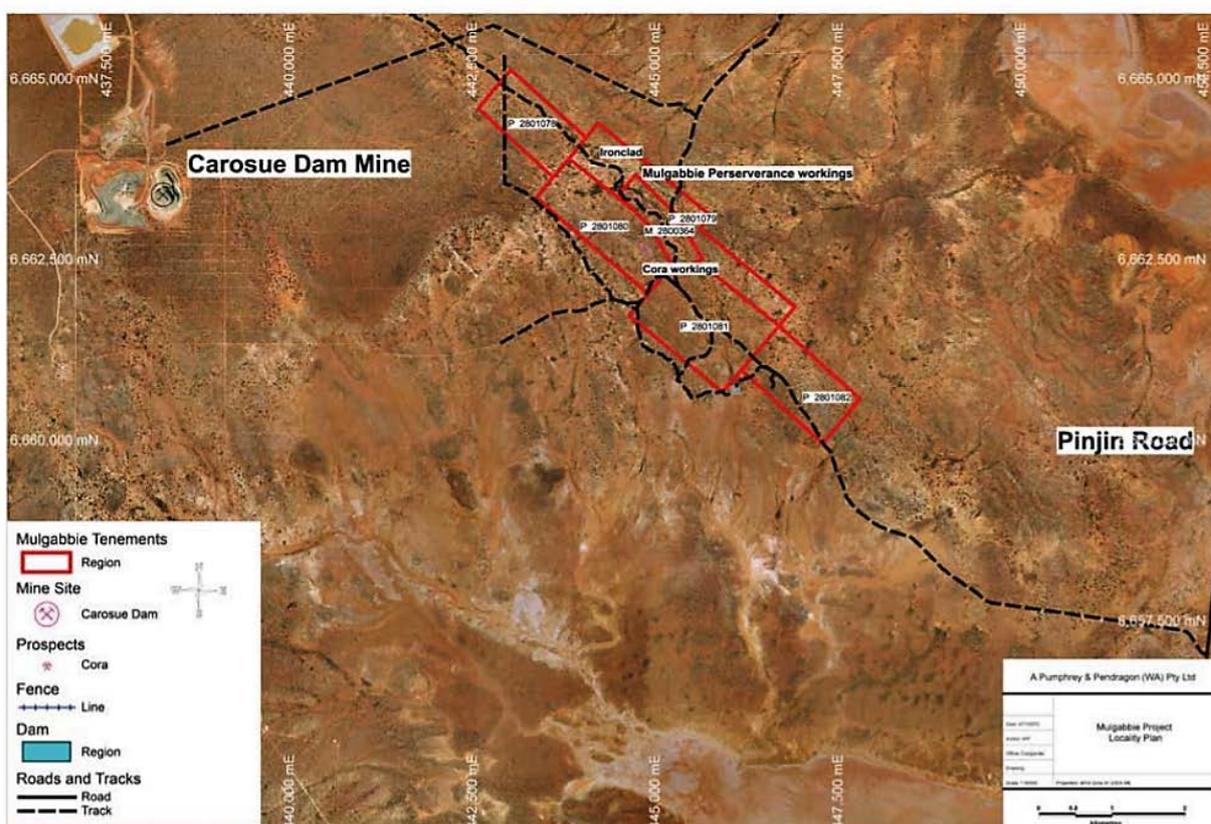


Figure 8. Mulgabbie Tenements and Prospects

Source: Pumphrey, 2016

In the 1990's several new discoveries were made in the area (Figure 8). The Old Plough Dam prospect was discovered in 1992 and the Monty Dam prospect in 1993 (total resource 220,000 oz). The Khartoum (now Carosue Dam) gold project (total resource 1,000,000 oz) was discovered in 1996. Gold was produced from the Carosue Dam Project from 2001 to 2005. Saracen Mineral Holdings recommenced gold production in 2010.

The first modern exploration at the Mulgabbie project was by Geotechnics Pty Ltd on behalf of Openpit Mining and Exploration Pty Ltd in Dec 1979. Openpit Mining and Exploration maintained an interest in the area for many years. Yinnex NL, Civil International Pty Ltd, and Diablo Cliffs N.L. appear to have been active in the 1990's.

An alluvial metal detecting and scraping operation has been carried out on the ML using a bulldozer to scrape off 3 m of overburden in the form of alluvial silt to reach a 1 m thick layer of alluvial Au rich gravel. The total amount of gold produced to 2014 from this operation is reported as 800 ounces.

4.3.3 Local Geology and Mineralisation

The Mulgabbie project covers a sequence of basalt and komatiite flows. Thin discontinuous intrusions of dolerite are conformable within Achaean sequences. Interflow sediments occur on lithological contacts.

At the Cora gold workings, a localised thickening of fine grained sediments occurs from 10-100metres. West of the tenement boundary is an overlying sequence of felsic volcanoclastic rocks. A large intrusion of feldspar porphyry forms the prominent steep sided Mulgabbie hill. Swarms of dykes are found extending into the immediate country rock for several hundreds of metres. A late stage Proterozoic dolerite dyke (east-west) cross cuts existing Achaean sequences.

Significant gold mineralisation at Mulgabbie can be divided into three localities, the Mulgabbie-Perseverance line of workings, the Hotel prospect, and the Cora workings.

Mineralisation at the Mulgabbie Perseverance line of gold workings is associated with a thin vertically dipping shear zone that trends 315°. At the most northern workings the shear zone is conformable within a thin (2 metres wide) interflow sediment that occurs on the lithological contact of a basalt and dolerite. Further south the shear does not appear to be restricted to the lithological contact. Enrichments of coarse gold and tellurides have occurred at the intersection of cross cutting quartz veins and shear zones. Some of the coarse gold mined is the result of supergene enrichment.

Gold mineralisation was discovered at the Hotel Prospect 600 metres to the south east of the Mulgabbie Perseverance workings by RAB drilling beneath alluvial cover. Gold mineralisation appears to be hosted by mafic lithologies. Within the host lithology a series of stacked silica-pyrite alteration lenses dip to the east. Gold mineralisation may occur as small shoots within the silica-pyrite lenses. RC and Diamond drilling was proposed by the lease holders after a review of drill intersections.

Gold mineralisation at the Cora workings is associated with narrow pyritic-quartz veins that are hosted by fine-grained sediments including black shales and cherts. Historical workings are generally less than 20m deep. This area has been the focus of several exploration campaigns because of its potential to host a large tonnage open pitable orebody. The peak gold intersection at the Cora prospect was in MBR 011 with 4 m @ 1.90 g/t from 5 m downhole.

5 VALUATION

The three generally accepted Valuation approaches are:

- Income Approach.
- Market Approach.
- Cost Approach.

VALMIN (2015) states that:

A Valuation Report should make use of at least two Valuation Approaches. Where more than one Valuation Approach is used, the Practitioner should comment on how the results compare and on the reasons for selecting the Value adopted. If it is impractical to use two Valuation Approaches, the Practitioner must clearly and unambiguously outline the reasons for not doing so.

For inferred resources outside the DFS production plan at Sihayo a range of values can be applied using the income metrics provided by the DFS itself, with the main assumption being that the resources could be accessed at some point in the life of mine. Market and cost approaches are not appropriate for the valuation of the inferred resources because they can be effectively valued using the income approach.

Sihayo's interest in the Indian diamond exploration licence cannot be valued because of the lack of information regarding the tenement's status and any work completed on it. The interest is assigned a zero value.

Net Smelter Royalties held over the two Western Australian projects are extremely difficult to assign a value to. The only value in an NSR requires a knowledge of the potential start date of production and the number of ounces of gold to be produced.

The Mt Keith project has an existing JORC (2004) compliant resource of 16,500 oz but there has been no substantial exploration work completed on the licences for several years and it appears that none is planned for the near future.

The Mulgabbie project has no mineral resources defined and little evidence of substantial exploration work completed since the 1990's. There was some minor gold production from alluvial workings in 2014.

In MA's opinion the 2% NSR interests held on the West Australian properties have a zero (or at most near-zero) current value since the prospects of production in the near term (less than 5 years) are very poor, with insufficient recent work completed to define mineral resources.

5.1 INCOME APPROACH – SIHAYO INFERRED RESOURCES

A total of 213 ozs of recovered gold can be valued at a maximum of \$1700/oz minus C1 cash costs of \$632/oz (as per the DFS financial model) for \$1067/oz. A minimum value can be derived from using the base case NPV divided by total produced ounces (\$205m / 633,490) or \$324/oz, which provides a discounted \$/oz value. These implied \$/oz values give a range between US\$69,000 and US\$227,000, or AUD95,000 to AUD309,000 for the value of inferred resources outside the DFS pit shells.

6 VALUATION SUMMARY

Based on an analysis of comparable transactions a summary of MA's opinion on the market value of Mineral Assets outside Indonesia that Sihayo Gold Ltd has an interest in at 30 August 2020 is provided in the table below. The "Preferred Value" column indicates the most preferable market value placed on the Project by MA. This value considers a large of number of variables and geographical location and is not necessarily the median value of the high and low ranges.

Table 11. Summary of MA's opinion on the market value of Sihayo non-DFS Mineral Assets

Mineral Asset	Project Basis	Valuation \$AUD		
		Low	High	Preferred (mid-point)
Sihayo Non-DFS Resource	75%	94,000	310,000	202,000
India Diamonds Exploration	10%	0	0	0
Mt Keith WA Gold	2% NSR	0	0	0
Mulgabbie WA Gold	2% NSR	0	0	0
TOTAL		94,000	310,000	202,000

The Preferred value for Sihayo's project assets is AUD202,000, which is based on income methods for Sihayo non-DFS resources

Note: The valuation has been compiled to an appropriate level of precision; values may not add up due to rounding.

There is significant range in the values derived for the projects. MA has considered this range and concludes that it provides a reasonable representation of possible valuation outcomes for the projects, given the uncertainties inherent in valuing early-stage exploration and pre-development projects.

MA notes that our valuation opinions, as expressed in this Report, must be considered in total, and that choosing parts of the analysis or the factors considered by it, without bearing in mind all the factors and analyses together could result in a misleading view of the process underpinning the valuation opinion presented in this Report. The preparation of a valuation of a mineral asset is a complex process incorporating varying degrees of qualitative opinion and does not readily lend itself to partial analysis or summary

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8 CERTIFICATE OF QUALIFICATIONS

JAMES HENRY LALLY, MAIG, MSEG

STATEMENT OF QUALIFICATIONS

I, James Henry Lally, PhD, hereby certify that:

1. I am an independent Consulting Geologist and Professional Geoscientist residing at 12 Plumer Street, Sherwood, QLD 4075, Australia with my office at Level 6, 445 Upper Edward St, Brisbane, Queensland 4001, Australia (Telephone +61-7-38319154).
2. I graduated from the University of Newcastle-upon-Tyne, United Kingdom in 1989 with a Bachelor degree in Science in the field of Geology. I was awarded a PhD in 1997 from James Cook University of North Queensland.
3. I have continuously practised my profession as a Geologist for the past 20 years since completing my doctorate, in the fields of Mineral Exploration, Resource Estimation and Valuations. I have held senior positions with the Northern Territory Geological Survey, Gold Fields Australia, Mawarid Mining (Oman) and Batu Mining Mongolia. I have been involved in consulting to the minerals industry for 10 years both independently and as an employee of Mining Associates
4. My specific experience concerning Sihayo's properties is an understanding of general exploration practices and the determination of prospectivity in areas where there is sparse prior information. I have been involved in greenfields to brownfields exploration programmes in Australia and overseas.
5. I have been a member of the Australian Institute of Geoscientists since 2008. My status as a Member of the AIG is current, and I am recognized by the Australian Securities and Investments Commission and the Australian Stock Exchange as a Competent Person for the submission of Independent Geologist's Reports.
6. I have read the definition of "Independent Individual Expert" set out VALMIN Section 37 and certify that by reason of my education, affiliation with a professional association (as defined in VALMIN) and past relevant work experience, I fulfill the requirement to be an "Expert" for the purposes of VALMIN.
7. I am author of the Valuation entitled "Valuation of Resources outside Sihayo DFS and Non-Indonesian Exploration Interests of Sihayo" dated 30th August 2020 ("the Valuation"). I have reviewed all sections of the report for which I am responsible and found them to be accurate and reliable within the limitations of this Valuation.
8. I have not inspected any of the properties that are the subjects of the Valuation.

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