



## **OPTIMISATION OF SIHAYO PUNGKUT GOLD PROJECT**

### **Staged development plan provides rapid payback of initial capital**

**12th March 2013**

The Board of Sihayo Gold Limited ("Sihayo" or "the Company") is pleased to provide an update on the revised development plan for its' 75% owned Sihayo Pungkut Gold Project, located in North Sumatra, Indonesia.

**"The revised development plan is focused on a staged approach that optimises capital, cash operating costs and overall operational risks to deliver the best possible return for all stakeholders" says Mr. Peter Bilbe, Chairman.**

The development plan comprises Stage 1 over an initial 4 year period with a nominal 1mtpa standard Carbon-in-Leach "CIL" processing plant ("CIL plant") and associated infrastructure followed by Stage 2 over a further 7 years with an expanded 1.3mtpa capacity CIL plant.

Stage 1 initial capital is estimated at **US\$72 million** compared to the previous estimate of US\$131.5 million (1.5mtpa CIL plant), **representing a 45% reduction.**

The major components of the capital cost estimate are:

- Process Plant and Infrastructure      \$60M
- Owners Cost      \$5M
- EPCM      \$7M

**TOTAL      US\$72M**

Note: Assumes project power requirements supplied by IPP

The key operating estimates of Stage 1 are:

- Mill throughput      1Mtpa
- Average annual production      60,000oz pa
- Average Process Recoveries      85%

**Cash Site Operating Costs      US\$615/oz – US\$645/oz**

All indicative capital and operating cost estimates shall be finalised in the DFS release mid-year.

**"The very robust economics and lower operational risk of Stage 1 makes this a compelling development approach for our initial project", says Mr. Stuart Gula, Chief Executive Officer.**

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## **SIHAYO PUNGKUT GOLD PROJECT DEFINITIVE FEASIBILITY STUDY (“DFS”)**

Sihayo is in the process of completing a Definitive Feasibility Study “DFS” on the Sihayo Pungkut Gold Project by the middle of 2013.

A number of key areas have been reviewed during the past 6 months and actions taken to reduce overall risk and improve project returns. Key areas of review include;

- Geology & Resources;
- Metallurgy;
- Operational Planning and Implementation;
- Power Supply; and
- Capital & Operating Costs.

### **GEOLOGY & RESOURCES**

Hellman & Schofield Pty Ltd have been conducting a QA/QC review of the work previously undertaken by Runge Pty Ltd.

To date this work has focussed on the Sihayo Resource, where nine (9) different ore types have been confirmed by our site geology team.

As expected by a review of this nature, a number of items have been adjusted.

In particular, the requirement for additional in-fill drilling within the Sihayo deposit was identified in order to confirm a JORC Compliant Measured Resource category and thus improve the confidence level in material to be mined during Stage 1. The infill drilling program is currently 75% complete.

A revised Sihayo and Sambung JORC Compliant Resource estimate is expected during April 2013.

BDS Mining Services Pty Ltd is preparing a JORC Compliant Reserve estimate for inclusion in the DFS.

### **METALLURGY**

The near surface material to be mined and treated in Stage 1 has superior metallurgical characteristics compared to the Life of Mine (“LOM”) average, with recoveries of up to 95% and an estimated average recovery for Stage 1 of 85% based upon extensive CNO9 Leachwell testing conducted on core.

The final metallurgical test program being undertaken by P.J. Lewis & Associates Pty Ltd is aimed at confirming current Stage 1 and Stage 2 recovery estimates and determining potential upside treatment strategies for Stage 2, which includes higher grade material at lower gold recoveries.

### **OPERATIONAL PLANNING AND IMPLEMENTATION**

Orway Mineral Consultants Pty Ltd (WA) has reviewed existing comminution testwork performed to date. Based upon this review an alternative plant configuration has been proposed.

Stage 1 will treat the near surface, highly oxidised ore and some transitional ores, all located within 35 meters of surface across the Sihayo and Sambung JORC Compliant Resources.

Stage 1 will require ‘mineral sizer’ type equipment in order to break down the highly weathered and oxidised material. In addition, ore feeding equipment, chutes and transfers will be designed to handle the ‘sticky’ nature of this material.

Significantly reduced grinding requirement and associated power costs are indicated during Stage 1 operations, however, additional grinding will be required during Stage 2.

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Base case mining and processing throughput during Stage 1 is proposed at 1Mtpa. An upside case at throughput rates approximately 10 – 15% higher, based on operational improvements, is under review for inclusion in the DFS.

Stage 1 mining will preferentially mine 4Mt of +1 g/t Au cut-off grade material and allow for an additional 0.8Mt of lower grade (0.9 g/t Au) material to be stockpiled and processed later as plant capacity dictates.

Stage 1 indicative ore feed consists of approximately 3Mt at 2 g/t Au from the Sihayo pits and a further 1Mt at 1.8 g/t Au from the Sambung pit. Waste movement (inclusive of lower grade material) is approximately 8.4Mt from Sihayo pits and 2.8Mt from the Sambung pit.

The revised project life (Stage 1 and 2) is expected to be 10 – 12 years. There is further potential upside to the project life via extensions of the near surface mineralised material along strike to the NW of the main Sihayo pit and potentially from future drilling at the exciting Hutabargot Julu prospect located within 10km of the proposed Sihayo-Sambung CIL plant.

## **POWER SUPPLY**

A number of options have been considered in relation to power supply (hydro, palm kernel shell – PKS biomass, coal fired, diesel/LNG generators and diesel generators) for the project and the construction of a coal fired power station is the preferred long-term option. Sihayo is investigating the full outsourcing of the power station (design, construct, commissioning and operate) including a LOM power purchase agreement with some of Indonesia’s leading independent power providers (“IPP”).

Alternatively, the Company shall own and operate the power station and this would increase the initial capital cost by approximately US\$17m for Stage 1 and result in lower cash operating costs overall.

## **CAPITAL & OPERATING COSTS**

**The initial capital cost estimate for Stage 1 is US\$72 million.**

The major components of the capital cost estimate are:

• Process Plant	31M
• Infrastructure	29M
• Owners Cost	5M
• EPCM	7M

<b><u>TOTAL</u></b>	<b><u>US\$72M</u></b>
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Site cash operating costs estimates for Stage 1 are in the range of US\$615/oz – US\$645/oz.

The primary capital cost for Stage 2 is the upgraded crushing and grinding circuits and is estimated at US\$11million.

Additionally, to maintain ore throughput at the 1.3Mtpa level, a Stage 2 pre-strip will be required.

Full details of Stage 2 capital and operating costs will be included in the DFS release.

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Yours faithfully,

**SIHAYO GOLD LIMITED**

**Stuart Gula**  
Chief Executive Officer  
12<sup>th</sup> March 2013

### **Competent Persons Statements**

**Sihayo Gold Limited:** The information in this report that relates to exploration, mineral resources or ore reserves is based on information compiled by Mr Darin Rowley (BSc. Geol Hons 1<sup>st</sup> class) who is a full time employee of PT Sorikmas Mining, and is a Member of the AusIMM. Mr Rowley has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a competent person as described by the 2004 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Rowley consents to the inclusion in this report of the matters based on his information in the form and context in which it appears.

**Runge Limited:** The information in this report that relates to Mineral Resources at Sihayo is based on information compiled by Mr Rob Williams. At the time of work on the Sihayo Resource, Mr Williams was a full time employee of Runge Limited (RUL), a Member of the Australian Institute of Mining and Metallurgy (AusIMM), and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for the Reporting of Mineral Resources and Ore Reserves. Mr Williams consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**Runge Limited:** The information in this report that relates to Mineral Resources at Sambung is based on information compiled by Mr Trevor Stevenson. Mr Stevenson is a full time employee of Runge Limited (RUL), a Fellow of the Australian Institute of Mining and Metallurgy (AusIMM), and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he has undertaken to qualify as a Competent Person as defined in the 2004 Edition of the Australasian Code for the Reporting of Mineral Resources and Ore Reserves. Mr Stevenson consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

**Modelling:** The Sihayo deposit was estimated by Runge Limited using Ordinary Kriging grade interpolation, constrained by mineralisation envelopes prepared using a nominal 0.5g/t gold cut-off grade. In all cases a minimum down hole intercept length of 2m was adopted. The block dimensions used in the model were 25m along strike by 10m across strike by 5m vertical with sub-cells of 6.25m by 2.5m by 1.25m. Statistical analysis of the deposit determined that a high grade cut of 30g/t Au was necessary which cut a single composite. Bulk density was assigned in the model based upon the results of 1,422 bulk density measurements.

The Sambung deposit was estimated by Runge Limited using Ordinary Kriging grade interpolation, constrained by mineralisation envelopes prepared using a nominal 0.5g/t gold cut-off grade. In all cases a minimum down hole intercept length of 2m was adopted. The block dimensions used in the model were 10m along strike by 10m across strike by 5m vertical with sub-cells of 5m by 5m by 2.5m. Statistical analysis of the deposit determined that a high grade cut of 25g/t Au was necessary which resulted in 2 composites being cut. Bulk density was assigned in the model based upon the results of 382 bulk density measurements.

#### **Note**

All statements in this report, other than statements of historical facts that address future timings, activities, events and developments that the Company expects, are forward looking statements. Although Sihayo Gold Limited, its subsidiaries, officers and consultants believe the expectations expressed in such forward looking statements are based on reasonable expectations, investors are cautioned that such statements are not guarantees of future performance and actual results or developments may differ materially from those in the forward looking statements. Factors that could cause actual results to differ materially from forward looking statements include, amongst other things commodity prices, continued availability of capital and financing, timing and receipt of environmental and other regulatory approvals, and general economic, market or business conditions.