



## ASX ANNOUNCEMENT

27th OCTOBER 2011

### OPERATIONAL AND DFS UPDATE DRILLING RECOMMENCES AT SIHAYO-SAMBUNG COST OPTIMISATION PROGRAM ON TARGET TO DELIVER SUBSTANTIAL REDUCTIONS IN SITE CASH OPERATING COSTS

The Board of **Sihayo Gold Limited (ASX: SIH)** is pleased to provide an Operational and Definitive Feasibility Study ("DFS") update for its 75% owned Sihayo Pungkut Gold Project ("SPGP") in North Sumatra, Indonesia.

#### OPERATIONAL UPDATE

##### Infill drilling program at Sihayo-Sambung

Drilling activities at Sihayo Pungkut Gold Project have resumed with a focus on the final phase of infill drilling. An infill program of approximately 3,000 meters is required to likely convert the limited amount of Inferred Resource contained within the overall JORC Compliant Resource of **16.3Mt at 2.7 g/t Au for 1.425 Moz** into the higher Indicated Category. The program has begun with a single rig and a second rig shall arrive on site within 4 weeks. With two diamond drill rigs and the relatively shallow depth of the planned holes it is anticipated that the drilling will be completed within two or three months.

Once the infill program is complete, ongoing exploration drilling shall target potential near-surface mineralisation along strike from the existing JORC Resources, which could potentially be included in the early years of the current proposed mine schedule as described within the DFS.

Figure 1 shows the Sihayo and Sambung Resources and highlights the potential resource extensions to the northwest and southeast of the Sihayo Deposit and the infill drilling program.

##### Exploration drilling at Hutabargot Julu

Drilling has recently commenced at the highly prospective Hutabargot Julu Epithermal Gold Prospect located 7km southeast, along strike, of the Sihayo Pungkut Gold Project. Figure 2 shows the location of the Sihayo Pungkut Gold Project and the Hutabargot Julu Prospect with the wider Contract of Work ("COW") area.

Ongoing exploration at Hutabargot Julu has defined an intermediate sulphidation epithermal gold complex that has a footprint of approximately **6km \* 2km**. Historic drilling yielded a best intercept of **5m @ 36.7 g/t Au and 198 g/t Ag from 47m within Quartz-Sulphide veining**. The current drilling program will test multiple **Epithermal Veins** (high grade gold / moderate tonnage potential) and **Hydrothermal Breccias** (lower grade gold / high tonnage potential) and will consist of an initial 10,000m of drilling. Figure 3 is a surface plan of Hutabargot Julu summarising exploration work to date, current drilling status and planned ongoing drilling.



"It is exciting to be drilling the highly prospective Hutabargot Julu Gold Prospect concurrent with completing the last phase of infill drilling at our flagship Sihayo Pungkut Gold Project. The prospect is located 7km southeast of Sihayo Pungkut and has the potential to provide significant upside to our overall resource inventory" said Paul Willis, Chief Executive Officer.

#### **Community, Government and other Stakeholder Meetings**

As previously reported, on Sunday 29th May, a group of demonstrators, believed to be supported by the representatives of illegal artisanal miners from the region, arrived and caused significant damage to Sihayo's exploration camp.

Over the past five months, our community relations team has conducted over sixty meetings with the key SPGP stakeholders including; local community members, village heads, religious groups, NGO's, local and provincial Government representatives, local and provincial Police and Army commanders, the newly elected Bupati of Mandailing Natal, North Sumatra and the Governor of North Sumatra.

The meetings have been focused on ensuring that the future activities of the Company are conducted in a safe and secure environment without the risk of further unlawful acts.

As with any mining project, our relationship with the local community is critical to our long term operational success. As part of our ongoing community program we took 15 local representatives on a site visit to a newly commissioned gold mine in North Sulawesi, Indonesia in mid-September, to show them first-hand the operational, environmental and community aspects of a mine of similar size to our planned SPGP.

In addition, community agriculture based programs have been initiated in four of the villages surrounding the SPGP and the aim is to establish similar programs in each of the 15 villages that are located in the project's primary area of influence.

The agriculture programmes work very well in these communities where over 90% of the local population are engaged in agriculture production as their primary source of income. The programs are built on the core philosophy of "sustainability" and seek to improve the overall productivity of the local producers, add value to their existing products and ultimately facilitate better marketing of their products.

The response from within the initial four villages has been extremely encouraging and bodes well for the continued establishment of similar programs in the remaining 11 villages.

#### **DEFINITIVE FEASIBILITY STUDY ("DFS")**

##### **Metallurgical Testwork**

As previously reported, the final phase of the DFS work related to the overall metallurgical gold recoveries is progressing well. Over 4,500 additional cyanide leach tests are being completed (2,750 completed to date) across the multiple mineralisation types that make up the Sihayo and Sambung Resources and the initial results suggest that some improvement in overall process gold recoveries is achievable.

##### **Optimal Plant Capacity**

Ongoing assessment of the "optimal plant capacity" has confirmed that the project will be a 1.5Mtpa operation.



### **Cost Optimisation – Biomass Power**

Currently in the DFS, power production is based on diesel generators and at a basis of US\$100/bbl oil, the unit cost of power is approximately US\$0.25 kw/hr.

Our study of hydro power potential was unsuccessful due to the high Capex associated with the required infrastructure.

However, we have entered detailed discussions with a number of industry leading biomass power companies, including DP Cleantech, to determine the viability of an 8MW biomass power plant being the primary source of power.

DP Cleantech have designed, constructed and successfully commissioned over 40 biomass power plants across Asia and Europe with a combined installed capacity of 1,000MW.

The primary fuel source for the proposed power plant is Palm Kernel Shells (“PKS”) a waste product of the palm oil production process.

The PKS market is well established in Sumatra, Indonesia and export volumes of PKS to North Asia and Europe as a primary fuel for biomass power plants has been steadily increasing over the past five years.

Potential supply of PKS within trucking distance of the proposed power plant site exceeds 3 times the annual required supply and is available across multiple independent suppliers. In addition, new palm oil plantations are being established within the area and will provide additional future supply of PKS.

From both an environmental and operating cost perspective, the potential to utilise proven biomass power supply is an attractive proposition.

**Biomass power would provide an approximate 70% operating cash cost saving compared to diesel generated power, excluding any carbon emission credits that maybe available.**

DP Cleantech will provide DFS Capex and Opex estimates for the biomass power plant by the end of December 2011.

### **Cost Optimisation – Overland conveyor for waste material**

The current waste material movement process is via haul trucks. Given the topography surrounding the proposed pits and waste dump areas, the required haulage distance from pits to waste dumps is up to 8km in the early years of operation.

We have entered detailed discussions with some of Europe’s leading manufacturers of conveyors for the mining industry, including Famur Group of Poland, for the installation of an overland conveyor to transport up to 8Mtpa of waste material from nearby the mining pits to the waste dump site.

The proposed conveyor will be between 1.2km and 2.0km in length and because the entire length of the conveyor will be downhill, the conveyor will generate excess power equivalent to approximately 10% of the total power requirement of the entire project.

Famur Group will provide DFS Capex and Opex estimates for the overland conveyor by the end of December 2011.



### **Conclusion**

With the final phase of the DFS progressing well and the potential significant cost savings within power production and waste material movement, the economics of the Sihayo Pungkut Gold Project are looking very attractive.

Together with the DFS work, the final phase of infill drilling and concurrently the re-commencement of drilling at the highly prospective Hutabargot Julu Epithermal Gold Prospect suggests the next six months should prove to be a very exciting period for our Company.

Yours faithfully,  
**SIHAYO GOLD LIMITED**

A handwritten signature in black ink that reads "Paul Willis". There is a small horizontal line underneath the signature.

**Paul Willis**  
Chief Executive Officer  
27th October 2011



**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.Geo 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 and Sambung is based on information compiled by Mr Robert Williams BSc, a Member of the Australian Institute of Mining and Metallurgy, who is a full time employee of Runge Limited and 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 defined in the 2004 Edition of the Australasian Code of Reporting for Exploration Results, 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.

**Modelling:** Both the Sihayo and Sambung deposits were 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 downhole intercept length of 2m was adopted.

The block dimensions used in the Sihayo model were 25m EW by 10m NS by 5m vertical with sub-cells of 6.25m by 2.5m by 1.25m, while a block dimension of 20m EW by 20m NS by 5m vertical with sub-cells of 5m by 5m by 1.25m was adopted for the Sambung model. Statistical analysis of the deposit determined that no high grade cuts were required in the Sihayo estimate, although a 25g/t Au has been used in the Sambung estimate. Bulk density was assigned in the model based upon the results of 4,629 bulk density determinations.

**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.

**Figure 1: SPGP mineralisation plan showing surface projection of Sihayo and Sambung JORC Resources and the current Infill Drilling Program**

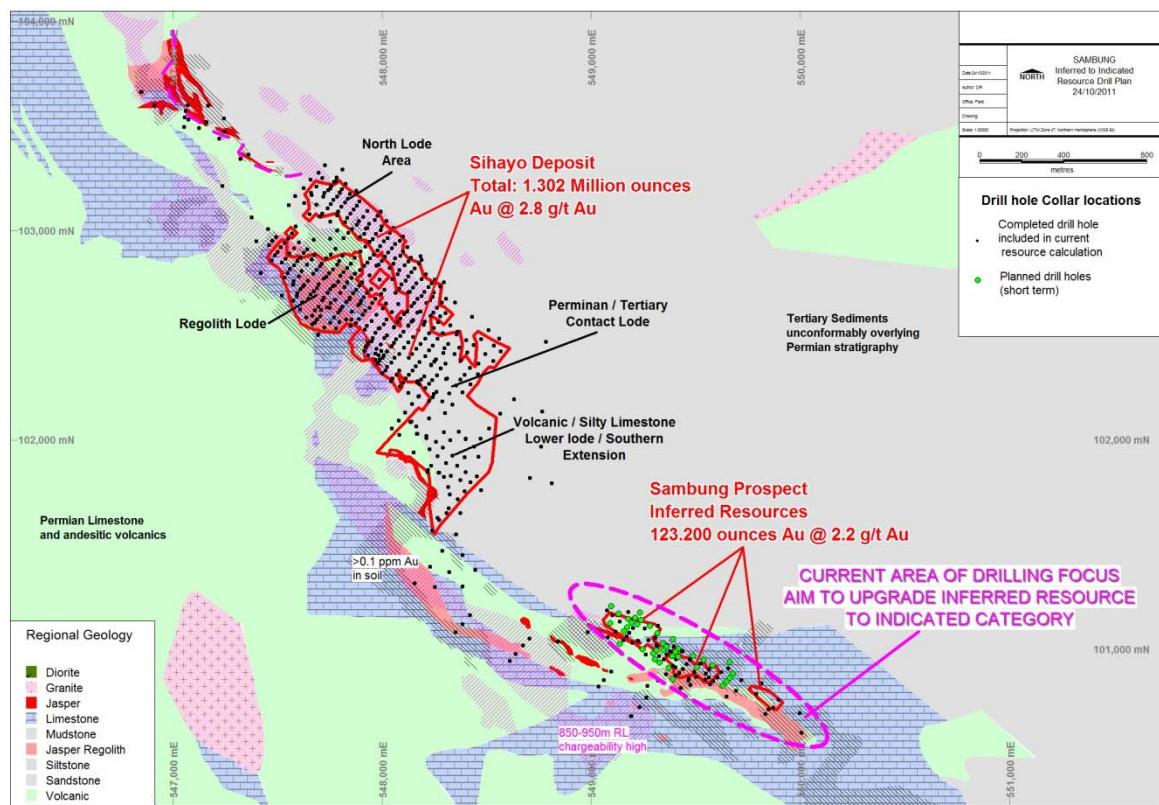
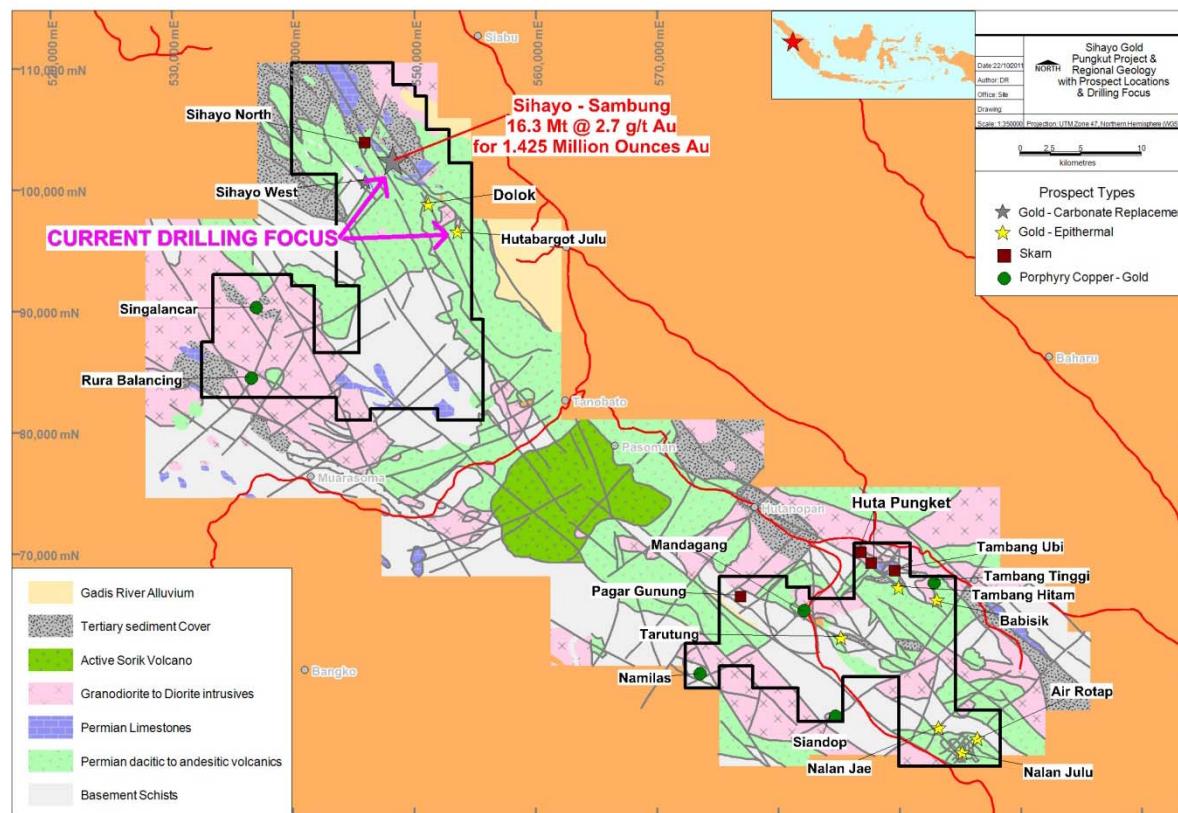




Figure 2: Sihayo Pungkut Contract of Work ("COW") Area



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Figure 3: Hutabargot Julu Surface Plan and Diamond Drilling Program

