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## Sihayo Mineral Resource Estimate Update Results in Increased Grade and Contained Gold

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### Highlights:

- **The recently completed update of the Mineral Resource Estimate (MRE) for Sihayo has resulted in increases in both gold grade and contained gold:**
  - **24.8 Mt at 2.0 g/t gold containing 1.57 Moz gold at a 0.4 g/t gold cut-off grade, ~10% increase in contained gold compared with the 2022 MRE**
  - **Includes 4.48 Mt at 4.7 g/t gold containing 677 koz gold at a 3.0 g/t gold cut-off grade, ~22% increase in contained gold compared with the 2022 MRE.**
- **67% increase in +3.0 g/t gold cut-off grade mineralisation beneath the planned pit limits from 182 koz to 304 koz, further enhancing underground mining potential**
- **The updated resource incorporated data and results from the 2022-23 drilling programs and continues to validate the significant potential to increase the gold resource beneath the planned pit limits and to establish a higher-grade underground mine development**
- **Higher grade gold mineralisation remains open down plunge to the south-east and potentially north-west of the defined resource where there has been no previous deep drilling**

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Sihayo Gold Limited (ASX:SIH – “Sihayo” or the “Company”) is pleased to announce an Updated Mineral Resource Estimate (“MRE”) at its Sihayo Gold Project located in the north block of the PT Sorikmas Mining Contract of Work (“CoW”), North Sumatra Province, Republic of Indonesia.

Sihayo’s Executive Chairman, Colin Moorhead commented:

*“This updated Mineral Resource Estimate validates the significant potential we see for expanding the gold resource through further exploration drilling targeting ‘beneath-pit mineralisation’ on our flagship Sihayo project. We maintain our firm belief in the potential to grow this resource and discover further resources in this highly prospective area. Notwithstanding this, the Starter Project has been shown to be quite sensitive to the addition of incremental ounces and the addition of further high-grade Resources at depth shows increasing potential for an underground operation as part of the Sihayo Starter Project.”*

The previous MRE was released in early 2022 (refer to SIH:ASX announcement “Project Update and Launch of Strategic Review Process” dated 17 February 2022). This updated MRE includes an additional 24 diamond core holes (7,930 m) drilled between November 2022 to April 2023 (refer to SIH:ASX announcement “Further Exciting Intercepts from Sihayo Drilling” dated 9 May 2023). This drilling tested for extensions to deeper, higher-grade gold mineralisation located beneath the southern end of the planned pit limits of the Sihayo Starter Project. The Company has previously reported highly encouraging intercepts from this drilling program (refer to ASX:SIH announcements on 25 October 2022, 9 May 2023, 24 March 2023 and 9 March 2023). Drill hole details and collar coordinates are presented in Appendix 1. Assay results were recently received for the last three holes of the program, SHDD660 to SHDD662. Significantly mineralised intercepts from these holes are also presented in Appendix 1.

### Updated Mineral Resource Estimate

The updated MRE for the Sihayo gold deposit was undertaken by an independent geological consultant from Spiers Geological Consultants Pty Ltd (SGC) of Melbourne and is based on historical drilling data and new data from 24 diamond holes for 7,930 metres of drilling completed in 2022-23. The updated MRE at a 0.4 g/t gold cut-off grade is presented in Table 1. This is compared with the previous MRE presented in Table 2. The updated MRE is also reported at 0.4 g/t, 1.0 g/t and 3.0 g/t gold cut-off grades respectively in Table 3.

The updated MRE totals 24.8 Mt at 2.0 g/t gold (at a 0.4 g/t gold cut-off grade) for approximately 1.57 Moz gold in 24% Measured, 53% Indicated and 23% Inferred resource categories. This includes 4.48 Mt at 4.7 g/t gold (at a 3.0 g/t gold cut-off grade) for 677 koz gold in 27% Measured, 52% Indicated and 21% Inferred resource categories.

The updated MRE adds 140 koz Au or a 10% increase to the previous MRE reported at 0.4 g/t Au cut-off (Refer to SIH:ASX announcement “Project Update and Launch of Strategic Review Process” dated 17 February 2022). This includes an increase of 122 koz Au at 3.0 g/t Au cut-off representing a 22% increase compared with the total 2022 MRE at a 3.0 g/t Au cut-off and a 67% increase in the below-pit MRE compared with the total 2022 MRE at a 3.0 g/t Au cut-off (See Table 3).

The MRE is based on factors and assumptions presented below and in the attached 2012 JORC Table – Sections 1-3.

The updated global MRE for the Sihayo Project, including the Sihayo and Sambung gold deposits, is around 1.71 Moz gold, with further potential to be expanded with additional drilling beneath and between the defined resources.

**Table 1: Updated Mineral Resource Estimate**

Deposit	Category	Dry tonnes (kt)	Gold grade (g/t)	Au (koz)
<b>Sihayo</b>	Measured	5,490	2.2	384
	Indicated	12,900	2.0	828
	Inferred	6,380	1.7	358
	<b>Subtotal</b>	<b>24,800</b>	<b>2.0</b>	<b>1,570</b>
<b>Sambung</b>	Measured	1,790	1.4	82
	Indicated	911	1.5	45
	Inferred	269	1.3	11
	<b>Subtotal</b>	<b>2,970</b>	<b>1.4</b>	<b>138</b>
<b>Total</b>				<b>1,710</b>
Notes: Figures may not sum due to rounding Sambung resource is unchanged from the 2022 MRE and figures are reported as per previous announcement				

**Table 2: Feb-2022 Mineral Resource Estimate**

Deposit	Category	Dry tonnes (kt)	Gold grade (g/t)	Au (koz)
Sihayo	Measured	5,390	2.1	366
	Indicated	12,600	1.8	726
	Inferred	6,790	1.5	335
	Subtotal	24,800	1.8	1,430
Sambung	Measured	1,790	1.4	82
	Indicated	911	1.5	45
	Inferred	269	1.3	11
	Subtotal	2,970	1.4	138
<b>Total</b>				<b>1,570</b>

Notes: Figures may not sum due to rounding. Figures are reported as per previous announcement.

**Table 3: Sihayo Updated Mineral Resource Estimate at various gold cut-off grades**

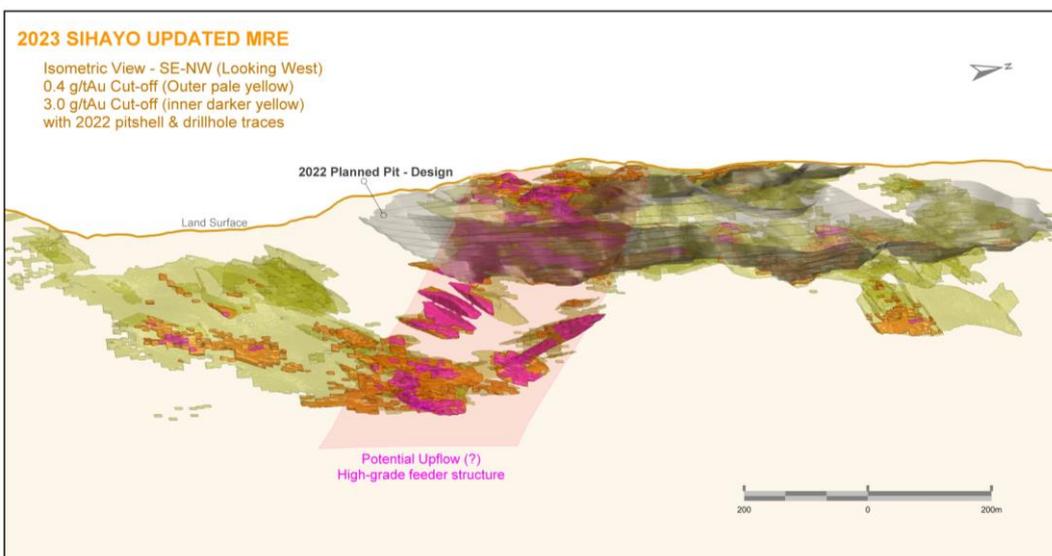
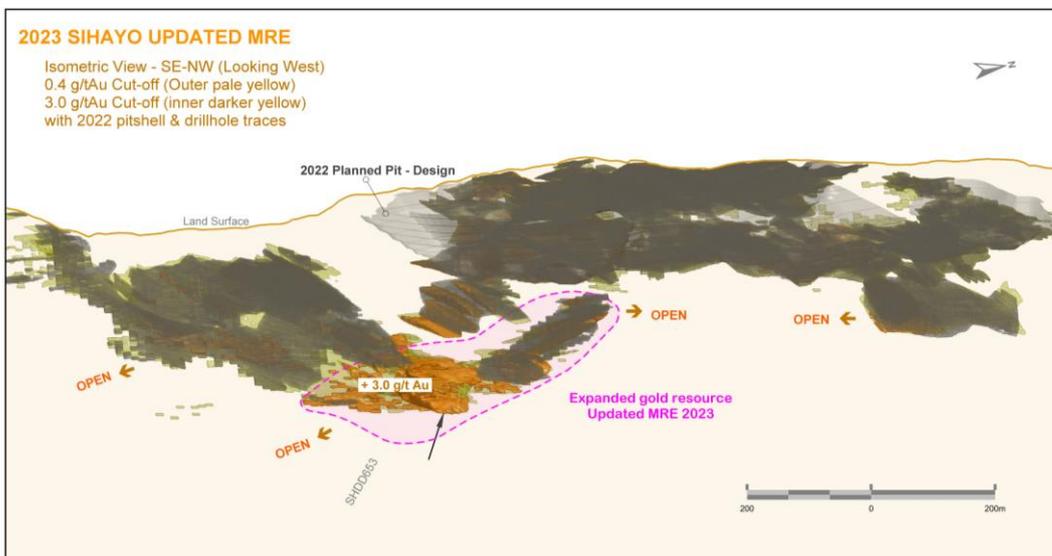
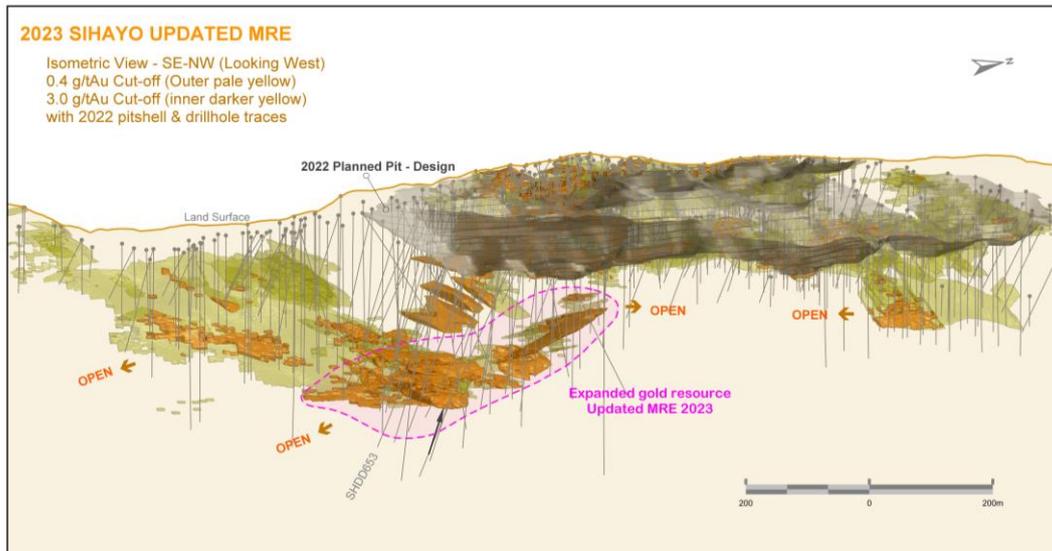
TOTAL RESOURCE					CURRENT OPEN PITTABLE			POTENTIAL UNDERGROUND**		
Cut-off g/t	Tonnage Kt	Grade g/t	Ounces koz	Increase*	Tonnage Kt	Grade g/t	Ounces koz	Tonnage Kt	Grade g/t	Ounces koz
0.4	24,800	2.0	1,570	10%	14,700	1.9	898	10,100	2.1	672
1.0	17,600	2.5	1,410	14%	10,000	2.5	797	7,590	2.5	616
3.0	4,480	4.7	677	22%	2,490	4.6	372	1,980	4.8	304

Figures may not sum due to rounding.

The similar tonnage reported for the previous and most recent resource estimates is as a result of further refinement of the modelling domains internally and on the periphery of the resource, where there is new drilling data informing the domaining strategy. ***The increase in gold grade and contained gold ounces is attributed to the extension to higher-grade gold mineralization beneath the southern end of the planned starter pit.***

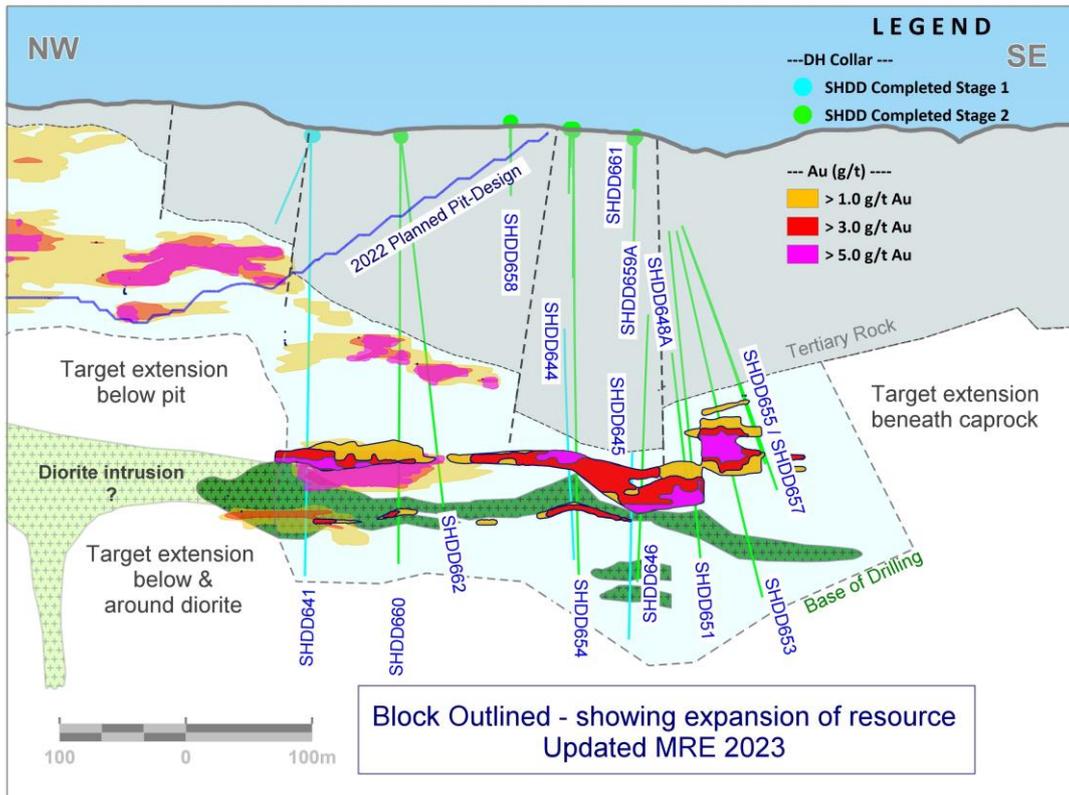
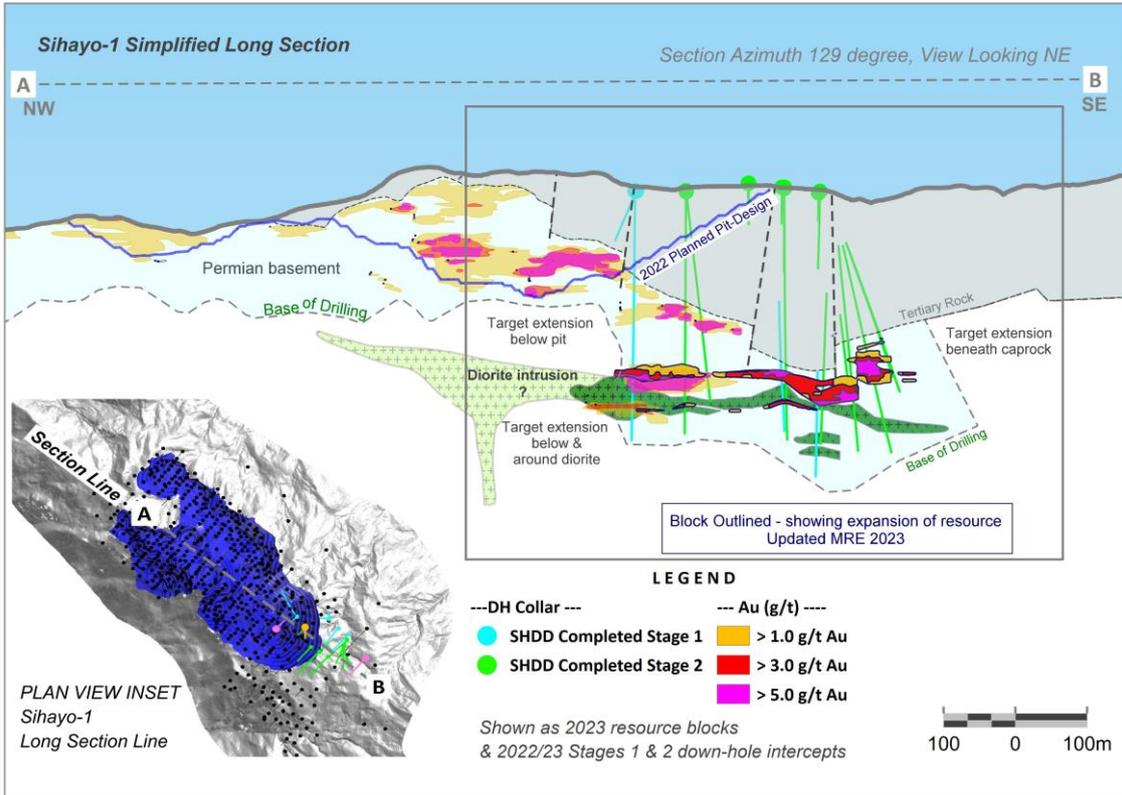
The updated MRE comprises an open-pit resource, which was recently converted to an updated Ore Reserve estimate (Refer to SIH:ASX announcement “Ore Reserve and Economic Update for Sihayo Starter Project dated 23 May 2023), and a below-pit resource with underground development potential (Table 3). The below-pit gold resource shows a 67% increase from 182 koz Au (Feb 2022) to 304 koz Au at a 3.0g/t Au cut-off grade, further enhancing underground mining potential.

The updated MRE validates the Company’s exploration model for the Sihayo gold deposit. Modelling has shown that high grade gold mineralisation extends for at least 200-250 metres below the base of the planned starter pit and remains open to the south-east and possibly to the northwest (See Figures 1 and 2). The potential to further increase the gold resource within the immediate area is considered high.



**Figure 1: Isometric view of Sihayo gold resource (Looking West)**

Top – Shows +0.4 g/t Au (pale yellow), +3.0 g/t Au (dark yellow), drill hole traces & planned pit shell  
 Middle – Shows overlap with 2022 resource (opaque grey) and 2023 below-pit resource extension (yellow)  
 Bottom – Shows +5.0 g/t (magenta-red) high-grade below pit stacking (“feeder zone model”)



**Figure 2: Schematic Long Section of Sihayo underground geology**  
Additional gold resource highlighted bold (within a 25m envelope of section-line)

## Sihayo Geology

Sihayo is a replacement-style sediment-hosted gold deposit (details are provided in the attached JORC Code, 2012 Edition: Table 1 – Section 2, Geology).

The additional drilling tested for extension to the gold mineralisation between 200-350 m depth below the southern end of the planned pit. Drilling results have extended the high-grade gold mineralisation by 200-250 m down its open and moderate SE-plunge projection, increasing the below-pit gold resource.

The additional below-pit resource is primary sulphide-refractory gold mineralisation where gold occurs as sub-micron-size inclusions in the arsenic-rich rims of fine-grained pyrite disseminated through clay-sulphide and jasperoidal silica altered sediments filling karst-caves within Permian limestones. The limestones are interbedded with volcanoclastic rocks, unconformably overlain by Tertiary quartz sandstones and mudstones, and intruded by diorite sills and laccolith.

The mineralised cave-fill sediments are mainly breccias composed of varying proportions of polymictic clasts (limestone, diorite, quartz sandstone-siltstone and mudstone) supported by massive to crudely stratified silt-sand matrix. They are best developed within the limestone along the unconformity-contact with the overlying Tertiary rocks, and along or near the contacts of the diorite laccolith intrusion.

Higher-grade gold mineralisation at Sihayo is associated with stronger developed sulphide mineralisation, highly elevated arsenic, antimony and thallium geochemistry, and textural evidence for multiple stages of brecciation and jasperoid development within the cave-fill sediments. These physical features and the alteration-mineralisation characteristics described herein are comparable to those reported in the literature from the Cortez Hills breccia-hosted Carlin-type gold deposit in Nevada, where high-grade breccias located beneath shallow lower grade gold mineralisation are interpreted to represent deeper mineralising feeders (See Appendix 2).

## Drilling Techniques

The drilling results underpinning the updated Mineral Resource Estimate are from drill core samples obtained by PQ, HQ and less commonly NQ triple-tube diamond core drilling using man-portable drill rigs owned and operated by PT Indodrill Indonesia. The drilling program was fully supervised by Company senior geologists at the drilling site.

## Sampling Methods

Drill core was collected in sealed-secure core-trays at the drill site and transported under guard to the Company's core shed storage facility at the Sihayo exploration camp located within the immediate prospect area. The Company's project geologists logged, photographed and marked-up sample intervals along predicted mineralised and selected un-mineralised intervals of the drill core. The Company's project geologists were under the direct supervision of the Chief Geologist and Exploration Manager.

Sample lengths ranged from 0.5 to 2.0 m, depending on the positions of geological contacts and variations in predicted mineralisation intensity. Drill core recoveries through mineralised and waste zones exceeded 95%. The core was halved by diamond rock saw in the Sihayo core shed under the supervision of project geologists. Half-core sample (and less commonly quarter-core sample) was collected from each designated sample interval and placed into individually labelled, self-sealing calico bags for secure packaging and transport to the laboratory. The half-core samples weighed between 0.2 to 5 kg depending on the sample length and core size. A Chain-of-Custody was established between the Company and receiving laboratory to ensure the integrity of the samples during transportation from site to the laboratory. The samples were transported in batches to the sample preparation facility of

PT Intertek Utama Services in Medan (North Sumatra). Assaying was conducted at the analytical laboratory of PT Intertek Utama Services in Jakarta.

### Sample Analysis Methods

An additional 2,209 core samples were generated from the 2022-23 drilling program gold and multielement assaying program. Samples were crushed, pulverised and assayed for gold by 50 g charge Fire Assay / AAS Finish (FA51/AAS; with a 0.01 ppm Au lower detection limit) and a 46 multi-element by four-acid digest with ICP-OE&MS determination (4A/OM10). Samples returning greater than 0.5 g/t Au by fire assay, were also assayed for gold by 200-g accelerated cyanide (LeachWELL) with AAS finish (LW200/AA) and Au-tail analysis by FA (TR200/AA), mercury by Cold Vapour AAS determination (HG1/CV), and several different sulphur and carbon analyses for soluble and insoluble components (sulphates, organic carbon) (CSA03 – determination of Total Carbon & Sulphur by CS analyser, CSA104 – SCIS determination of carbonate-extract for soluble sulphate, C71/CSA – determination of Carbon non-carbonate or organic carbon).

Certified Reference Materials (CRMs) were inserted by the Company to assess repeatability and assaying precision of the laboratory. In addition, the laboratory applied its own internal Quality Control procedures that include sample duplicates, blanks and geochemical standards. These results are included in the certified Assay Report. The CRMs and internal QA/QC results fall within acceptable levels of accuracy and precision and are considered to lack any material bias.

### Estimation Methodology

Geological and mineralisation wireframe models were generated on cross-sectional and plan interpretations based on available geology and assay data.

The gold resource was modelled by the Ordinary Kriging technique using GS3 software based on a domaining strategy which resulted in a statistical population/s exhibiting low coefficients of variation between samples in the mineralised domain. Grade interpolation and search ellipses were based on variography and geometry modelling outcomes. Modelling was conducted in three passes with parent block sizes being 12.5 m E by 12.5 m N by 2.5 m RL; discretisation was 5 m by 5 m by 2 m for Sihayo. In the first pass data and octant criteria used were, Minimum Data= 12, Maximum Data= 32, Minimum Octants= 4. Search radii was 30 m E by 40 m N by 8 m RL. An expansion factor of one was applied so the second pass saw the same data and octants criteria with an expanded search to 60 m E by 80 m N by 16 m RL. The third pass saw Minimum Data= 6, Maximum Data= 32, Minimum Octants= 2. Search radii was 60 m E by 80 m N by 12 m RL. Top cutting was applied to domains and elements which displayed a very strongly skewed nature. No dilution was expressly added to the SGC model. Blocks in the model were defined based on the likely mining bench heights and the domaining considered the selective mining unit (SMU) proposed at the outset of 2 m E by 2 m N by 2.5 m RL.

The interpretation or domain model was largely driven by the lithology / geology, oxidation state, and structural intervention and mineralised trends observed over the various project areas including primarily regolith and jasperoid domains. Grade was used as a secondary domain driver for the definition of boundaries. 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.

This estimate has been reported at 0.4 g/t Au (open cut) and 3.0 g/t Au (potential underground) cut-off grades. Further work will be conducted in the underground scoping study phase to confirm the appropriate underground cut-off grade for Sihayo. Tonnages are estimated on a dry mass basis. Dry bulk density was estimated into block models based on the raw data and post processed where required by the application of average density by mineralised solid.

### Resource Classification Criteria

The resource classification was based on drilling density and the availability of data to present to the search neighbourhood, domain strategy, geological modelling, oxidation and density and recovery data. Drilling density was generally considered to be regular on approximately 25 to 50 m spaced NE-SW oriented lines. In combination with surface mapping and sampling data, this was deemed by the Competent Person to be sufficient to imply geological and grade continuity, thus supporting Mineral Resource Classification. Infill drilling is required to elevate areas of the below-pit resource to a higher classification status.

### Mining & Metallurgical Factors

Mining and metallurgical factors associated with this updated Mineral Resource Estimate have been fully reported in the Feasibility Study and Ore Reserve updates on the Sihayo gold deposit (refer to SIH:ASX announcement “Project Update and Launch of Strategic Review Process” dated 17 February 2022, and “Ore Reserve and Economic Update for Sihayo Starter Project” dated 23 May 2023).

### Implications for Sihayo Starter Project

Prior to the latest drilling programs, the Company had engaged Mining One to assess the technical viability of establishing an underground mining operation at Sihayo, either in addition to the proposed open pit or as a standalone operation. The study found that an underground drift-and-fill operation would likely be technically viable, subject to further geotechnical assessments. The economic viability of an underground operation depended on the extent of mineralised material available for extraction. The underground drilling programs were aimed at increasing the high-grade mineralised material available for a potential underground mining operation.

With the updated resource model and subsequent increase in MRE for the Sihayo deposit, which features an increase in high grade mineralisation beneath the pit limits, the Company now intends conducting a Concept Study as a next stage of assessing the underground mining potential at Sihayo.

This announcement has been authorised by Sihayo’s Board of Directors.

### For further information, please contact:

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# Competent Person's Statement

## Mineral Resources

The information in this report which relates to Mineral Resources is based on, and fairly represents, information and supporting documentation compiled by Mr Robert Spiers (BSc Hons.) for Spiers Geological Consultants Pty. Ltd. Mr Spiers is the principal Consultant and Director of SGC.

Mr Spiers is a member of the Australian Institute of Geoscientists (AIG ID: 3027) and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr Spiers consents to the inclusion in the report of the matters based on this information in the form and context in which it appears. Mr Spiers holds 3,337,816 shares in the Company. These were purchased in accordance with SIH's Securities Trading Policy (ASX Guidance Note 27 Trading Policies). The aforementioned shareholding does not constitute a material holding in the Company.

## Exploration Results

The information in this report which relates to Exploration Results is based on, and fairly represents, information compiled by Mr Bradley Wake (BSc Hons. (Applied Geology)), who is a contract employee of the Company. Mr Wake does not hold any shares in the company, either directly or indirectly.

Mr Wake is a member of the Australian Institute of Geoscientists (AIG ID: 3339) and has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves".

Mr Wake consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

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## Appendix 1: 2022-23 Drilling Program

### Sihayo Drill Hole Details

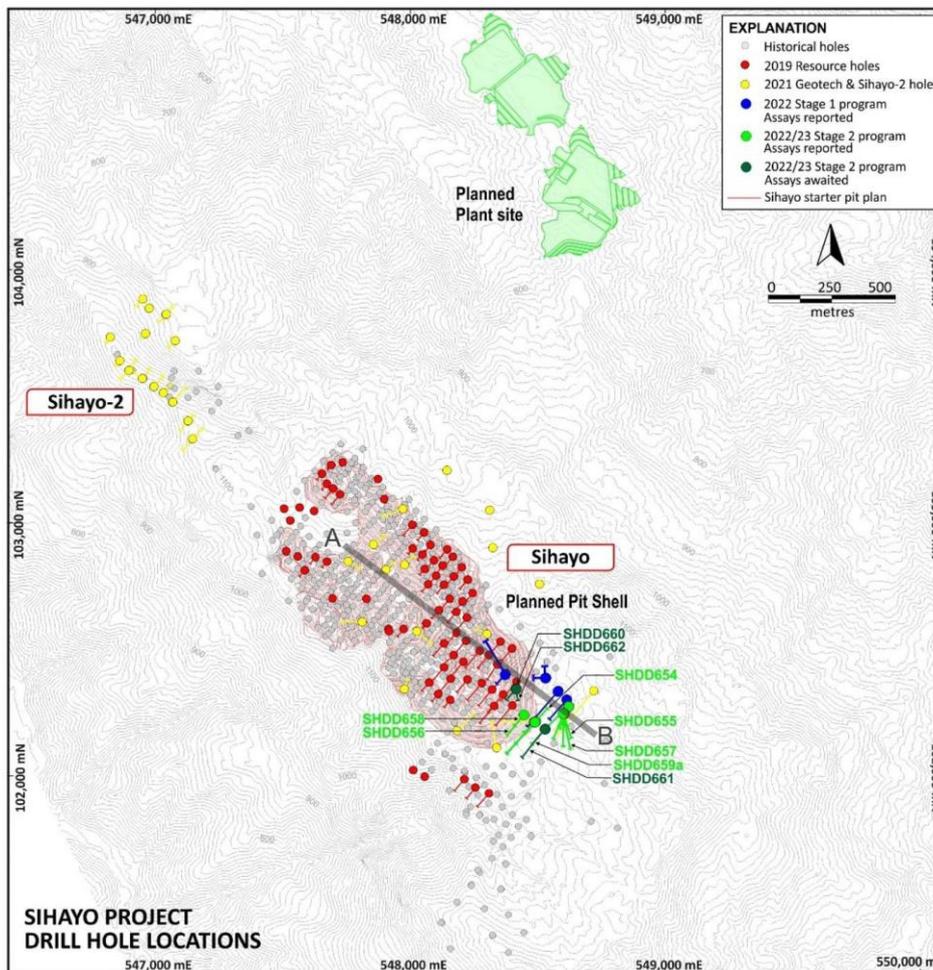
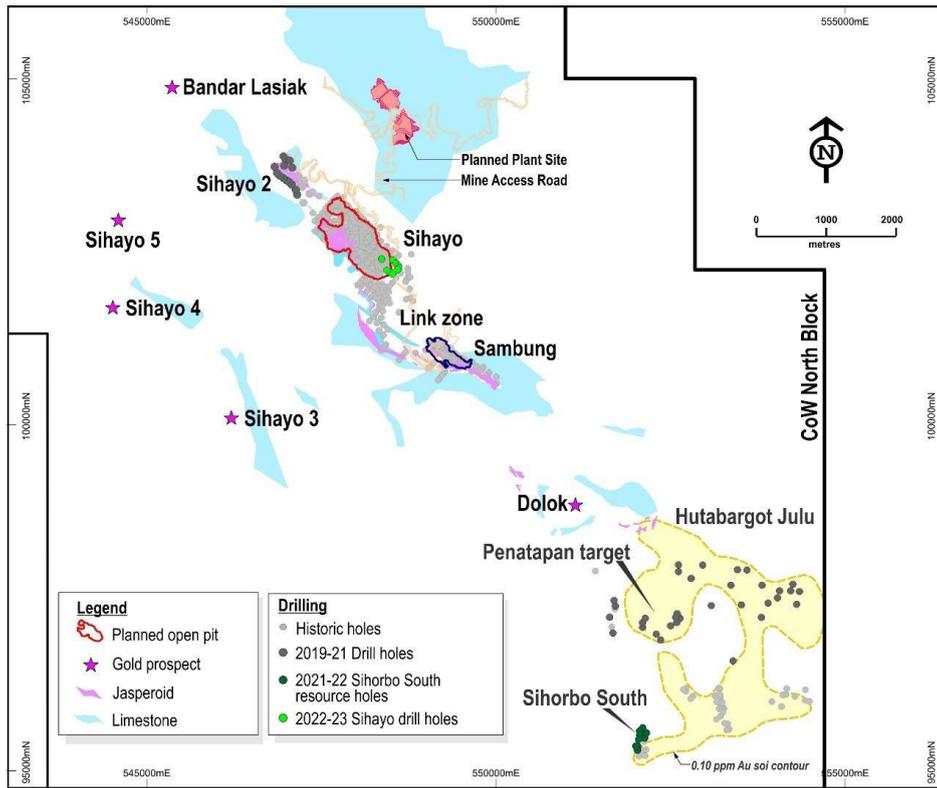
Hole ID	Coordinates WGS84/UTM z47N			Dip/Azimuth	Depth(m)	Results Reported to ASX
	mE	mN	RL			
SHDD639	548,533	102,385	1176	-78°/000°	248.70	25-Oct-2022
SHDD640	548,535	102,390	1176	-75°/270°	214.50	25-Oct-2022
SHDD641	548,376	102,402	1199	-80°/224°	355.30	25-Oct-2022
SHDD642	548,374	102,397	1199	-65°/330°	371.80	25-Oct-2022
SHDD643	548,581	102,335	1180	-90/-	275.20	25-Oct-2022
SHDD644	548,578	102,337	1180	-60°/221°	360.00	25-Oct-2022
SHDD645	548,629	102,305	1164	-70°/221°	390.40	25-Oct-2022
SHDD646	548,623	102,272	1168	-64°/225°	355.20	9-Mar-2023
SHDD647	548,489	102,212	1205	-82°/222°	458.10	9-Mar-2023
SHDD648a	548,621	102,277	1168	-69°/201°	262.30	9-Mar-2023
SHDD649	548,620	102,277	1168	-85°/200°	340.10	9-Mar-2023
SHDD650a	548,486	102,213	1205	-72°/221°	360.00	9-Mar-2023
SHDD651	548,606	102,245	1177	-70°/201°	360.00	24-Mar-2023
SHDD652	548,487	102,212	1205	-62°/221°	358.00	24-Mar-2023
SHDD653	548,605	102,244	1177	-69°/101°	369.20	24-Mar-2023
SHDD654	548,486	102,209	1205	-77°/040°	363.50	9-May-2023
SHDD655	548,601	102,243	1177	-65°/161°	259.90	9-May-2023
SHDD656	548,445	102,237	1210	-67°/221°	295.70	9-May-2023
SHDD657	548,604	102,247	1177	-60°/172°	287.95	9-May-2023
SHDD658	548,445	102,236	1210	-81°/221°	330.50	9-May-2023
SHDD659a	548,531	102,185	1199	-77°/222°	335.80	9-May-2023
SHDD660	548,415	102,343	1198	-62°/2190°	346.80	This report
SHDD661	548,529	102,184	1196	-80°/224°	332.40	This report
SHDD662	548,416	103,342	1198	-80°/180°	299.00	This report

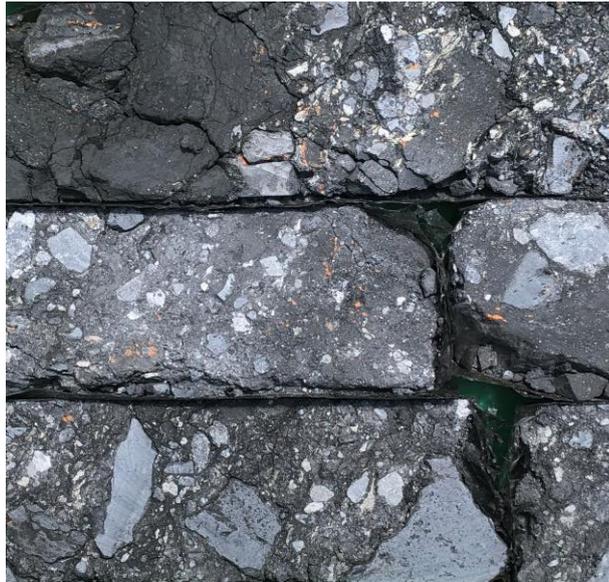
### 2023 Sihayo Drilling Program – Significant intercepts (Final Holes)

Hole ID	From_m	To_m	Length_m	Au g/t	True-width_m
SHDD660	235.00	237.00	2.00	0.70	0.6
	241.00	246.00	5.00	1.64	4.0
	249.00	256.00	7.00	0.61	5.6
	294.00	301.20	7.20	2.37	5.8
	301.70	304.00	2.30	1.39	1.8
SHDD661	302.50	304.10	1.60	0.51	1.3
	304.90	310.80	5.90	2.09	4.7
	310.95	314.00	3.05	1.64	2.4
	314.50	315.50	1.00	1.03	0.8
SHDD662	253.00	254.00	1.00	0.77	0.8
	257.00	258.00	1.00	1.15	0.8
	297.00	299.00	2.00	0.71	1.6

1) Intercepts reported at 0.3 g/t Au cut-off and up to 4 m internal dilution

# Drill Hole Location Plans

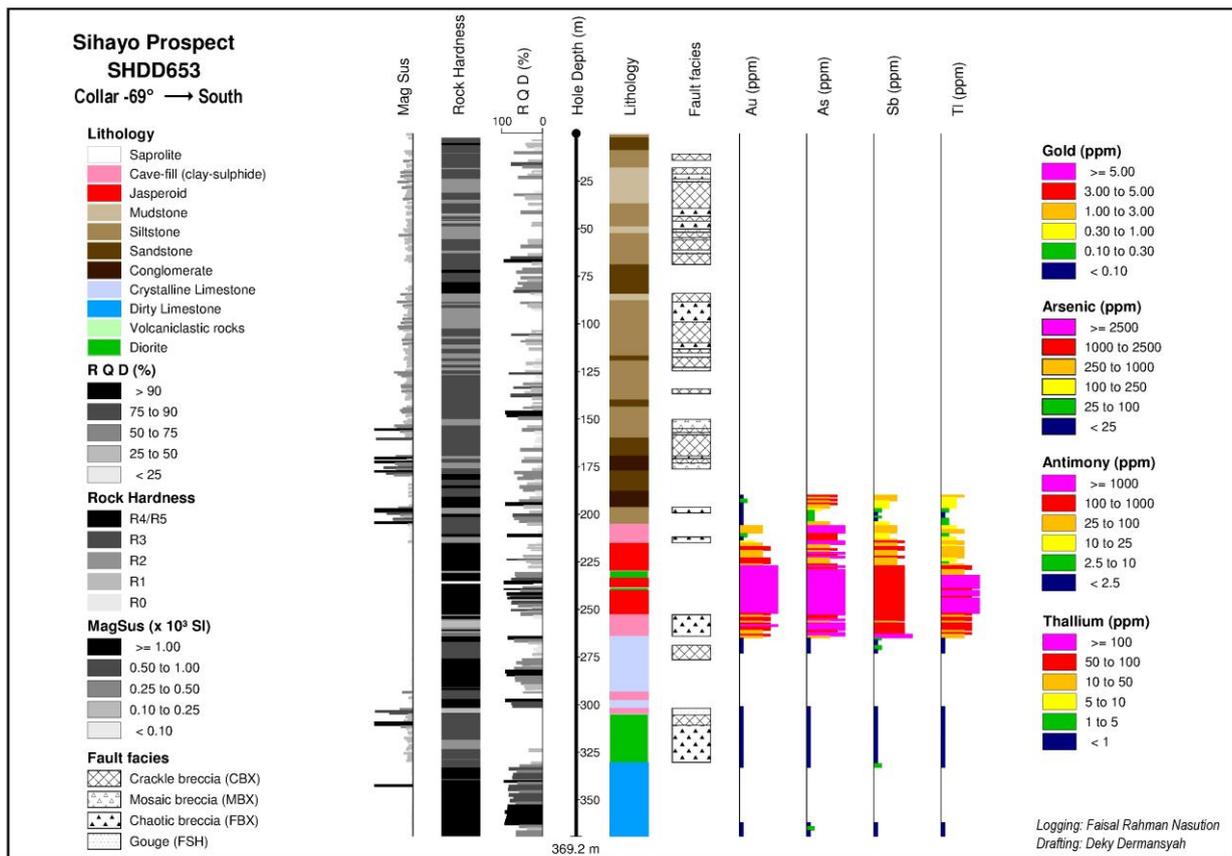




**SHDD651: 272.0 – 277.0m**  
**Mineralised cave-fill breccia containing jasperoid clasts and fluidized residual clay-sulphide matrix with clots of orpiment**  
**Assay Range: 5.69 – 7.68 ppm Au**



**SHDD653: 244.0 – 249.0m**  
**Mineralised cave-fill breccia completely replaced by sulphidic jasperoid (replacement silicification)**  
**Assay Range: 10.9 – 15.9 ppm Au**



**SHDD653 Graphic Summary Log**  
 Highlighting the 50m at 7.75 g/t Au intercept in mineralised jasperoid and the strong Au-As-Sb-Tl geochemical association

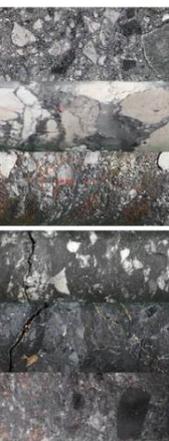
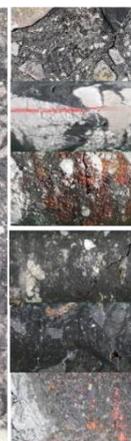
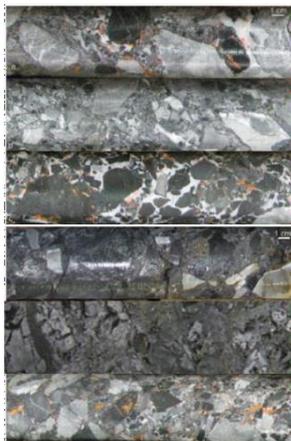
## Appendix 2: Cortez Hills Analogue

A comparison is drawn between Sihayo and the high-grade and multi-million ounce Cortez Hills breccia-hosted Carlin-type gold deposit in Nevada (the latter is described by Bradley et al, 2020<sup>1</sup>, and Jackson et al, 2010<sup>2</sup>). Both gold deposits share a common set of geological characteristics including:

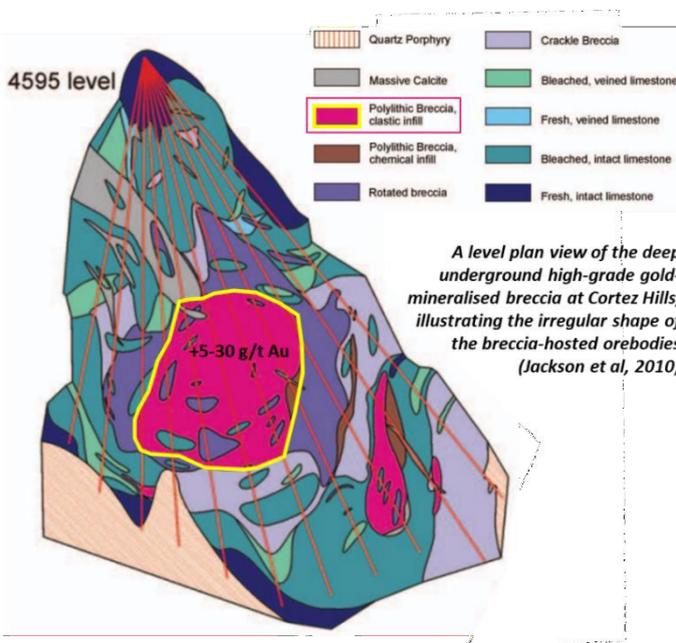
- Hosted in polyolithic breccias within karstic carbonate rocks (limestone).
- Show strong structural controls and a spatial association with igneous intrusions.
- Sulphide-refractory gold mineralisation, where unoxidized, within varying proportions of hydrothermal clays, jasperoidal silica, and residual organic material.
- Submicron size gold occurring within the arsenic-rich rims of fine-grained pyrite.
- See description of Sihayo pyrite composition by Prof Ross Large on the next page.

A comparison of the breccia hosts in both deposits is shown below:

**CORTEZ HILLS:**  
Limestone-hosted  
mineralised polyolithic breccia



**SIHAYO-1:**  
Limestone-hosted,  
mineralised polyolithic breccia

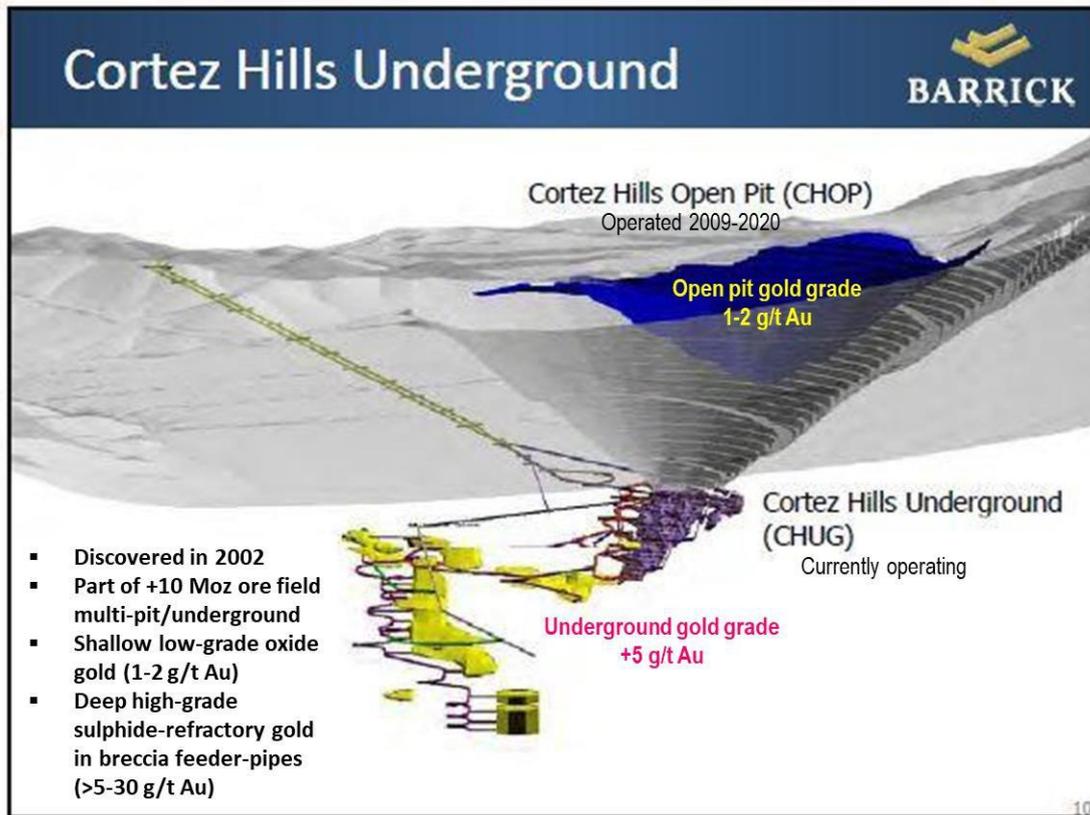


The basis for the comparison is that higher-grade gold mineralisation is associated with fluidised matrix-supported polyolithic breccias that occur as irregular stratabound and discordant bodies (pipe-like) associated with hydrothermal karst developed in the limestone host along unconformities, major faults and/or igneous intrusion contacts.

There is an apparent trend of increasing gold grade with increasing depth; extremely high gold grades are predicted to occur in narrow root or upflow zones along individual breccia bodies.

<sup>1</sup> Bradley, M.A., Anderson, L.P., Eck, N., and Creel, K.D., 2020, Giant Carlin-type gold deposits of the Cortez district, Lander and Eureka Counties, Nevada, in Sillitoe, R.H., Goldfarb, R.J., Robert, F., and Simmons, S.F., eds., *Geology of the World's Major Gold Deposits and Provinces: Society of Economic Geologists Special Publication 23*, p. 335–353.

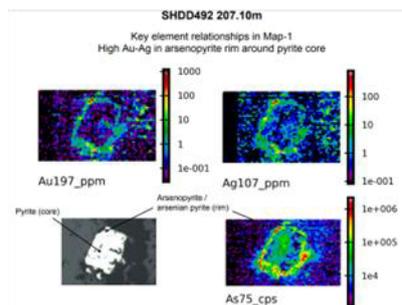
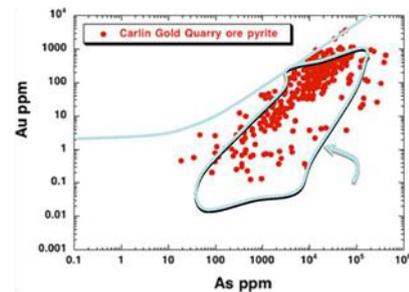
<sup>2</sup> Jackson, M., Arbonies, D., and Creel, K., 2011, Architecture of the Cortez Hills breccia body, in Steining, R., and Pennell, B., eds., *Great Basin evolution and metallogeny: Geological Society of Nevada Symposium, May 14–22, 2010, Proceedings*, p. 97– 123.



Source: <http://wikimapia.org/25601477/Cortez-Hills-Underground-Division-Shafts#/photo/2781994>

### Summary of Internal Report to Sihayo Gold Sihayo LA-ICPMS Pyrite Composition by Prof Ross Large (2011)

- The fine grained texture and composition of pyrite from the Sihayo samples is identical to the main ore stage pyrite from deposits on the north Carlin trend, previously studied in AMIRA project P923 (see also Large et al., 2009)
- Maximum As values up to 10 wt % dissolved in pyrite and invisible gold values up to 1000 ppm, measured by LA-ICPMS in the Sihayo samples, are similar to maximum values in Carlin pyrite
- Over 90% of the gold is invisible, locked in the structure of the arsenian pyrite, in both Carlin and the Sihayo samples
- A strong correlation between Au and As, Sb, Tl, Ag, Cu is recorded in both data sets
- Large, R. R., Danyushevsky, L. V., Hollit, C., Maslennikov, V., Meffre, S., Gilbert, S., Bull, S., Scott, R., Emsbo, P., Thomas, H., and Foster, J., 2009, Gold and Trace Element Zonation in Pyrite using a Laser Imaging Technique: Implications for the Timing of Gold in Orogenic and Carlin-Style Sediment-Hosted Deposits: ECONOMIC GEOLOGY, v. 104, p. 635-668.



Source: Large, R., and Hutchinson, D., 2011. Laser ablation ICP-MS study of Sihayo samples, 164pp. (Internal Report for PT Sorikmas Mining)

## JORC Code, 2012 Edition – Table 1

### Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul style="list-style-type: none"> <li>• <i>Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</i></li> <li>• <i>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</i></li> <li>• <i>Aspects of the determination of mineralisation that are Material to the Public Report.</i></li> <li>• <i>In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Samples were collected by diamond drilling using PQ3, HQ3 and less commonly, NQ diameter coring sizes.</li> <li>• Drilling and the transportation of core in sealed boxes from drill site to the Site Core Shed was fully supervised by the Company's project geologists and geotechnicians. The core was logged and marked up by the project geologists for cutting and sampling. The core was cut using a petrol-driven core saws and sampled by trained geotechnicians under the full supervision of the project geologists at the Site Core Shed.</li> <li>• Most holes were split for half-core samples and assayed over continuous 0.5 to 2 metre intervals down the entire length or along selected intervals within each drill hole.</li> <li>• Core recovery was recorded for every sample interval. Where possible, all core was oriented and cut along the orientation mark retaining down-hole arrows.</li> <li>• Core samples are bagged in numbered calico bags that are each lined with a plastic bag and sample ticket and sealed with heavy duty cable ties. Groups of 5-6 samples are bagged in hessian sacks and sealed with a numbered security tag. The sacks are clearly labelled and transported to the laboratory by road transport under the escort of the Company's security personnel.</li> <li>• The number of drill core samples relating to this announcement: <b>Sihayo-1: 2022/23 Stages 1 &amp; 2 Drilling Program = 2,246 samples from holes SHDD639-SHDD662.</b></li> </ul>
Drilling techniques	<ul style="list-style-type: none"> <li>• <i>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).</i></li> </ul>	<p><b>Samples reported in this announcement are from the 2022/23 Stages 1 &amp; 2 drilling program:</b></p> <ul style="list-style-type: none"> <li>• The drilling methods were wire-line triple-tube diamond drilling using PQ3, HQ3, and less commonly, NQ3 diameter coring sizes and using a man-portable diamond drill rig owned and operated by PT Indodrill Indonesia of Bogor, Indonesia.</li> <li>• Drilling activities are operated on two 12-hour shifts per day, 7 days per week.</li> <li>• The drill holes are surveyed at 25m down-hole intervals using a Digital ProShot downhole camera.</li> <li>• Drill core is oriented on each drill run in competent ground conditions using a Coretell ORIshot down-hole orientation tool.</li> </ul>

Criteria	JORC Code explanation	Commentary
<i>Drill sample recovery</i>	<ul style="list-style-type: none"> <li>• <i>Method of recording and assessing core and chip sample recoveries and results assessed.</i></li> <li>• <i>Measures taken to maximise sample recovery and ensure representative nature of the samples.</i></li> <li>• <i>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Core recoveries were excellent and averaged greater than 95% within the mineralised and wallrock zones. Ground conditions are highly variable and locally poor due to a number of factors: 1) The occurrence of incohesive fault structures related to movements along fault arrays within the active Trans Sumatra Fault Zone, and 2) contrast in rock strength associated with variations in alteration and reactivation by younger fault movements. Core recovery is maximised by the careful control of water/mud injection pressure, use of specialised drilling muds, and the drilling of shorter runs in highly broken ground conditions.</li> <li>• Core recoveries (and losses) are directly measured from the inner tube splits after each drill run at the drill site by trained core handling technicians (“core checkers”). The core checker is on-site during the entire 12-hour shift. The core checker takes a photograph of the core from each drill run on the inner tube splits and ensures that the core is properly assembled (reconnected) and the orientation line is properly marked along the core on the inner tube splits before it is transferred into core trays.</li> <li>• Drill runs and core losses are marked up by the driller on core blocks placed in the core box after each drill run. The positions of any obvious sections of core loss (e.g. cavities) are noted in the core boxes. The drill intervals, operational activities and core recoveries are recorded on Daily Shift Drilling Reports for each drilling shift. These are checked, validated and approved at the Site Office and the data are entered in an Excel database.</li> <li>• The drilling contractor maintains appropriate mud mixtures and a high standard of operational procedure to maximise core recovery. Maximum drill runs are 1.5 m in length and are shortened if necessary to optimise sample recovery in broken ground conditions.</li> <li>• The drill rigs are checked daily by the project geologists to ensure that maximised core recoveries, high safety and operating procedures are maintained by the drilling contractor and support personnel.</li> <li>• There is no evidence of a grade bias due to variations in core recovery in the results reported.</li> </ul>
<i>Logging</i>	<ul style="list-style-type: none"> <li>• <i>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</i></li> <li>• <i>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</i></li> <li>• <i>The total length and percentage of the relevant intersections logged.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill core recovered from the entire hole(s) is geologically and geotechnically logged by the project geologist(s) and geotechnical engineer(s).</li> <li>• Predicted zones of mineralisation and surrounding wall rocks are selected and recorded for mark-up in core trays by the project geologist(s) for geochemical sampling and assaying.</li> <li>• Drill hole logs record lithology (rock types), alteration and mineralisation, structure, rock strength and hardness, weathering condition, RQD and other structural defects.</li> <li>• A standardised logging coding and nomenclature are used by the project geologist(s) and geotechnical engineers(s). Logging data are captured on A3 paper logging sheets designed for the project and these data are transferred into a digital format using Excel spreadsheet software for import</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>into Micromine.</p> <ul style="list-style-type: none"> <li>• Geological and geotechnical logging are qualitative in nature except for the recoding of logging and sampling intervals, core recoveries, oriented core measurements (<math>\alpha</math> and <math>\beta</math>), RQD and fracture frequency.</li> <li>• All drill core trays are digitally photographed in both wet and dry condition as whole-core, and in both wet and dry condition at half-core splitting and sampling. A complete photographic record of the core trays is kept on file in the Company's project database.</li> <li>• Dry Bulk density is measured from 10 cm long blocks of whole core taken at systematic 5 m intervals down the entire hole using the wax-sealed sample submersion/water displacement method. The caliper-method of estimating Dry Bulk Density is used on the same 10 cm long core blocks as a validation-check of the wax- sealed sample submersion/water displacement determinations.</li> <li>• Logging is of a suitable standard for detailed geological and geotechnical analysis, and for resource modelling.</li> <li>• Revision of the drill logs is done (if necessary) on the receipt of final assay results to assist with the accuracy of interpretations and assessment of the drilling results.</li> </ul>
<p><i>Sub-sampling techniques and sample preparation</i></p>	<ul style="list-style-type: none"> <li>• <i>If core, whether cut or sawn and whether quarter, half or all core taken.</i></li> <li>• <i>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</i></li> <li>• <i>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</i></li> <li>• <i>Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.</i></li> <li>• <i>Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.</i></li> <li>• <i>Whether sample sizes are appropriate to the grain size of the material being sampled.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Drill core is manually split (cut) using petrol-driven core saws and diamond-impregnated core saw blades. Continuous half-core samples are split and collected over nominal 0.5 to 2 metre sample intervals down the drill hole. Samples are methodically marked-up, labelled, split and sampled under supervision of project geologist(s) at the Company's Sihayo core shed located in the project area.</li> <li>• The remaining half-cores are stored in the core boxes at the Company's Sihayo core shed as a physical archive of the drilling program(s).</li> <li>• Quarter-core samples were collected for duplicate testing of grade variations within core; Quarter core samples were taken at a frequency of 1 in every 30 consecutive samples down each drill hole. The quarter-core duplicate assay results show a generally low variation in grade distribution between the duplicate sample pairs.</li> <li>• Boyd crush sample duplicates testing for assaying repeatability were part of the QAQC. These were prepared by PT Intertek Utama Services at their sample preparation facility in Medan. Two duplicate 1-1.5 kg samples are split from core crushed to 95% passing 2 mm from the Boyd crusher at a frequency of 1 in every 15 samples. The Boyd crusher duplicate assay results show low variation and a high degree of repeatability between the duplicate pairs.</li> <li>• The nominal 0.5-2 m long PQ3/HQ3 and sometimes NQ3 half-core samples provided sample weights ranging between about 2- to 6-kg and averaged around 3-4 kg. These relatively large sample weights and the sample preparation protocols adopted for these drilling programs are representative</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>and appropriate for the epithermal style of gold mineralization being investigated.</p> <ul style="list-style-type: none"> <li>• QAQC procedures implemented by the Company and results reported by Intertek as part of their own internal QAQC procedures are considered sufficient to highlight any need for revision of the sample preparation procedures in forward drilling programs. However, the QAQC results to-date support that the sample- preparation techniques are robust and appropriate to the determination of the metal grade of the rocks being investigated.</li> </ul>
<p><i>Quality of assay data and laboratory tests</i></p>	<ul style="list-style-type: none"> <li>• <i>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</i></li> <li>• <i>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</i></li> <li>• <i>Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.</i></li> </ul>	<p><b>PT Intertek Utama Services:</b> PT Intertek Utama Services (Jakarta/Medan) was the primary sample preparation and assaying laboratory used for this drilling program.</p> <ul style="list-style-type: none"> <li>• Coarse crush samples were prepared at the Intertek sample preparation facility in Medan, North Sumatra. Core samples are weighed and dried at 60<sup>0</sup>C. The entire sample is crushed to P95 (95%) passing minus-2mm and 1.5kg is split off and pulverized to P95 (95%) passing minus-75 microns.</li> <li>• Sample pulps prepared at the facility in Medan are air freighted to Intertek's analytical laboratory in Jakarta.</li> <li>• The samples were assayed for gold by 50 g charge Pb collection Fire Assay with AAS finish (<b>FA51/AAS</b>) and 46 multi-elements by four-acid digest (HClO<sub>4</sub>, HCl, HNO<sub>3</sub>, HF) and a combination of determinations using Inductively Coupled Plasma/Optical Emission Spectrometry (ICP/OES) (Al, Ca, Cr, Cu, Fe, K, Mg, Mn, Na, Ni, P, S, Sc, Ti, V, Zn) and Inductively Coupled Plasma/Mass Spectrometry (ICP/MS) (Ag, As, Ba, Be, Bi, Cd, Co, Cs, Ga, Ge, Hf, In, Li, Mo, Nb, Pb, Rb, Sb, Se, Sn, Sr, Ta, Te, Th, Tl, U, W, Y, Zr) determinations (<b>4A/OM10</b>).</li> <li>• In addition, the mineralised jasperoid intersections were tested for a more comprehensive set of analyses to investigate the geometallurgical properties of the mineralised material. This includes assaying for gold by 200-g accelerated cyanide (LeachWELL) with AAS finish (LW200/AA) and Au-tail analysis by FA (TR200/AA), mercury by Cold Vapour AAS determination (HG1/CV), and several different sulphur and carbon analyses for soluble and insoluble components (sulphates, organic carbon) (CSA03 – determination of Total Carbon &amp; Sulphur by CS analyser, CSA104 – SCIS determination of carbonate-extract for soluble sulphate, C71/CSA – determination of Carbon non-carbonate or Carbon graphitic ).</li> </ul> <p>The nature of the large core size (PQ3/HQ3/NQ3), the total and partial preparation procedures (total crush to P95 -2mm, 1.5kg split pulverized to P95 -75 micron), and the multiple analytical methods used to assay for gold (FA, CN) and its associated elements (silver, sulphur, carbon &amp; multielements) are considered appropriate for evaluating the potential</p>

Criteria	JORC Code explanation	Commentary
		<p>geometallurgical characteristics of jasperoid- gold mineralization.</p> <ul style="list-style-type: none"> <li>The Company inserted OREAS Certified Reference Materials (CRMs) and blanks at a rate of 1 in every 10- 12 core samples (~10%) of the sample sequence to evaluate the lab's sample preparation procedures, analytical quality and/or biases. Intertek also conducts and reports its own internal laboratory QAQC checks which are reviewed as part of the QAQC analysis. The results relating to this announcement fall well within acceptable tolerances of accuracy and precision.</li> </ul>
Verification of sampling and assaying	<ul style="list-style-type: none"> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul style="list-style-type: none"> <li>Assay results are received from the laboratory in digital format and hard-copy final certificates. Digital data are stored on a dedicated database server and back-up database server. Hard-copy certificates are stored in Jakarta Office.</li> <li>Results are received and validated by the Company's Consultant against QAQC protocols.</li> <li>Results are reported by the Company's Competent Person.</li> <li>No adjustments or calibrations are applied to any of the assay results.</li> </ul>
Location of data points	<ul style="list-style-type: none"> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul style="list-style-type: none"> <li>Planned holes were initially staked in the field using a hand-held Garmin GPSMAP 66s with accuracy of <math>\pm 3- 5m</math> and have been more recently accurately fixed by Total Station survey.</li> <li>The coordinates presented for drill hole collars are fixed by Total Station survey.</li> <li>The Grid System used is WGS84/ UTM Zone 47 North.</li> <li>The drill hole paths were surveyed with a Digital Proshot camera at 25-metre down-hole intervals. Drill hole paths are tracked, and data is plotted daily using Micromine software.</li> </ul>
Data spacing and distribution	<ul style="list-style-type: none"> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	<ul style="list-style-type: none"> <li>The drilling program is conducted on approximately 25 to 50 m spaced lines/sections oriented near-perpendicular to the strike-projection of the gold-jasperoid target.</li> <li>No sample compositing is applied to the samples.</li> </ul>
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	<ul style="list-style-type: none"> <li>Geological modelling of the Sihayo-1 gold deposit shows that the gold mineralization, host stratigraphic package and associated controlling structures related to the Trans-Sumatran Fault Zone are NW-SE striking. The gold- jasperoid target is interpreted to be stratabound by the host Permian limestone-volcaniclastic rock package. This host rock package is interpreted to have a moderate-dip to the northeast.</li> <li>The drilling program was designed in plan and section to test up-dip and along-strike projections of mineralised jasperoid intersected in historic scout drilling programs and 2019 infill drilling.</li> <li>The hole(s) intersect the gold jasperoid target at moderate to high angle to</li> </ul>

Criteria	JORC Code explanation	Commentary
<p><i>Sample security</i></p>	<ul style="list-style-type: none"> <li><i>The measures taken to ensure sample security.</i></li> </ul>	<p>the dip of the interpreted mineralised stratabound zone.</p> <ul style="list-style-type: none"> <li>A detailed Chain-of-Custody protocol is established to ensure the safe and secure transportation of all core samples from the remote project site to the PT Intertek Utama Services sample preparation laboratory in Medan, North Sumatra.</li> <li>Sihayo-1 drilling location is located within a few hundred metres from the Company's Sihayo exploration camp and core shed.</li> <li>On the drill site, the core is checked and recorded by the company's assigned "Core Checkers" (geotechnicians) as drilling proceeds. The core checkers are assigned to the drill rig for the entire shift (night/day) and effectively guard the drill core 24/7. The core checkers are responsible for recording and documenting the drill core, including photographing the core in the inner tube splits as it "comes out of the ground". The shift activities and photographs are reported to the project geologists at the end of each shift.</li> <li>The drill core is packed and sealed in core trays at the drill site; the core trays were sealed with lids and locked with cable-tie strapping, immediately after each tray has been filled with core.</li> <li>The core trays were man-portered daily from the drill site to the Sihayo core shed.</li> <li>The project geologists check the drill site activity daily and directly supervise the security, handling and cleaning of the drill core.</li> <li>After logging and sample splitting at Sihayo core shed, the core samples are each separately bagged and sealed. Each sample package consists of an inner-lining plastic bag with an individual sample ID ticket stub (cable-tied), and an outer-lining calico bag that is marked with the sample ID in permanent marker pen. The bag is then sealed with a cable tie.</li> <li>The core samples are then packed into double-lined hessian (polyweave) sacks which are individually sealed with cable-ties and a unique numbered security tag. The hessian sacks are weighed and registered (hard copy and computer).</li> <li>The hessian sacks are man-portered from <b>Sihayo core shed</b> by local labour accompanied by the Company's security personnel to the Tanjung Sialang road-side staging point (about 8-km distance), where they are met by the Company's logistics personnel.</li> <li>The hessian sacks are checked, weighed (weights are verified by the project geologists) and then directly loaded into a sealable box truck, which is outer-locked and sealed with the Company's assigned security tag (photographed) for transport and delivery direct to PT Intertek Utama Services in Medan, North Sumatra. The truck is accompanied by Company security personnel. The PT Intertek sample preparation laboratory is located about 10-12 hours by road (430 km) from the project area.</li> <li>On delivery to PT Intertek Utama Services in Medan, the laboratory manager</li> </ul>

Criteria	JORC Code explanation	Commentary
		<p>confirms that the truck and hessian sack security seals are intact (photographed), weighs the hessian sacks, and reports to the project geologist(s) for verification and permission to proceed with the sample preparation.</p> <ul style="list-style-type: none"> <li>PT Intertek Utama Services ensures the safe and secure transportation of pulp samples prepared at its sample prep facility in Medan, which are dispatched under their custodianship to the assaying laboratory in Jakarta, via DHL air courier. The pulp samples are packaged and securely wrapped in standard-sized Intertek-signed boxes that are sealed with Intertek-signed packaging tape. The pulp samples are accompanied by Intertek dispatch/security forms to ensure the acknowledgement of receipt and integrity of the samples (i.e. sample registration is completed and confirmed at both ends).</li> </ul>
<p><i>Audits or reviews</i></p>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of sampling techniques and data.</i></li> </ul>	<ul style="list-style-type: none"> <li>The exploration drilling programs are supervised by the Exploration Manager, Chief Geologist and Project Geologists who are based on site.</li> <li>The database is internally checked by the Company's Database Manager.</li> </ul>

## Section 2 Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	<ul style="list-style-type: none"> <li>• <i>Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.</i></li> <li>• <i>The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.</i></li> </ul>	<p>The mineral tenement is a 7th Generation Contract of Work (CoW) granted in February 1998 to PT Sorikmas Mining, an Indonesian joint venture company owned by Aberfoyle Pungkut Investments Pte Ltd (75%) and PT Aneka Tambang Tbk (25%). Sihayo Gold Limited (formerly Oropa Limited) acquired all of the shares of Aberfoyle Pungkut Investments Pte Ltd in April 2004. The CoW is located in North Sumatra in the Republic of Indonesia and is approximately 80km south-east from the Martabe Gold Mine.</p> <p>The joint venture remains as Sihayo Gold Limited (<b>ASX:SIH</b>) owning a 75% interest in PT Sorikmas Mining which in turn holds the Sihayo-Pungkut 7th Generation Contract of Work (“<b>CoW</b>”). PT Aneka Tambang Tbk is the Company’s joint venture partner in the CoW with a 25% interest.</p> <p>The original CoW area covered 201,600 hectares. This was reduced to the current 66,200 hectares after two mandatory partial relinquishments; 1) to 151,000 ha in Feb 1999, and 2) to 66,200 ha in Nov 2000. As a consequence of these two partial relinquishments, the current CoW is subdivided into two separate blocks; North block and South block. The tenement is currently under the Operation/Production phase of the CoW. There is no future requirement for area relinquishment. Tenure on the CoW is until 2049 with an option to extend for two additional 10-year periods.</p> <p>The PT Sorikmas Mining CoW area is located along on a fertile segment of the Sumatra magmatic arc in North Sumatra. The same arc segment includes the giant Martabe gold-silver deposit (located about 80km NW) and the high-grade Dairi lead-zinc deposit (located about 250km NW). The CoW and is considered highly prospective for gold, silver and base metal mineralisation. Multiple mineral prospects have been identified during previous exploration within the CoW area and various mineralisation target-styles are represented including replacement-style carbonate-hosted gold (Carlin-type), intermediate-sulphidation epithermal gold-silver veins, gold-base metal skarns and porphyry-related copper-gold.</p> <p>The Sihayo Starter Project is the most advanced project within the CoW and a Definitive Feasibility Study for the project was completed in June 2020.</p> <p>Updated economics for the Sihayo Starter Project following Optimisation Studies, culminating in the 2022 Feasibility Study Update was released on 17<sup>th</sup> February 2022. The project has an updated combined Mineral Resources of about 27.8 Mt at 1.8 g/t for 1.565 Moz of contained gold and an updated Ore Reserve of 11.504 Mt at 2.0 g/t for 741 koz of contained gold in the Sihayo-1 and Sambung gold deposits. The bulk of this gold in the Sihayo-1 gold deposit.</p>

Criteria	JORC Code explanation	Commentary
		<p>The Company has been active with exploration programs during 2021-22 including exploration and extension drilling within and surrounding the Sihayo-1 gold deposit, notably on the near-mine Sihayo-2 gold jasperoid target, extensive exploration drilling on the large Hutabargot Julu epithermal gold-silver project located 6km south of the Sihayo Starter Project, and target generation, notably recent prospecting in the Tambang Tinggi project area of the South CoW block.</p> <p><b>Sihayo Starter Project</b> is located within heavily forested and partly cleared rugged terrain of the Barisan Mountains, in the Siabu subdistrict of Mandailing Natal regency, North Sumatra. The Sihayo and Sambung gold resources are located between about 900m and 1230m elevation above sea level. Field activities are based from Sihayo exploration camp. The nearest villages are located within 8 km of the camp on the Batang Gadis river plain of the Panyabungan graben valley, immediately the east of the northern block CoW boundary.</p> <p>Access to the <b>Sihayo Starter Project</b> is via walking tracks. The camp is located about 8 km walking distance from a vehicle drop-off point at Hutagodang village on the Batang Gadis River. The vehicle drop-off point is located about 10 km from the Company's administration office at Bukit Malintang and is accessible via a largely unsealed government road.</p> <p>Panyabungan, the closest major regional town to the CoW North block, has a population of just under 100,000 people. Panyabungan is located about 140 km SE from Ferdinand Lumban Tobing airport and about 165 km from the regional city and port of Sibolga. Both the airport and Sibolga are connected to Panyabungan by a major sealed road and can be reached by vehicle in 3.5 hours and 4.5 hours respectively. There are daily flights between Ferdinand Lumban Tobing airport and both Jakarta and Medan. Hutabargot Julu prospect lies within a protected forest designated area however much of it contains a mixture of primary and secondary forest, rubber plantation and areas of fruit and vegetable cultivation under informal landholdings.</p> <p>Much of the PT Sorikmas Mining CoW is covered by state-owned protected forest that is managed by the Ministry of Environment and Forestry. The Company requires an <i>Ijin Pinjam-Pakai Kawasan Hutan (IPPKH)</i>, translated as a Borrow-Use forestry area permit, from the the Ministry of Environment and Forestry to access and use a forestry area for any purpose that is outside of forestry activities, including mineral exploration and mining activities. The PT Sorikmas Mining CoW contains caveats that allow the Company to conduct open-cut gold mining in protected forest.</p> <p>The Company holds a valid 485 ha <i>IPPKH (Operasi)</i> permit that contains the proposed Sihayo mine development area and, on the 4 September 2020, was granted a 13,800 ha <i>IPPKH (Eksplorasi)</i> permit that surrounds the operating permit. This allows the Company to conduct exploration activities including drilling</p>

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<p><i>Exploration done by other parties</i></p>	<ul style="list-style-type: none"> <li>• <i>Acknowledgment and appraisal of exploration by other parties.</i></li> </ul>	<p>on prospects located along the Sihayo Gold Belt in the North Block of the CoW, which includes Hutabargot Julu, Sihayo and near-by prospects. The 13,800 ha IPPKH (<i>Eksplorasi</i>) permit was valid for 2-years until 3 September 2022, and this was extended for another 2-years until.</p> <p>Exploration commenced on the PT Sorikmas Mining CoW in 1995, originally under a domestic investment Kuasa Pertambangan (KP) title held by Antam with work managed by PT Aberfoyle Indonesia, a subsidiary of Aberfoyle Limited (Australia). Work continued under a pre-CoW permit (SIPP) from February 1997 to January 1998, and then under the joint venture company, PT Sorikmas Mining, when the CoW was signed in February 1998. Exploration carried out over this initial 3-year period included regional drainage geochemical sampling, prospecting, geological mapping, soil geochemical surveys and investigations on some of the historic Dutch mine workings in the district. Scout drilling was conducted by Aberfoyle on the Mandagang porphyry target in 1996 and produced some broad low-grade Cu-Mo-Au intercepts. The regional work highlighted numerous gold and multielement anomalies across the CoW. Subsequent prospecting identified multiple targets, representing a broad spectrum of precious and base metal mineralisation styles, including:</p> <ul style="list-style-type: none"> <li>• Carbonate-hosted jasperoid gold at Sihayo, Sambung, Link Zone, Sihayo-2, Sihayo-3, Sihayo-4, Mentari and Nabontar prospects (North CoW Block);</li> <li>• Epithermal gold-silver veins and disseminated mineralisation at Hutabargot Julu (Dutch working), Sihayo-5 (North CoW Block), and Tambang Hitam, Tarutung, Babisik, Nalan Jae, Nalan Julu, and Rotap prospects (South CoW Block);</li> <li>• Porphyry-style copper ± gold-molybdenum mineralisation at Rura Balancing, Singalancar, Sihayo-2 Copper (North CoW Block), and Mandagang, Tambang Tinggi, Namilas and Siandop prospects (South CoW Block);</li> <li>• Polymetallic skarn at Bandar Lasiak (North CoW Block), and Pagar Gunung, Huta Pungkut prospects and Tambang Ubi/Pagaran Siayus (Dutch mine) prospects.</li> </ul> <p>Aberfoyle was taken over by Western Metals Ltd in late 1998. Western Metals farmed out part of their beneficial interest in the CoW to Pacmin Mining Corp in 1999. Pacmin funded and managed detailed prospect-scale work at Sihayo and on some neighbouring prospects during 1999 until early 2000. This work included grid-based soil geochemical surveys, ground IP-Resistivity surveys, detailed geological mapping, trenching on various prospects and the first scout drilling program on the Sihayo gold discovery.</p>

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		<p>The CoW was placed into temporary suspension from November 2000 to February 2003 due to depressed gold prices, lack of funding and changes to the forestry regulations and status that restricted access to the CoW area.</p> <p>PacMin was taken over by Sons of Gwalia (SoG) (Australia) in late 2001. Oropa Limited entered into an agreement to purchase the 75% beneficial interest in the CoW held by SoG/Western Metals in late 2002. Oropa exercised its option to purchase the 75% beneficial interest in the CoW held by SoG/Western Metals in early 2004. Oropa changed its name to Sihayo Gold Limited in late 2009. Exploration resumed on the CoW in early 2003, fully funded by Oropa/Sihayo. This work included detailed prospect-scale exploration such as grid-based soil geochemical surveys, ground IP-Resistivity and magnetics surveys, detailed geological mapping, trenching and drilling campaigns in the North Block (Sihayo, Sihayo-2, Link Zone, Sambung &amp; Hutabargot) and South Block (Tambang Tinggi, Tambang Ubi and Tambang Hitam) that steadily increased from 2003 to 2013. An airborne magnetic and radiometric survey was flown over the CoW in 2011.</p> <p>A total of 86,499 m of diamond drilling in 824 holes was drilled on the CoW up to 2013 including a total of 59,469 m in 547 holes on <b>Sihayo-1</b>, 12,475 m in 165 holes on Sambung, 1,571 m in 17 holes at Sihayo-2, 6,979.5 m in 57 holes at Hutabargot Julu, and 6,005 m in 38 holes in the Tambang Tinggi district.</p> <p>Another hiatus in exploration activity occurred from 2013 to early-2019 due to lack of funding.</p> <p>New investment was injected into Sihayo Gold Limited in 2018 and the Company recommenced ground work at Sihayo in 2019 with an infill drilling program in support of a new Mineral Resource estimate on Sihayo and Sambung gold deposits. A total of 7,338 m in 74 holes of infill drilling was completed at Sihayo in 2019 (See ASX:SIH Quarterly reports released in January 2020, April 2020, and ASX release by Sihayo (ASX:SIH) on 23 June 2020).</p> <p>Another significant capital raising was achieved in August 2020, the proceeds of which are being used to fund exploration at Hutabargot Julu and elsewhere, early project works on the Sihayo Starter Project and working capital (See ASX:SIH Quarterly reports released on 20 August 2020). A total of 4806-m/25 holes of reconnaissance drilling was completed over the greater Hutabargot project area in early 2020, 1740-m/8 holes completed on the Sihorbo North vein target and 2577-m/11 holes on the Penatapan stockwork target were completed in mid-late 2021 (See ASX releases by Sihayo ASX:SIH on 12 April 2021, 5 July 2021 and 17 November 2021). 30 diamond drill holes for 5,216 m was completed on the Sihorbo South vein-stockwork target in late 2021-early 2022; and, a Maiden Inferred Mineral Resource Estimate of 6.4 Mt at 0.5 g/t gold and 17 g/t silver (0.7 g/t gold-equivalent), containing 100,000 ounces of gold and 3,600,000 ounces of</p>

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	<ul style="list-style-type: none"> <li data-bbox="360 268 1178 328">• <i>Summary of previous Mineral Resource Estimates &amp; Ore Reserve Estimates released by Sihayo Gold Limited</i></li> </ul>	<p data-bbox="1249 204 2112 264">silver (150,000 gold-equivalent ounces) at a 0.3 g/t gold-equivalent cut-off was announced (See ASX release by Sihayo ASX:SIH on 7 September 2022).</p> <p data-bbox="1249 288 2112 371"><b>Historic resource estimates previously announced on the Sihayo-1 and Sambung gold deposits. Historic resource estimates: Sihayo gold deposit</b></p> <p data-bbox="1249 400 2112 512">Runge Limited Indicated and Inferred resource of 15.2 Mt at 2.8 g/t Au (1,368,200 oz) at 1.2 g/t Au cut-off in oxide/transitional/fresh ore types. Released by Sihayo (ASX:SIH) on 12 June 2012.</p> <p data-bbox="1249 536 2112 647">H &amp; S Consultants P/L Measured, Indicated and Inferred resource of 15.3 Mt at 2.7 g/t Au (1,322,000 oz) at 1.2 g/t Au cut-off in oxide/transitional/fresh ore types. Released by Sihayo (ASX:SIH) on 17 June 2013.</p> <p data-bbox="1249 671 2112 783">PT Sorikmas Mining Measured, Indicated and Inferred resource of 23.399 Mt at 2.11 g/t Au (1,585,000 oz) at 0.6 g/t Au cut-off in oxide/transitional/fresh ore types. Released by Sihayo (ASX:SIH) on 23 August 2018.</p> <p data-bbox="1249 863 2112 892"><b>Historic resource estimates: Sambung gold deposit</b></p> <p data-bbox="1249 916 2112 1027">H &amp; S Consultants P/L Indicated and Inferred resource of 1.58 Mt at 2.0 g/t Au (102,025 oz) at 1.2 g/t Au cut-off in oxide/transitional/fresh ore types. Released by Sihayo (ASX:SIH) on 17 June 2013.</p> <p data-bbox="1249 1051 2112 1080"><b>Historic resource estimates: Sihayo-1 &amp; Sambung gold deposits (combined)</b></p> <p data-bbox="1249 1104 2112 1270">PT Sorikmas Mining A Sihayo-1/Sambung combined updated Measured, Indicated and Inferred resource of 24 Mt at 2 g/t Au for 1.5 Moz contained-gold at 0.6 g/t Au cut-off, and an updated Ore Reserve of 12.5 Mt at 2.1 g/t for 840 koz of contained gold at 0.6 g/t Au cut-off in oxide/transition/fresh ore types. Released by Sihayo (ASX:SIH) on 23 June 2020.</p> <p data-bbox="1249 1294 2112 1437">PT Sorikmas Mining A Sihayo-1/Sambung combined updated Measured, Indicated and Inferred resource of 27.773 Mt at 1.8 g/t Au for 1.565 Moz contained-gold at 0.6 g/t Au cut-off, and an updated Ore Reserve of 11.5 Mt at 2 g/t for 741 koz of contained gold at 0.4 g/t Au cut-off in oxide/transition/fresh ore types.</p>

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		<p>Released by Sihayo (ASX:SIH) on 17 February 2022.</p> <p><b>Recent ore reserve estimates: Sihayo-1 &amp; Sambung gold deposits</b></p> <p>PT Sorikmas Mining  An updated Ore Reserve of estimate of 11.7 Mt at 1.98 g/t for 747 koz of contained gold at 0.4 g/t Au cut-off in oxide/transition/fresh ore types.  Released by Sihayo (ASX:SIH) on 23 May 2023.  Incorporating benefits of high pH pre-leaching (“Caustic Leaching”) together with revisions in project design, operating parameters and updates to capital and operating cost estimates to include inflation impacts and identified areas of savings</p> <p>Illegal (artisanal) gold mining activity has been operating at the top of the Sambung gold deposit since 2012. This has been small-scale highly selective hand-tool mining from reworked regolith, fracture-oxidised jasperoid and oxidised cavity-fill sediments in limestone. Gold is won by amalgamation in tromol barrels that are operated in villages located outside the CoW area. The Company believes that mostly the top 5-meters or less of the Sambung orebody has been depleted by local mining and this is excluded from the Sambung resource reported herewith.</p>
<p><b>Geology</b></p>	<ul style="list-style-type: none"> <li>• <i>Deposit type, geological setting and style of mineralisation.</i></li> </ul>	<p><b>Regional Setting</b></p> <p>The CoW is located at the western end of the 7,000 km long Sunda-Banda magmatic arc. Sumatra lies on the south- western margin of the Sundaland promontory at the edge of the Eurasian plate. The promontory basement is composed of accreted and fault-transposed continental plate and magmatic arc terranes that were derived from Gondwana during the Late Palaeozoic and Mesozoic.</p> <p>The CoW straddles a NW-SE trending collisional boundary separating two basement segments: namely the Late Palaeozoic West Sumatra terrane (eastern segment) and Mesozoic Woyla terrane (western segment). The West Sumatra segment is composed of intermediate-felsic volcano-sedimentary rocks and associated shallow marine carbonate rocks. The Woyla segment is an accretionary complex composed of deep to shallow marine sedimentary rocks and associated mafic volcanic rocks. The collisional contact between these two terranes, referred to as the Medial Sumatra Tectonic Line, is stitched by Mesozoic granitic intrusions. Extension on these basement rocks during the early Palaeogene produced local rift basins that were filled by fluvio-lacustrine, coal-bearing siliciclastic- volcano-sedimentary rocks. These rocks have been uplifted, structurally inverted and partly eroded by the development and formation of the</p>

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		<p>Trans Sumatran Fault Zone (TSFZ), commencing in the Miocene. The evolution of the TSFZ was accompanied by Palaeogene magmatism (diorite/andesite – tonalite/dacite intrusions and volcanics) and associated hydrothermal activity and mineralisation within the CoW and surrounding region. Younger volcanic tephras erupted from nearby Quaternary volcanoes (eg Sorikmarapi, Toba) mantle the landscape in parts of the CoW.</p> <p><b>Sihayo Gold Belt</b></p> <p>The Sihayo Gold Belt straddles the Angkola fault segment and associated fault strands (western margin) of the Barumun-Angkola dextral transtensional jog in the NW-SE trending TSFZ and is immediately adjacent to a major dilatational pull-apart basin (Panyabungan Graben: approximately 100 km long, 12 km wide and 1 km deep) that is controlled by the TSFZ. The TSFZ and associated deep seated dilatational structures that control the pull-apart basin are interpreted to be major structural controls on the alignment and evolution of Tertiary magmatism and mineralisation within the CoW.</p> <p>The Sihayo Gold Belt is one of three parallel/near-parallel prospect-aligned mineral belts recognised across the CoW area. It is a +15 km long NW-SW trending corridor of Permian calcareous volcano-sedimentary rocks, Tertiary siliciclastic-volcaniclastic rocks and associated intrusions. These rocks are highly prospective for replacement-style carbonate-hosted gold, epithermal gold-silver veins, polymetallic skarn and porphyry-related gold and copper mineralisation. It is host to the Sihayo-Sambung gold resources and near-mine prospects of Sihayo-2,-3, -4, -5, Bandar Lasiak, Sihayo-Sambung Link Zone, Hutabargot Julu and Dolok.</p> <p><b>Sihayo – Sambung gold deposits</b></p> <p>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.</p> <p>Primary gold mineralisation is hosted in stacked stratabound lenses of hydrothermally altered ('jasperoid' or sulphidic microcrystalline silicification and argillic/clay-sulphide alteration), microbrecciated silty-sandy ("dirty") limestone and calcareous carbonaceous mudstone-siltstone, and in pods of similarly altered cavity-fill sediments within karstified fossiliferous limestone/marble. These rocks occur at the top of a Permian mixed carbonate-clastic volcano-sedimentary rock unit that has been openly folded and strongly faulted. The Permian rock unit is unconformably overlain by a package of Tertiary fluvio-lacustrine carbonaceous siliciclastic sedimentary "cap" rocks (sandstone, siltstone, mudstone, lignite, conglomerate, and agglomerate) that are sometimes mineralised at the basal unconformity with the underlying Permian rock unit. Diorite intrusions as dykes, sills and laccolith are locally spatially associated with</p>

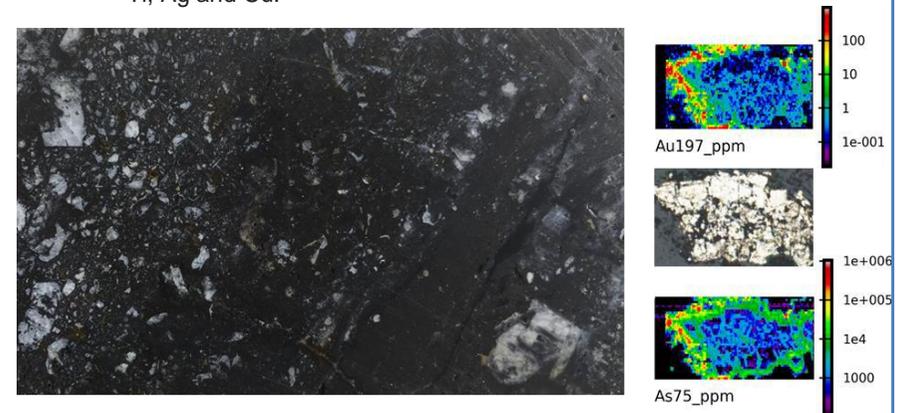
Criteria	JORC Code explanation	Commentary
		<p>mineralised jasperoid lenses.</p> <p>A steeply dipping discordant jasperoid body (feeder structure?) is apparent within the Sambung deposit. Similar large mineralised discordant jasperoid bodies (feeder structures) are predicted to occur below Sihayo.</p> <p>Sihayo and Sambung are stratabound carbonate-hosted gold deposits or more broadly categorised as Sedimentary Rock Hosted Disseminated Gold Deposit type (SRHGD). Northwest to northerly striking vertical faults controlled by TSFZ dextral movement and associated northeast to easterly striking cross-faults were probably conduits for mineralising hydrothermal fluids from depth. Where vertical structures have met favourable sub horizontal to moderately northeast-dipping lithological contacts, and likely the meteoric fluid interface, hydrothermal fluids have migrated laterally depositing gold mineralisation.</p> <p>Favourable lithological contacts for the development of gold-bearing jasperoid at Sihayo and Sambung are rheologically different stratigraphic units, most notably: i) on the unconformity/contact between Permian calcareous rocks and Tertiary carbonaceous argillaceous rocks, ii) between silty-sandy (“dirty”) limestone and fossiliferous limestone/marble or volcanoclastic rocks within the Permian stratigraphy; iii) within Permian calcareous rocks near diorite intrusion contacts.</p> <p>The subordinate regolith-hosted (eluvium/colluvium) mineralisation occurs on the present land surface and is associated with Quaternary residual weathering and erosion of the primary mineralisation.</p> <p><b>Sihayo gold department</b></p> <p>A gold department study on jasperoid sulphide mineralisation at Sihayo was previously done by researchers of CODES University of Tasmania (Hutchinson et al, 2011). This study was completed on six mineralised core samples taken from holes SHDD491 (54.3m), SHDD492 (207.1m), SHDD494 (208.2m), SHDD495 (139.3m), SHDD497(140m) and SHDD506 (256.2m). Methodologies used were MLA (Mineral Liberation Analyzer) to search for free gold particles greater than 1 micron-size and La-ICP-MS (Laser ablation inductively coupled mass spectroscopy) to detect gold nano-particles and quantify concentrations of trace elements in the sulphide host minerals (Hutchinson et al, 2011).</p> <p>The conclusions of this study are summarised as follows:</p> <ul style="list-style-type: none"> <li>• Main sulphides present are pyrite, subordinate arsenian pyrite and rare arsenopyrite.</li> <li>• Common sulphide textures are mm-sized euhedral-suhedral pyrite cores surrounded by narrow arsenian pyrite rims and sub-rounded aggregates composed of small equigranular to acicular grains of pyrite, arsenian pyrite, and rare arsenopyrite.</li> </ul>

Criteria

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Commentary

- Most gold (>90% estimated) is “invisible” and concentrated in arsenian pyrite rims and domains within pyrite grains and aggregates but it has not been determined whether it occurs in the host mineral structure or as discrete nano-particles.
- Free gold (and silver) grains are rare, show a range in size up to a maximum of 40 microns containing >70 wt % Au and <30 wt % Ag (electrum), and often occurring as small 3-5 µm grains within patches of organic carbon between hydrothermal quartz and feldspar.
- The texture and composition of the Sihayo arsenian pyrite are considered to be very similar to the fine grained ore stage pyrite from the Carlin-type deposits on the north Carlin Trend Nevada. In particular the Au-As characteristics of the pyrite and the elevated levels of Sb, Tl, Ag and Cu.



**Figure:** SHDD506 (256.2m) Mineralised sulphidic jasperoid breccia (10 cm long) Shows Laser Ablation ICP-MS image of a 0.01 mm sulphide grain with high Au-Ag arsenian pyrite/arsenopyrite rim (yellow-red) around low Au-Ag As-poor pyrite core (blue-green).

Reference: Hutchinson., D, Large, R., Gilbert, S., and Goemann, K. (2011). Sihayo Gold Study: Application of MLA and LA- ICPMS to Characterise the Gold Mineralogy. Report for Sihayo Gold Ltd, 164p.

Hole	Depth	Au g/t	Ag g/t	As ppm	Sb ppm	Weathering State	Lithology
SHDD491	54.3m	0.88	8	230	63	POX	Jasperoid
SHDD492	207.1m	6.23	9	2410	42	POX	Jasperoid
SHDD494	208.15m	5.46	3	534	128	POX	Jasperoid
SHDD495	139.3m	11.2	10	2930	65	POX	Jasperoid
SHDD497	140m	9.61	7	6500	528	POX	Jasperoid
SHDD506	256.2m	11.6	4	5200	93	FR	Jasperoid

List of samples studied at CODES showing corresponding assays within 1-m interval

Criteria	JORC Code explanation	Commentary
<i>Drill hole Information</i>	<ul style="list-style-type: none"> <li>• A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul style="list-style-type: none"> <li>○ easting and northing of the drill hole collar</li> <li>○ elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>○ dip and azimuth of the hole</li> <li>○ down hole length and interception depth</li> <li>○ hole length.</li> </ul> </li> <li>• If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>• Appendix 1 contains tables and figures providing details of drill hole collar coordinates, hole dip &amp; azimuth, final depths and intercepts for holes completed to-date in drilling program.</li> <li>• These holes are of an exploration nature and no material drill hole information has been excluded from this report.</li> </ul>
<i>Data aggregation methods</i>	<ul style="list-style-type: none"> <li>• In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>• Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> <li>• The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	<ul style="list-style-type: none"> <li>• Length-weighted average gold intercepts are reported for the final three holes of the 2023 drilling program (See Appendix 1) at a 0.3 g/t gold cut-off with up to 4-m of consecutive internal dilution allowed.</li> <li>• No high-cuts were applied.</li> <li>• No metal-equivalent values are used in the reporting of the gold intercepts.</li> </ul>
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul style="list-style-type: none"> <li>• These relationships are particularly important in the reporting of Exploration Results.</li> <li>• If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>• If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg ‘down hole length, true width not known’).</li> </ul>	<ul style="list-style-type: none"> <li>• The results reported in this and previous recent announcements provided sufficient data to model and update the Mineral Resource Estimate for the Sihayo gold deposit, and has confirmed the extension to high-grade gold mineralisation beneath the southern end of the planned Sihayo-1 starter pit. There is sufficient data to estimate true-thickness of the mineralised intercepts. However, additional drilling may be required to better define the actual geometry of the mineralised karst cave-fill zones, which are inherently complex.</li> <li>• Structural data acquired from oriented core in the drilling program generally support the broad structural trends interpreted from extensive previous drilling on Sihayo-1. There is no significant sample bias believed to influence or exaggerate the results reported in this announcement, there is sufficient data to support or infer the true-width of the mineralised down-hole intercepts. Details on intercept estimated true-widths are presented in Tables 1 and 3 of this announcement.</li> <li>• Data and interpretations derived from these latest drilling program were</li> </ul>

Criteria	JORC Code explanation	Commentary
		used to refine and update the geological and mineral resource model.
<i>Diagrams</i>	<ul style="list-style-type: none"> <li>• <i>Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.</i></li> </ul>	<ul style="list-style-type: none"> <li>• There are appropriate maps, figures and tabulations of the drill intercepts and resource model in this release and in previous announcements to support this updated MRE.</li> </ul>
<i>Balanced reporting</i>	<ul style="list-style-type: none"> <li>• <i>Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.</i></li> </ul>	<ul style="list-style-type: none"> <li>• This release and previous announcements contain sufficient relevant information such as range of exploration results, geologic context, historic results, type and sampling methodology, maps/figures and spatial distribution of data points to represent balanced reporting for this updated MRE.</li> <li>• See list of other substantive data presented in recent previous announcements in the following section.</li> </ul>
<i>Other substantive exploration data</i>	<ul style="list-style-type: none"> <li>• <i>Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.</i></li> </ul>	<ul style="list-style-type: none"> <li>• For details on the 2019 Sihayo-1 Resource Infill Drilling Program Refer to ASX:SIH Announcement – Results of Feasibility Study – 23 June 2020</li> <li>• For details on the 2022 Sihayo-1 Project Development Update Refer to ASX:SIH Announcement – Project Update and Launch of Strategic Review Process – 17 February 2022</li> <li>• For details on the 2022 Metallurgical Update on Sihayo-1 Refer to ASX:SIH Announcement – High pH Pre-Leaching Test Work Demonstrates Potential for Significant Uplift in Recoveries – 5 July 2022.</li> <li>• For details on the 2022 Stage 1 Drilling Program on Sihayo-1 Refer to ASX:SIH Announcement – High-grade gold intercepts from latest drilling program at Sihayo – 25 October 2022.</li> <li>• For details on the 2023 Stage 2 Drilling Program on Sihayo-1 Refer to ASX:SIH Announcements – “Exciting gold results from latest drilling program at Sihayo” – 9 March 2023, “Significant Au Intercepts – 50 metres at 7.75 g/t Au at Sihayo” – 24 March 2023, and “Further exciting intercepts from Sihayo drilling” – 9 May 2023.</li> </ul>
<i>Further work</i>	<ul style="list-style-type: none"> <li>• <i>The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).</i></li> <li>• <i>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</i></li> </ul>	<ul style="list-style-type: none"> <li>• Figure 1 of this announcement highlights that the below-bit gold mineralization is open in several directions, along strike and down-plunge.</li> <li>• The Company will commence a detailed engineering analysis of the potential underground development potential, and will consider doing additional drilling to define new mineralized extensions.</li> </ul>

### Section 3 Estimation and Reporting of Mineral Resources

(Criteria listed in section 1, and where relevant in section 2, also apply to this section.)

Criteria	JORC Code explanation	Commentary
Database integrity	<ul style="list-style-type: none"> <li>Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.</li> <li>Data validation procedures used.</li> </ul>	<ul style="list-style-type: none"> <li>Data was collected by PT SM on laptop computers in Excel or Micromine tables using drop down codes</li> <li>Field data and original assay certificates compiled and validated by database administrators.</li> <li>Drilling data provided in Micromine tables for collar, survey, and lithology and assay data.</li> <li>Micromine software validation procedures checks for missing intervals and drill holes.</li> <li>Checking inclinations, azimuths, deviations and sample intervals within a given tolerance.</li> </ul>
Site visits	<ul style="list-style-type: none"> <li>Comment on any site visits undertaken by the Competent Person and the outcome of those visits.</li> <li>If no site visits have been undertaken indicate why this is the case.</li> </ul>	<ul style="list-style-type: none"> <li>A Site visit was conducted by the competent person during the period from 7<sup>th</sup> of March through to the 16<sup>th</sup> of March 2023.</li> </ul>
Geological interpretation	<ul style="list-style-type: none"> <li>Confidence in (or conversely, the uncertainty of ) the geological interpretation of the mineral deposit.</li> <li>Nature of the data used and of any assumptions made.</li> <li>The effect, if any, of alternative interpretations on Mineral Resource estimation.</li> <li>The use of geology in guiding and controlling Mineral Resource estimation.</li> <li>The factors affecting continuity both of grade and geology.</li> </ul>	<ul style="list-style-type: none"> <li>The Sihayo deep drilling mineralization occurrence is situated on the southern end of the Sihayo Deposit with the 11.5km long Sihayo Gold Belt and directly adjacent to a major dilational pull apart basin (~100km long, ~12km wide and ~1km deep) that is controlled by the Trans Sumatran Fault Zone (TSFZ). The TSFZ and associated deep seated dilational structures that control the pull-apart basin are interpreted to be the macro mineralisation controls of the Sihayo gold resource.</li> <li>The geological interpretation covers the south-eastern extension of the main mineralised zone associated with the existing Sihayo deposit which has a high degree of confidence at the time of the estimation and this is reflected in the resource classification.</li> <li>Sectional interpretations are based on PT SM diamond drilling validated geological logging and assays.</li> <li>The construction of the mineralisation model incorporated a number of inputs including but not limited to structure, oxidation and geology.</li> <li>SGC do not believe that the effect of alternative interpretations will have a material impact on the overall Inferred Mineral Resource Estimates given the current level of understanding of the geology and structure.</li> <li>No alternate interpretations are proposed by the Client and geological confidence in the model is moderate to high.</li> <li>As additional geological data is collected from potential future additional drilling, the geological interpretation will be continually updated.</li> <li>The factors affecting continuity of both grade and geology are associated with lithological and structural controls, the knowledge of which is extensive with the current spacing of information. The approach to the mineralisation</li> </ul>

Criteria	JORC Code explanation	Commentary
		modelling is an attempt to model an unbiased interpretation.
<i>Dimensions</i>	<ul style="list-style-type: none"> <li><i>The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.</i></li> </ul>	<ul style="list-style-type: none"> <li>The updated Sihayo resource (to include the deep drilling) extends laterally NNW-SSE~2530m and extends from surface (highest point at or near ~1260mRL to a maximum depth at or near ~890mRL for a total of ~370m below surface.</li> </ul>
<i>Estimation and modelling techniques</i>	<ul style="list-style-type: none"> <li><i>The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.</i></li> <li><i>The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.</i></li> <li><i>The assumptions made regarding recovery of by-products.</i></li> <li><i>Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).</i></li> <li><i>In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.</i></li> <li><i>Any assumptions behind modelling of selective mining units.</i></li> <li><i>Any assumptions about correlation between variables.</i></li> <li><i>Description of how the geological interpretation was used to control the resource estimates.</i></li> <li><i>Discussion of basis for using or not using grade cutting or capping.</i></li> <li><i>The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.</i></li> </ul>	<ul style="list-style-type: none"> <li>Ordinary Kriging technique was employed using GS3 software based on low coefficient of variation between samples in the mineralised domain.</li> <li>Grade interpolation and search ellipses were based on variography and geometry modelling outcomes.</li> <li>Modelling was conducted in three passes with parent block sizes being 12.5 m E by 12.5 m N by 2.5 m RL; discretisation was 5x5x2 for the deeper mineralisation associated with the Sihayo Deposit.</li> <li>In the first pass data and octant criteria used were, Minimum Data=12, maximum Data=32, Minimum Octants=4. Search radii was 30 mE by 40 mN by 8 mRL.</li> <li>An expansion factor of 1 was applied so in the second pass saw the same data and octants criteria with an expanded search to 60mE by 80mN by 16mRL.</li> <li>The third pass saw Minimum Data=6, maximum Data=32, Minimum Octants=2. Search radii was 60mE by 80mN by 16mRL.</li> <li>Top cutting was applied to domains and elements which displayed a very strongly skewed nature.</li> <li>No dilution was expressly added to the SGC model</li> <li>No assumptions were made by SGC regarding the recovery of by-products</li> <li>Gold, Arsenic and Antimony were modelled.</li> <li>Blocks in the model were defined based on the likely mining bench heights and the domaining took into account the SMU proposed at the outset of 2 m E by 2 m N by 2.5 m RL.</li> <li>The interpretation or domain model was largely driven by the lithology / geology and to a lesser extent structural intervention and mineralised trends observed over the project. Grade was used as a secondary domain driver for the definition of boundaries.</li> <li>The model was validated in Micromine using section and plan comparisons back to original informing data visually.</li> </ul>
<i>Moisture</i>	<ul style="list-style-type: none"> <li><i>Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.</i></li> </ul>	<ul style="list-style-type: none"> <li>Tonnages are estimated on a dry basis.</li> </ul>
<i>Cut-off parameters</i>	<ul style="list-style-type: none"> <li><i>The basis of the adopted cut-off grade(s) or quality parameters applied.</i></li> </ul>	<ul style="list-style-type: none"> <li>Mineralised domain interpreted on grade <math>\sim</math> 0.3 g/t Au with reference to local variability and in-line with population analysis. Attention was also given to the <math>\sim</math> 1.0 g/t Au mineralised population in reference to underground potential lower cut-off grade</li> <li>Assumed to be reasonable cut off for small scale shallow open pit proposition given probability plot curve inflexions and grade population distributions.</li> </ul>

Criteria	JORC Code explanation	Commentary
		<ul style="list-style-type: none"> <li>Resources estimated and reported at a range of cut-off grades from 0.3g/t Au cut-off grade through to 7.0 g/t Au as noted in the grade tonnage tables and illustrated in the grade tonnage curve.</li> </ul>
<i>Mining factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>This item is beyond the scope of work for SGC and as such will remain the responsibility of the Client and Client's representatives.</li> <li>Consideration was given by SGC to SMU factors, blocks in the model were defined based on the likely mining bench heights and the domaining took into account the SMU proposed at the outset of 2 m E by 2 m N by 2.5 m RL.</li> </ul>
<i>Metallurgical factors or assumptions</i>	<ul style="list-style-type: none"> <li>The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No metallurgical factors or assumptions were used to restrict or modify the resource estimation by SGC proceeding or during the construction of the model in-line with direction by the Client.</li> </ul>
<i>Environmental factors or assumptions</i>	<ul style="list-style-type: none"> <li>Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.</li> </ul>	<ul style="list-style-type: none"> <li>No environmental factors or assumptions were used to restrict or modify the resource estimation by SGC proceeding or during the construction of the model in-line with direction by the Client.</li> </ul>
<i>Bulk density</i>	<ul style="list-style-type: none"> <li>Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.</li> <li>The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.</li> <li>Discuss assumptions for bulk density estimates used in the</li> </ul>	<ul style="list-style-type: none"> <li>Bulk density was estimated into block models based on the raw data and post processed where required by the application of average density by mineralised solid.</li> <li>The client provided SGC with an historical dataset of 2535 density records and an updated deep drilling Sihayo dataset 2023 which included an additional 271 density records which were composited to regular intervals and utilised by SGC in the estimates as noted above.</li> <li>Density measurements were taken from core at 10 cm interval over selected core deemed appropriate by the PT SM site representatives during the 2022-</li> </ul>

Criteria	JORC Code explanation	Commentary
	<i>evaluation process of the different materials.</i>	23 drilling program.
<i>Classification</i>	<ul style="list-style-type: none"> <li><i>The basis for the classification of the Mineral Resources into varying confidence categories.</i></li> <li><i>Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).</i></li> <li><i>Whether the result appropriately reflects the Competent Person's view of the deposit.</i></li> </ul>	<ul style="list-style-type: none"> <li>The resource classification was based on drilling density (and the availability of data to present to the search neighbourhood, geological modelling, oxidation and, density and recovery data.</li> <li>The classification criteria is deemed appropriate by SGC.</li> </ul>
<i>Audits or reviews</i>	<ul style="list-style-type: none"> <li><i>The results of any audits or reviews of Mineral Resource estimates.</i></li> </ul>	<ul style="list-style-type: none"> <li>To the best of SGC knowledge, no additional public and formalised audits or reviews have been undertaken to date concerning the Mineral Resource Estimates for the Sihayo Project.</li> </ul>
<i>Discussion of relative accuracy/ confidence</i>	<ul style="list-style-type: none"> <li><i>Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.</i></li> <li><i>The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.</i></li> <li><i>These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.</i></li> </ul>	<ul style="list-style-type: none"> <li>Outlines of resource classifications were reviewed against drill-hole data density and assays results and each block in the model has a resource classification which illustrates the relative (block to block) confidence level.</li> <li>The mineral resource estimation technique was deemed appropriate by an internal process review by SGC as were the estimates themselves.</li> <li>Total mineral resource estimate based on global estimate.</li> <li>No production data was available at the time the estimates were undertaken.</li> <li>The block model was produced to represent global estimates, however the model honors the local grade distributions appropriately given the drilling data provided and the domaining strategy employed.</li> <li>The relative accuracy of the Mineral Resource estimate is reflected in the tabulation classification of the Mineral Resource as per the guidelines of the 2012 JORC Code.</li> </ul>