### ASX ANNOUNCEMENT 7 July 2021

Nusantara Resources Limited ABN 69 150 791 290

#### **Registered Office:**

Level 4, 100 Albert Road, South Melbourne Vic 3205 Ph: +61 (3) 9692 7222

### **Issued Capital**

229,273,007 shares 20,000,000 unlisted options 7,700,000 unlisted employee options and performance rights

#### **Substantial Holders**

PT Indika Energy TBK28%Lion Selection Group22%Federation Mining Pty Ltd, IMF PtyLtd, and Simon Le Messurier12%

Nusantara Resources Limited is listed on the Australian Securities Exchange – ticker symbol NUS

Dollar values in this report are United States Dollars unless otherwise stated.

Enquiries regarding this report may be directed to: Mr Greg Foulis Chairman +61 438 544 399

This announcement has been authorised by the Managing Director/Board



### MAIDEN PROVED ORE RESERVE FOR AWAK MAS GOLD PROJECT

Highlights

- Proved Ore Reserve of 3.1 Mt provides high confidence in early production
- Project Ore Reserve contains a total of 1.45 Moz of gold (at 1.37 g/t)
- Results based on updated MRE and advanced FEED studies, bring the project closer to production and provides higher confidence in design, operating and capital costs
- Overall Project Ore Reserves grades have improved 3%, with Salu Bulo Ore Reserve average grade increases to 1.93 g/t (an increase of 16%)

Awak Mas Gold Project JORC open pit Ore Reserve Statement (July 2021)

	Classification	Tonnes	Au Grade	Contained Gold
	Classification	(Mt)	(g/t)	(Moz)
Awak Mas (Main)	Proved	2.5	1.38	0.11
	Probable	28.5	1.33	1.22
	Sub-total	31.0	1.33	1.33
Salu Bulo	Proved	0.6	1.92	0.04
	Probable	1.4	1.93	0.09
	Sub-total	2.0	1.93	0.13
Total	Proved	3.1	1.48	0.15
	Probable	29.9	1.36	1.31
	Total	33.0	1.37	1.45

Cut-off grade of 0.5 g/t applied

Managing Director Neil Whitaker noted, "The improved confidence in the Mineral Resource provides greater certainty with respect to recovered gold ounces, and underpins maiden Proved Ore Reserves for Awak Mas."

#### About Nusantara Resources

www.

Nusantararesources.com

Nusantara is an ASX Listed gold development company with its flagship Awak Mas Gold Project located in South Sulawesi, Indonesia.

### **UPDATED ORE RESERVE ESTIMATE**

Nusantara Resources (**Nusantara**, or the **Company**) is pleased to announce an updated Ore Reserve Estimate (**ORE**) including a maiden Proved Ore Reserve following completion of the close-spaced drilling program targeting the Initial Mining Area (**IMA**) at the Awak Mas and Salu Bulo deposits and subsequent updated Mineral Resources Estimate (**MRE**) (refer to announcement on ASX 5 July 2021).

The resultant Awak Mas JORC compliant ORE stands at: **33.0 million tonnes at 1.37 g/t gold for 1.45 million ounces contained gold**.

The ORE was derived using:

- Updated MRE, which includes the recently completed close-spaced drilling targeting the IMA;
- A gold price of US\$1,400 per ounce (circa US\$300-500/oz lower than the recent trading range of gold spot price);
- Cost inputs from the Front-End-Engineering-Design study results received to date (FEED); and
- Applying a cut-off grade of 0.5g/t.

A summary of the Ore Reserve statement is shown in Table 1.

	Classification	Tonnes	Au Grade	Contained Gold
	Classification	(Mt)	(g/t)	(Moz)
Awak Mas (Main)	Proved	2.5	1.38	0.11
	Probable	28.5	1.33	1.22
	Sub-total	31.0	1.33	1.33
Salu Bulo	Proved	0.6	1.92	0.04
	Probable	1.4	1.93	0.09
	Sub-total	2.0	1.93	0.13
Total	Proved	3.1	1.48	0.15
	Probable	29.9	1.36	1.31
	Total	33.0	1.37	1.45

Notes:

1. All Mineral Resources and Ore Reserves are completed in accordance with the 2012 JORC Code.

2. The Ore Reserve is reported at a cut-off grade of 0.5g/t Au and US\$1,400 per ounce gold price.

3. All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.

A detailed summary of the ORE, undertaken by AMC Consultants, and accompanying Table 1 is provided in Appendix A.

### LIFE OF MINE PROFILE

### **Production Target - Mine Scheduling**

- Detailed mine scheduling has established a mining inventory of at 36.2 million tonnes at 1.35 g/t for 1.57 million ounces contained gold, which includes 3.2 million tonnes of Inferred Mineral Resource within the open pit designs.
- Optimised mine plan targets higher grade ore in the first 5 years maximising gold production and cashflow.
- Pre-strip from Salu Bulo pits used for construction of Tailings Storage Facility (TSF) starter embankment, material for site infrastructure, establishing an ore stockpile in readiness for process plant commissioning, and exposing high grade ore for plant feed.
- Plant throughput of 2.5 Mtpa processes >100,000ounces per year for the first 5 years of full production.
- An update of the project economics are targeted for release in July 2021.

### Life of Mine Production Schedule

The life of mine schedule shows tonnes mined ramping up over the first five years before reaching a total material movement rate of 21.6 Mt per year. The life of mine schedule showing waste and crusher feed is provided in Figure 1.



Figure 1: Life of Mine Inventory and Waste Mining Schedule

### Life of Mine Process Plant Schedule

The mine schedule optimizer seeks to maximise project value by bringing forward higher value material in the mine schedule, delivering high grade material to the process plant while stockpiling lower grade material to be treated later in the mine life (Figure 2).



Figure 2: Average Annual Plant Head Grade, Recovered Ounces and Mined Grade

Gold processed over the first five years at full production (at a plant throughput rate of 2.5 Mt per annum) is maintained at >100,000 ounces per annum (and up to >135,000 ounces per annum, producing an average of 115,400 recovered ounces per annum.



The amount of material stockpiled and rehandled to the process plant is shown in Figure 3.

Figure 3: Process Plant Feed Direct from Pit and Rehandled from Stockpile

Most of the lower grade material will be fed to the process plant at the end of mine life.

An additional 4.6 Mt of marginal material will be stockpiled, but is not included in the process plant feed schedule as it is below the 0.5 g./t cut-off grade. This material has a grade above the marginal cut-off grade but below the 0.5 g/t cut-off grade applied for estimation of the Ore Reserve. Hence this material has been treated as waste but may be economic to treat at the end of the mine life.

### **2020 ORE RESERVE TO 2021 ORE RESERVES**

A comparison with the ORE 2020 is provided in Table 2.

Table 2: Awak Mas Gold Project JORC ORE 2021 comparison with ORE 2020 (June 2020)

			ORE 202	21		ORE 2	2020
	Classification	Tonnes (Mt)	Au Grade (g/t)	Contained Gold (Moz)	Tonnes (Mt)	Au Grade (g/t)	Contained Gold (Moz)
Awak Mas (Main)	Proved	2.5	1.38	0.11	-	-	-
	Probable	28.5	1.33	1.22	32.7	1.30	1.37
	Sub-total	31.0	1.33	1.33	32.7	1.30	1.37
Salu Bulo	Proved	0.6	1.92	0.04	-	-	-
	Probable	1.4	1.93	0.09	2.9	1.66	0.16
	Sub-total	2.0	1.93	0.13	2.9	1.66	0.16
Total	Proved	3.1	1.48	0.15	-	-	-
	Probable	29.9	1.36	1.31	35.6	1.33	1.53
	Total	33.0	1.37	1.45	35.6	1.33	1.53

#### Notes:

1. All Mineral Resources and Ore Reserves are completed in accordance with the 2012 JORC Code.

2. The Ore Reserve is reported at a cut-off grade of 0.5g/t Au and US\$1,400 per ounce gold price.

3. All figures are rounded to reflect appropriate levels of confidence. Apparent differences may occur due to rounding.

The updated ORE 2021 has resulted in a reduction of tonnes, an increase in grade and an overall reduction in contained ounces (in the order of 5%). The percentage change in Ore tonnes, grade and contained gold ounces compared with ORE 2020 is provided in Table 3.

Table 3: Awak Mas Gold Project JORC ORE 2021 percentage change compared with ORE 2020

	Tonnes	Au Grade	Contained Gold
	(%)	(%)	(%)
Awak Mas (Main)	94.8	102.6	97.1
Salu Bulo	69.0	116.1	81.3
Total	92.7	103.1	94.8

### **PIT STAGING**

The pit stages were established from the Whittle optimization process. Staging the pits ensures the highest value material is mined early in the mine life. The pit inventories contain the updated Ore Reserve tonnes, plus an additional 3.2 Mt of Inferred Mineral Resource material. The mine schedule and mined inventory by pit stage is provided in Figure 4 and Table 4, respectively.



Figure 4: Life of Mine Schedule Inventory by Pit Stage

#### Table 4: Awak Mas Gold Project Pit Stage Inventory

Pit Stage	Plant Feed (Mt)	Au Grade (g/t)	Contained Au (k.oz)	Stripping Ratio
Awak Mas Starter Pit	9.0	1.41	406	2.1
Awak Mas Western Extension	2.4	1.39	108	2.3
Awak Mas Ridge Cutback	11.0	1.20	424	5.9
Awak Mas Southern Extension	11.2	1.36	49	7.2
Salu Bulo Starter Pit	0.1	1.53	5	3.5
Salu Bulo Eastern Extension	2.5	1.68	135	5.2
Total	36.2	1.35	1,569	5.0

Notes:

2. Contained Au is prior to metallurgical process recoveries.

3. Strip ratio is after project development, as pre-strip waste rock from the pits is used for construction of site infrastructure and the TSF starter embankment

<sup>1.</sup> The production targets referred to in this announcement are based on 91% Proved and Probable Ore Reserves and 9% Inferred Mineral Resources. There is a low level of geological confidence associated with Inferred Mineral resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral resource or that the production targets themselves will be realised.

The staged open pit designs for the Awak Mas and Salu Bulo pits, as they relate to Table 4 are shown in Figure 5 and Figure 6, respectively.



Figure 5: Awak Mas (Main) staged pit designs, waste rock landforms, ROM Pad/Plant and Haul Roads



Figure 6: Salu Bulo staged pit designs, waste rock landforms and haul road

The pit stages presented coincide with the stages derived from the Whittle pit optimization process. They are consistent with the pit stages reported for the ORE 2020, which reduced the number of stages by amalgamating some of the smaller stages.

Figure 7 presents a Project-wide section highlighting the pit stages and distribution of the Mineral Resource that supports the ORE.



Figure 7: Section through Awak Mas (Main) and Salu Bulo staged pits

#### Notes:

1. The mineralization shown in Figure 7 has no cut-off applied

### **PROJECT DEVELOPMENT**

The detailed FEED studies received to date have provided improved definition of the project development strategy, with the updated site layout shown in Figure 8.



Figure 8: Awak Mas Gold Project site layout showing Awak Mas (Main) pit and Salu Bulo pit

Waste rock will be sourced from the Salu Bulo pits for construction of the TSF starter embankment. Pre-stripping the pits will generate an ore stockpile for process plant commissioning and expose high grade ore as feed for the plant.

Detailed design for the TSF have been completed and under review by the Indonesia authorities. The TSF starter embankment will be constructed to a height of 695m RL and subsequent downstream lifts constructed every 10 m to a maximum height of 765m RL.

Ore will mostly be hauled directly from the pits to the ROM, where it can be either tipped into the crusher hopper or stockpiled on the ROM and blended through. Alternatively, ore may be stockpiled remotely and rehandled to the ROM as and when required.

### UPDATED ECONOMIC ASSESSMENT

The updated economic assessment is being compiled, and the Company intends to release in July 2021.

### **COMPETENT PERSONS STATEMENTS**

The information in this announcement that relates to the Ore Reserves of Nusantara Resources is summarised from publicly available reports as released to the ASX of the respective companies. The results are duly referenced in the text of this report and the source documents noted above.

### **Exploration and Resource Targets**

Any discussion in relation to the potential quantity and grade of Exploration Targets is only conceptual in nature. While Nusantara Resources may report additional JORC compliant resources for the Awak Mas Gold Project, there has been insufficient exploration to define mineral resources in addition to the current JORC compliant Mineral Resource inventory and it is uncertain if further exploration will result in the determination of additional JORC compliant Mineral Resources.

#### **Exploration Results**

The information in this report which relates to Exploration Results is based on, and fairly represents, information compiled by Mr Colin McMillan, (BSc) for Nusantara Resources. Mr McMillan is an employee of Nusantara Resources and is a Member of the Australian Institute of Mining and Metallurgy (AusIMM No: 109791).

Mr McMillan 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".

#### **Mineral Resources**

The information in this report that relates to the Mineral Resource Estimation for the Awak Mas Gold Project is based on and fairly represents information compiled by Mr Adrian Shepherd, Senior Geologist, (BSc), MAusIMM CP, for Cube Consulting Pty Ltd. Mr Shepherd is an employee of Cube Consulting Pty Ltd and is a Chartered Professional geologist and a current Member of the Australian Institute of Mining and Metallurgy (AusIMM No: 211818).

Mr Shepherd 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 Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Shepherd consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

#### **Ore Reserves**

The information in this report that relates to the Ore Reserves Estimation for the Awak Mas Gold Project is based on and fairly represents information compiled by Mr David Varcoe, Principal Mining Engineer, for AMC Consulting Pty Ltd. Mr Varcoe is an employee of AMC Consulting Pty Ltd and is a current Fellow of the Australian Institute of Mining and Metallurgy (AusIMM No: 105971).

Mr Varcoe 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 Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Varcoe consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### Metallurgy

The information in this report that relates to metallurgy and metallurgical test work and findings for Awak Mas Gold Project is based, and fairly represents information compiled by Mr John Fleay, Manager Metallurgy, FAusIMM, for DRA Global. Mr Fleay is an employee of DRA Global and is a current Member of the Australian Institute of Mining and Metallurgy (AusIMM No: 320872).Mr Fleay 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 Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Fleay consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

### New Information or Data

Nusantara Resources confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and, in the case of estimates of Mineral Resources and Ore Reserves, which all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.

### **APPENDIX A: Awak Mas Gold Project** Ore Reserves Update (July 2021) — Technical Summary

Note: This technical summary should be read in conjunction with the JORC Code, 2012 edition, and Table 1 attached to this ASX Announcement.

The Awak Mas Ore Reserve update July 2021 was undertaken by AMC Consultants Pty Ltd. AMC has been involved with the Awak Mas Gold Project for a number of years, completing the mining related DFS in 2018 and the more recent FEED studies through 2020-2021. They have visited the site and have detailed knowledge of the Awak Mas and Salu Bulo deposits, including the geotechnical and hydrogeology aspects of the project.

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# SUMMARY

PT Masmindo DWI Area (Masmindo or the Company) are completing a Post FEED report being an update to a previous Definitive Feasibility Study (DFS) on the Awak Mas Gold Project (Project) located in the southern area of the island of Sulawesi, Indonesia.

Masmindo is presently owned 75% by Nusantara Resources Limited (Nusantara) and 25% by Indika Energy.

Masmindo engaged AMC Consultants Pty Ltd (AMC) to undertake the mining components of a Definitive Feasibility Study (DFS) for the Awak Mas Gold Project which was completed in 2018 and subsequently an Ore Reserve update completed in 2020 (2020 Addendum). Awak Mas is a greenfield project. This memorandum presents a brief outline of work completed in updating the Ore Reserve for 2021 (ORE2021).

Since the June 2020 Ore Reserve update, the following material work has been completed and reflected in developing this Ore Reserve update:

- Additional drilling of the Project between 2020 through to 2021 leading to an update of the Project's Mineral Resource Estimate (MRE) for Awak Mas and Salu Bulo, in May 2021, to 50.6 Mt at 1.41g/t for 2.29 M ounces at a cut-off grade of 0.5 g/t.
- The Salu Bulo MRE (3.0 Mt at 1.95 g/t containing 0.19 Moz gold) has changed materially with reduced tonnes but a higher average gold grade. With the closer spaced drilling some material at Salu Bulo is now classified as Measured.
- The changes in the Awak Mas MRE (44.6 Mt at 1.38 g/t containing 1.97 Moz gold) are less significant other than some material being upgraded from the Indicated resource category to Measured.
- No Ore Reserve has been estimated at the Tarra deposit at this time.
- An update of the mine designs and resulting production schedules based on the 2021 Mineral Resource Estimate has been prepared by AMC. These schedules are predicated on a nominal 2.5 Mtpa production rate for the operation which represents no change from the DFS.

Following the Mineral Resource update and the additional mine planning, the Ore Reserve Estimate was updated in July 2021 to 33.0 Mt at 1.37 g/t containing 1.45 M ounces gold at a cut-off grade of 0.5 g/t reported on a 100% basis (refer to **Table 1**).

Masmindo have managed the overall process of developing the Project beyond the DFS. Masmindo has confirmed that there is no material technical, economic or approval issues that would prevent the Project being developed as defined by the DFS and this update.

Furthermore, Masmindo report that the Project shows a significant positive NPV after financing and initial capital investment, based on a USD1,400 gold price supporting this statement of Ore Reserve at this time.

Site	Classification	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Awak Mas	Proved	2.5	1.38	0.11
	Probable	28.5	1.33	1.22
Salu Bulo	Proved	0.6	1.92	0.04
	Probable	1.4	1.93	0.09
Total	Proved	3.1	1.48	0.15
	Probable	29.9	1.36	1.31
	Total	33.0	1.37	1.45

Table 1: Ore Reserve estimate in July 2021 (cut-off grade 0.5 g/t)

The Ore Reserve for the Project is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition).

The Ore Reserve was estimated from the 2021 Mineral Resources prepared and reported by Cube Consulting Pty Ltd (Cube) after consideration of the level of confidence in the Mineral Resource and after taking account of relevant modifying factors.

The Proved Ore Reserve estimate is based on Mineral Resource classified as Measured. The Probable Ore Reserve estimate is based on Mineral Resource classified as Indicated. No Inferred Mineral Resources have been included in the Ore Reserve.

The Ore Reserve is estimated at July 2021. No mining has taken place at that date. The previous Ore Reserve estimate was dated June 2020.

The Ore Reserve is reported at a cut-off grade of 0.5 g/t gold which is slightly higher than the break-even cutoff grade. Proposed process plant recoveries for material above 0.5 g/t are well supported by metallurgical test work. Material between 0.4 g/t and 0.5 g/t is proposed to be stockpiled during the operation for possible future processing.

AMC Principal Mining Engineer, David Varcoe, is the Competent Person, Ore Reserves, as defined by the JORC Code 2012. He has approved the July 2021 Ore Reserves for the Awak Mas Project. David is a Competent Person as defined by the JORC Code, 2012 Edition, having five years' experience that is relevant to the style of mineralization and type of deposit described in the Report, and to the activity for which he is accepting responsibility. He is a Fellow of The Australasian Institute of Mining and Metallurgy. David has visited the Project site.

Within this document \$ are reported as US dollars.

# INTRODUCTION

The Awak Mas Gold Project 2018 Definitive Feasibility Study (DFS) is a standalone report supported by relevant work associated with the definition of the Project and presentation of its investment case. The 2020 Addendum to the DFS provides an update based on further technical work completed through 2019 and 2020 after the completion of DFS. The ORE2021 work is a further update on 2020 work with updated Mineral Resource models reflecting additional drilling and minor adjustments to cost parameters.

The Awak Mas Gold Project, located in the Luwu Regency of the South Sulawesi Province, Indonesia, was discovered in 1988. Since that time, a number of owners have undertaken gold exploration drilling and technical studies within the 14,390 ha Contract of Work (CoW) area. This work has led to the definition of Mineral Resources at the Awak Mas, Salu Bulo and Tarra deposits. The Project has been granted all the environmental and construction approvals for its continued development<sup>1</sup>.

The Project is located (Figure 1) near the east coast of South Sulawesi, providing good access to established infrastructure networks.

The access point from the east coast of South Sulawesi to the Project is Belopa, the capital of the Luwu Regency (the Regency's population is ~ 300,000), 45 km by road from the Project.



Figure 1: Project location

<sup>1</sup> Nusantara's IPO Prospectus dated 15 June 2017 as lodged with the ASX on 1 August 2017

# MINERAL RESOURCE

The Awak Mas, Salu Bulo and Tarra deposits are mineralized systems comprised of a complex sequence of intercalated meta-sediments and intrusive rocks. A high level, low-sulphidation hydrothermal system has developed, which is overprinted by a strong sub-vertical fracture control which has channeled mineralizing fluids.

The Project is still being explored and recently completed diamond drilling by Masmindo has defined Mineral Resources totaling 2.29 Moz. The Awak Mas deposit currently contains a Measured, Indicated and Inferred Mineral Resource as reported in *Table 2*. The smaller satellite deposits of Salu Bulo are located 1.5 km east of Awak Mas. Tarra, which is an Inferred Resource is 4.5 km to the north of the Awak Mas deposit.

The Mineral Resources for the Awak Mas and Salu Bulo deposits are the basis for the preparation of the Ore Reserve for the Project in the DFS, the 2020 Addendum and the 2021 estimate. The Mineral resources at Tarra are not considered in the DFS, the 2020 Addendum or 2021 Ore Reserve estimates.

The Awak Mas deposit is subdivided into geological domains referred to as: Rante, Tanjung, Lematik, Mapacing and Ongan.

Mineral Resource modelling and estimation was completed by Cube and announced to the ASX in July 2021.

Deposit	Category	Tonnes (Mt)	Grade Au (g/t)	Au (Moz)			
Awak Mas (2021)	Measured	2.2	1.58	0.11			
	Indicated	36.5	1.41	1.66			
	Inferred	5.9	1.10	0.21			
	Sub-Total	44.6	1.38	1.97			
Salu Bulo (2021)	Measured	0.6	2.31	0.05			
	Indicated	1.6	1.6 2.14				
	Inferred	0.8	1.26	0.03			
	Sub-Total	3.0	1.95	0.19			
Tarra (2018)	Measured	-	-	-			
	Indicated	-	-	-			
	Inferred	3.0	1.29	0.13			
	Sub-Total	3.0	1.29	0.13			
Total	Measured	2.9	1.74	0.16			
	Indicated	38.1	1.44	1.77			
	Inferred	9.7	1.17	0.36			
	Sub-Total	50.6	1.41	2.29			

**Table 2**: Project Mineral Resource estimates (2021) by deposit at 0.5g/t Au cut-off and constrained within aUS\$1,600/oz optimization shell

Notes:

1. Reported at a 0.5g/t Au cut-off within a US\$1,600 Mineral Resource pit shell ("am\_run\_c\_shell\_39\_1600\_usd1450\_2020\_topo.dtm") for Awak Mas deposit.

 Reported at a 0.5g/t Au cut-off within a US\$1,600 Mineral Resource pit shell ("sb5\_ps38\_rf114\_\$1600\_v2.dxf") for Salu Bulo deposit.

3. MRE Cut-off grades were determined using a base gold price of US\$1450/oz, metallurgical recoveries supported by testwork and based on all material being processed via a Whole of Ore CIL flowsheet.

4. Mineral Resources are reported inclusive of Ore Reserves.

Mineral Resource models provided to AMC were named "awakmas\_20210222\_mining.mdl" and "salu\_bulo\_20210429\_amc.mdl" (Surpac models converted to Datamine by AMC).

# **PIT OPTIMIZATION**

AMC completed geotechnical and hydrogeological studies in the course of the DFS and the Ore Reserve updates for the Project.

The Project has been extensively studied since 1996 under a number of project owners. Prior to the DFS, the most recent geotechnical study at a feasibility level was conducted by Golder Associates in 2011 to 2012.

The open pit geotechnical and hydrogeological assessments have been updated post DFS by AMC. The geotechnical parameters determined for the DFS were reviewed and include minor adjustments assessed as applicable for the pit design work supporting the 2021 ORE.

The following slope design parameters are recommended:

- Batters 10 m high, 45° BFA, with 5 m wide berms in the weathered rock mass, which will achieve a 33.7° inter-ramp slope angle.
- Batters 10 m high, 60° BFA with 5 m wide berms in the fresh rock mass, which will achieve a 43° inter-ramp slope angle.
- A geotechnical berm 15 m wide to be included at 100 m vertical intervals. These berms will be planned at around 1400 mRL, 1300 mRL and 1200 mRL.
- Overall slope angles used in pit optimization are: 33° for colluvium, 35° for oxide, 38° for transition and fresh material at Awak Mas.
- Overall slope angles used in pit optimization are: 33° for colluvium, 35° for oxide, 40° for transition and fresh material at Salu Bulo.

These slope parameters will be applied to all areas at Awak Mas and Salu Bulo pit developments. The batter, interramp and overall pit slopes are sensitive to groundwater pressure, and wall depressurization will be a requirement to achieve the target slope stability levels. With the presence of both a shallow and a deep aquifer, batter scale and overall scale depressurization will be required, including:

- Closely spaced shallow horizontal drain holes (HDH) to manage the influence of the shallow aquifer. HDH 40m long, 25 m centres at 30 m vertical intervals (every 3rd berm) in areas above the upper deep HDH elevations and a selected area in Awak Mas east.
- Deep HDH to depressurize the deep aquifer and place the phreatic surface back a certain distance behind the pit wall to increase the FOS to an acceptable level. HDH 150 m long are to be installed from 1320 mRL and 1210 mRL geotechnical berms in Awak Mas.
- Deep HDH to place the phreatic surface back a certain distance behind the pit wall to increase the FOS to an acceptable level. HDH 150 m long are to be installed from 980 mRL and 920 mRL geotechnical berms in Salu Bulo.
- Installation of dewatering bores should also be considered based on assessment of Vibrating Wire Piezometers (VWP) data and performance monitoring of the HDH.

AMC has designed holes for the installation of VWP and Masmindo have recently completed installation of 18 VWP's in 9 holes at Awak Mas and 8 VWP's in four holes at Salu Bulo. The data captured from the VWPs will be used to guide operational depressurization plans and may provide an opportunity to review wall angles.

### Ore loss and dilution

To estimate the extent of ore loss and dilution, the resource models for Awak Mas and Salu Bulo were regularized by combining all sub-blocks to a larger block size that is considered to be the minimum practical size that could be delineated and mined separately during ore and waste selection. This minimum block size is referred to as the selective mining unit (SMU). The original resource model as provided to AMC for Awak Mas comprised regular cell sizes of 5 mE x 5 mN x 2.5 mRL, while the provided Salu Bulo resource model contains sub blocks of various sizes within a 5 mE x 10 mN x 2.5 mRL parent structure.

The Awak Mas model was reblocked to a 5 m x 5 m x 5 m SMU to reflect the mining selectivity deemed practical and consistent with the type of mineralization and scale of the operation. The diluted Awak Mas model shows a 5% increase in tonnes and a 7% reduction in gold grade for a resultant 97% of contained gold (cut-off grade of 0.5 g/t) equivalent to a dilution factor of 7%. AMC used this model for mine design and Ore Reserve estimation. The reporting of the impact of dilution and ore loss mentioned above utilized a 0.5 g/t cut-off grade and was limited by the USD1600 optimization shell provided by Cube.

The Salu Bulo resource model was also reblocked to a 5 m x 5 m x 5 m SMU the diluted model presented a 1% increase in diluted tonnes, above the cut-off grade and a 11% reduction in gold grade for a resultant 90% of contained gold (cut-off grade of 0.5 g/t) equivalent to a dilution factor of 11%. AMC used this model for mine design and Ore Reserve estimation. The reporting of the impact of dilution and ore loss mentioned above utilized a 0.5 g/t cut-off grade and was limited by the USD1600 optimization shell generated by AMC.

### **Optimization parameters**

AMC updated the key input parameters for pit optimization to reflect recent metallurgical testwork and operating cost changes. These parameters were agreed with Masmindo and are summarised in Table 3. The base processing cost is estimated at USD10.03/t of ore.

The 2020 ORE Addendum values were used unchanged for the following assumptions:

- Gold price USD1,400/oz.
- Government royalty at 4.00% of total gold revenue.
- Dore transport costs at USD1.00/oz.
- Refining charges at USD1.93/ oz.
- Gold payable at refinery of 99.75%.

AMC applied mining costs based on AMC's most recent cost estimate. The average mining cost, inclusive of contractor and owner costs, estimated by AMC for pit optimization was USD2.85/t of rock for Awak Mas and \$2.69/t for Salu Bulo based on the recent cost estimates. The average ore mining costs are equivalent to USD3.87/t of ore for the Awak Mas Pit and USD4.73/t ore for Salu Bulo, due to the additional haul distance to the process plant from Salu Bula.

The metallurgical recoveries remain same as per the 2020 work, supported by the recent test work.

Parameter / Cost	Unit	Value
Gold price	\$/oz	1,400
State royalty	%	4.00
Gold transport	\$/oz	1.00
Gold refining	\$/oz	1.93
Gold payable	%	99.75
Net gold revenue	\$/oz	1,338
Net gold revenue	\$/g	43.01
Mining cost (AM averaged)	(\$/t mined)	2.85
Mining cost (SB averaged)	(\$/t mined)	2.69
Processing cost	\$/t ore t processed	10.03
General and administration	\$/t ore t mined	3.64
Crusher feed/re-handle	\$/t ore t mined	0.41
Ore grade control drilling	\$/t ore t mined	0.35
Ore transport to plant Awak Mas	\$/t ore mined	0.67
Ore transport to plant Salu Bulo	\$/t ore mined	1.69
Sustaining TSF costs	\$/t ore mined	1.57
Metallurgical recovery	% Rante, Tanjung, Lematik	93.2
	% Mapacing, Ongan	92.2
	% Salu Bulo	94.8

### Table 3: Pit optimization inputs

Pit optimizations were developed based on the diluted mining models and only attributing value to the Measured and Indicated Mineral Resource for Awak Mas and Salu Bulo.

Inferred mineralization was treated as waste in the pit optimization process.

### **Optimization results**

A series of pit shells are generated through pit optimizations based on increasing metal price and therefore increasing in size.

As per the 2020 Addendum, it was agreed with Masmindo to set a plant feed cut-off grade of 0.5 g/t due to the small return from material between the economic cut-off grade of approximately 0.4 g/t and 0.5g/t. This is therefore the minimum grade of a mining block that has a revenue estimated.

Optimization shells were selected with Masmindo based on aligning the Project with the company strategy. At Awak Mas, the shell selected as the basis for design is smaller than the optimisation shell generated at the base gold price and is based on a revenue factor of 0.92 (shell 27). It was noted that optimisation shells generated at above this revenue factor have a declining incremental value due to an increasing stripping ratio. Salu Bulo is a smaller deposit and the shell corresponding to the revenue factor 1.0 was selected as the basis for design in order to develop a practical design basis.

The pit optimization output tables are shown in Table 4 and Table 5.

It is observed for Awak Mas that a significant tonnage increase in the final pit (shape change) occurs between circa 120 Mt and 220 Mt of total rock in all pit optimizations with a material increase in ore grade material. This phenomenon was noted in the DFS and remains the case in the 2021 ORE work. The revenue factor 0.92 optimization shell, which is the first shell after the tonnage step, was selected by Masmindo as the guiding shell for pit designs since it increases cashflow and mine life, providing an additional 40% of plant feed.

At Salu Bulo the revenue factor 1 shell (31) was selected by AMC and Masmindo as a basis for pit design as the series of shells presents a relatively flat discounted cashflow curve and short life nature of the pit limits the impact of discounting.

Base She	II Data (2021	Model, 20	21 BoD Opt2,	Diluted mo	del 5mx5m	x5m)						Value							Incremental			Inferred in shell	
Pit Shell	Revenue	Final	Ore Tonnes	Waste	Total	Strip	Mining Cost	Processing	Au grade in-	Au metal in-situ	Produced Au	Processing	Mining	Revenue	Undiscounted	Discounted	Discounted	Cost per Ounce	Incremental SR	Incrmental	Tonnes with	Au Grade	Au Metal with AU
	Factor	Bench		Tonnes	Rock	Ratio	Per Total	Cost Per Tonne	situ		Metal	Cost	Cost		Cash Flow	Best	Worst			increase Best cash	AU>0.5 g/t		>0.5 g/t
					Tonnes		I onne Mined	or Ore								Cash Flow	Cash Flow			TIOW			
No.	No.	(mRL)	(Mt)	(Mt)	(Mt)	w:o	(\$/t)	(\$/t)	(g/t)	(koz)	(koz)	(\$M)	(\$M)	(\$M)	(\$M)	(\$M)	(\$M)	(A\$/oz)	W:O	(\$M)	(Mt)	g/t	koz
1	0.40	975	4.0	5.2	9.2	1.3	-2.85	-16.67	1.70	219	203	67	26	272	179	168	168				0.13	1.55	6.38
2	0.42	975	4.5	6.0	10.5	1.4	-2.85	-16.67	1.67	240	222	74	30	298	194	181	181	578	1.73	12.94	0.14	1.50	6.87
3	0.44	975	5.2	7.7	12.9	1.5	-2.85	-16.67	1.63	274	254	87	37	341	217	202	201	603	2.19	20.66	0.18	1.47	8.34
4	0.46	975	5.6	8.5	14.1	1.5	-2.85	-16.67	1.62	291	270	93	40	362	228	212	211	636	2.28	9.78	0.20	1.42	9.19
5	0.48	975	7.8	13.8	21.6	1.8	-2.85	-16.67	1.54	384	357	129	61	478	287	262	259	659	2.46	50.50	0.34	1.29	13.96
6	0.50	975	9.0	16.8	25.8	1.9	-2.85	-16.67	1.51	435	403	150	74	541	318	288	282	689	2.47	25.45	0.39	1.24	15.53
7	0.52	975	9.4	17.9	27.2	1.9	-2.85	-16.67	1.50	451	419	156	78	562	328	295	290	708	2.57	7.87	0.41	1.23	16.20
8	0.54	975	10.1	20.7	30.8	2.0	-2.85	-16.67	1.49	484	449	168	88	602	346	310	303	729	3.82	14.85	0.43	1.25	17.14
9	0.56	970	10.8	23.0	33.8	2.1	-2.85	-16.67	1.48	512	475	179	96	637	361	322	314	757	3.61	12.11	0.46	1.25	18.40
10	0.58	970	11.2	24.7	35.9	2.2	-2.85	-16.67	1.47	530	492	186	102	660	371	330	321	778	4.02	7.55	0.47	1.25	18.89
11	0.60	965	11.4	25.3	36.7	2.2	-2.85	-16.67	1.47	538	499	190	105	669	375	333	324	806	2.58	3.07	0.47	1.25	19.00
12	0.62	965	11.9	27.6	39.5	2.3	-2.85	-16.67	1.46	560	520	199	113	697	385	341	331	831	4.26	8.00	0.50	1.23	19.85
13	0.64	960	12.1	28.1	40.3	2.3	-2.85	-16.67	1.45	567	526	202	115	705	388	343	332	858	2.89	2.23	0.52	1.21	20.46
14	0.66	960	12.4	29.4	41.8	2.4	-2.85	-16.67	1.45	578	536	207	119	719	393	347	335	876	4.53	3.54	0.53	1.22	20.93
15	0.68	960	15.2	40.5	55.7	2.7	-2.85	-16.67	1.39	679	630	253	159	845	434	377	358	910	4.01	29.79	0.78	1.16	29.19
16	0.70	950	15.7	43.0	58.6	2.7	-2.85	-16.67	1.39	698	648	261	167	869	441	382	362	932	4.96	5.38	0.81	1.16	30.44
17	0.72	950	16.4	46.1	62.5	2.8	-2.85	-16.67	1.37	724	672	273	178	901	450	388	366	959	4.33	6.50	0.93	1.15	34.33
18	0.74	950	17.1	49.6	66.7	2.9	-2.85	-16.67	1.37	750	696	284	190	933	459	394	370	978	5.38	5.98	1.03	1.15	38.39
19	0.76	925	19.8	65.4	85.2	3.3	-2.85	-16.67	1.34	853	792	330	243	1,062	490	415	384	1,015	5.83	20.89	1.34	1.08	46.57
20	0.78	925	20.4	69.0	89.5	3.4	-2.85	-16.67	1.34	877	814	340	255	1,092	497	420	386	1,033	5.56	4.51	1.39	1.07	47.83
21	0.80	925	21.2	74.3	95.4	3.5	-2.85	-16.67	1.33	908	843	353	272	1,130	505	425	388	1,064	6.71	5.09	1.44	1.08	49.85
22	0.82	925	21.6	76.5	98.1	3.5	-2.85	-16.68	1.33	923	856	361	280	1,149	508	427	389	1,089	5.12	2.18	1.48	1.07	51.05
23	0.84	925	22.6	82.4	104.9	3.7	-2.85	-16.68	1.32	957	888	376	299	1,191	515	432	389	1,109	6.22	4.52	1.54	1.07	52.97
24	0.86	925	23.3	87.9	111.2	3.8	-2.85	-16.68	1.31	986	915	389	317	1,227	521	435	388	1,134	7.18	3.54	1.60	1.08	55.41
25	0.88	925	23.5	88.4	111.9	3.8	-2.85	-16.68	1.31	989	919	391	319	1,232	522	435	389	1,161	4.72	0.38	1.60	1.08	55.43
26	0.90	910	24.1	91.9	116.0	3.8	-2.85	-16.68	1.30	1,009	937	401	331	1,256	524	437	389	1,192	5.75	1.66	1.63	1.07	56.33
27	0.92	005	33.3	192.4	225.7	5.6	-2.80	-10.08	1.33	1,423	1,321	000	043	1,772	5/4	451	329	1,211	10.94	14.15	2.63	1.14	96.28
28	0.94	895	33.5	194.7	228.2	5.8	-2.85	-16.68	1.33	1,433	1,331	559	000	1,785	5/5	452	328	1,252	8.11	0.38	2.65	1.14	96.66
29	0.96	090	33.7	100.7	230.5	5.0	-2.00	-10.00	1.33	1,441	1,339	503	662	1,795	576	432	320	1,279	9.49	0.20	2.66	1.14	97.34
30	1.00	800	34.0	190.5	232.5	5.0	-2.85	-16.68	1.33	1,449	1,346	560	667	1,805	576	452	323	1,300	8.30	0.10	2.67	1.13	97.55
32	1.00	890	34.7	205.0	239.7	5.9	-2.65	-16.68	1.32	1,435	1,370	579	683	1,012	576	452	319	1,327	7.79	0.00	2.70	1.13	98.15
33	1.04	890	34.8	205.5	240.2	5.9	-2.85	-16.68	1.32	1.477	1.372	580	685	1,840	576	452	319	1,300	3.23	-0.20	2.13	1.13	99.23
34	1.06	890	35.9	218.5	254.4	6.1	-2.85	-16.68	1.32	1.522	1,414	598	725	1,896	573	450	305	1,379	11.04	-0.06	2.74	1.13	104.07
35	1.08	890	36.2	222.4	258.6	6.1	-2.85	-16.68	1.32	1.536	1.427	604	737	1,913	572	449	301	1,405	10.37	-1.55	2.00	1.12	104.07
36	1 10	890	36.5	225.4	262.0	6.2	-2.85	-16.68	1 32	1 547	1 437	609	747	1 927	571	449	298	1,451	0.03	-0.66	2.32	1.12	106.66
37	1 12	890	36.8	228.8	265.7	6.2	-2.85	-16.68	1.32	1,558	1,407	614	757	1 941	569	448	200	1,401	11 22	-0.00	2.00	1.12	107.11
38	1.14	890	36.9	230.1	267.0	6.2	-2.85	-16.68	1.32	1.562	1.451	616	761	1.946	569	448	293	1,405	11.16	-0.76	3.00	1.11	107.30
39	1.16	890	38.0	245.2	283.3	6.5	-2.85	-16.68	1.31	1.607	1,493	634	807	2,002	560	444	273	1,510	14.12	-4.13	3.08	1.10	109.30
40	1.18	890	38.1	246.4	284.5	6.5	-2.85	-16.68	1.31	1,611	1,496	636	811	2,006	560	443	272	1,555	12.50	-9.13	3.08	1.10	109.37
41	1.20	890	38.2	247.0	285.1	6.5	-2.85	-16.68	1.31	1.613	1,498	637	813	2.008	559	443	271	1.598	9.14	-0.21	3.09	1.10	109.52
42	1.22	890	38.4	249.3	287.7	6.5	-2.85	-16.68	1.31	1.620	1.504	640	820	2.017	557	442	269	1.621	10.58	-0.92	3.13	1.10	110.62
43	1.24	890	38.8	254.5	293.2	6.6	-2.85	-16.68	1.31	1.634	1.518	647	836	2.035	553	440	262	1.653	13.98	-1.99	3.15	1.10	111.32
44	1.26	890	38.9	255.3	294.2	6.6	-2.85	-16.68	1.31	1,637	1,520	648	838	2,039	552	440	261	1.677	8.55	-0.41	3.17	1.10	111.62
45	1.28	885	39.1	258.4	297.4	6.6	-2.85	-16.68	1.31	1,645	1,528	651	848	2,049	550	438	257	1,710	15.81	-1.26	3.19	1.10	112.21

 Table 4: Optimization results for Awak Mas based on Measured and Indicated Resource categories, run 6. Selected pit and optimum pit highlighted.

Base	Shell Data	(Run4, 2021	Model, Dilut	ed model 5	mx5mx5m)							Value							Incremental		Inferred in shell		
Pit Shell	Revenue Factor	Final Bench	Ore Tonnes	Waste Tonnes	Total Rock	Strip Ratio	Mining Cost Per Total	Processing Cost Per Tonne	Au grade in- situ	Au metal in-situ	Produced Au Metal	Processing Cost	Mining Cost	Revenue	Undiscounted Cash Flow	Discounted Best	Discounted Worst	Cost per Ounce	Incremental SR	Incrmental increase Best cash	Tonnes with AU>0.5 g/t	Au Grade	Au Metal with AU >0.5 g/t
					Tonnes		Tonne Mined	of Ore								Cash Flow	Cash Flow			flow			
No.	No.	(mRL)	(Mt)	(Mt)	(Mt)	w:o	(\$/t)	(\$/t)	(g/t)	(koz)	(koz)	(\$M)	(\$M)	(\$M)	(\$M)	(\$M)	(\$M)	(A\$/oz)	W:O	(\$M)	(Mt)	g/t	koz
1	0.40	980	0.3	1.6	1.9	4.9	-2.69	-17.67	2.42	25.26	23.89	5.7	5.1	32.0	21.2	21.1	21.1				0.05	0.92	1.43
2	0.42	940	0.4	2.0	2.4	4.8	-2.69	-17.68	2.31	31.01	29.32	7.4	6.5	39.3	25.4	25.2	25.2	558	4.60	4.18	0.06	1.00	2.00
3	0.44	940	0.5	2.5	3.0	5.0	-2.69	-17.67	2.26	37.09	35.07	9.0	8.2	47.0	29.9	29.6	29.6	573	5.63	4.33	0.08	1.05	2.77
4	0.46	940	0.6	2.9	3.5	5.2	-2.69	-17.67	2.25	41.13	38.89	10.1	9.4	52.2	32.7	32.3	32.3	607	7.00	2.74	0.09	1.06	3.06
5	0.48	935	0.6	3.4	4.1	5.3	-2.69	-17.67	2.21	45.88	43.39	11.4	10.9	58.2	35.8	35.4	35.4	636	6.34	3.08	0.10	1.06	3.48
6	0.50	935	0.7	3.5	4.1	5.3	-2.69	-17.67	2.20	46.37	43.85	11.6	11.1	58.8	36.1	35.7	35.7	657	5.45	0.30	0.11	1.05	3.56
7	0.52	935	0.8	4.4	5.2	5.7	-2.69	-17.67	2.16	54.49	51.53	13.9	14.1	69.1	41.2	40.6	40.6	685	7.47	4.87	0.12	1.05	4.01
8	0.54	935	0.9	5.0	5.9	5.9	-2.69	-17.67	2.15	58.90	55.69	15.1	15.8	74.7	43.8	43.1	43.1	714	8.60	2.52	0.13	1.04	4.19
9	0.50	935	0.9	5.4	0.3	0.1	-2.69	-17.67	2.14	61.76	58.40	15.9	17.0	78.3	45.4	44.6	44.0	738	9.15	1.57	0.13	1.03	4.31
10	0.58	935	1.0	0.1	10.4	0.3	-2.69	-17.07	2.14	65.79	62.21	16.9	18.9	83.4	47.6	40.7	46.7	769	10.62	2.09	0.14	1.02	4.47
10	0.00	930	1.3	9.1	10.4	7.0	-2.09	-17.67	2.06	86.07	01.39	22.9	20.0	109.2	50.4	50.7	50.7	789	9.01	10.02	0.36	0.92	10.53
12	0.62	930	1.3	9.2	10.5	7.1	-2.69	-17.07	2.06	86.44	81.74	23.0	28.2	109.6	58.4	56.9	56.9	823	8.36	0.17	0.36	0.92	10.62
13	0.64	930	1.3	3.4	11.0	7.1	-2.09	-17.67	2.08	07.03	00.07	23.3	20.9	110.5	39.0 61.5	57.5	57.5	853	10.20	0.61	0.36	0.92	10.72
15	0.00	920	1.4	11.2	12.7	7.4	-2.69	-17.67	2.03	09.35	00.00	25.4	34.3	124.7	63.5	61.7	61.7	004	0.31	2.20	0.40	0.91	12.06
16	0.00	920	1.5	11.2	12.7	7.4	-2.69	-17.67	2.01	99.15	93.76	20.3	34.8	125.7	63.8	62.0	62.0	904	14.01	0.29	0.45	0.90	12.96
17	0.72	920	1.6	11.7	13.3	7.5	-2.69	-17.67	2.01	100.68	95.21	27.6	35.7	127.7	64.4	62.5	62.5	055	10.00	0.51	0.46	0.90	13.00
18	0.74	920	1.6	12.1	13.7	7.6	-2.69	-17.67	2.00	102.81	97.22	28.3	36.9	130.4	65.1	63.1	63.1	977	11.06	0.66	0.46	0.90	13.28
19	0.76	920	1.8	14.0	15.8	8.0	-2.69	-17.67	1.98	111.49	105.43	31.0	42.5	141.4	67.9	65.7	65.7	1,000	12.51	2.52	0.40	0.90	14.41
20	0.78	920	1.8	14.1	15.9	8.0	-2.69	-17.67	1.97	112.02	105.93	31.2	42.8	142.1	68.1	65.8	65.8	1,000	9.04	0.14	0.50	0.90	14.53
21	0.80	915	1.8	14.5	16.3	8.1	-2.69	-17.67	1.97	113.79	107.60	31.8	44.0	144.3	68.6	66.2	66.2	1.052	12.18	0.42	0.52	0.90	15.00
22	0.82	915	1.8	14.6	16.4	8.1	-2.69	-17.67	1.96	114.22	108.01	32.0	44.2	144.9	68.7	66.3	66.3	1.081	7.28	0.09	0.52	0.90	15.12
23	0.84	915	1.9	15.6	17.4	8.3	-2.69	-17.67	1.96	117.92	111.51	33.1	46.9	149.5	69.5	67.0	67.0	1,111	14.49	0.69	0.53	0.91	15.36
24	0.86	915	1.9	15.8	17.7	8.4	-2.69	-17.67	1.95	118.75	112.29	33.4	47.5	150.6	69.6	67.1	67.1	1,146	13.03	0.13	0.53	0.91	15.41
25	0.88	915	1.9	15.9	17.9	8.4	-2.69	-17.67	1.95	119.44	112.95	33.7	48.0	151.5	69.8	67.2	67.2	1,163	9.72	0.09	0.53	0.91	15.57
26	0.90	915	1.9	16.2	18.1	8.4	-2.69	-17.67	1.94	120.41	113.87	34.0	48.8	152.7	69.9	67.3	67.3	1,206	14.38	0.09	0.54	0.91	15.65
27	0.92	915	1.9	16.5	18.5	8.5	-2.69	-17.67	1.94	121.47	114.86	34.3	49.7	154.0	70.0	67.4	67.4	1,212	17.83	0.10	0.54	0.91	15.72
28	0.94	915	1.9	16.5	18.5	8.5	-2.69	-17.67	1.94	121.53	114.92	34.4	49.7	154.1	70.0	67.4	67.4	1,248	5.87	0.00	0.54	0.91	15.72
29	0.96	915	2.0	16.7	18.7	8.5	-2.69	-17.67	1.94	122.21	115.57	34.7	50.3	155.0	70.1	67.4	67.4	1,274	10.72	0.02	0.54	0.91	15.73
30	0.98	910	2.0	17.3	19.3	8.6	-2.69	-17.67	1.93	124.03	117.29	35.3	51.9	157.3	70.1	67.4	67.4	1,311	15.04	0.00	0.56	0.91	16.40
31	1.00	910	2.0	17.5	19.6	8.7	-2.69	-17.67	1.93	124.84	118.06	35.6	52.6	158.3	70.1	67.4	67.4	1,327	17.82	-0.01	0.56	0.91	16.46
32	1.02	910	2.0	17.6	19.7	8.8	-2.69	-17.67	1.93	125.10	118.30	35.6	52.9	158.6	70.1	67.4	67.4	1,344	33.65	0.00	0.56	0.91	16.55
33	1.04	910	2.0	17.7	19.7	8.8	-2.69	-17.67	1.93	125.19	118.38	35.7	53.0	158.8	70.1	67.4	67.4	1,386	17.85	-0.01	0.56	0.91	16.56
34	1.06	910	2.0	18.1	20.1	8.8	-2.69	-17.67	1.92	126.42	119.54	36.2	54.1	160.3	70.0	67.3	67.3	1,413	13.65	-0.12	0.57	0.92	16.75
35	1.08	905	2.1	18.4	20.4	8.9	-2.69	-17.67	1.92	127.34	120.42	36.5	55.0	161.5	70.0	67.2	67.2	1,436	15.69	-0.11	0.58	0.91	16.96
36	1.10	905	2.1	18.4	20.5	8.9	-2.69	-17.67	1.91	127.43	120.50	36.6	55.1	161.6	69.9	67.2	67.2	1,466	10.57	-0.01	0.58	0.91	16.96
37	1.12	905	2.1	18.5	20.6	8.9	-2.69	-17.67	1.91	127.85	120.90	36.8	55.5	162.1	69.9	67.1	67.1	1,487	13.55	-0.07	0.58	0.92	17.20
38	1.14	905	2.1	18.8	20.9	9.0	-2.69	-17.67	1.91	128.46	121.47	37.0	56.2	162.9	69.8	67.0	67.0	1,530	21.56	-0.12	0.59	0.92	17.32
39	1.16	900	2.1	19.1	21.2	9.1	-2.69	-17.67	1.91	129.17	122.14	37.2	57.0	163.8	69.6	66.8	66.8	1,556	18.90	-0.16	0.60	0.92	17.68
40	1.18	900	2.1	19.1	21.2	9.1	-2.69	-17.67	1.91	129.34	122.30	37.3	57.1	164.0	69.6	66.8	66.8	1,572	16.17	-0.04	0.60	0.92	17.77
41	1.20	900	2.1	19.2	21.3	9.1	-2.69	-17.67	1.91	129.40	122.36	37.3	57.2	164.1	69.6	66.8	66.8	1,596	13.99	-0.02	0.60	0.92	17.77
42	1.22	900	2.1	19.2	21.3	9.1	-2.69	-17.67	1.90	129.46	122.42	37.4	57.2	164.2	09.6	06.7	06.7	1,620	5.73	-0.02	0.60	0.92	17.79
43	1.24	900	2.1	19.2	21.3	9.1	-2.69	-17.67	1.90	129.55	122.51	37.4	57.3	164.3	60.2	06.7	06.7	1,647	13.21	-0.03	0.60	0.92	17.83
44	1.20	900	2.1	19.0	21.7	9.2	-2.09	-1/.0/	1.90	130.40	123.31	31.1	50.7	100.4	09.3	00.4	00.4	1,678	19.30	-0.28	0.60	0.92	17.85
45	1.28	900	2.2	20.0	42.2	9.3	-2.69	-17.67	1.89	131.56	124.41	38.2	59.7	100.8	08.9	0.00	06.0	1,708	17.71	-0.42	0.63	0.91	18.60

**Table 5**: Optimization results for Salu Bulo based on Measured and Indicated Resource categories Run 4. Selected pit highlighted.

# **PIT DESIGNS**

The Awak Mas pit design is split to four stages, as shown in Figure 2.

#### Awak Mas

Stages are named as follows: Starter pit (AM1), Ridge cutback (AM2), Southern Extension (AM3) and the Western Extension (AM4).



#### Figure 2: Awak Mas pit design

The Awak Mas selected shell was compared to the 2020 pit design and is very similar to the design and therefore a revised pit design for 2021 is not warranted. Final Pit and interim stage designs were retained from the 2020 update.

The 2021 pit optimization shell selected and the 2020 design inventories for Awak Mas are compared below in *Table 6*. In reporting the pit inventory, it was agreed with Masmindo that the pit design would not be updated for this Ore Reserve report in order to complete the work in a timely manner. A pit design update will be completed at a later date.

Table 6: Awak Mas 2020 pit design inventory compared to t	the 2021 pit shell (Measured and Indicated r	esource only)
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Awak Mas	Total Tonnes (Mt)	Ore (Mt)	Ore Grade (g/t)	Contained Gold (koz)	Waste (Mt)
Whittle Pit Shell 27 RF 0.92	225.7	33.3	1.33	1,423	192
Pit Design 2020	204.0	31.0	1.34	1,332	173
Variation	90%	93%	100%	94%	90%

Note: Excludes inferred mineralization in the comparisons, ore above 0.5 g/t.

The interim stages assist in maximising the Project value by targeting the highest value ore material early in the mine life and deferring waste material.

### Salu Bulo

The Salu Bulo pit design was updated in 2021 due to material changes to the 2020 Mineral Resource model, resulting in a significantly different set of optimisation shells. The pit design is split into two separate pit stages, as shown in Figure 3.

Stages are named as follows: Starter pit (SB2) and Main pit (SB1).



Figure 3: Salu Bulo Mas pit design

The selected ultimate pit shell and design inventories for Salu Bulo are compared below in Table 7.

Salu Bulo	Total Tonnes (Mt)	Ore (Mt)	Ore Grade (g/t)	Contained Gold (koz)	Waste (Mt)
Whittle Pit Shell 31	19.6	2.0	1.93	125	17.5
Pit Design	20.0	2.0	1.92	122	18.1
Variation	103%	98%	100%	98%	103%

Table 7: Salu Bulo pit design inventory compared to the pit shell (Measured and Indicated resource only)

Note: Excludes inferred mineralization in the comparisons, ore above 0.5 g/t.

The combined mining inventory estimated in the pit designs is reported in Table 8. The Measured Resource reports to the Proved Ore Reserve and the Indicated Resource is converted to Probable Ore Reserve after the adjustment for dilution and ore loss. There is 3.2 Mt of Inferred Mineral Resource (9% of the total) within the two pit designs which is excluded from the Ore Reserve estimate but is added to the mining and processing schedule as mill feed for financial modelling of the Project, based on the plan to upgrade this material to Indicated Mineral Resource status prior to mining commencing.

The mining inventory of 36.2 Mt of ore has a LOM strip ratio of 5.2:1.

Material Type		Plant Feed	Grade	Marginal Grade Material	Waste Tonnes	Total Tonnes
		(Mt)	(g/t)	(Mt)	(Mt)	(Mt)
Awak Mas	Measured	2.5	1.38	0.2	-	-
	Indicated	28.5	1.33	3.7	-	-
	Inferred	2.6	1.15	0.6	-	-
	Total	33.6	1.32	4.5	165.9	204.0
Salu Bulo	Measured	0.6	1.92	0.0	-	-
	Indicated	1.4	1.93	0.0	-	-
	Inferred	0.6	0.90	0.1	-	-
	Total	2.6	1.68	0.1	17.3	20.0
Total	Measured	3.1	1.48	0.2	-	-
	Indicated	29.9	1.36	3.7	-	-
	Inferred	3.2	1.10	0.7	-	-
	Total	36.2	1.35	4.6	183.2	224.0

Table 8: LOM mining inventory by source

Notes: cut -off grade 0.5 g/t for ore, Marginal material grade is 0.4 to 0.5 g/t. Slight difference may be reported between tables due to different methods of calculating inventory.

The waste dumps were positioned to minimize the risk of sterilization of potential resource and pit extensions, to achieve geotechnical stability and to minimize truck haulage. Geochemical investigations indicated that the waste material is not potentially acid producing (PAF), however, if minor volumes of material require encasement that would be managed by creating small local depositories within the designed waste dumps. The Awak Mas and Salu Bulo waste dump designs are shown in Figure 4 and

Figure 5.

Figure 4: Awak Mas waste dump designs



Figure 5: Salu Bulo waste dump design



The overall site layout is presented in Figure 6. The layout includes provisions for processing infrastructure, tailings storage, waste dumps, ore stockpiles for marginal-, low- and high-grade ore, topsoil storages, mine workshops, explosives facilities and magazines and haul roads.





# **MINE SCHEDULE**

A mining schedule was developed by AMC by monthly periods for the first 5 years of processing, then in quarters, in MineMax scheduling software, with the total material movement and ore grade mined presented in Figure 7. Key scheduling objectives being to fill the processing plant with material with an average grade above 1.1 g/t, limit overall mining rate to under 22 Mt per year, satisfy supply of rock waste to the TSF and to minimise ore stockpile build-up.

Figure 7: Mined tonnes and grade



A maximum vertical rate of advancement of 60 m per year was applied in the mining benches with ore zones, with a peak mining rate of 21.6 Mtpa. The vertical rate of advance limit was not applied to the upper benches with less than 100kt of material to be mined and little ore.

The processing plant throughput is scheduled to ramp up over 6 months as follows: month 1 10%, month 2 15%, month 3 30%, month 4 57%, month 5 75%, month 6 90%.

The Minemax scheduler maximizes the project value by bringing forward higher value ore, while stockpiling lower value ore to be processed later in the mine life. The schedule was also constrained to supply sufficient construction rock in the pre-production period (before ore processing commences) for infrastructure whilst minimising total costs incurred in the pre-production period. A second requirement of the schedule was to deliver a head grade to processing of above 1.1 g/t, this required some early pit development and creates larger ore stockpiles built over the mining phase for reclaim after mining is completed. The combined stockpile balance, including marginal material (which is not processed), peaks at approximately 7.6 Mt (Figure 8). Stockpile designs were completed to accommodate the volumes required by the mining schedule.

Figure 8: Closing stockpile balance



Higher grade ore is processed over the first 4-5 years (Figure 9), while the higher strip ratio Awak Mas Southern Extension (with a strip ratio of 6.5) is mined later in the mine life (Figure 10 and Figure 11). Metrics from the mine schedule are presented in Table 9 for the 15-year mining period. The mining schedule output file is named:

"AwakMas\_MMax\_Schedule\_Mining contract\_Monthly\_2021\_Model\_MM24\_v24\_RevB.xlsx".



Figure 9: Ore tonnes and grade processed

Figure 10: Material mined by stage.





Figure 11: Material mined and processed annually.

### Table 9: LOM schedule metrics

Deposit	Plant Feed (Mt)	Grade (g/t)	Marginal Grade Material (Mt)	Waste Tonnes (Mt)	Total Tonnes (Mt)
Awak Mas	33.6	1.32	4.5	165.9	204.0
Salu Bulo	2.6	1.68	0.1	17.3	20.0
Total	36.2	1.35	4.6	183.2	224.0

Notes:

• Cut -off grade 0.5 g/t for ore, Marginal material grade is 0.4 to 0.5 g/t.

• Stripping ratio 5.2:1.

Inferred in plant feed 3,240 kt (9% of total feed).

### **MINING COSTS**

Mining costs for the operation were estimated by AMC based on the mining schedule and cost inputs agreed with Masmindo for the 2021 ORE. Costs assume that a mining contractor will be appointed to perform all mining operational functions and Masmindo will provide overall mine management and technical direction. The operating costs provide for the Masmindo mining department include management and technical functions. The mining contractor will conduct the mining activities associated with the open pit operation including all aspects of mining waste and ore, that is:

- Clear and grub.
- Topsoil removal.
- Pioneering.
- Drill-and-blast.
- Load-and-haul.
- Waste dump and ore stockpile management.
- Pit road construction and maintenance.

The mining contractor will also be responsible for crusher feed, ore re-handle and rehandle of waste to the TSF.

Operating costs estimates were developed in AMC's mining cost model (OPMincost). This is a first principle model driven by the mining schedule, haul cycles, productivity assumptions, capital cost, parts and consumables input costs and labour costs. Expenses estimated to support the mining activities include:

- Operator salaries and on-costs provided by a HR consultant.
- Equipment maintenance costs based on life-cycle costs (LCCs) provided by the equipment dealers or where not supplied costs are taken from AMC's database.
- Consumable costs including ground engaging tools (GET), tyres, drilling rods, hammers and bits, and maintenance parts and lubricants.
- Safety and training materials.
- Grade control sampling and analysis consumables.
- Mining and auxiliary equipment fuel.
- Haul truck machine hours and fuel consumption rates using the Haul Infinity simulation package.
- Blasthole drilling requirements and sub-contractor supplied explosives and accessories.
- Costs associated with the client's technical services and the staff required management of the contractor.
- Pit dewatering activities.
- Final pit wall drilling and excavation.
- Contractor direct costs, overheads and profit margin associated with the mining operation normally included in a schedule of rates contract.
- Accommodation and FIFO costs for contractors.

Capital cost estimations are developed based on quantities and unit rates included an estimate for the following items:

- Mining contractor's equipment transport, assembly and mobilization.
- Replacement capital as machinery reaches is end of life.
- Clear and Grubbing activities in the pre-production period.
- Topsoil stripping in the pre-production period.
- Rock sheeting to first roads.
- Mine technical software.
- Ore pads located at pits.
- Other haul roads required to support the operation.
- Waste dump foundations.

Capital for the following items is estimated by others:

- Mining Infrastructure area including workshop, mobile equipment wash down bay, fuel store and truck laydown facility.
- Mining contractor offices and stores facility.
- Processing facilities.
- Tailings storage facilities.
- Site accommodation village.
- ROM Pad crusher interface.
- Magazines (including appropriate magazine security).
- Offices and fittings for personnel.
- Haul roads form Awak Mas and Salu Bulo mining areas to the processing plant.
- Slope stability radar establishment.
- Onsite and offsite support infrastructure.

The LOM manning schedule is reported in Table 10 and Table 11 presents the maximum number of mining, drilling and auxiliary fleet.

The cost model used was version:

220029\_OPM\_Awak Mas Gold\_Mining contract\_2021\_MM24\_v24\_revB\_REV4.09.xlxs.

### Table 10: LOM Annual manning numbers

Personnel Numbers	Owner (0)	Roster	No.	No. of Camp	Expat	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037
	or		of One Way	Days Per	or																
	Contractor (C)		Flights Per Person	Person (n.a.)	National																
			(p.a.)	(p.u.)																	
Fixed - Production (Contractor)																					
Project Manager	Contractor	6w on / 2w off	12	232	Expat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pit superintendent	Contractor	6w on / 2w off	12	232	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine Production Supervisor	Contractor	6w on / 2w off	12	232	National	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Drill & Blast Supervisor	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
OHS & Training Supervisor	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
OHS & Training	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Blasting crew	Contractor	7on/7off	11	183	National	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Admin Assistant	Contractor	7on/7off	11	183	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mine Plan Engineer	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
D&B Engineer	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Clerks	Contractor	7on/7off	11	183	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dayworks Supv	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Labourer	Contractor	7on/7off	11	183	National	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Dewatering Crew	Contractor	7on/7off	11	183	National	4	4	4	4	8	8	8	8	8	8	8	8	8	8	8	8
Sub Total						38	38	38	38	42	42	42	42	42	42	42	42	42	42	42	42
Fixed - Maintenance (Contractor)																					
Maintenance Superintendent	Contractor	19d on / 9d off	25	236	Expat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance Engineer	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance Supervisor	Contractor	6w on / 2w off	12	232	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Maintenance Planner	Contractor	6w on / 2w off	12	232	National	2	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1
Leading Hand - Electrical	Contractor	6w on / 2w off	12	232	National	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Leading Hand - Mechanical	Contractor	6w on / 2w off	12	232	National	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Electrician	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Fitter	Contractor	6w on / 2w off	12	232	National	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Boilermaker	Contractor	6w on / 2w off	12	232	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Mechanical Engineer - Graduate	Contractor	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maintenance Planning Clerk	Contractor	5d on / 2d off	0	249	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Trades Assistant	Contractor	7on/7off	11	183	National	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Sub Total						25	25	25	24	24	24	24	24	24	24	24	24	24	24	24	24
Fixed - Technical Services (Owner)																					
Manager Mining	Owner	19d on / 9d off	25	236	Expat	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pit Coordinator	Owner	6w on / 2w off	12	232	National	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Alt Mine Manager	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Technical Services Manager	Owner	19d on / 9d off	25	236	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Admin Assistant	Owner	5d on / 2d off	0	249	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Manager Geology	Owner	19d on / 9d off	25	236	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Geological Supt	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Geologist	Owner	6w on / 2w off	12	232	National	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Mine Geology Op co-ordinator	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Geology Supv.	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Pit Technician	Owner	7on/7off	11	183	National	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Geology Graduate	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
GIS Database Officer	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Mine Planning Superintendent	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Senior Planning Engineer	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Planning Engineer	Owner	6w on / 2w off	12	232	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Contractor Management and Production Analysis Engineer	Owner	6w on / 2w off	12	232	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Drill and Blast Engineer	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Senior Geotech Engineer	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Geotechnical Engineer	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Geotech Technician	Owner	5d on / 2d off	0	249	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Surveying Supt.	Owner	6w on / 2w off	12	232	National	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Surveyor	Owner	6w on / 2w off	12	232	National	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Survey Assistant	Owner	5d on / 2d off	0	249	National	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9	9
Long Term Planning Engineer	Owner	6w on / 2w off	12	232	National	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Sub Total						52	53	53	53	53	53	53	53	53	53	53	53	53	53	53	53
Sub Total						0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mining Operations - Variable Numbers (Contractor)																					
National Truck Operator	Contractor	7on/7off	0	183	National	54	124	137	157	157	207	207	207	207	207	207	207	120	120	120	120
National Excavator operator	Contractor	7on/7off	0	183	National	9	13	17	17	17	21	21	21	17	17	17	17	9	9	9	9
National Ancilliary Operator	Contractor	7on/7off	0	183	National	88	88	88	88	88	88	60	60	56	56	56	56	48	48	48	32
National Drill Operator	Contractor	7on/7off	11	183	National	5	13	13	13	13	17	17	17	17	17	17	17	9	9	9	0
National Fitter	Contractor	7on/7off	11	183	National	42	69	76	83	80	101	90	109	77	106	87	64	56	40	25	12
Sub Total						198	307	331	358	355	434	395	414	374	403	384	361	242	226	211	173
Total Personnel - Expat					Expat	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Total Personnel - National			-	-	National	310	420	444	470	471	550	511	530	490	519	500	477	358	342	327	289
Total Personnel						313	423	447	473	474	553	514	533	493	522	503	480	361	345	330	292

Mining Fleet	Model	Max number on Site (0-5 Years)	Max Number on Site (LOM)		
Trucks	A60H	50	50		
Excavators	V950	5	5		
FELs	988H	3	3		
Drills	PowerROC T50	4	4		
Track dozer	D8R	3	3		
Track dozer	D7R	3	0		
Graders	14M	3	3		
Water trucks	P410CB	2	2		
Service truck	-	1	1		
Fuel trucks	-	2	2		
Maintenance truck	-	4	4		
Rock breakers	-	1	1		
Compactors	-	1	1		
Tyre handlers	-	2	2		
Forklifts	-	2	2		
Cranes	-	1	1		
Light plants	-	12	12		
Compressors	-	3	3		
Water pumps	-	6	6		
Light vehicles	-	20	20		
Troop carriers	-	10	10		

### Table 11: Maximum number of mining, drilling and auxiliary fleet

# **MINE OPERATING COSTS**

Table 12 presents the summary LOM mine operating costs.

Activity	LOM Cost (ŚM)	\$/bcm (LOM)	\$/dmt (LOM)
Load	47.3	0.54	0.21
Haul	268.5	3.09	1.20
Drill-and-blast (production)	100.7	1.16	0.45
Drill-and-blast (pre-split)	12.9	0.15	0.06
Grade control	12.6	0.15	0.06
Auxiliary equipment	115.5	1.33	0.52
ROM rehandle	8.0	0.09	0.04
Stockpile rehandle	55.0	0.63	0.25
Owner tech and management team	0.0	0.00	0.00
Contractor management	19.0	0.22	0.09
Owner misc. overheads	6.7	0.08	0.03
Contractor misc. overheads	52.6	0.60	0.23
Dewatering	7.9	0.09	0.04
Infrastructure	10.5	0.12	0.05
Total	717.2	8.24	3.20

Table 12: Total operating cost by activity over the LOM

The cost activity for owner's team was estimated by AMC but is captured under the MDA General and administration cost centre.

The unit mine operating cost is USD3.20/t total material mined.

# **CAPITAL COSTS**

The significant capital items for the 2021 Addendum for mining establishment include mobilization of the mining fleet, haul road construction and pioneering works associated with pit and stockpile development. A capital replacement model is also developed. Allowances are made for lessor items, as reported in Table 13.

Mobilization and demobilization are estimated from supplier quotes and sourced from AMC's database. Other capital items were estimated by AMC.

Item	Total	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Mining Equipment																			
Equipment Mobilisation	8,598,075	-	2,179,831	1,396,222	296,609	319,455	163,514	934,345	367,628	2,833	51,503	733,131	1,136,731	705,634	93,897	216,743	-	-	-
Equipment Demobilisation	1,962,845	-	-	-	-	-	-	11,250	83,526	64,830	7,571	24,845	295,930	276,911	444,678	75,995	86,195	107,089	484,025
Sub Total	10,560,920	-	2,179,831	1,396,222	296,609	319,455	163,514	945,595	451,154	67,662	59,075	757,976	1,432,661	982,545	538,575	292,738	86,195	107,089	484,025
Infrastructure																			
Workshops	527,023	527,023	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Communications - Pit	250,000	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Plant and Equipment																			
Workshop Tooling & Maintenance Aids	250,000	-	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other																			
Mining tech hardware	250,000	-	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Rock sheeting Year 0	1,300,000	-	1,300,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Topsoil	2,435,200	-	439,353	1,307,254	320,210	11,486	356,896	-	-	-	-	-	-	-	-	-	-	-	-
Clear and Grub	946,043	378,417	567,626	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pioneering and other roads	3,804,991	2,031,230	1,552,883	-	-	-	-	220,878	-	-	-	-	-	-	-	-	-	-	-
Other Stockpiles	250,000	-	250,000	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Capital & Replacement Cost	20,574,176	3,186,670	6,789,692	2,703,477	616,819	330,941	520,411	1,166,473	451,154	67,662	59,075	757,976	1,432,661	982,545	538,575	292,738	86,195	107,089	484,025

### Table 13: LOM capital estimate for mining

# 2021 ORE RESERVE

The 2021 Ore Reserve for the Project is reported according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code, 2012 Edition). The Ore Reserve was estimated from the Mineral Resource after consideration of the level of confidence in the Mineral Resource and after taking account of relevant modifying factors.

Proved and Probable Ore Reserves are estimate directly from the Measured and Indicated Mineral Resource respectively. No Inferred Mineral Resources have been included in the Ore Reserve. Table 14 shows a summary of the Ore Reserve on a 100% Project basis. The Ore Reserve is estimated as at July 2021. No mining had taken place to that date. Masmindo have demonstrated the Project presents a positive NPV and consider the Project is able to be financed. The positive NPV is achieved without the contribution of the Inferred mineralisation in the mine schedule.

Site	Classification	Tonnes (Mt)	Gold Grade (g/t)	Contained Gold (Moz)
Awak Mas	Proved	2.5	1.38	0.11
	Probable	28.5	1.33	1.22
Salu Bulo	Proved	0.6	1.92	0.04
	Probable	1.4	1.93	0.09
Total	Proved	3.1	1.48	0.15
	Probable	29.9	1.36	1.31
	Total	33.0	1.37	1.45

Table 14: Ore Reserve estimate July 2021

Note: Cut-off grade 0.5 g/t. Estimated at a gold price of USD1,400/oz.

A JORC Table 1 has been completed for the revised Ore Reserve estimation and is attached.

The Ore Reserves (Table 14) estimated for the Project are 33.0 Mt at 1.37 g/t Au for 1.45 M contained ounces. This Ore Reserve estimate is calculated using a 0.5 g/t Au cut-off grade.

The previous 2020 Ore Reserve was 35.6 Mt at 1.33 g/t containing 1.53 Moz, therefore the 2021 update represents a small reduction in the Ore Reserve for the Project. This reduction is largely driven by a change in the structural interpretation of the Salu Bulo mineralisation. The overall reduction in contained gold for the entire Project is approximately 5%.

# CONTRIBUTORS TO THE ORE RESERVE ESTIMATION

The personnel listed in Table 15 have taken a major role in contributing information and support to the Ore Reserve estimate by either contributing data or support the permitting and approvals that are required to ensure the Awak Mas gold project is technically and economically feasible.

Area of Contribution	Name	Employer
Mining	David Varcoe	AMC
Ore processing and testwork	John Fleay	DRA
Mineral Resource	Mike Millad	Cube Consulting
Tailing storage	Paul Petropulos	Coffey Tetra Tech
Open pit geotechnical	Asoka Herath	AMC
Open pit hydrogeology	Carsten Kraut	AMC
Hydrology	Geoff Perryman/ Tommy Prastowo	Golder Associates
Environmental and community	Ali Sahami	PT Lorax Indonesia
Engineering	Simon Birch	PT Resindo
Legal and approvals	Adrian Rollke	Masmindo
Financial modelling	Matthew Doube	Nusantara

### JORC CODE, 201EDITION – TABLE 1

### Section 4 Estimation and Reporting of Ore Reserves

(Criteria in this section 1, and where relevant in sections 2 and 3, also apply to this section)

Criteria	JORC Code (2012) Explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.	The Project is presently held by PT Masmindo Dwi Area (Masmindo), 75% owned by Nusantara and 25% owned by Indika Energy, The Mineral Resource estimate used as the basis of this Ore Reserve for the Awak Mas Gold Project ("Project"), is comprised of the Awak Mas and Salu Bulo deposits. This Mineral Resource estimate was compiled by Principal Geologist Mr. Michael Millad of Cube Consulting, who is the Competent Person for these Mineral Resources. The estimate is based on assay data from 1,092 diamond holes at Awak Mas and 241 diamond drill holes at Salu Bulo. The data set, geological interpretation and model was validated using Nusantara's internal Quality Assurance and Quality Control (QAQC) processes and reviewed by an independent external consultant. The grade estimation approach used a combined Localised Uniform Conditioning ("LUC") and Ordinary Kriging ("OK") technique to estimate the Measured, Indicated and Inferred components of the resource. Ordinary Kriging was only applied to the narrow, steep dipping sub-vertical domains. LUC is a recoverable estimation technique typically used for estimation into small blocks using wider spaced resource definition drilling. The technique was considered appropriate given high short-scale grade variability and the uncertainty associated with the estimation of the local grade tonnage distribution.
		For Awak Mas the LUC panel was set at 20m x 20m x 5m (XYZ) with a block size for local estimation to a SMU size of 5m x 5m x 2.5m (XYZ). For Salu Bulo the LUC panel was set at 20m x 20m x 10m (XYZ) with a block size for local estimation to a SMU size of 5m x 10m x 2.5m (XYZ) with further sub-celling to 1.25m x 2.5m x 1.25m to honour volumes.
	Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.	The Mineral Resources are reported inclusive of the Ore Reserve. For Awak Mas refer ASX announcement 16 March 2021 and for the Salu Bulo refer to ASX 5 July 2021.
Site visits	Comment on any site visits undertaken by the Competent Person and the outcome of those visits. If no site visits have been undertaken indicate why this is the case.	<ul> <li>The Competent Person (Ore Reserves) conducted a site visit in October 2017, he was involved with the DFS and the FEED study. The following activities were completed on the site visit:</li> <li>Gained general familiarization with the site including likely mining conditions, proposed pit location, waste dump location, site drainage and site access.</li> <li>Assessed proposed locations of mining related infrastructure relative to the designed open pit.</li> <li>Observed resource drilling activities.</li> <li>Inspected core drill hole sites to get an understanding of the variations in weathering profiles across the deposit.</li> <li>Viewed diamond drill core from selected holes.</li> </ul>

Criteria	JORC Code (2012) Explanation	Commentary
		Other key contributors to the study have also visited the site.
Study status	The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves. The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.	The Ore Reserve estimate is the result of the preparation of a 2021 update to the Definitive Feasibility Study (DFS) and 2020 Ore Reserve completed by a team consisting of Masmindo personnel and independent external consultants. This work is being updated in conjunction with this Ore Reserve to recognise the updated Mineral Resource estimation, continuing and updated metallurgical test work results showing improved estimated recovery, and the improved gold price. This Ore Reserve Estimate is an update of a previous estimate (Refer ASX announcement 16 June 2020). The change from the previous Ore Reserve Estimate is due to additional definition drilling resulting in an update in the underlying Mineral Resource Estimate, through an additional 229 diamond drill holes totalling 11,845m for Awak Mas and Salu Bulo. The Mineral Resource Estimate now presents with Measured classification due to additional close spaced drilling completed since the 2020 Ore reserve estimate. The assessment draws on work completed in the previous DFS and the 2020 Ore Reserve on the two deposits, Awak Mas and Salu Bulo. The major contributors to the DFS and current assessment include owners Masmindo and consultants from AMC Consultants, Cube Consulting, Golder, DRA, Coffey Services, Lorax, SMEC and Resindo Resources & Energy (Resindo).
		made for the operational phase involve the application of conventional open pit mining, gold processing and tailings disposal technology which is widely utilised in gold mining operations in Indonesia.
		Financial modelling completed as part of this 2021 Ore Reserve update shows that the project is economically viable under current assumptions.
		Material Modifying Factors (economic, mining, processing, infrastructure, environmental, legal, social and commercial) have been considered during the Ore Reserve estimation process.
Cut-off parameters	The basis of the cut-off grade(s) or quality parameters applied.	<ul> <li>A 0.5g/t cut-off grade was applied in estimating the Ore Reserve. This is above the estimated marginal cut-off grade of approximately 0.4 g/t. Cut-off grade is calculated in consideration of the following parameters:</li> <li>Gold price.</li> <li>Operating costs.</li> <li>Process recovery.</li> <li>Transport and refining costs.</li> <li>General and administrative cost.</li> <li>Royalty costs.</li> </ul>
Mining factors or assumptions	The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design). The choice, nature and appropriateness of the solucted mining method(c) and other	The current deposits associated with the Awak Mas Gold Project will be mined by open pit mining methods utilising conventional mining equipment. Pit designs and waste dump designs were completed as part of this updated assessment. The estimated Measured and Indicated Mineral Resource within the pit designs is the basis of the Ore Reserve estimates. The selected mining method, design and extraction sequence are tailored to suit the local setting in Indonesia, waste rock removal and storage, orebody characteristics and to minimise dilution and ore loss. The sequence is designed to defer waste movement and capital expenditure, utilise proposed process plant capacity and expedite free cash generation in a safe and environmentally sustainable manner.

Criteria	JORC Code (2012) Explanation	Commentary
	mining parameters including associated design issues such as pre-strip, access, etc.	Mining operating and capital costs were estimated from first principles as part of this Ore Reserve update and referenced against contractor budget quotes. DFS costs were updated where appropriate for this assessment.
	The assumptions made regarding geotechnical parameters (e.g. pit slopes, stope sizes, etc), grade control and pre- production drilling.	Open pit geotechnical modelling has been commenced by AMC Consultants and is based on a review of the geotechnical work completed by others as part of previous studies, supported by a site visit, additional testing, dewatering test pumping, and inspection of diamond drill core samples and three-dimensional slope stability analysis. The analysis considered static and dynamic (earthquake) loading and derived satisfactory safety factors. The recommended geotechnical design parameters are matched to the pit designs and assume dry slopes on the basis of adequate dewatering ahead of mining. A dewatering plan is developed and costed. A geotechnical management plan is developed.
		Conventional drill and blast mining methods will be employed at Awak Mas and Salu Bulo with blast-hole (BH) sampling utilised as the primary procedure for grade control. In addition, reverse circulation (RC) drilling will be used specifically to determine where ore/waste boundaries exist and for updating the mine planning process for future mining.
		Shallow trenching across benches will be used selectively to assist with ore mark-out by determining both visually and quantitatively (by sampling) the position of contact boundaries. Floor mapping will assist with creation of dig-blocks which, when coupled with the blast-hole sampling and 3D modelled RC drilling, will give a level of GC necessary to support selective mining where appropriate. The DFS includes provision of an on-site laboratory for assaying.
	The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).	Mining dilution and recovery modifying factors were simulated by modelling to a Selective Mining Unit (SMU) of 5x5x5m and regularizing the Mineral Resource block model to that SMU. The selected SMU is matched to the proposed mining equipment and methodology.
	The mining dilution factors used.	The modelling yielded the following results:
	The mining recovery factors used. Any minimum mining widths used.	<ul> <li>Mining tonnage dilution factor of 7% for Awak Mas and 11% for Salu Bulo</li> <li>A net mining recovery factor of 97% for Awak Mas and 90% for Salu Bulo of contained gold resulted.</li> </ul>
		The relatively low dilution factors reflect the fact that the Mineral Resource model has an element of dilution and is constructed considering the mining SMU using LUC techniques.
	The manner in which Inferred Mineral Resources are utilized in mining studies and the sensitivity of the outcome to their inclusion.	The mining schedule is based on supplying suitable material to the processing plant with a name plate capacity of 2.5 Mtpa. The plant feed included a mix of oxide, transitional and fresh material from Awak Mas and Salu Bulo.
		The mining schedule is based on realistic mining productivity and equipment utilisation estimates, and considered the pit development requirements, the selected mining fleet productivity and the vertical rate of mining development.
		Inferred Mineral Resources were considered as waste during the pit optimisation process. Minor quantities of Inferred Mineralization are included in the production schedule but do not report to Ore Reserves. The project financial result is not sensitive to the inclusion of the Inferred mineralization in the schedule. It is planned to upgrade the majority of the Inferred mineralisation inside the pit designs to Indicated prior to progressive mining.
	The infrastructure requirements of the selected mining methods.	The proposed mine layout includes designs for a processing plant, tailings storage facility, open pits, waste rock dumps, a ROM pad, surface water diversion channels, sediment control structures, surface dewatering bores, light and heavy

Criteria	JORC Code (2012) Explanation	Commentary
		vehicle workshop facilities, explosives storage and supply facilities, security, technical services and administration facilities, site access roads, power supply, water supply and employee accommodation.
		Waste material from mining activities will be disposed of as follows:
		<ul> <li>Topsoil will be disposed of at designated stockpiles for application in on-going rehabilitation activities.</li> <li>Select mine waste rock will be utilised to construct the TSF Starter Embankment, and subsequent lifts, and other site infrastructure such as roads.</li> </ul>
		<ul> <li>Excess waste rock, or waste rock deemed not suitable for the TSF or site infrastructure, will be disposed of at designated engineered waste rock dumps.</li> </ul>
		Waste dumps are geotechnically designed for stability.
		Waste dumps are designed to allow for water management and sediment runoff control.
Metallurgical factors or	The metallurgical process proposed and the appropriateness of that process to the style	A processing flowsheet, mass balance, water balance, equipment identification, mechanical and electrical design were all developed to Australian standards and conform to Indonesian standards.
assumptions	of mineralisation. Whether the metallurgical process is well- tested technology or novel in nature.	A single stage primary crushing, Semi Autogenous Grinding and Ball Milling comminution circuit followed by a conventional gravity, carbon in leach (CIL) and cyanide destruction process is proposed. This process is considered appropriate for the Awak Mas and Salu Bulo ore types.
	The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining	The proposed metallurgical process is commonly used in the Indonesian and international gold mining industry and is considered to be well-tested and proven technology.
	applied and the corresponding metallurgical recovery factors applied.	Significant comminution testing has been carried out on diamond drill core samples. These tests have been carried out on oxide, transitional, and fresh ore types which were obtained across the deposits. These comminution parameters have been applied to process design and equipment selection.
	Any assumptions or allowances made for deleterious elements.	Gold recovery values were applied by ore domain, as determined by Minnovo from additional testwork completed post- DFS. The following results were derived per ore domain:
	The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of	<ul> <li>Rante, Tanjung and Lematik 93.2%.</li> <li>Mapacing, Ongan 92,2%.</li> <li>Salu Rula 94.8%</li> </ul>
	the orebody as a whole.	• Salu Dulu 34.6%.
	For minerals that are defined by a	No deletenous elements of significance have been determined from metallurgical testwork and mineralogy investigations.
	specification, has the ore reserve estimation been based on the appropriate mineralogy	
	to meet the specifications?	
Environmental	The status of studies of potential	Extensive environmental baseline studies have been conducted at the Awak Mas Gold Project site from 2013 to 2017. The
	environmental impacts of the mining and	studies have established a seasonal database for key environmental components, which include meteorology, hydrology,
	characterisation and the consideration of	contents); hydrogeology; surface water quality; stream/river sediment quality; soils, air quality and noise.
	potential sites, status of design options	

Criteria	JORC Code (2012) Explanation	Commentary
	considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.	Baseline studies have been considered in the environmental and social impact assessment (ESIA) for the Awak Mas project. The ESIA (AMDAL in Indonesian) determined the significant impacts of the projects and environmental management plans have been developed to eliminate, and where not possible, mitigate negative environmental impacts associated with mining and processing operations. Monitoring of key environmental and social components will be continued during the construction, operations and closure phases of the project as stipulated in the approved AMDAL Environmental Permit. Progressive reclamation of site during construction and operations will be guided by the approved 5-Year Reclamation Plan for the Project. The monitoring data will form the basis for assessment of the efficacy of environmental management plans and continual improvement in environmental management practices for the Project.
		Geochemical characterization test work on ore/tailings and waste rock were completed in September 2019 to assess the potential for acid rock drainage/metal leaching (ARD/ML) from mine wastes. The test work involved standard static tests to assess potential for ARD. All samples tested were categorized as Non-Acid Forming (NAF) and therefore the risk of acid rock drainage from waste rock and tailings from the Awak Mas Project is negligible.
		Locations for engineered waste rock and tailings storage facilities have been selected based on geographical, geotechnical, hydrological, economic and environmental considerations.
Infrastructure	The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided or accessed.	The project site is within economic distances of existing infrastructure of the South Sulawesi province. Existing roads into and from Belopa, the capital of the Luwu Regency, to Site provide for delivery services and consumable supplies. Belopa is some 45 km to the east, on the coast, with access to coastal shipping facilities. Masmindo would work with the Regency Government on proposals to upgrade sections of the road that provide access to Site as part of the early works for the Project.
		An upgraded electricity supply lateral from Sulawesi's power supply grid would be built from Belopa to Site to supply electric power on Site.
		The mine workforce will be a mix of personnel from within the Luwu Regency and fly-in-fly-out (FIFO) based at a camp on Site during rostered days on. There is a regional airport at Bua, north of Belopa, which has daily scheduled flights to Makassar, the provincial capital for South Sulawesi. Makassar is a regional hub for the area and has a large port and international airport, which provides connection to southeast Asia and Australia.
		Hydrological studies indicate that there is sufficient water available in the river systems adjacent to the Project to service the needs of the Project for the life of mine. The water from the Songgang River would be pumped to a raw water pond at the process plant. The AMDAL allows for the extraction of water for these purposes.
Costs	The derivation of, or assumptions made, regarding projected capital costs in the study.	All mining capital estimates are based on a mix of market rates, updated to reflect 2021 market conditions, with key equipment priced by vendors and Indonesian mining contractors.
		It is assumed that all mobile mining equipment required for the project will be supplied and operated by a mining contractor.
		It is assumed that power infrastructure to Site will be supplied by Perusahaan Listrik Negara (PLN), which is an Indonesian government-owned corporation which generates and manages electricity distribution in Indonesia.

Criteria	JORC Code (2012) Explanation	Commentary
		The capital cost estimate accuracy is +/-15%.
		Mine development costs were developed from a combination of inputs from Masmindo, AMC Consultants, Resindo, DRA and Indonesian mining contractors. The basis of the estimate is:
		<ul> <li>Contract mining assuming drill and blast with conventional excavator and truck mining. Support mining equipment is allowed for site pioneering and ongoing mining.</li> <li>Mobilisation of mining equipment and personnel from within Indonesia</li> <li>Earthworks quantities are determined by specialised earthworks modelling using Lidar data, geotechnical inputs by a qualified geotechnical consultant who undertook geological modelling and drilling and site visits by competent engineers to review local conditions and physical features that relate to the development.</li> <li>Mine dewatering requirements developed from test pumping, analysis and hydrogeological modelling.</li> <li>A mining schedule developed on a monthly basis for the first 5 years and then quarterly.</li> <li>A contingency allowance on capital cost items calculated to reflect the relevant level of confidence in the estimate.</li> </ul>
		Processing and processing infrastructure development capital costs have been adopted, unchanged from the DFS, which were estimated by Resindo using a combination of inputs from Coffey Services, SMEC, Resindo and DRA. The basis of the estimate is:
		<ul> <li>Earthworks quantities determined from detailed site inspections by a competent civil engineer.</li> <li>Concrete and structural quantities developed from site layouts and similar designs from other projects.</li> <li>A mechanical equipment list developed from the recommended process design criteria.</li> <li>Budget pricing from local and international suppliers.</li> <li>Additional TSF volume suitable for up to 44 Mt LOM storage has been developed from the DFS design (740 mRL) to 764 mRL and included in years 11 and 14 as sustaining capital cost.</li> </ul>
		• The Waste fock volumes from detailed design suitable for up to 39.3 ML LOW tailings storage, to a height of 765 mRL. The Starter Embankment (695 mRL) forms part of the development capital costs while the subsequent lifts are accounted for as a sustaining capital cost.
		Contingency allowances calculated on a line-by-line basis relevant to the source and confidence in market rates.
	The methodology used to estimate	The operating cost estimate accuracy is +/-15%.
	operating costs.	Other support capital costs for accommodation camp facilities, administration office, security facilities, heavy equipment workshop, logistics warehouse at Belopa, access road from Belopa, explosives magazine, etc were estimated by Masmindo and a consultant panel from Petrosea (with Resindo, Golder, DRA, Reconsult), plus rates from Masmindo, market bids and SMEC.
		Operating costs assume a mix of employees from the within the Luwu Regency and a FIFO scenario with various rosters on Site. A specialist HR consultant advised on the salary scales applicable to all roles envisaged for the project, updated in 2021 by Masmindo.
		Mining operating costs have been estimated by AMC on the basis of scheduled material movement and mining rates for a contractor mining scenario with technical services supplied by employees of Masmindo. Mine design and schedules were

Criteria	JORC Code (2012) Explanation	Commentary				
		prepared by competent mining engineers. Process and process plant infrastructure operating costs have been estimated by Minnovo (updated post-DFS from metallurgical testwork) using:				
		<ul> <li>Reagent and grinding media consumption rates derived from testwork and budget quotations.</li> <li>A load list for power consumption.</li> <li>Industry standards.</li> </ul>				
		The DRA operating costs are based on the assumption that:				
		<ul> <li>A primary crush, conventional SAB circuit, gravity and leach and cyanide destruction process plant will be utilised to treat ore at a rate of 2.5 Mtpa.</li> <li>Primary crusher utilisation of 75% and wet plant utilisation of 91.3%.</li> <li>Grid power is available through PLN.</li> <li>Reagent delivery will be to the Belopa warehouse for storage, prior to consolidation for delivery to Site.</li> <li>The process plant will be operated by Magmindo employees</li> </ul>				
		The operating cost estim	ate is conside	red to be appropr	iate for the curr	rent market in Indonesia.
	Allowances made for the content of deleterious elements.	No allowance is made for deleterious elements since testwork to date on ore from Awak Mas and Salu Bulo has n the presence of deleterious elements.				
	The source of exchange rates used in the study	Capital Costs for process plant and infrastructure are estimated in 2021 United States dollars. Foreign currency exchange rates were derived as tabled below:				
		Currencies	Code	1 Native = USD	1 USD = Native	
		US Dollar	USD	1.0000	1.0000	
		Indonesian Rupiah	IDR	0.00007	14,500	
		Australian Dollar	AUD	0.71	1.41	
	The derivation of, or assumptions made, regarding projected capital costs in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private	Transport charges - Gold Indonesian bullion shipm Treatment and refining c An allowance has been n Government of Indonesia	bullion transp hent organisat harges are est hade for royal a.	ortation charges on. imated on the ba cies, including an a	are derived on t sis of rates from allowance of 4.0	the basis on information provided from a leading n a leading Indonesian Gold Refinery. 20% of revenue for royalties payable to the
Revenue factors	The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s)	The mined ore head grac relevant mining modifyir	les are estima Ig factors.	ted utilising indus	try accepted ge	ostatistical techniques with the application of

Criteria	JORC Code (2012) Explanation	Commentary
	exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.	<ul> <li>Gold price and exchange rates have been determined by an external financial expert group on the basis of current market trends.</li> <li>A Life-of-mine (LOM) gold price forecast of US\$1,400/oz (Real 2021) is applied in the financial modelling for the project supporting the Ore Reserve calculation process. This price forecast was established by Nusantara on the basis of review of US\$ gold price forecasts.</li> <li>The Recent LT real gold price forecasts per Energy and Metals Consensus Forecast at March 2021 was USD1,421 per ounce which provided the basis of the price assumption.</li> </ul>
Market assessment	<ul> <li>The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.</li> <li>A customer and competitor analysis along with the identification of likely market windows for the product.</li> <li>Price and volume forecasts and the basis for these forecasts.</li> <li>For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.</li> </ul>	There is a transparent market for the sale of gold.
Economic	The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs.	<ul> <li>Discounted cash flow modelling and sensitivity analysis has been completed to evaluate the economic performance of the Ore Reserve. Key value driver inputs into the financial model included: <ul> <li>Gold price at US\$1,400/oz based on forecast long term pricings.</li> <li>Discount rate of 5%, on real, ungeared forecast cashflows.</li> </ul> </li> <li>The Ore Reserve estimate is based on work completed to at least a DFS level of accuracy with inputs for mining, processing, general and administration, sustaining capital and contingencies scheduled and costed to generate the initial Ore Reserve cost model.</li> <li>The Project cost model based on the Ore Reserve returns a positive NPV based on assumed commodity prices and the Competent Person is satisfied that the project economics that support the statement of the Ore Reserves retains a profit margin against reasonable future commodity price movements.</li> </ul>
Social	The status of agreements with key stakeholders and matters leading to social licence to operate.	Nusantara and previous owners through, PT Masmindo Dwi Area (Masmindo), have occupied the site for over a decade and has worked harmoniously with the local community over that period. There has been extensive and ongoing community engagement over a number of years, including specialist studies as part of an Environmental and Social Impact Assessment. Masmindo Community Development and Empowerment Plan was developed in 2019 and approved in December 2019. Masmindo enjoys a strong relationship with the communities around Awak Mas and are committed to

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		working with these communities to ensure the project benefits extend beyond direct employment.		
Other	To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore	The Project is held under a 7th Generation Contract of Work (CoW) signed with the Indonesian Government (GOI) in 1998 and is owned 100% by Masmindo. The CoW grants Masmindo the sole right to explore and develop the Awak Mas Gold Project.		
	Any identified material naturally occurring risks.	In March 2018 Masmindo signed an amendment with the GOI which reaffirms Masmindo as the legal holder of the CoW with the sole rights to explore and exploit minerals within the CoW area until 2050 with the option of two ten-year extensions under the IUPK mining licence regime. The Amendment more closely aligned the CoW to prevailing laws and		
	<ul> <li>The status of material legal agreements and marketing arrangements.</li> </ul>	regulations. All major environmentally related approvals/permits for the Awak Mas Gold Project are in place, specifically these are:		
	<ul> <li>and marketing arrangements.</li> <li>The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.</li> </ul>	<ul> <li>Government of Indonesia Feasibility Study (GOI FS) – originally approved 17 May 2017 was updated to align with feasibility study completed in 2018. The updated GOI FS was approved by the Minister of Energy and Mineral Resources (MEMR) on 9 July 2019.</li> <li>AMDAL and Environmental Permit – The approved AMDAL and issuance of the Environmental Permit granted by the Government of South Sulawesi on 12 April 2017 was further updated for changes in the GOI FS. The updated AMDAL was approved and a new Environmental Permit was issued on 17 October 2019.</li> <li>Construction Permit – MEMR issued the Construction Permit for the Awak Mas project on 20 June 2017 followed by a Minister's Decree on 16 January 2018 regarding change from Construction to Production/ Operations Phase (which includes construction) for the Awak Mas Project, which is valid until 19 June 2050.</li> <li>5-Year Reclamation Plan – Approved by MEMR in February 2019.</li> </ul>		
		Examples include explosive permit, water use permit, hazardous waste storage permit, etc. These permits will need to be secured during construction and operations, as applicable.		
		Permitting process for the tailings storage facility (TSF) has been initiated. Permitting of the tailings dam from the Indonesian Dam Safety Commission at the Ministry of Public Works is well advanced and approval of the dam design is anticipated in July 2021. Engagement with the Ministry of Environment and Forestry in support of the issuance of the Tailings Permit, which addresses the environmental aspects of the TSF, is scheduled to be initiated in July 2021.		
		The Project location is classified as "land for other uses" and does not have a forestry designation. Therefore, a Forestry 'borrow and use' (Pinjam Pakai) Permit is not required for the Awak Mas Project.		
		Within the CoW and project area there are small scale farming activities whereby locals primarily grow cloves, coffee, and coco. These lands are largely communal without legal title. Masmindo is currently engaging with the local farmer in relation to land compensation activities to make free and clear its land status from any third-party land entitlement/ownership outside the Company and is expected to be completed within the next year.		

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Classification	The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the denosit	The main basis of classification of Ore Reserves is the underlying Mineral Resource classification. All Proved Ore Reserve is derived from the Measured Mineral Resource and Probable Ore Reserves derive from Indicated Mineral Resources in accordance with JORC Code (2012) guidelines.
	The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).	No Probable Ore Reserves are derived from Measured Mineral Resources. No Inferred Mineral Resource is included in the Ore Reserves.
Audits or reviews	The results of any audits or reviews of Ore Reserve estimates.	<ul> <li>The testwork and models, which form the basis of the Ore Reserve estimate was subjected to various reviews and audits:</li> <li>Metallurgical testwork was reviewed by Masmindo metallurgists and process engineers and confirmed to be adequate for a DFS level study.</li> <li>Geotechnical inputs were prepared by AMC and subject to internal review.</li> <li>Open pit designs, production schedules and mining cost models were reviewed through AMC's internal peer review system and by an independent mining consultancy engaged by Masmindo.</li> <li>The basis of design for the process plant and infrastructure was reviewed by Masmindo metallurgists and process engineers and was deemed appropriate for the study.</li> </ul>
Discussion of relative accuracy/ confidence	Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve 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 reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant to mages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.	<ul> <li>The Awak Mas DFS and the 2021 updated economic assessment resulted in a technically robust and economically viable business case for a greenfield gold mining operation located in Indonesia. This is deemed to be an appropriate basis for the Ore Reserves estimate.</li> <li>In the opinion of the Competent Person, cost assumptions and modifying factors applied in the process of estimating are reasonable and to a level of accuracy supporting the statement of Probable Ore Reserves.</li> <li>Gold price and exchange rate assumptions were set out by Nusantara and are subject to market forces and present an area of uncertainty.</li> <li>In the opinion of the Competent Person, there are reasonable prospects to anticipate that all relevant legal, environmental and social approvals to operate will be granted within the project timeframe.</li> </ul>

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	Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.	
	It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.	