



SUMBAWA TIMUR MINING

Press Release

For immediate distribution

PT. Sumbawa Timur Mining Onto Copper-Gold Deposit Discovery (Sumbawa, Indonesia)

Jakarta, Indonesia: 24 February 2020. PT Sumbawa Timur Mining (**STM** or the **Company**) is pleased to announce the discovery of the Onto copper-gold deposit, a world-class discovery that positions the company to be a leading copper producer in Indonesia. STM is the owner of the Hu'u Project 7th generation Contract of Work (**CoW**) in Nusa Tenggara Barat Province (Indonesia). The Company is a joint venture between Eastern Star Resources Pty Ltd (80%), a 100%-owned subsidiary of Vale SA, and PT Antam Tbk (20%).

STM has been conducting exploration activities within the Hu'u Project CoW since 2010. The Onto deposit was discovered in August 2013 and, since that time, 64 diamond drill holes (equivalent to 61,000m) have been drilled to determine the size, extent and characteristics of the deposit.

The December 2019 STM resource estimate reports a total Indicated resource of 0.76 billion tonnes (Bt) @ 0.93% Cu and 0.56 g/t Au and a total Inferred resource of 0.96 Bt @ 0.87% Cu and 0.44 g/t Au. This equates to a total of 1.7 Bt @ 0.89% Cu and 0.49 g/t Au. In addition to these resources, an exploration target of 0.6-1.7 Bt @ 0.2-0.7% Cu and 0.1-0.3 g/t Au has been defined surrounding the resource. STM will continue diamond drilling within and surrounding this Onto deposit to determine the margins and depth extent of the mineralisation.

STM confirmed the Company's enthusiasm with the Onto discovery. **President Director of STM, Mr Bede Evans**, stated "The Onto deposit discovery demonstrates the value and opportunity associated with the Hu'u Project. With the project now in the feasibility study in exploration stage, we look forward to advancing the project with the aim of developing a world-class mining operation."

The successful conclusion of negotiations on 7 May 2019 with the Government of Indonesia on an Amendment to the CoW provides a basis for the company to continue feasibility study and resource drilling activities. With this CoW Amendment in place, the Company is now committed to confirming the technical and economic feasibility of an underground block cave mining operation.

STM Vice-President Director, Mr Bronto Sutopo, reaffirmed the commitment of STM and its shareholders, "The amended CoW in 2019 and the Onto discovery allows the Hu'u Project to advance. We are encouraged by the strong collaborative relationship developed with the Government of Indonesia and believe that a firm foundation is set for the continued development of the Hu'u Project."

----- END OF STATEMENT -----

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ATTACHMENT 1

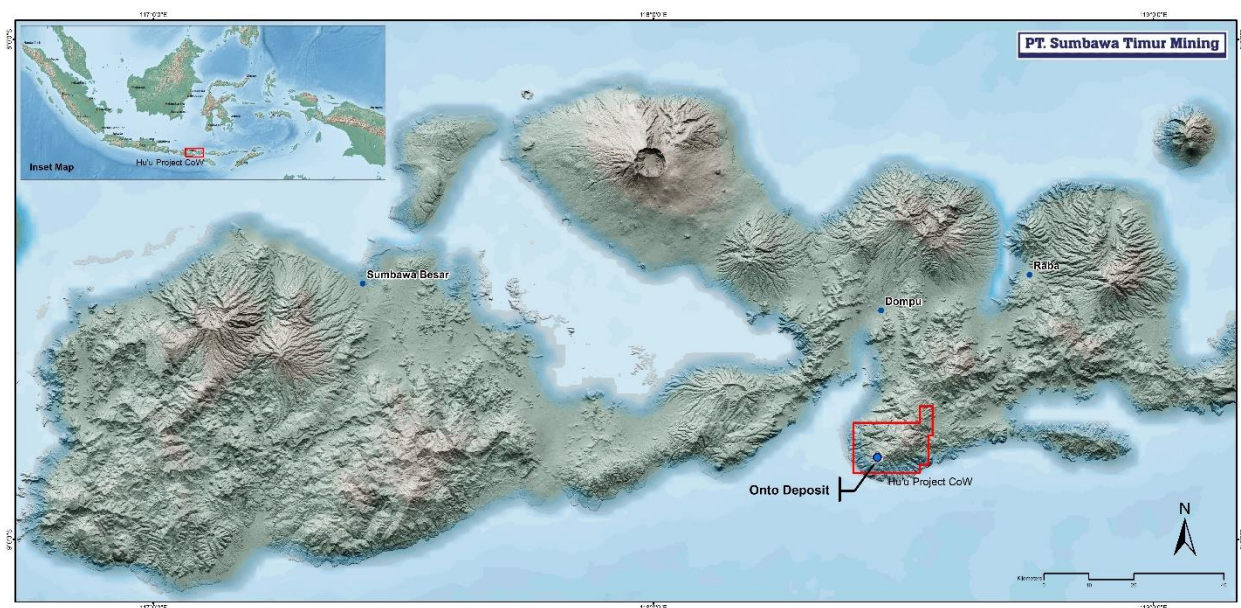
Highlights

- The December 2019 STM resource estimate reports a total Indicated resource of 0.76 billion tonnes (Bt) @ 0.93% Cu and 0.56 g/t Au and a total Inferred resource of 0.96 Bt @ 0.87% Cu and 0.44 g/t Au. This equates to a total of 1.7 Bt @ 0.89% Cu and 0.49 g/t Au.
- An Exploration Target of 0.6-1.7 Bt @ 0.2-0.7% Cu and 0.1-0.3 g/t Au has been defined surrounding the resource that lies outside the current mine plan.
- Copper occurs predominantly as disseminated covellite and pyrite-covellite veinlets in a tabular block measuring at least 1.5 x 1 km with a vertical thickness of ≥ 1 km.
- Currently 16 holes have been drilled with ≥ 700 m intervals of continuous mineralization grading between 0.7-1.3 % Cu and 0.3-0.9 g/t Au with kilometre wide intervals in several holes. The Onto deposit is open at depth in several areas and the margins have not currently been fully defined.
- The high grade and significant volume of the Onto deposit supports STM's objective of being a leading global copper producer in Indonesia. The project is in the feasibility study stage of development with the objective of proving a technically and economically viable block caving mining operation.

Project Location

The Onto Deposit is located within the Hu'u Project CoW in Nusa Tenggara Barat Province, Indonesia (Figure 1).

Figure 1: Location of the Hu'u Project



PT Sumbawa Timur Mining ownership

The Hu'u Project is owned by PT Sumbawa Timur Mining (STM), a privately-owned Indonesian company which holds a 7th Generation Contract of Work (CoW). The shares in STM are owned by Eastern Star Resources Pty Ltd (ESR), a 100% Vale SA-owned subsidiary, and PT Aneka Tambang Tbk (Antam). ESR owns 80% of STM and Antam owns the remaining 20%.

Geological description

The Onto deposit is hosted in quartz-alunite-pyrophyllite advanced argillic altered intrusive stocks and a polymictic breccia below a less altered andesite and sediment cover. Copper occurs predominantly as disseminated covellite and pyrite-covellite veinlets in a tabular block measuring at least 1.5 x 1 km with a vertical thickness of ≥ 1 km. A thick advanced argillic alteration zone hosts this mineralization with continuous advanced argillic alteration zones up to 1,300m thick.

Resource drilling

The resource database consists of the data outlined in Table 1 and contains a comprehensive downhole geological logging dataset. A comprehensive quality control and quality assurance program is implemented in parallel with the sampling process to provide quality assurance and to measure assay accuracy and precision, and to detect sample contamination.

Drill hole spacing is variable due to the early stage of evaluation of the deposit and the nature of the terrain. However, the nominal drill hole spacing is a combination of 400 x 400 m infilled to a 200 x 200 m density in some areas. Assay samples are collected on a constant two metres length basis.

Table 1: Drilling summary¹

Item	Unit	Value
Number holes	Number	64
Total drilled length	Metres	61,000
Number of assayed intervals	Number	25,241
Length assayed	Metres	50,009
Number of down-hole surveys	Number	2,036
Number bulk density measurements	Number	10,595

¹ Inclusive of abandoned drill holes.



The Onto deposit was discovered in June 2013 when VHD034 intersected significant Cu-Au mineralization from 548m through to 835m (end of the hole). Further drilling was undertaken in area surrounding VHD034 and lead to a very significant intersection on VHD037 highlighting the discovery of the Onto deposit. Selected significant drill hole intercepts are provided in Table 2.

The Onto deposit is open at depth in several areas and the margins have not currently been fully defined. Currently 16 holes have been drilled with $\geq 700\text{m}$ intervals of continuous mineralization grading between 0.7-1.3% Cu and 0.3-0.9 g/t Au with kilometre wide intervals in several holes.

Table 2: Drill hole listing of selected significant intercepts

Drill hole Number	Total Depth (m)	From (m)	To (m)	Interval Length (m) ²	Cu Grade (%) ^{3,4,5}	Au Grade (g/t) ^{4,5,6}
VHD034	835.2	548.0	835.2 (EOH ⁷)	287.2	0.97	1.13
VHD037	1484.6	536.0	1484.6 (EOH)	948.6	1.26	0.70
VHD039	1165.2	498.0	1165.2 (EOH)	667.2	0.97	0.51
VHD044	1201.4	424.0	1201.4 (EOH)	777.4	0.97	0.55
VHD045	1501.6	640.0	1501.6 (EOH)	861.6	0.95	0.41
VHD048	1523.4	522.0	1523.4 (EOH)	1001.4	0.75	0.57
VHD055	1283.4	402.0	1168.0	766.0	0.99	0.50
VHD058	1500.0	650.0	1500.0 (EOH)	850.0	1.08	0.51
VHD060	1451.7	312	1451.7 (EOH)	1139.7	1.02	0.55
VHD062R	1499.4	622.0	1499.4 (EOH)	877.4	0.77	0.69
VHD063	1501.8	486.0	1304.0	818.0	0.93	0.51
VHD064	1506.3	586.0	1466.0	880.0	0.97	0.59
VHD072	1396.6	499.5	1396.6 (EOH)	897.1	1.06	0.58
VHD073	1471.3	730.0	1471.3 (EOH)	741.3	1.29	0.90
VHD079	1492.7	684.0	1386.0	702.0	0.92	0.35
VHD080	1532.1	752.0	1502.0	750.0	0.80	0.30

² Interval lengths are downhole intervals. True width is not known.

³ Cu = copper

⁴ Interval grades are length weighted averages.

⁵ No grade cutting/truncation has been applied to individual assay values in the calculation of average intercept grades.

⁶ Au = gold

⁷ EOH = end of hole.

Resource classification

An internal resource estimate for the Onto deposit was prepared in accordance with the JORC (2012) Code and was reviewed by the STM shareholders. The Mineral Resource estimate is limited to the volume in a pre-feasibility study mine design which consists of a two-lift block-cave design (Lift-1 and Lift-2). The Mineral Resource estimate necessarily contain internal dilution to reflect the bulk mining/low selective nature of a block cave operation (Table 3).

The December 2019 STM resource estimate reports a total Indicated resource of 0.76 billion tonnes (Bt) @ 0.93% Cu and 0.56 g/t Au and a total Inferred resource of 0.96 Bt @ 0.87% Cu and 0.44 g/t Au. This equates to a total of 1.7 Bt @ 0.89% Cu and 0.49 g/t Au. STM will continue diamond drilling within and surrounding this Onto deposit to determine the margins and depth extent of the mineralisation.

Table 3: Onto Mineral Resource estimate (December 2019)^{8,9}

Reporting envelope	Resource Category	Tonnage (Bt)	Grade ¹⁰			Contained metal ¹¹		
			Cu (%)	Au (g/t)	Ag (g/t)	Cu (Mt)	Au (Moz)	Ag (Moz)
Lift 1	Indicated	0.76	0.93	0.56	5	7.0	13	100
	Inferred	0.45	0.79	0.47	3	3.5	7	50
	Total	1.2	0.88	0.52	4	11	20	200
Lift 2	Indicated	0.00	-	-	-	-	-	-
	Inferred	0.51	0.93	0.42	2	4.8	7	30
	Total	0.51	0.93	0.42	2	4.8	7	30
Total	Indicated	0.76	0.93	0.56	5	7.0	13	100
	Inferred	0.96	0.87	0.44	3	8.3	14	100
	Total	1.7	0.89	0.49	4	15	27	200

Material not supported by the pre-feasibility mine design is classified as an Exploration Target. An envelope based upon a 0.3 % Cu cut-off grade, which is approximately the calculated marginal cut-off grade, was used to define the larger mineralised body that may convert to a mineral resource with further mine planning/mine

⁸ The values in this table have been reported to appropriate significant figures, thus there may be discrepancies in totalled values.

⁹ The mineral resource is reported in 100% terms.

¹⁰ Cu = copper; Au = gold; Ag = silver

¹¹ Mt = million tonnes; Moz = million ounces

design work. The Exploration Target is presented as a range (Table 4).

Table 4: Onto Exploration Target – April 2019^{12,13}

Variable	Minimum	Maximum
Tonnage (Bt)	0.6	1.7
Cu (%)	0.2	0.7
Au (g/t)	0.1	0.3

Closing statement

The high grade and significant volume of the Onto deposit supports STM's objective of being a leading global copper producer in Indonesia. The project is in the feasibility study stage of exploration, as outlined under the Hu'u Project CoW, with the objective of proving a technically and economically viable block caving mining operation. The Company resumed field exploration activities in March 2019 and is currently undertaking resource drilling within and surrounding the Onto deposit. Technical challenges associated with developing the Hu'u Project will need to be overcome and is the focus of ongoing and future engineering studies.

----- END OF ATTACHMENT 1 -----

¹² The "Exploration Target" excludes the mineral resources.

¹³ Further exploration/mine studies may result in the estimation of a mineral resource within this volume.



DISCLAIMERS

Attachment 1 contains certain technical data extracted from an internal Mineral Resource Estimate prepared in accordance with the JORC Code (2012) and updated by STM in December 2019. The information contained in this Press Release is a summary only and does not provide all information outlined in the STM December 2019 Mineral Resource Estimate. The Mineral Resource Estimate Statement has been prepared in accordance with the guidelines in the 2012 Edition of the "Australasia Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (2012 JORC Code), but STM is not subject to the JORC Code and does not assume any obligation to comply with the JORC Code in this or any future report.

This press release and the Attachment 1 thereto may include statements about our current expectations about future events or results (forward-looking statements). Many of those forward-looking statements can be identified by the use of forward-looking words such as "anticipate," "believe," "could," "expect," "should," "plan," "intend," "estimate" "will" and "potential," among others. All forward-looking statements involve various risks and uncertainties. We cannot guarantee that these statements will prove correct. We caution you that actual results may differ materially from the plans, objectives, expectations, estimates and intentions expressed in this presentation. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information or future events or for any other reason. To obtain further information on factors that may lead to results different from those forecast by us, please consult the reports that Vale S.A. files with the U.S. Securities and Exchange Commission (SEC), the Brazilian Comissão de Valores Mobiliários (CVM), and, in particular, the factors discussed under "Forward-Looking Statements" and "Risk Factors" in Vale S.A.'s annual report on Form 20-F, and Antam files with the Indonesia Stock Exchange and the Australia Securities Exchange. None of the Company or any of its directors, officers, employees, agents, shareholders, affiliates, advisors or representatives shall have any responsibility or liability whatsoever (in negligence or otherwise) for the accuracy or completeness of, or any errors or omissions in, any information or opinions contained herein nor for any loss (including consequential loss or damage) howsoever arising, whether directly or indirectly, from any use, reliance or distribution of this press release or its contents or otherwise arising in connection with this press release. This press release should not be treated as advice relating to investment matters. Any further investment in any securities issued by the Company should be made solely on the basis of the final offer document issued in respect of such securities.]

NOTICE FOR U.S. INVESTORS:

The terms "mineral resources" and "Indicated and Inferred resources" are used in this statement. It is advised that the SEC does not recognise these terms and "resources" have not been prepared in accordance with Industry Guide 7. Such "resources" would be substantively the same as those prepared using the Guidelines established by the Society of Mining, Metallurgy and Exploration (SME) and defined as "Mineral Resource". Estimates of resources are subject to further exploration and development, are subject to additional risks, and no assurance can be given that they will eventually convert to future reserves. Inferred Resources, in particular, have a great amount of uncertainty as to their existence and their economic and legal feasibility. Investors are cautioned not to assume that any part or all of the Inferred Resource exists or is economically or legally mineable. Also, disclosure of contained metal is permitted under the SME Guidelines and other regulatory guidelines, such as Canada's NI43-101 and Australasia's JORC, however, the SEC generally requires mineral resource information in SEC-filed documents to be reported only as in-place tonnage and grade. Investors are reminded that even if significant mineralisation is discovered and converted to reserves, during the time necessary to ultimately move such mineralisation to production the economic feasibility of production may change.

