ASX Announcement
20 May 2021

Vango to Commence 2021 Field Season

Minimum of 15,000m drilling targeting significant resource expansion

Highlights

- **Vango Mining is to undertake an extensive resource expansion drilling campaign at its flagship Marymia Gold Project**
- **Drilling will target 11 priority open pits not currently part of Marymia Project's 1.002Moz @ 3.0 g/t Au JORC 2012 Resource announced 20 May 2020^**
- **This drilling is designed to add significant near-surface resources amenable to open pit mining as part of any future mining operation at Marymia**
- **Vango aims to deliver a substantial Indicated and Inferred resource increase to the existing Marymia resource this year**
- **The 11 open pit targets have been rated and ranked in order of priority and drilling is planned to commence next month**
- **Drilling will also be undertaken at the 'Crown Jewels' Trident Deposit to define further-high grade extensions, and also at the Ned's Creek JV Project with Lodestar Minerals**

Vango Mining Limited (Vango, ASX: VAN) is pleased to announce details of its 2021 field season at the Company's flagship Marymia Gold Project (Marymia, the Project) in the Mid-West region of Western Australia (Figure 1).

Vango is focused on exploring and developing the Marymia Project, and its near-term objective is to expand the Project's high-grade resource base to support its plans to become a significant gold mining and production company.

The Company plans to undertake an extensive Resource expansion drilling campaign in 2021, which will focus on 11 priority open-pit targets, not currently part of the Marymia JORC 2012 resource base. The Company plans to drill a minimum of 15,000 metres in the 2021 field season, and drilling is expected to commence next month.

Drilling will be designed to add significant, near-surface resources amenable to open pit mining as part of any future mining operation at the Marymia Project.

Details of 2021 Drilling Campaign – To define open-pit Resources

Vango plans to complete a minimum of 15,000 metres of reverse circulation (RC) drilling in up to four phases of drilling in its 2021 field season (subject to results).

Drilling will target 11 priority open-pits, and is specifically designed to deliver a substantial (Indicated and Inferred) resource increase to the existing Marymia resource base. It will also enhance the understanding of the mineralised zones within the targeted open pits for the benefit of Vango's mine planning, and for assessing funding requirements for the Company's proposed stand-alone mining operation.

This campaign is also designed to deliver 'critical mass' to increase the mine life of a proposed future mining operation from Marymia's resource base, specifically targeting an increase in total ounces to ensure that mill capacity of any future mining operation is maximised over the Project's total mine life.

The drilling is planned to be conducted on a nominal 20m by 40m drill spacing, which will give appropriate coverage of mineralised zones to determine the tenor of the mineralisation at depth and facilitate the calculation of Indicated and Inferred resources. Drilling is planned to a nominal depth of 160 metres, angled to approximately 60°, testing to 120 metres vertical below surface.

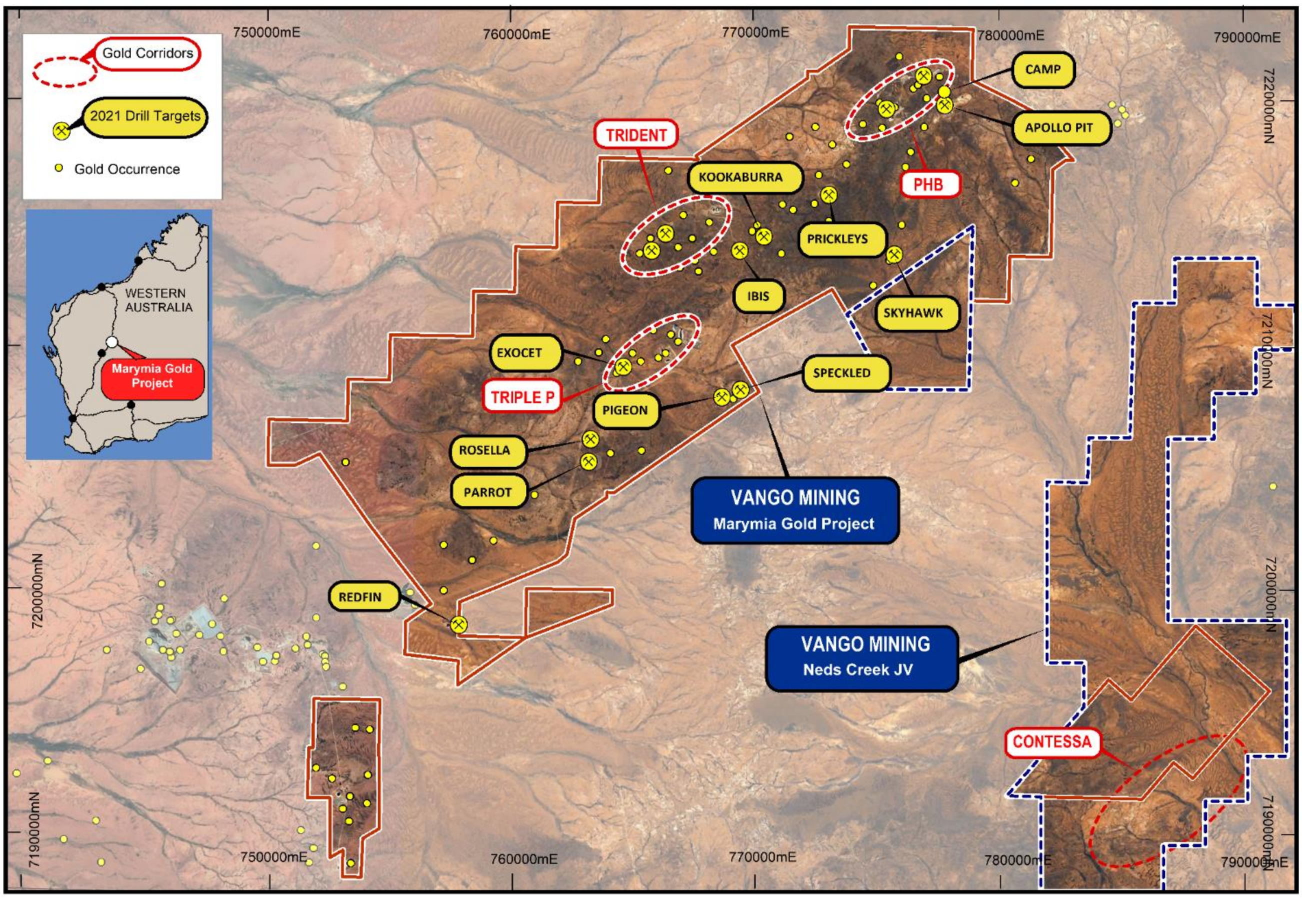

Figure 1: Marymia Gold Project showing the 11 priority open pits to be targeted in 2021 drilling campaign

The 11 open pit targets have been rated and ranked in order of priority, based on historic gold inventory and a review of historic drilling, and the proposed drillholes at each target have been designed.

The 11 open pits to be targeted are; Apollo, Exocet, Ibis, Kookaburra, Parrot, Pigeon, Prickleys, Redfin, Rosella, Skyhawk and Speckled are shown on Figure 1. The Skyhawk, Parrot and Apollo open pits have been assessed as the highest priority targets, and the first phase of drilling is planned to commence at these targets.

The drilling has been designed with the flexibility to focus on specific targets dependent on results. Similarly, the progression of the drilling campaign through all four phases of planned drilling will also be dictated by results of the previous phases of drilling.

Trident–Marwest Corridor

Drilling will also be undertaken at the north-eastern section of the Trident Deposit, the 'Crown Jewels' of the Marymia Project, in the 2021 drilling campaign.

This targeted drilling will be designed to identify further-high grade extensions of the area between the north-eastern sector of Trident and the southern extent of the Marwest target.

Background to 2021 Field Season

Vango completed an extensive 20,000 metre reverse circulation (RC) and diamond drilling drill campaign in 2020, and all results from this campaign have been released to the market. The program focused on priority targets at the Trident gold corridor and PHB gold corridor at Marymia.

Vango has compiled all results from the 2020 drilling campaign into the Marymia Project's resource model, and has completed an extensive geological review and modelling of the Marymia Project. The results of this work have formed the basis of Vango's 2021 field season, focusing on open-pit targets designed to add significant, near-surface resources to the existing Marymia JORC resource base.

The Company plans to release an updated and expanded JORC 2012 resource for the Marymia Project, including results from the 2020 and 2021 drilling campaigns, in the second half of calendar 2021.

The Marymia Project's current JORC 2012 resource is 10.38Mt @ 3.0 g/t Au for 1.02Moz Gold, announced on 20 May 2020^.

Ned's Creek Joint Venture with Lodestar Minerals

Vango, in conjunction with its Farm-in Joint Venture partner Lodestar Minerals (ASX: LSR), has commenced an aero magnetic survey and ground magnetic survey to close existing gaps in Lodestar's data base. Upon completion of the surveys, Vango plans to finalise drilling plans for the Ned's Creek and Contessa targets at the JV project area, for the next phase of drilling which is expected to commence next month.

Previous ASX releases referenced in this ASX release:

* VAN ASX, 18/04/19 *"New High-Grade Trident Gold Resource Upgrade*"
^ VAN ASX, 20/05/20 "*Marymia Mineral Resource Increases to One Million Ounces*"

The information in this announcement is extracted from reports lodged as market announcements summarised above.

In accordance with ASX Listing Rule 5.23.2, the Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcements and that all material assumptions and technical parameters underpinning the estimates in the relevant market announcements continue to apply and have not materially changed.

The Company confirms that the form and context in which the Competent Persons' findings are presented have not been materially modified from the original market announcements.

Authorised for release by the Board of Vango Mining Limited.

-ENDS-

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About Vango Mining

Vango Mining Limited (ASX: VAN) is an exploration mining company with ambitions of becoming a high-grade WA gold miner by developing the 100% owned Marymia Gold Project (**Marymia**) located in the mid-west region of Western Australia, consisting of 45 granted mining leases over 300km^2.

Marymia has an established high-grade resource of 1Moz @ 3 g/t Au, underpinned by Trident - 410koz @ 8 g/t Au, with immediate extensions open at depth/along strike.

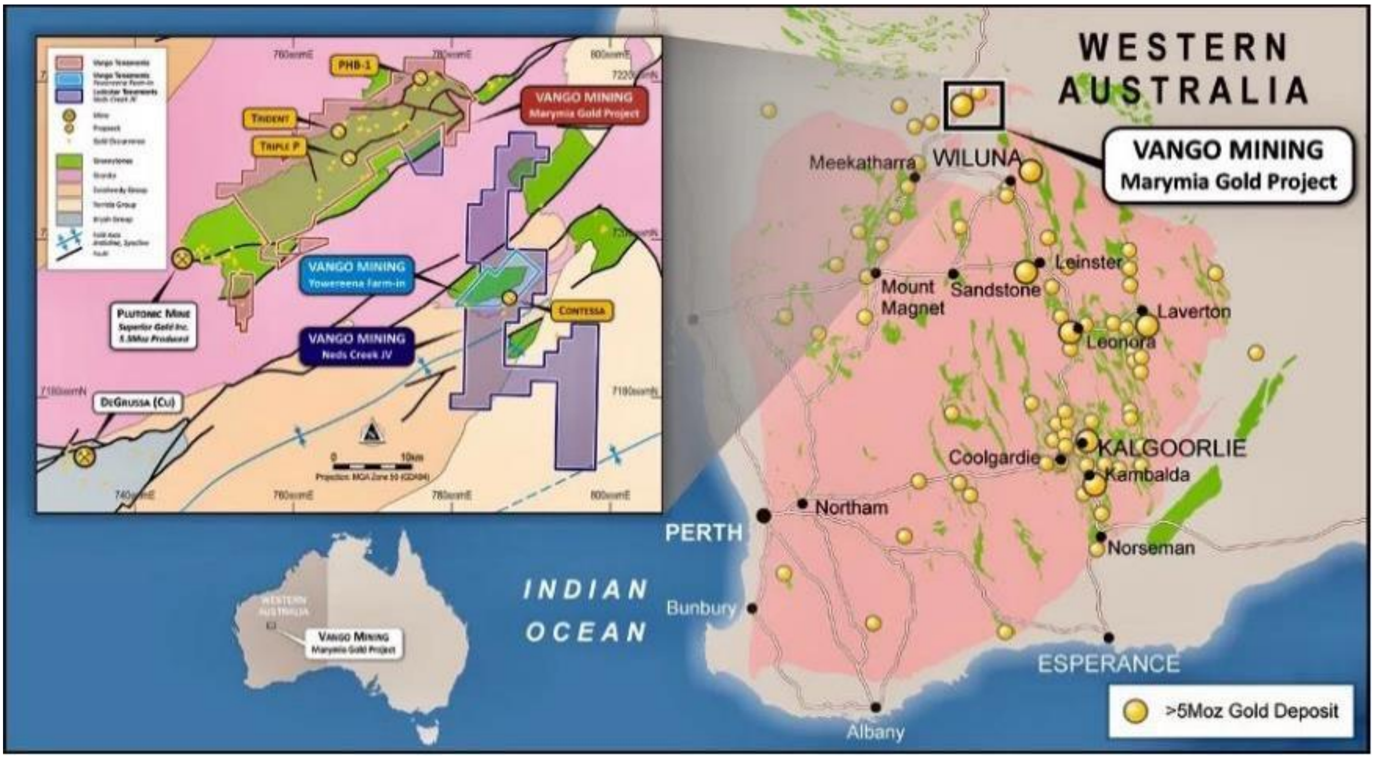

Figure 2 ***: Location of Marymia Gold Project in the Yilgarn block of Western Australia.***

The Marymia Gold Project has the potential to become one of Australia's largest high-grade production mines. The Greenstone Belt at the Marymia region includes six major gold corridors - all on granted mining leases, that remain largely un-tested beyond 100m depth, supported with an extensive drilling and geophysical database. Historical mining between 1992-2001, produced 580,000 ounces of gold almost entirely from open-pits. The geology is primarily formed of volcanic rocks, dominated by basalt, with minor sedimentary rocks inter-leaving the volcanic formations.

The Company is progressing a deliberate strategy focussed on growing its high-grade gold endowment to support its ambitions of becoming a significant high-grade, gold producer. To this end, the Company is currently focused on a multi stage 36,000 metre drilling program testing high-grade extensions and deeper 'Plutonic' targets, with stage one 20,000 metre program completed at PHB and Trident corridors, including over 7,000 metres of diamond drilling.

In parallel with the high-grade resource extension and definition program, the Company is also testing several much larger scale targets, looking for repeats of the Plutonic-style mineralisation. The Plutonic gold mine sits along strike to the southwest of Vango's ground (Figure 2) and has produced over 5.5Moz from a geological sequence known as the Mine-Mafic. This same geological sequence is interpreted from geophysical imagery to continue for 40km in Vango's Marymia tenements, however the majority of the Mine-mafic sequence in Vango's ground remains un-tested.

Dual success, through the Company's resource growth program, in combination with large-scale 'Plutonic analogue' targets drilling program, has the potential to lead to a material change to the scale of Vango's planned high-grade gold mining operations at Marymia.

JORC compliant Mineral Resource Estimate (ASX Announcement dated 20 May 2020^)

MARYMIA GOLD PROJECT JORC 2012 MINERAL RESOURCE ESTIMATE – MAY 2020										
Deposit	**Cut-off**	**Indicated**			**Inferred**			**Total**		
Mineral Resource	*Au g/t*	*K t*	*g/t*	*K oz*	*K t*	*g/t*	*Oz*	***Kt***	***g/t***	***K oz***
Open Pits	0.5	5,300	1.8	311	2,950	1.6	150	**8,250**	**1.7**	**461**
Underground	3.0	1,142	9.6	352	992	5.9	189	**2,134**	**7.9**	**541**
Total		**6,442**	**3.2**	**663**	**3,942**	**2.7**	**339**	**10,384**	**3.0**	**1,002**

^VAN confirms all material assumptions and technical parameters underpinning the Resource Estimate and Reserve continue to apply and have not materially changed as per Listing Rule 5.23.2.

Mineral Resources reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (Joint Ore Reserves Committee Code – JORC 2012 Edition).

Open pit resources reported within optimised conceptual pit shells at A$2,500/oz gold price above a 0.5 g/t Au cut off and include oxide, transition and fresh material.

Trident underground resources are retained as first reported 18 April 2019* above a 3.0 g/t Au cut-off grade, and modelled at a gold price of A$2,000/oz, on the basis that the information has not materially changed since last reported. Other underground resources reported above a 3.0 g/t Au cut off (with minor 2.5 g/t Au cut-off material included for continuity purposes) and includes fresh material only.

Totals may differ due to rounding, Mineral Resources reported on a dry in-situ basis.

Competent Persons Statements

The Statement of Mineral Resource Estimates has been compiled by Dr. Spero Carras who is a full-time employee of Carras Mining Pty Ltd and a Fellow of the Australian Institute of Mining and Metallurgy ("FAusIMM"). Dr. Carras has sufficient experience, including over 40 years' experience in gold mine evaluation, relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ("JORC") Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Dr. Carras consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to exploration results has been reviewed, compiled and fairly represented by Mr David Jenkins, a Member of the Australian Institute of Geologists and a full time employee of Terra Search Pty Ltd. Mr Jenkins has sufficient experience, including over 28 years' experience in exploration and resource evaluation relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Jenkins consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

Forward Looking Statements

This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information.