



## **MEDUSA MINING LIMITED**

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## **ANNOUNCEMENT**

28 October 2021

# **INVESTOR PRESENTATION**

(ASX: MML)

Please find attached the Investor Presentation that the Company will present at its Annual General Meeting, to be held at Quest South Perth Foreshore, 22 Harper Terrace, South Perth, Western Australia on Thursday, 28 October 2021.

Outlined below are Competent Persons' Consents in relation to resource and reserve information which appears in the Investor Presentation.

### **JORC CODE 2012 COMPLIANCE - CONSENT OF COMPETENT PERSONS**

#### **Medusa Mining Limited**

Information in this report relating to **Exploration Results** has been directed and reviewed by Mr James P Llorca and is based on information compiled by Philsaga Mining Corporation's technical personnel. Mr Llorca is a Fellow of The Australian Institute of Geoscientists (AIG), also a Fellow of the Australasian Institute of Mining and Metallurgy (AusIMM) and a Chartered Professional in Geology of the AusIMM.

Mr Llorca is Manager of Geology and Resources, and is a full-time employee of Medusa Mining Ltd, and has sufficient experience which is relevant to the styles of mineralisation and type of deposits under consideration and to the activities for which he is undertaking to qualify as a "Competent Person" as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Llorca consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

#### **Carras Mining Pty Ltd**

The Information in this report relating to **Ore Reserves** is based on information compiled by Dr Spero Carras of Carras Mining Pty Ltd. Dr Carras is a Fellow of the Australasian Institute of Mining & Metallurgy and has 30 years of experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Dr Carras consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

# Medusa Mining Limited

October 2021

ASX: MML

*Unhedged gold producer focused on growth in  
the Philippines and the Asia Pacific Region*



**MEDUSA**



# Important notice



This presentation contains only a brief overview of Medusa Mining Limited and its associated entities (“Medusa”) and their respective activities and operations. The contents of this presentation (including matters relating to the geology of Medusa’s projects), may rely on various assumptions and subjective interpretations which are not possible to detail in this presentation and which have not been subject to any independent verification.

This presentation contains a number of forward-looking statements, including the statements relating to anticipated production tonnages, grades and future drilling results. Such forward-looking statements are necessarily based upon a number of estimates and assumptions that, whilst considered reasonable by Medusa, may be subject to significant technical, business, economic, competitive, political and social uncertainties and contingencies and involve known and unknown risks and uncertainties that could cause actual events or results to differ materially from estimated or anticipated events or results reflected in such forward-looking statements. Except to the extent required by applicable law, Medusa disclaims any intent or obligation to update publicly any forward-looking statements, whether as a result of new information, future events or results or otherwise. The words “believe”, “expect”, “anticipate”, “indicate”, “contemplate”, “target”, “plan”, “intends”, “continue”, “budget”, “estimate”, “may”, “will”, “schedule” and other similar expressions identify forward-looking statements. All forward-looking statements made in this presentation are qualified by the foregoing cautionary statements. Investors are cautioned that forward-looking statements are not guarantees of future performance and accordingly investors are cautioned not to put undue reliance on forward-looking statements due to the inherent uncertainty therein. Medusa does not warrant the accuracy, currency or completeness of the information with respect to forward-looking statements contained in this presentation, nor the future performance of Medusa.

To the maximum extent permitted by law, Medusa and its officers, employees and advisers are not liable for any loss or damage (including, without limitation, any direct, indirect or consequential loss or damage) suffered by any person directly or indirectly as a result of relying on this presentation or otherwise in connection with it.

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The information contained in this presentation is not a substitute for detailed investigation or analysis of any particular issue and has been prepared without consideration of your objectives and needs and financial position. Current and potential investors and shareholders should seek independent advice before making any investment decision in regard to Medusa or its activities.

## **JORC CODE 2012 COMPLIANCE - CONSENT OF COMPETENT PERSONS**

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Mr Llorca is General Manager, Geology and Resources, a full-time employee of Medusa Mining Limited, and is entitled to participate in the Company's incentive plans, details of which are included in Medusa's 2021 Remuneration Report. Mr Llorca has sufficient experience which is relevant to the styles of mineralisation and type of deposits under consideration and to the activities for which he is undertaking 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 (JORC)." Mr Llorca consents to the inclusion in the report of the matters based on his information in the form and context in which it appears..

The Information in this report relating to Ore Reserves is based on, and fairly represents, information and supporting documentation compiled by Dr Spero Carras of Carras Mining Pty Ltd. Dr Carras is a Fellow of the Australasian Institute of Mining & Metallurgy and has 30 years of experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the “Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves”. Dr Carras consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

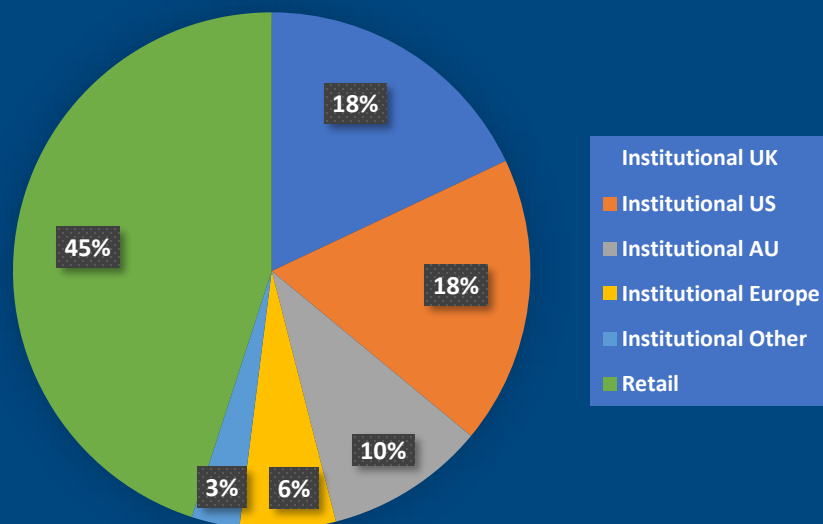
# Corporate snapshot



## Board and Management

Jeffery McGlinn	Non-Executive Chairman
Andrew Teo	Managing Director
Roy Daniel	Non-Executive Director
Simon Mottram	Non-Executive Director
Raul Villanueva	President Philippine Subsidiaries
Patrick Warr	Chief Financial Officer
Peter Alphonso	Company Secretary
James Llorca	GM Geology & Resources

## Ownership



## Capital structure

Shares on issue	207.8M
Share price (at 27 Oct)	A\$0.75
Market capitalisation	A\$156.0M
Cash and bullion (at 30 Sept)	US\$75.5M
Hedging	Nil
FY21 Dividend paid per share	A\$0.05

	Co-O Location	Philippines
	FY21 Production	95.1koz
	FY21 AISC	US\$1,231/oz
	FY22 Production Guidance	90-95koz
	FY22 AISC Guidance	US\$1,250-\$1,300/oz
	Mineral Resources (Co-O)*	726koz @ 9.77g/t Au
	Ore Reserves*	331koz @ 5.45g/t Au

NOTE:

\* Mineral Resources are inclusive of Ore Reserves.

# Co-O is a reliable and regenerative orebody



- The Co-O Gold Mine has been continuously producing gold for well over a decade
- In 2020, the mine achieved the milestone of having produced 1 million ounces
- Reserves have been consistently replenished for the past five years
- The narrow, high-grade orebody continues below current reserve limits and remains open at depth
- Reserve and resource drilling will remain efficient and seek to maintain a comfortable forward mine life while managing drilling costs

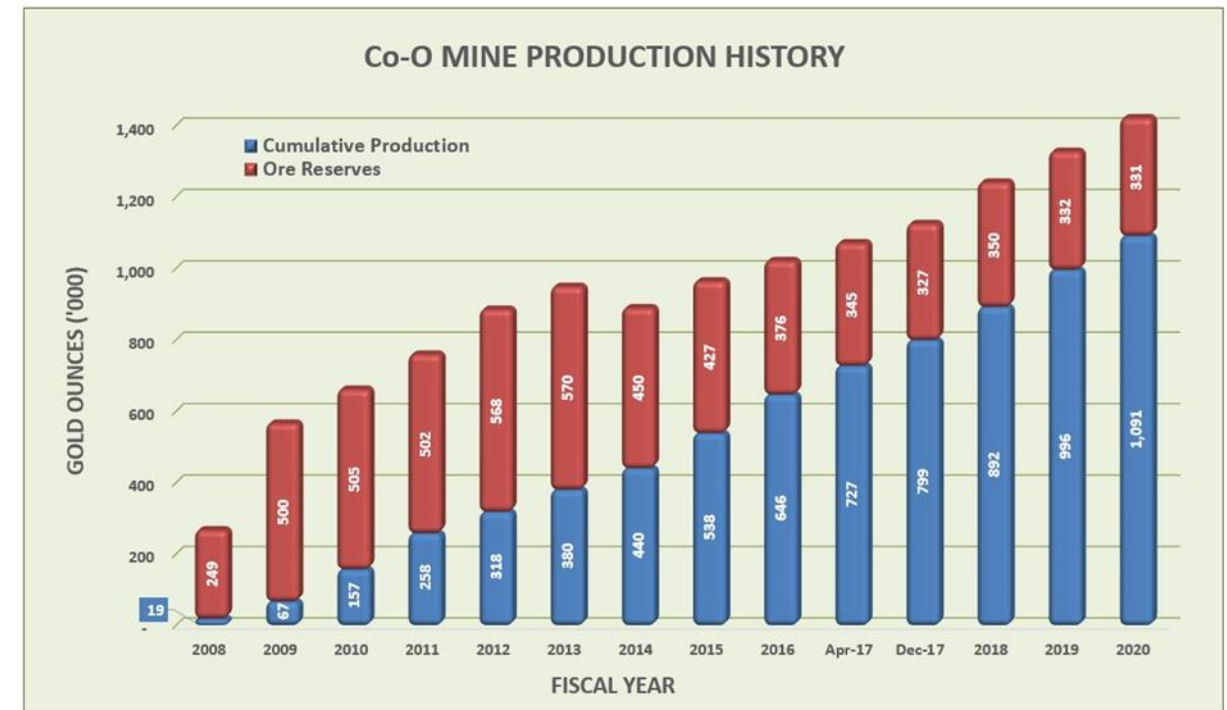
## Total Group Mineral Resources and Ore Reserves estimates at 31 Dec 2020

Description	Tonnes	Grade (g/t gold)	Contained Gold (ounces)
<b>Total Co-O Mineral Resources</b>	<b>2,310,000</b>	<b>9.77</b>	<b>726,000</b>
<b>Total Mineral Resources<sup>(1,2)</sup></b>	<b>3,236,500</b>	<b>8.09</b>	<b>841,000</b>
<b>Total Ore Reserves<sup>(1)</sup></b>	<b>1,890,000</b>	<b>5.45</b>	<b>331,300</b>

### Notes:

1. Full details of Mineral Resources and Ore Reserves, including category and deposit type, are published in the ASX as at 13 April 2021 and Company Website ([www.medusamining.com.au](http://www.medusamining.com.au))
2. Mineral Resources are inclusive of Ore Reserves.

## Cumulative Production and Annual Ore Reserves history at Co-O Gold Mine



### Notes:

- 2012-13 impact of +US\$1,600 per ounce gold price; and
- Introduction of JORC 2012 guidelines in 2014

# Consistent mill performance

## Consistently high gold recoveries

- Averaged 95% recovery in FY21

## Mill constrained by mine productivity

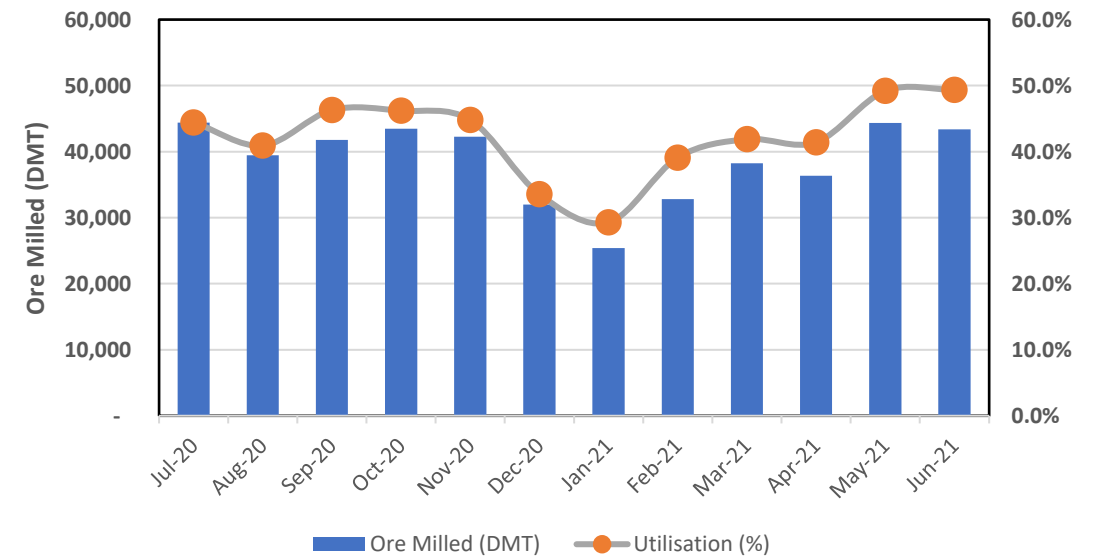
- Mill operating at <50% of utilisation provides significant scope for processing additional feed to lower unit costs and improve efficiency
- Ongoing optimisation of additional hoisting capacity installed in late 2018 has resulted in improvement in milled tonnes

## Investing in potential satellite deposits

- Additional potential satellite ore sources being actively explored (e.g. Royal Crowne Vein)



### Mill Performance

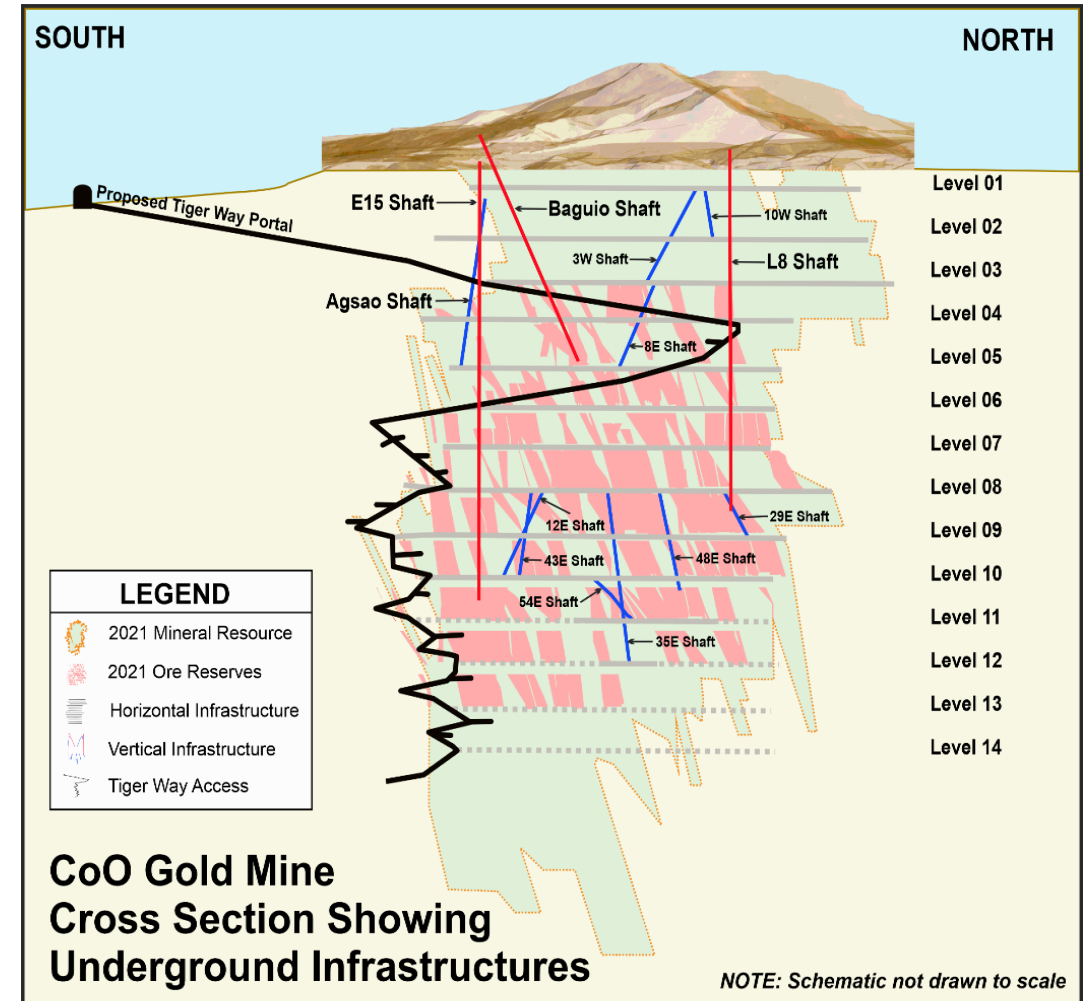
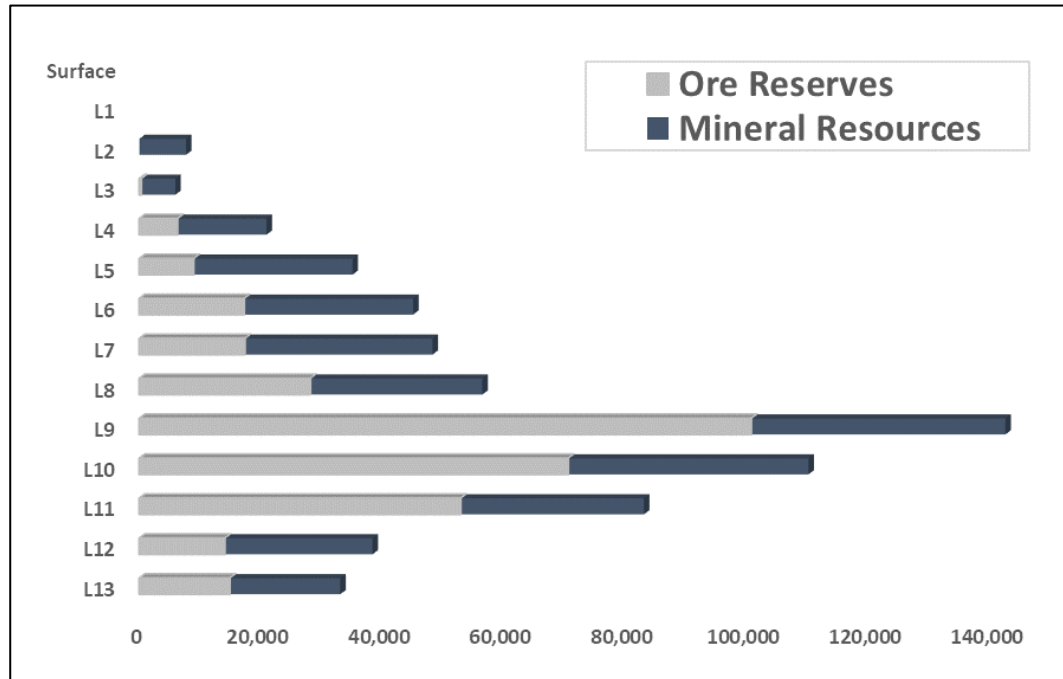


# Co-O Resource/Reserve distribution and infrastructure



## Increasing mine productivity

- Majority of Ore Reserves located between Levels 9 and 13
- E15 Shaft provides for greater ore hoisting capacity from L8 Shaft
- Lower levels underexplored and extensions expected from further drilling
- L12 drill chamber established in January 2021 to provide important positioning advantages for Resource extension drilling at lower levels



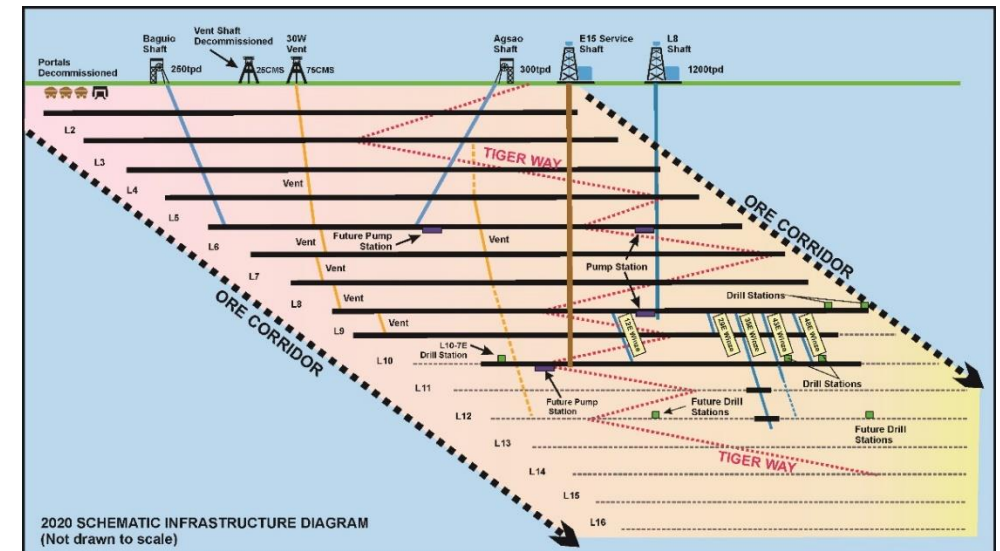
# Tigerway Decline Project.. 1/2



## A critical infrastructure project which will set-up the Co-O Operation for the next decade

- Hoist and shaft infrastructure currently responsible for all people, ore and waste movements at the Co-O Operation
- **A long-term infrastructure study determined the establishment of a decline is the optimal long-term infrastructure solution to improve efficiency and unlock value**
- Commencement delayed by the onset of COVID-19
- Appointment of experienced local contractor Mount Rock Powder Corporation in April 2021 to complete the project
  - Blasting contractor for the Co-O Operation since 2008
- Mining activities and decline construction to run concurrently with no interruption to gold production
- Project funded from existing cash reserves and future operational cash flow

Key parameters	
Capital cost	US\$54M
Project duration	36 months
Dimensions	5.3m x 5.3m – arched back
Initial depth	Level 14 (~730m)
Gradient	1:7
Resources L12-16	[129.3koz]





# Tigerway Decline Project .. 2/2



**A critical infrastructure project which will set-up the Co-O Operation for the next decade**

- Surface excavation activities for the Tigerway Decline Project commenced on the 1 August 2021.
- Installation of seven external steel rib sets with canopy to secure the portal was completed 30 September 2021.
- Advance on the portal face was limited by poor ground, which required installation of steel rib sets every metre.
- No blasting was required, and the ground was excavated in stages with the hydraulic excavator.
- Other major and essential surface infrastructures have been completed.





# Capital cost and funding

- Estimated US\$54M cost over three years for excavation and underground development
  - Total capital costs to date approx. US\$8.36m
- Capital costs expected to be internally funded from existing cash (US\$75.5M as at 30 September 2021) and future cash flow

# Rationale for the decline



## Benefits



**A long-term, extendable infrastructure solution:** more capital and operationally efficient than installing additional hoisting and service shafts at Co-O



**Exploration optionality:** ability to establish more optimal drill drive positions and drill drive excavation to no longer limit production



**Potential production upside:** removal of the hoisting system constraint on production and increase plant utilisation (currently <50%) with exploration success



**Improved health and safety:** greater productivity from enhanced working conditions and increased ventilation to deeper areas of the mine

## Opportunities



**Ore access:** Majority of current Ore Reserves located between Levels 8 – 11 (~252koz)



**Well endowed:** Level 7 – 11 have averaged gold endowment between 100 – 200koz per level



**Resource extension:** Strong belief this trend will continue at Level 12 and below with further exploration

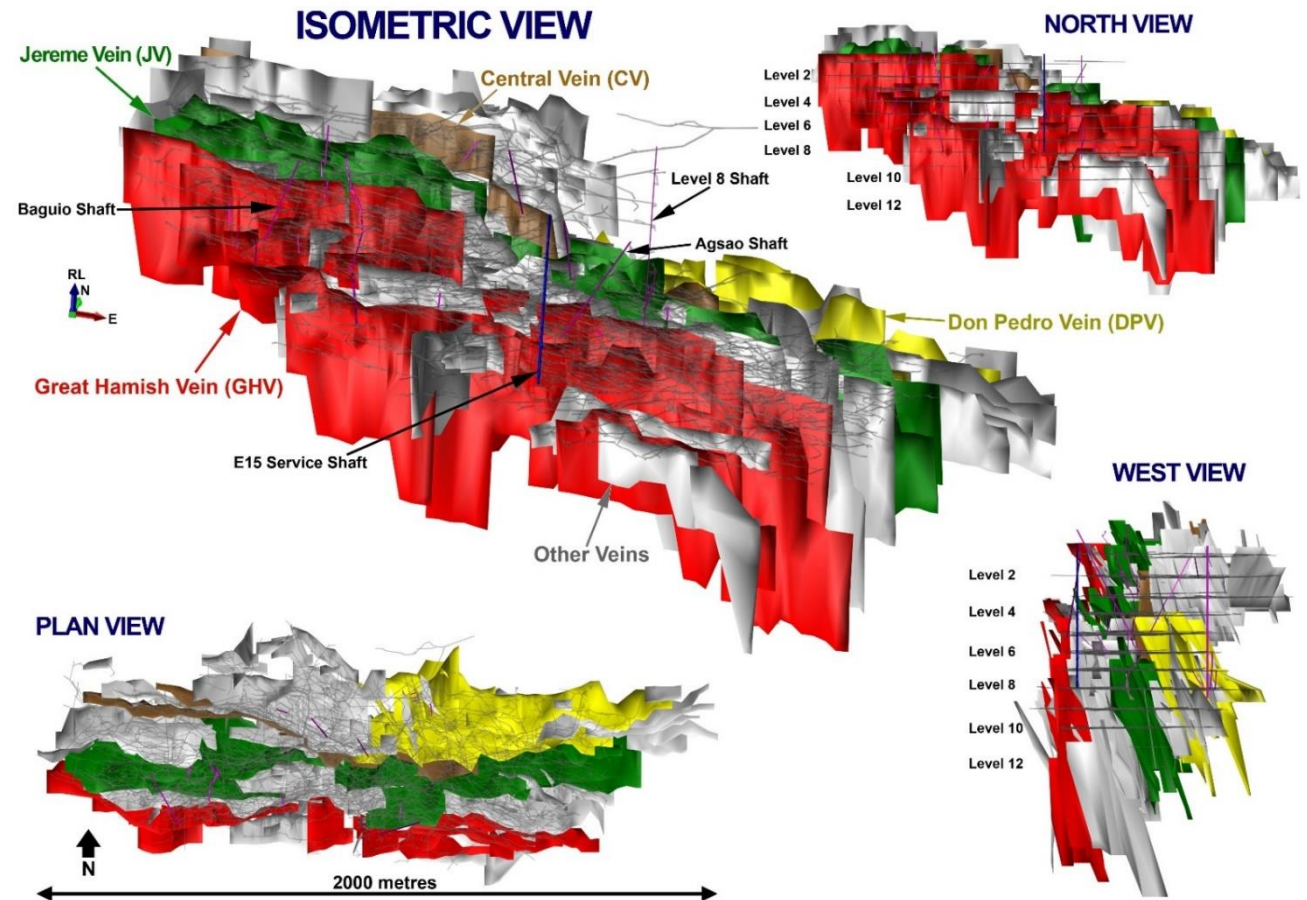


**Exploration:** High-grade gold mineralisation intersected in drilling below Level 16

# Immediate resource extension potential



- Four main mineralised veins at Co-O
  - Great Hamish
  - Jereme
  - Central
  - Don Pedro
- Current Reserve extends to Level 12 and is only constrained by drilling
- Significant potential to extend inventory below Level 12 based with high-grade mineralisation intersected at Level 16 and remaining open down dip
- Level 12 drill cuddies expected to enable further drilling June 2021 onward
- Decline to further enhance drilling platforms
- Facilitates the future drill testing of a potential northern off shoot of mineralisation

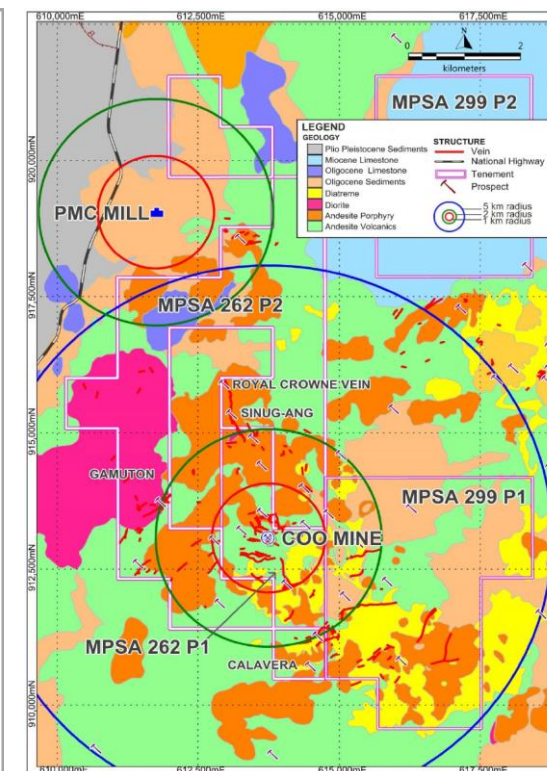
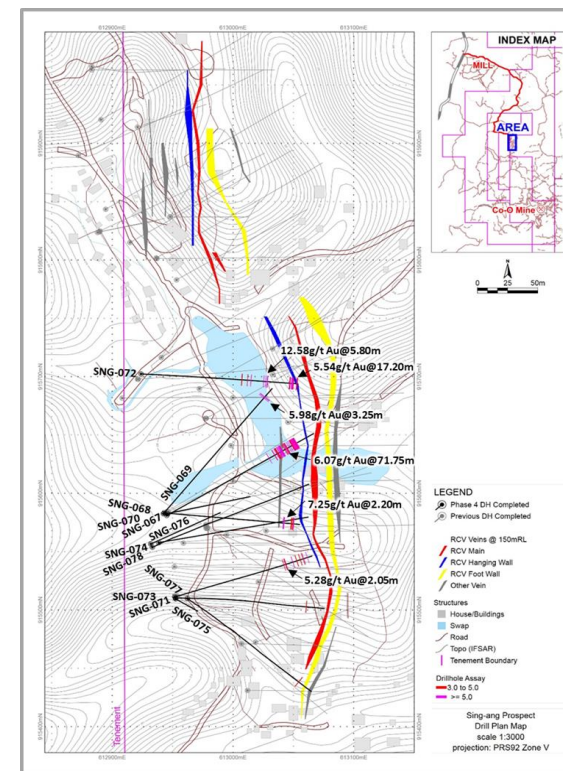


# Regional exploration



## Royal Crowne Vein deposit

- Potential satellite feed source located ~3km from Co-O mill. High-grade deposit located within 150m of surface
- Rapid resource growth in 2020 saw the grade increase by 42% and total ounces increase by 446% to 335kt @ 6.59g/t for 71,000oz
- Open at depth and down plunge
- Initial eight holes for 2,568m completed in the December Quarter 2020 with strong intercepts including:
  - 1.05m @ 16.1g/t Au, 2.3m @ 7.8g/t Au and 1.45m @ 46.7g/t Au
- Subsequent six-hole program totalled 2,034m completed in March Quarter 2021 with intercepts including:
  - 1.8m @ 3.27g/t Au, 1.5m @ 2.53g/t Au and 1.7m @ 4.13g/t Au
- **An underground approach to further development being planned through the Tigerway**



Resource Category	31 Dec 2019			31 Dec 2020			Variance		
	Tonnes	Au (g/t)	Au (oz)	Tonnes	Au (g/t)	Au (oz)	Tonnes	Au (g/t)	Au (oz)
Indicated	61,000	4.93	10,000	51,000	5.55	9,000	(16.4%)	12.6%	(10.0%)
Inferred	26,000	4.01	3,000	284,000	6.80	62,000	992.3%	69.6%	1,966.7%
<b>Total</b>	<b>87,000</b>	<b>4.65</b>	<b>13,000</b>	<b>335,000</b>	<b>6.59</b>	<b>71,000</b>	<b>285.1%</b>	<b>41.8%</b>	<b>446.2%</b>

# COVID-19 pandemic site control and management



- Actively implemented strict COVID-19 prevention policy that includes social distancing, face masks/PPE, information campaign, testing of all employees and quarantine.
- Involved local communities and other stakeholders in the preventive campaign.
- The company is the biggest employer in the Caraga district and have had only six confirmed COVID-19 positive individuals who were cleared after 14 days.
- The preventive measures enforced by the Company had effective control of the COVID-19 spread, that allowed continued mine operations with minimal disruptions.



# An integral part of our community



## Environmental preservation

- Regional flora reforestation initiatives including mangrove revegetation and planting of fruit trees and indigenous species such as the Molave<sup>1</sup>
- Ongoing focus on land rehabilitation, slope stabilisation and water resource management programs

## Healthcare, safety and education initiatives

- Philsaga High School Foundation provides education to >1,400 students directly, including scholarship programmes, schooling supplies and support to another 13 regional schools
- Philsaga Hospital provides healthcare to the surrounding communities through a 15 bed medical centre at our site which assists over 80 patients a day
- Extensive employee focused education on health and safety standards and procedures

## Community support initiatives

- Training and assistance to support stakeholder approved livelihood projects within the community in areas such as agriculture, aquaculture and business acumen

Note:

1. Molave (*Vitex Parviflora*):- is endemic to The Philippines and is listed an endangered species by the Philippine Dept of Environment and Natural Resources due to overharvesting



Molave forestation



High school funding



Water purification



High school



# MEDUSA

## ✓ **Solid operational foundation**

- On track to achieve FY22 production guidance of 90k – 95koz
- FY22 AISC guidance of US\$1,250 – US\$1,300/oz
- FY21 dividend payment of A\$0.05 per share.

## ✓ **Tigerway Decline Project approved with site mobilisation underway**

- Long-term infrastructure solution for Co-O with numerous operational and exploration benefits
- Funded from existing cash reserves and being completed by an experienced local contractor
- Commenced in the current H1 2021 and estimated 36 months completion

## ✓ **Excellent organic growth opportunities**

- Latent capacity available at mill with potential to lift future production after the Tigerway decline installation
- High potential for Co-O depth extensions, enabled via Tigerway decline
- Advancing near-mine and regional targets like Royal Crowne Vein



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# Appendices – production metrics



## Gold production statistics

Description	Unit	Sep 2020 Quarter	Dec 2020 Quarter	Mar 2021 Quarter	Jun 2021 Quarter	Sep 2021 Quarter
Ore mined	WMT	142,802	128,126	107,080	139,731	157,712
Ore milled	DMT	125,659	117,723	96,476	124,090	140,662
Head grade	g/t	7.56	7.12	6.21	5.89	5.38
Recovery	%	95.9	96.1	95.8	95.4	95.0
Gold produced	ounces	28,363	26,075	18,359	22,396	23,223
Gold sold	ounces	27,018	28,453	17,691	21,457	22,182
U/G development	Metres	8,887	6,106	5,813	5,942	5,730
All-In Sustaining Costs*	US\$/ounce	1,079	1,033	1,304	1,594	1,242
Average gold price received	US\$/ounce	1,927	1,866	1,753	1,836	1,760
Cash & cash equivalent	US\$M	64.7	79.3	72.2	72.2	75.5

\* The June 2021 Quarter AISC includes costs incurred on the Tigerway Decline Project of US\$230 per ounce. All future costs associated with Tigerway will be excluded from AISC.

# Appendices – Resources and Reserves



Deposit	Category	Tonnes <sup>4</sup>	Grade <sup>4</sup> (g/t gold)	Gold <sup>4</sup> (ounces)
<b><u>MINERAL RESOURCES</u></b> <sup>1,2</sup>	Measured	252,000	9.84	79,600
	Indicated	1,264,000	10.07	409,100
<b>Co-O Resources</b> <sup>1</sup> (JORC 2012)	<b>Measured &amp; Indicated</b>	<b>1,516,000</b>	<b>10.03</b>	<b>488,700</b>
	Inferred	794,000	9.30	237,200
<b>Total Co-O Resources</b>	<b>Measured, Indicated &amp; Inferred</b>	<b>2,310,000</b>	<b>9.77</b>	<b>725,900</b>
<b>Saugon Resources</b> <sup>3</sup> (JORC 2004)	Indicated	47,500	7.00	10,700
	Inferred	34,000	4.60	5,000
<b>Total Saugon Resources</b>	<b>Indicated &amp; Inferred</b>	<b>81,500</b>	<b>6.00</b>	<b>15,700</b>
<b>TSF#1 Tailings Resources</b> (JORC 2012)	Indicated	510,000	1.72	28,200
<b>Total TSF#1 Tailings Resources</b>	<b>Indicated</b>	<b>510,000</b>	<b>1.72</b>	<b>28,200</b>
<b>Royal Crowne Vein</b>	Indicated	51,000	5.55	9,000
	Inferred	284,000	6.80	62,000
<b>Total Royal Crowne Vein</b> (JORC 2012)	<b>Indicated &amp; Inferred</b>	<b>335,000</b>	<b>6.59</b>	<b>71,000</b>
<b>TOTAL RESOURCES</b>	<b>Measured</b>	<b>252,000</b>	<b>9.84</b>	<b>80,000</b>
	<b>Indicated</b>	<b>1,872,500</b>	<b>7.59</b>	<b>457,000</b>
	<b>Inferred</b>	<b>1,112,000</b>	<b>8.52</b>	<b>304,000</b>
<b>TOTAL RESOURCES</b>	<b>Measured, Indicated &amp; Inferred</b>	<b>3,236,500</b>	<b>8.09</b>	<b>841,000</b>
<b><u>ORE RESERVES</u></b> <sup>2</sup>	Proven	249,000	7.49	59,800
<b>Co-O Reserves</b> <sup>2</sup> (JORC 2012)	Probable	1,641,000	5.14	271,500
<b>TOTAL RESERVES</b>	<b>Proven and Probable</b>	<b>1,890,000</b>	<b>5.45</b>	<b>331,300</b>

Notes:

1. Mineral Resources are inclusive of Ore Reserves
2. Co-O, TSF#1 and RCV Mineral Resources and Co-O Ore Reserves estimated under guideline of JORC 2012
3. Saugon Mineral Resources were previously prepared and first disclosed under the JORC 2004 and have not been updated to comply with JORC 2012 on the basis that the information has not materially changed since it was last reported
4. Rounding to the nearest 1,000 or 100 may result in some slight apparent discrepancies in totals used in all tables