

# Newcrest Mining Limited - Havieron PFS Stage 1 Delivers Base for Future Growth

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- Havieron PFS Stage 1 estimated IRR of 16% with a 4 year payback period<sup>1,2,3,4</sup>
- Estimated average gold production of 160kozpa @ AISC of US\$743/oz over initial 9 year mine life from a ~2Mtpa operation<sup>1,2,3</sup>
- Capital efficient, low intensity development utilising existing Telfer processing infrastructure
- PFS based on Ore Reserves of 14Mt and does not consider 37Mt of Inferred Mineral Resource
- The Study identified that including additional Mineral Resources could allow for a ~3Mtpa operation
- The Feasibility Study underway will also assess production rates of 3Mtpa and beyond
- Significant exploration upside, with recent drilling showing the deposit open laterally and at depth
- Completion of PFS triggers Newcrest's entitlement to an additional 10% interest in Havieron
- Feasibility Study expected to be completed in the December 2022 Quarter<sup>5</sup>

Melbourne, October 11, 2021 - [Newcrest Mining Ltd.](#) (ASX: NCM) (TSX: NCM) (PNGX: NCM) is pleased to announce that the Havieron Pre-Feasibility Study Stage 1 (the Study) has been completed and the Newcrest Board has approved the progression of the Study to the Feasibility Stage.

The Havieron Project (the Project) is located 45km east of Newcrest's existing Telfer operation and is a high grade, low capital intensity project with significant expansion potential. Newcrest has adopted a staged approach to the evaluation and development of Havieron aiming to deliver early production and cash flows from the project while work continues to define potential resource additions and assess growth targets. The benefit of existing processing capacity at Telfer and ongoing definitional drilling highlights the clear potential for a larger scale operation that will be further assessed during the Feasibility Stage.

Newcrest Managing Director and Chief Executive Officer, Sandeep Biswas, said "It is an incredible achievement that, within two years of starting the Havieron drilling program, we have been able to deliver this significant project milestone and demonstrate financial returns that comfortably exceed our hurdle rate, even in this first stage. The Pre-Feasibility Study underpins an initial Ore Reserve estimate for the upper section of the South East Crescent Zone which increases our confidence in achieving first production in FY24 and triggers our entitlement to a cumulative 70% Joint Venture interest."

"We believe that this is just the first stage of a bright and profitable future for Havieron. Our extensive drilling program continues to assess the extent of the South East Crescent Zone and further test the Northern and Eastern Breccia for mineralisation which may be suitable for bulk mining methods. We have recently delivered several new and exciting high grade intercepts which extend the high grade mineralisation beneath the initial Mineral Resource estimate and highlights the potential for further resource growth".

"Notably, the Study assumes that Havieron is the sole ore feed for the Telfer plant and does not assume any potential upside from the extension of Telfer's mine life beyond FY24. We continue to assess the potential for further open pit and underground opportunities at Telfer to extend its life and supplement production from Havieron in FY24 and beyond" said Mr Biswas.

Summary of Study Findings (in 100% terms)<sup>1,2,3</sup>

- Initial Ore Reserve estimate:
  - 14Mt @ 3.7 g/t Au and 0.54% Cu for 1.6Moz Au and 73kt Cu<sup>6</sup>
- Low-cost production in a Tier 1 jurisdiction, with further upside
  - Life of Mine (LOM) average annual gold production of 160koz and copper production of 6.9kt
  - PFS based on Ore Reserves of 14Mt and does not consider 37Mt of Inferred Mineral Resource
  - LOM average All-In Sustaining Cost (AISC) of A\$990/oz (US\$743/oz)

- Attractive investment opportunity
  - Estimated total capital expenditure of A\$529 million (US\$397 million)<sup>7,8</sup>
  - Internal Rate of Return (IRR) of 16% (real, after tax)
  - Payback of 4 years from first commercial production<sup>4</sup>
  - Net Present Value (NPV) of A\$304 million (US\$228 million)<sup>9</sup>
- Uses Newcrest's existing milling and support infrastructure at Telfer to process and treat Havieron ore
  - Demonstrates the value that this strategic infrastructure can provide to the Project
  - The Study assumes that Havieron is the sole ore feed for the Telfer plant and does not assume any potential upside from the extension of Telfer's mine life beyond FY24
  - Newcrest is assessing the potential for further open pit and underground opportunities at Telfer to extend its life and supplement production from Havieron in FY24 and beyond
- Growth opportunity
  - Potential to expand the Project and increase the mining rate to 3Mtpa or more through the inclusion of areas of the Inferred Mineral Resource that are currently subject to an infill drilling program
  - Potential to lower mining costs by considering alternative, higher production rate, mining methods
  - Ongoing growth drilling continues to show potential for resource additions outside of the existing Inferred Mineral Resource boundaries

The Havieron Project is located on the traditional lands of the Martu people who hold exclusive possession native title rights to 130,000km<sup>2</sup> of country in the Western Desert. The Indigenous Land Use Agreement with Western Desert Land Aboriginal Corporation, centred on the Telfer mine, extends to the Havieron project.

The Project is operated by Newcrest under a Joint Venture Agreement with Greatland Gold plc (Greatland Gold). Completion of this Pre-Feasibility Study triggers Newcrest's entitlement to an additional 10% interest in the Joint Venture for a cumulative 70% Joint Venture interest. Newcrest has an option to acquire an additional 5% Joint Venture interest for fair market value, exercisable during the 12 months from 12 December 2021.

The Havieron Feasibility Study is expected to be completed in the December 2022 Quarter<sup>5</sup>.

Table of Key Study Findings (100% terms)<sup>1,2,3,[10]</sup>

Area	Measure	Unit	Study Outcomes
Production	Ore milled / milling rate (max)	Mtpa	2.1
	LOM	Years	9
	Ore mined (LOM)	Mt	14
	Average gold grade (LOM)	g/t	3.72
	Average copper grade (LOM)	%	0.54
	Gold produced (LOM)	koz	1,432
	Copper produced (LOM)	kt	62
	Average annual gold production (LOM)	koz	160
Capital	Average annual copper production (LOM)	kt	6.9
	Project capital <sup>7,8</sup>	A\$m (real)	529
Operating	Total operating cost (LOM) <sup>[11]</sup>	A\$/t (real)	112
	AISC (LOM)	A\$/oz sold	990
	Gold price	US\$/oz	1,500
Economic assumptions	Copper price	US\$/lb	3.30
	AUD:USD exchange rate		0.75
Financials	NPV <sup>9</sup>	A\$m (real)	304
	IRR	% (real)	16
	Payback period <sup>4</sup>	Years	4
	Free cash flow generation (LOM) (post tax)	A\$m (real)	531

#### Key milestones<sup>5</sup>

Milestone Activity	Estimated Date
Gate Feasibility Study to Execution	Q2 FY23
First Ore	1H FY24
First Production of Gold/Copper	2H FY24

## Potential Exploration Upside

The Study considers only the Indicated Mineral Resource, which is a small portion of the existing resource inventory and excludes Inferred Mineral Resources. The Havieron Project has significant additional growth potential, including:

- Mineralisation open at depth and along strike:
  - Extension of the SE Crescent Zone below the current Mineral Resource, where increasing grade and thickness of mineralisation has been observed in recent drilling
- Expansion of multiple higher-grade targets within the main Havieron NW corridor, including the Northern Breccia and NW Pod
- Potential for additional NW trending corridors including the Eastern Breccia; and
- Potential to discover additional mineralisation centres (at Havieron North, Zipa and Meco).

In addition to the active testing of the above higher-grade targets, drilling continues in the northern and eastern breccia corridors to assess the bulk mining potential.

## Havieron Feasibility Study<sup>5</sup>

The Havieron Feasibility Study is expected to be completed in the December 2022 Quarter and the study scope is expected to include:

- Completion of a further infill drilling program by end of CY21 to increase the Indicated Mineral Resource base for potential Ore Reserve expansion
- Completion of the growth drill program immediately below the Crescent Zone for potential Mineral Resource expansion
- Further investigation and optimisation of the Sub-Level Open Stoping (SLOS) design and sequence to include additional Inferred Mineral Resources that are currently being drilled with the aim of increasing resource confidence that Indicated Mineral Resources can support production rates of 3Mtpa or higher
- Initial assessment of future development options with further resource growth in the Northern and Eastern Breccia including evaluation of alternative, lower cost, mining methods.

## Project Details

The Havieron Project is centred on a deep magnetic anomaly 45km east of Telfer in the Paterson Province on the traditional lands of the Martu people. The target is overlain by approximately 420m of post mineralisation Permian cover. Newcrest commenced drilling during mid-2019 and has progressively increased its drilling activities with up to eight drill rigs now in operation.

The Martu people and the Western Desert Land Aboriginal Corporation (WDLAC) are key project stakeholders. The Martu hold exclusive possession native title rights and interests over more than 130,000 km<sup>2</sup> of land, including to all points around the Telfer mine and Havieron Project. The Indigenous Land Use Agreement (ILUA) with WDLAC, centred on the Telfer mine, extends to the Havieron project.

The Project has received the necessary regulatory approvals for the construction of a box cut, exploration decline and associated surface infrastructure, with these works formally commencing in January 2021. The Study has assessed the next stage of the Project which comprises the underground and surface development to establish the initial mining area at Havieron and ore processing modifications at Telfer.

Figure 1. Location of the Havieron Project, approximately 45km east of Telfer, Western Australia.

To view an enhanced version of Figure 1, please visit:

[https://orders.newsfilecorp.com/files/7614/99291\\_c923759b34d689b5\\_003full.jpg](https://orders.newsfilecorp.com/files/7614/99291_c923759b34d689b5_003full.jpg)

Mineralisation of gold and copper in the current Resource Model are within the South East (SE) Crescent

and the Breccia zones. High grade gold mineralisation is associated with a massive sulphide zone termed the Crescent Zone which occurs on the margin of the Breccia zones. The Crescent Zone is characterised by a series of massive to semi-massive sulphide replacement units that have a subvertical dip and are best developed on the SE of the system forming as arcuate, crescent like geometry. The Breccias are still being defined through exploration drilling and early-stage evaluations will be completed to test the potential to develop additional mining fronts and utilise bulk mining methods.

The SE Crescent Zone is 5-40m wide, extending 550m in length in unfolded section from the basement contact and defined over 900m vertically, tapering to ~300m in length and open at that depth. The SE Crescent Zone has been the focus of drilling and has been infilled to a nominal drill spacing of 50-100m laterally (with at least part being infilled to a 50m x 50m spacing to satisfy the requirements for an Indicated Mineral Resource), and 100m vertically.

The Study assessed mining production methods including SLOS with mining rates of 2Mtpa to 3Mtpa and caving options up to 6Mtpa. Surface infrastructure studies were focused on the transportation of ore back to the Telfer processing plant with a range of options considered in early-stage evaluations including conveyor, rail, pipeline and truck haulage, with the latter adopted for the Ore Reserve case. Processing studies evaluated a modified Telfer process plant to accommodate the Havieron ore.

The initial Ore Reserve case is based on a ~2Mtpa production rate from SLOS mining method limited to the Indicated Mineral Resources within the SE Crescent Zone. The Study demonstrates the potential to expand the Project and increase the mining rate to 3Mtpa or more based on the conversion of the current Inferred Mineral Resources and additional potential Mineral Resource growth from immediately below the Crescent Zone (Figure 2) as seen in recent drill results (refer to Section titled "Potential Exploration Growth" on Page 14 for a summary of drill results).

Figure 2. Section view looking north of Crescent Zone mineralisation and the proposed underground development required to support the Ore Reserve and future growth options.

To view an enhanced version of Figure 2, please visit:  
[https://orders.newsfilecorp.com/files/7614/99291\\_c923759b34d689b5\\_004full.jpg](https://orders.newsfilecorp.com/files/7614/99291_c923759b34d689b5_004full.jpg)

Indicative Production Profile (100% terms)<sup>1,2</sup>

The Ore Reserve Case for the Study is based on the currently defined Indicated Mineral Resource estimate which incorporates a ~2Mtpa underground SLOS operation with an expected mine life of 9 years. Ore will be transported in trucks along a new 55km long haul road to the modified processing plant at the Telfer mine and tailings deposited at Telfer's existing tailings storage facility (TSF).

Multiple stope priority runs were conducted to determine the optimal sequence which maximises the number of years at peak production while reducing and compressing the production tail as much as practical. The production rate of ~2Mtpa for the Havieron SLOS was determined by maximising the steady state production of the sequence.

The indicative gold and copper production profiles are shown in the figures below:

Figure 3. Production Profile for Havieron 2Mtpa SLOS Reserve Case.

To view an enhanced version of Figure 3, please visit:  
[https://orders.newsfilecorp.com/files/7614/99291\\_newcrestfigure3.jpg](https://orders.newsfilecorp.com/files/7614/99291_newcrestfigure3.jpg)

Indicative Havieron Mine Production Profile<sup>1,2</sup>

Year	Total Material Movement (mt)	Plant Feed (mt)	Average Gold Grade (g/t)	Average Copper Grade (%)
FY24	~0.5	~0.5	3.5	0.48
FY25	~1.6	~1.6	4.1	0.52
FY26	~2.0	~2.0	3.9	0.55
FY27	~2.0	~2.0	3.8	0.56
FY28	~2.0	~2.0	3.9	0.52
FY29	~2.0	~2.0	3.7	0.54
FY30	~2.1	~2.1	3.3	0.58
FY31	~1.1	~1.1	3.7	0.51
FY32	~0.3	~0.3	2.8	0.49

Estimated Development Capital Profile (100% terms)<sup>1,3,7,8</sup>

The capital profile for the Project contemplates a ~2Mtpa SLOS operation. Having now completed the Study, Greatland is obliged to fund 30% of all project expenditure going forward and Newcrest is obliged to fund 70%. This funding split will adjust to 25% Greatland and 75% Newcrest if Newcrest exercises its option to acquire the additional 5% interest.

	FY22	FY23	FY24	Total
Capital Expenditure (A\$m)	124	296	109	529
Capital Expenditure (US\$m)	93	222	82	397

Metal Price and Exchange Rate Sensitivity Analysis<sup>1,2,3</sup>

The actual IRR of the Project will vary according to the gold and copper prices realised. Base case assumptions include a gold price of US\$1,500/oz, copper price of US\$3.30/lb, and an AUD:USD exchange rate of 0.75.

The table below outlines how the estimated Base Case Project IRR of 16% varies using different price assumptions:

Scenario	Assumption IRR	
Gold price (US\$ per ounce)	1,200	5%
Gold price (US\$ per ounce)	1,800	24%
Copper price (US\$ per pound)	2.60	14%
Copper price (US\$ per pound)	4.00	17%

Mine Development and Sequence

SLOS is a large-scale open stoping method that is conducted over multiple levels at once. Once the stope has been mined out it is backfilled with paste to maintain the overall stability of the opening and enable mining of adjacent stopes. This method is typically applied to strong orebodies that require minimal support and are surrounded by strong country rock, such as the Havieron deposit. Stopes are mined in a checkerboard fashion with all primary stopes first, followed by the intermediate secondary stopes. The mining sequence is top down overall, divided into a number of different lifts separated by horizontal sill levels which are recovered after the upper and lower level have been mined and filled.

A sub-level spacing of 50m with sill drill levels located 20m below each mining front was selected. Some sub-level spacings are increased to 60m to accommodate the inclusion of ore and minimising additional level development. The design consists of nine semi-independent mining sequences, based on both horizontal and vertical mining fronts. The horizontal fronts are determined by the orebody orientations as outlined in Figure 4.

Figure 4. Havieron Reserve Case SLOS horizontal and vertical mining fronts

To view an enhanced version of Figure 4, please visit:  
[https://orders.newsfilecorp.com/files/7614/99291\\_newcrestfigure4.jpg](https://orders.newsfilecorp.com/files/7614/99291_newcrestfigure4.jpg)

## Infrastructure

The Study contemplates the transport of ore from the mine to Telfer via road trains on an all-weather unsealed road. The road has been designed to withstand a 1-in-a-100-year flood event and maintain access to Havieron.

Power will be supplied to Havieron from Telfer's existing gas power station via a 66 kilovolt (kV) overhead line running parallel to the nominated haul road corridor. Further opportunities to replace this with non-fossil fuel power generation as part of Newcrest's emission reduction program will be evaluated as part of the Feasibility Study.

Telfer currently operates two processing trains with a total capacity of ~22Mtpa. The Havieron ore is expected to be processed through a modified Telfer Processing Plant which will operate a single train at 6Mtpa rate on a campaign basis. The Plant modifications are expected to include magnetic separation within the flotation circuit to reduce the amount of pyrrhotite in the final Cu Concentrate and a Carbon in Pulp (CIP) circuit on the flotation tail and cyanide detoxification circuit. The expected cost of the plant modifications is included in the \$529 million project capital estimate<sup>1,3,7,8</sup>. A single train operation also provides optionality if higher mining rates are achieved from Havieron or through the extension of Telfer's current mine life (i.e. Telfer ore can be run through the other train with the existing flowsheet). Tailings from ore processed will be deposited at the existing Telfer TSF.

## Joint Venture Agreement

The Project is operated by Newcrest under a Joint Venture Agreement with Greatland. Pursuant to the farm-in and joint venture arrangements, the completion of the Study triggers Newcrest's entitlement to an additional interest in the joint venture for a cumulative 70% joint venture interest and the option to acquire an additional 5% joint venture interest at fair market value. The option period commences on 12 December 2021 and will run for 12 months.

The Joint Venture Agreement includes tolling principles reflecting the intention of the parties that, subject to the outcome of the Feasibility Study and a positive decision to mine, the Havieron mineralised material will be processed at Telfer pursuant to a Tolling Agreement. The tolling principles include an agreed processing fee formula, which includes charges for capital costs incurred in upgrading the Telfer facilities, as required, to treat Havieron ore in the tolling process. The Telfer infrastructure is not included in the scope of the Joint Venture assets, so the Tolling Agreement is the route by which Greatland will bear the capital, operating and haulage costs involved with processing Havieron ore.

## Mineral Resource Estimate<sup>[12]</sup>

The updated Mineral Resource is estimated to contain an Indicated Mineral Resource of 1.9 million ounces of gold and 0.10 million tonnes of copper and an Inferred Mineral Resource of 1.7 million ounces of gold and 0.07 million tonnes of copper. This Mineral Resource estimate is based on drilling completed by February 2021.

Since the initial Mineral Resource estimate an additional 45 drill holes were completed between November 2020 and February 2021, primarily as infill drilling to increase the resource confidence of the Crescent Zone, that transferred 1.9 million ounces of gold and 0.10 million tonnes of copper from Inferred Mineral Resources to Indicated Mineral Resources.

Mineral Resource estimate tabulation for the Havieron Deposit:

Indicated Gold Mineral Resource (100%):

Domain	Classification	Dry Tonnes (million)	Gold Grade (g/t Au)	Insitu Gold (million ounces)
Crescent Zone	Indicated	15	3.9	1.9
Breccia Zone	Indicated	-	-	-
Gold Mineral Resource	Indicated	15	3.9	1.9

## Inferred Gold Mineral Resource (100%):

Domain	Classification	Dry Tonnes (million)	Gold Grade (g/t Au)	Insitu Gold (million ounces)
Crescent Zone	Inferred	3.6	4.0	0.46
Breccia Zone	Inferred	34	1.1	1.2
Gold Mineral Resource	Inferred	37	1.4	1.7

## Indicated Copper Mineral Resource (100%):

Domain	Classification	Dry Tonnes (million)	Copper Grade (% Cu)	Insitu Copper (million tonnes)
Crescent Zone	Indicated	15	0.64	0.099
Breccia Zone	Indicated	-	-	-
Copper Mineral Resource	Indicated	15	0.64	0.099

## Inferred Copper Mineral Resource (100%):

Domain	Classification	Dry Tonnes (million)	Copper Grade (% Cu)	Insitu Copper (million tonnes)
Crescent Zone	Inferred	3.6	0.45	0.016
Breccia Zone	Inferred	34	0.15	0.051
Copper Mineral Resource	Inferred	37	0.18	0.067

The Havieron Mineral Resource estimate is reported as an Indicated Mineral Resource and Inferred Mineral Resource in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC Code). Refer to details in Appendix 1 for information relating to data collection and resource estimation. There are no material differences between the definitions of Indicated or Inferred Mineral Resources under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves and the equivalent definitions in the JORC Code. Mineral Resources are reported inclusive of Ore Reserves. Mineral Resources that are not Ore Reserves do not have demonstrated economic viability.

Drilling has outlined an ovoid shaped zone of variable brecciation, alteration and sulphide mineralisation with dimensions of approximately 650m x 350m x 1000m trending in a north west orientation below 420m of Permian cover.

Gold and copper mineralisation at Havieron consists of breccia, vein and massive sulphide replacement gold and copper mineralisation typical of intrusion-related styles of mineralisation. Mineralisation is hosted by metasedimentary rocks (meta-sandstones, meta-siltstones and meta-carbonate) and intrusive rocks of an undetermined age. The main mineral assemblage contains well developed pyrrhotite-chalcopyrite and pyrite sulphide mineral assemblages as breccia and vein infill, and massive sulphide lenses.

The Indicated Mineral Resource estimate is restricted to the South East Crescent Zone only, with the Inferred Mineral Resource estimate comprised of some part of the South East Crescent Zone, the Breccia Zones, and a portion of the Northern Breccia Zones to an RL of 4060m (~750m below the unconformity) where drill data provides sufficient support to define an appropriate level of geological control and statistical confidence.

Ordinary Kriging of 5m composites of gold and copper was undertaken into 10m x 10m x 10m blocks for Crescent and 20m x 20m x 20m blocks for Breccia and re-blocked into 5m x 5m x 5m blocks. The resource model was domain utilising the geological unit of the Crescent Zone, the Calcite Cemented Breccia, Actinolite Cemented Breccia and Crackle Breccia. Hard boundaries were used between the Crescent Zone and the Breccia zones with semi soft boundaries used between the Breccia zones. Kriging Neighbourhood Analysis was used to define the search neighbourhood for gold and copper. Gold and copper were estimated independently of each other. Composite copper and gold grades were capped prior to estimation. The

resource estimation is based entirely on interpolation. The resource model was validated via visual, statistical, and geostatistical methods.

Reasonable prospects for eventual economic extraction have been assessed through ongoing mining and processing studies which suggest that selective underground mining would be appropriate for exploitation of the Crescent Zone. The Indicated and Inferred Mineral Resource estimate has been constrained using appropriate drill hole data spacing parameters and geological control. The Indicated Mineral Resource estimate is reported based on the A\$100/t Net Smelter Return (NSR) value cut-off and the average weighted distance of 45 metres within the SE Crescent Zone which assumes selective underground mining. The Inferred Mineral Resource estimate is reported within an A\$50/t NSR value shell with no internal selectivity, which assumes bulk mining and therefore includes internal waste. The NSR uses metals prices of US\$1,400/oz Au and US\$3.40/lb Cu, domain-specific metallurgical recoveries of 84-94% for Au and 82-92% for Cu, a AUD:USD exchange rate of 0.75, as well as treatment and refining costs, payables and royalties, similar to those at Telfer.

Figure 5. 3D view looking north of Crescent Zone mineralisation showing resource classification and proposed underground development.

To view an enhanced version of Figure 5, please visit:

[https://orders.newsfilecorp.com/files/7614/99291\\_c923759b34d689b5\\_009full.jpg](https://orders.newsfilecorp.com/files/7614/99291_c923759b34d689b5_009full.jpg)

Ore Reserve Estimate<sup>13</sup>

The Havieron Ore Reserve estimate is outlined below and reported as a Probable Ore Reserve in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC Code). Refer to details in Appendix 1 for information relating to Ore Reserve estimation. There are no material differences between the definitions of Probable Ore Reserves under the JORC Code and the equivalent definitions under the 2014 CIM Definition Standards for Mineral Resources and Mineral Reserves.

A summary of the material assumptions is outlined below and included in the Appendix (JORC Table 1 - Section 4).

	Ore	Gold	Copper	
	Mt	g/t	Moz	%
Proved Ore Reserve	-	-	-	-
Probable Ore Reserve	14	3.7	1.6	0.54
Total Ore Reserve	14	3.7	1.6	0.54

0.073

A Pre-Feasibility level study has been completed which provides supporting basis for this Ore Reserve estimate. The Havieron Pre-Feasibility Study (on which this Ore Reserve statement is based) defined a SLOS mining method with paste fill and truck ore haulage at a 2Mtpa mining rate. Metallurgical test-work has been executed on the Havieron deposit during the Pre-Feasibility Study and in preceding studies. The test-work undertaken is of an adequate level to ensure an appropriate representation of metallurgical characterisation and the derivation of corresponding metallurgical recovery factors.

Havieron is a greenfield site and currently does not have infrastructure to support mining operations. Major infrastructure requirements are included in the Pre-Feasibility Study capital cost estimates, which are based on multiple market prices across all technical disciplines. Provision has been made for capital expenditure requirements for new equipment, infrastructure and replacement of infrastructure and equipment during the life of the mine is based on the study. A contingency has also been factored into the capital cost estimate consistent with the level of accuracy of the study.

The operating cost estimate has been built up from a combination of existing Telfer site costs scaled for the Havieron material throughput rate, first principles cost modelling and quotations where practicable.

The Probable Ore Reserve is based on Indicated Mineral Resources and diluting material. No Measured

Mineral Resources are stated for this deposit. This classification is based on geological confidence as a function of continuity and complexity of geological features; data spacing and distribution and estimation quality parameters including distance to informing samples for block grade estimation.

Underground mining at Havieron is planned to be undertaken using a SLOS mining method at a 2Mtpa mining rate. The Pre-Feasibility Study has been prepared on the basis of:

- decline, accesses to the levels, ore passes, ventilation raises and other underground excavations
- SLOS stopes with paste fill
- paste fill plant and underground distribution system
- ventilation shafts, fans, regulators and refrigeration equipment
- dewatering, electrical and other service equipment
- truck haulage of ore to surface via the access decline

The following Modifying Factors have been applied to all mining shapes to accurately represent the expected mined tonnes and grades:

- Dilution factors for overbreak in primary, secondary and tertiary stopes (average 9%) consisting of waste (average 6%) and stope paste (average 3%);
- Dilution included at zero grade; and
- Mining recovery factor of 97.5%

Of the total Ore Reserve approximately 0.6Mt of ore is Inferred Mineral Resource as dilution. This material contains 2% of the gold metal and 1.6% of the copper metal in the Ore Reserve and does not have a material impact upon the estimate. As this is dilution material associated with the SLOS mining method, it has been incorporated into the Ore Reserve estimate.

Havieron ore will be processed on a campaign basis through the Telfer Train 2 Treatment Plant circuit at a throughput of approximately 2Mtpa. Metal recovery will be through conventional flotation to produce a copper/gold concentrate and doré through a newly installed flotation tails leach circuit. The technology associated with the ore processing is conventional and the flowsheet is similar to that utilised by other operations.

Metallurgical recovery assumptions are based on detailed analysis and laboratory flotation and leach test work completed on 38 variability samples during the Havieron Concept (2020) and Pre-Feasibility (2021) studies with good spatial coverage of the SE Crescent Zone. Of the 38 samples, 8 samples are located in the breccia zones and

30 samples are located in the SE Crescent Zone, of which 21 samples are located within the SE Crescent Zone Indicated Mineral Resources. Based on these samples metallurgical recoveries for gold are anticipated to average approximately 88% and recoveries of copper are expected to average approximately 84% throughout the life of the project.

Bismuth is the key deleterious element for the gold/copper concentrate product with smelter penalties incurred on the basis of bismuth content. The impact of bismuth in concentrate will be managed by mine sequencing and concentrate blending.

The Havieron Ore Reserve employs a value based cut-off determined from the Net Smelter Return (NSR) value equal to the site operating cost included within the Pre-Feasibility Study. The NSR calculation takes into account revenue factors, metallurgical recovery assumptions, transport costs, refining charges, and royalty charges.

The site operating costs include mining cost, processing cost, relevant site general & administration costs and relevant sustaining capital costs. These costs equate to a break even cut off value of approximately A\$130/t milled, and a marginal cut off value of approximately A\$115/t milled.

Estimation of the Havieron Ore Reserve involved standard steps of mine optimisation, mine design, production scheduling and financial modelling. Factors and assumptions have been based on benchmarked performance from similar SLOS operations. The Ore Reserve has been evaluated through a financial model.

All operating and capital costs as well as Ore Reserve revenue factors stated in this document were included in the financial model. A discount factor of 4.5% real was applied. This process demonstrated that the Havieron Ore Reserve has a positive NPV. Sensitivities were conducted on the key input parameters including commodity prices, capital and operating costs, ore grade, mined tonnes and mining rate, exchange rate and metallurgical recoveries confirming the estimate to be robust.

A staged approach for approvals is being undertaken with Phase 1 currently approved which has allowed the development of the boxcut, decline and service corridor. These approvals also allow for a waste rock dump, evaporation ponds and supporting infrastructure such as offices and workshops.

Phase 2 approvals will consist of a SLOS underground mine, permanent infrastructure corridor, associated infrastructure and changes to Telfer approvals to accept Havieron tailings in existing tailings storage facilities. The approval strategy for Phase 2 consists of both Commonwealth and State level approvals with engagement well advanced with all regulatory bodies. The timelines outlined in the Pre-Feasibility Study are considered achievable.

A Mining Lease has been granted over the orebody, and miscellaneous leases granted along the existing service corridor. For Phase 2 approvals an application will be made for an additional miscellaneous lease to secure access for an infrastructure corridor to connect Telfer and Havieron (haul road, powerlines, water pipes). This is not considered a risk to the timelines or project.

#### Potential Exploration Growth

The Havieron mineral system as outlined by drill testing to date, is an 650m x 350m ovate shaped NW trending alteration zone in which mineralisation is hosted by variable brecciation, and sulphide accumulations centred on a complex of nested diorite intrusions. Higher grade zones are associated with increases in sulphide accumulations including pyrrhotite, chalcopyrite and pyrite with quartz. The SE Crescent Zone is a geological domain characterised by massive sulphide accumulations. Mineralisation has been observed to over 1,000m in vertical extent below the 420m of post mineralisation cover sequence.

The Study only considers the Indicated Mineral Resource which is a relatively small proportion of the existing resource inventory. The Havieron project has significant additional growth potential including:

- Conversion of existing Inferred Mineral Resources
- Mineralisation open at depth and along strike
  - Extension of the SE Crescent Zone below the current Mineral Resource, where increasing grade and thickness of mineralisation has been observed in recent drilling
- Expansion of multiple higher-grade targets within the main Havieron NW corridor, including the Northern Breccia and NW Pod
- Potential for additional NW trending corridors including the Eastern Breccia; and
- Potential to discover additional mineralisation centres (at Havieron North, Zipa and Meco)

In addition to the active testing of the above higher-grade targets, drilling continues in the northern and eastern breccia corridors to assess the bulk extraction potential.

At the SE Crescent, drilling has extended the high-grade mineralisation ~250m below the base of the current Mineral Resource with two recent drillholes (HAD133 and HAD133W1) returning intervals >900 gram metres (Au ppm x length). These new intercepts show an increase in both grade and thickness with increasing depth. Drilling continues to assess the depth extents of SE Crescent which now has a vertical extent of over 900m.

Results external to the Mineral Resource include<sup>14</sup>:

- HAD133
  - 85m @ 11g/t Au & 0.29% Cu from 1,345m
  - including 13m @ 32g/t Au & 0.46% Cu from 1,363m
  - including 14.5m @ 32g/t Au & 0.33% Cu from 1,396.5m

- HAD133W1
  - 133m @ 7.0g/t Au & 0.05% Cu from 1,446m
  - including 55.9m @ 9.7g/t Au & 0.04% Cu from 1,449.5m
  - including 20m @ 11g/t Au & 0.04% Cu from 1,519m
- HAD086W1
  - 99.7 m @ 2.5g/t Au & 0.85% Cu from 1,308m
  - 50.4 m @ 4.3g/t Au & 1.6% Cu from 1,313.6m

Figure 6. 3D Plan view schematic showing the spatial association of the South East Crescent, Northern Breccia, NW Pod and Eastern Breccia targets in relation to the Inferred Resource extents. Also highlighted are previously reported intercepts >100 gram metres (Au ppm x length) that have been intersected outside of the Inferred Mineral Resource estimate.

To view an enhanced version of Figure 6, please visit:

[https://orders.newsfilecorp.com/files/7614/99291\\_c923759b34d689b5\\_010full.jpg](https://orders.newsfilecorp.com/files/7614/99291_c923759b34d689b5_010full.jpg)

Figure 7. 3D section view schematic across section line A on Figure 6, highlighting selected South East Crescent growth intercepts below the current Inferred Mineral Resource estimate.

To view an enhanced version of Figure 7, please visit:

[https://orders.newsfilecorp.com/files/7614/99291\\_c923759b34d689b5\\_011full.jpg](https://orders.newsfilecorp.com/files/7614/99291_c923759b34d689b5_011full.jpg)

At the Northern Breccia, drilling has extended the mineralised breccia footprint around the Mineral Resource extents. Drilling has confirmed and increased the continuity of internal higher grade Crescent-like mineralisation in a north-west mineralised corridor which now extends up to 300m in length, and 100m wide, between 4300 - 4100mRL, and remains open at depth. Results of greater than 150 gram metres (Au ppm x length) outside of the current Mineral Resource include<sup>14</sup>:

- HAD047
  - 309m @ 0.99g/t Au & 0.07% Cu from 915m
  - including 44m @ 3.3g/t Au & 0.15% Cu from 1,157m
- HAD101
  - 147.2m @ 1.1g/t Au & 0.18% Cu from 1,083.8m
  - including 51.8m @ 1.6g/t Au & 0.25% Cu from 1,129.2m
  - 92.5m @ 1.9g/t Au & 0.06% Cu from 1,296m
  - including 15.6m @ 4.8g/t Au & 0.02% Cu from 1,350m
  - including 14m @ 6.2g/t Au & 0.10% Cu from 1,373m
- HAD103
  - 90.6m @ 2.3g/t Au & 0.18% Cu from 776.4m
  - including 2.4m @ 67g/t Au & 0.33% Cu from 822.7m
- HAD083W4
  - 156.6m @ 1.1g/t Au & 0.22% Cu from 805.8m
- HAD140
  - 29.1m @ 9.7g/t Au & 0.29% Cu from 813.2m
- HAD083
  - 183.7m @ 1.8g/t Au & 0.18% Cu from 1,098m
  - including 17.2m @ 8.8g/t Au & 0.47% Cu from 1,165.2m

Figure 8. 3D long section view showing the extents of the 1.0 and 2.0 g/t Au Leapfrog™ grade shells in relation to the Indicated and Inferred Mineral Resource outlines. Also showing previously reported intercepts >100 gram metres (Au ppm x length) that have been intersected outside of the Inferred Mineral Resource.

To view an enhanced version of Figure 8, please visit:

[https://orders.newsfilecorp.com/files/7614/99291\\_c923759b34d689b5\\_012full.jpg](https://orders.newsfilecorp.com/files/7614/99291_c923759b34d689b5_012full.jpg)

Higher grade mineralisation external to the Mineral Resource has also been identified on the NW margin of the breccia, previously referred to as the North West Crescent, with additional intercepts showing a vertically extensive high grade pod (NW Pod Target) which remains open at depth and to the north west. Drilling is ongoing to confirm the extents and continuity of this zone. Results from this zone outside the current Mineral Resource include<sup>14</sup>:

- HAD085
  - 74.2m @ 2g/t Au & 0.09% Cu from 568.8m
  - including 19.1m @ 7g/t Au & 0.23% Cu from 594m
- HAD089
  - 116m @ 2.9g/t Au & 0.07% Cu from 1,136m
  - including 13m @ 13g/t Au & 0.17% Cu from 1,136m
- HAD138
  - 84.5m @ 2g/t Au & 0.05% Cu from 683m
  - including 12.7m @ 6.0g/t Au & 0.01% Cu from 685.3m
- HAD141
  - 87m @ 1.8g/t Au & 0.05% Cu from 1,328m
  - including 17.8m @ 5.7g/t Au & 0.14% Cu from 1,378.5m

At the Eastern Breccia drilling has targeted extensions of previously reported drill holes HAD083 and HAD084, identifying a separate north west trending corridor with an alteration footprint of over 600m. Crescent like higher grade zones are observed internal to this Eastern Breccia. Results outside of the current Mineral Resource include:

- HAD083
  - 134m @ 1.4g/t Au & 0.04% Cu from 1,529m
  - 98.2m @ 1.9g/t Au & 0.14% Cu from 1,677m
  - including 41.1m @ 3.7g/t Au & 0.1% Cu from 1,723.9m
- HAD084
  - 342.2m @ 2g/t Au & 0.11% Cu from 1,536.8m
  - including 14m @ 19g/t Au & 0.20% Cu from 1,572m
  - including 11.1m @ 6.6g/t Au & 0.11% Cu from 1,629.9m
  - including 19.5m @ 4.2g/t Au & 0.04% Cu from 1,726.3m

## Appendix 1

JORC Code, 2012 Edition - Table 1

### Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Core samples are obtained from core drilling in Proterozoic basement rocks. The core was drilled on a 6m run. Core was cut using an automated core saw into 1m intervals with breaks for major geological changes. Sampling intervals of 1m sequences were not sampled.
Drilling techniques	Permian Paterson Formation cover sequence was drilled using mud rotary drilling. The cover sequence was observed to approximately 420m vertically below surface. Steel casings were used with a pre-collar.
Drill sample recovery	Core drilling was advanced from the base of the cover sequence with a 3m run configuration.
	Core from inclined drill holes are oriented on 3m and 6m runs using a gyroscopic orientation system (Reflex ACTIII). At the end of each run, the bottom of hole position is recorded and transferred to the whole drill core run length with a bottom of hole marker.
	Core recovery is systematically recorded from the commencement of each run against driller's depth blocks in each core tray with data recorded in the core log. The provided the depth, interval of core recovered, and interval of core lost.
	Core recoveries were typically 100%, with isolated zones of lower recovery.
	Cover sequence drilling by the mud-rotary drilling did not yield recoveries.

Criteria	<p><b>Commentary</b></p> <p>Geological logging recorded qualitative descriptions of lithology, all structure (for all core drilled - 100,799m from 170 drillholes, all orientation of key geological features.</p> <p>Geotechnical measurements were recorded including Rock Quality solid core recovery and qualitative rock strength measurements.</p>
Logging	<p>Magnetic susceptibility measurements were recorded every metre. intervals was determined at site on whole core samples.</p> <p>All geological and geotechnical logging was conducted at Havieron</p> <p>Digital data logging was captured on diamond drill core intervals on acQuire database.</p> <p>All drill cores were photographed, prior to cutting and/or sampling to</p> <p>The logging was of sufficient quality to support the Mineral Resource Sampling, sample preparation and quality control protocols are correctly sampled.</p> <p>Core was cut and sampled at the Telfer and Havieron core processing facility. Collected in pre-numbered calico bags and grouped into bulk bags. weights typically varied from 0.5 to 4kg. Sample sizes are considered to mineralisation. Drill core samples were freighted by air and road to</p>
Sub-sampling techniques and sample preparation	<p>Sample preparation was conducted at the independent ISO17025 (Intertek). Samples were dried at 105°C, and crushed to 95% passing a 3kg sub-sample, which was pulverised (using LM5) to produce a product of 95% passing 106µm. Routine grind size analysis is conducted</p> <p>Duplicate samples were collected from crush and pulp samples at an acceptable level of variability for the material sampled and style of</p> <p>Periodic size checks (1:20) for crush and pulp samples and sample and recorded in the acQuire database.</p> <p>Assaying of drill core samples was conducted at Intertek. All samples were 4-acid digestion followed by ICP-AES/ICP-MS determination (method provide a total assay for copper. Gold analyses were determined by FA50N/AA), which is considered to provide a total assay for gold.</p> <p>Sampling and assaying quality control procedures consisted of inclusions (CRMs), coarse residue and pulp duplicates with each batch (at least</p> <p>Assays of quality control samples were compared with reference samples as acceptable prior to use of data from analysed batches.</p> <p>Laboratory quality control data, including laboratory standards, blank results are captured in the acQuire database and assessed for accuracy.</p> <p>Extended quality control programs including pulp samples submitted with more extensive re-submission programs have been completed.</p> <p>Analysis of the available quality control sample assay results indicates that precision has been achieved and the database contains no anomalies manipulated.</p> <p>The assaying techniques and quality control protocols used are consistent with those used for estimation of Mineral Resources.</p>
Quality of assay data and laboratory tests	

Criteria	<p><b>Commentary</b></p> <p>Sampling intervals defined by the geologist are electronically assigned to core cutting. Corresponding sample numbers matching pre-labelled intervals are used. All sampling and assay information were stored in a secure acQuire database.</p>
Verification of sampling and assaying	<p>Electronically generated sample submission forms providing the sample ID and assay results were sent to the laboratory. Assay results from the laboratory are loaded directly into the acQuire database.</p> <p>Assessment of reported significant assay intervals was verified by and assessment of high-resolution core photography. The verification was completed by company personnel and the Competent Person.</p> <p>No adjustments are made to assay data, and no twinned holes have been used.</p> <p>There are no currently known drilling, sampling, recovery, or other issues that affect the accuracy or reliability of the data.</p> <p>Drill collar locations were surveyed using a differential GPS with GPS fix for all drill holes used.</p>
Location of data points	<p>Drill rig alignment was attained using an electronic azimuth aligner for all intervals in the cover sequence, and every 6 to 30m in diamond drilling. A single shot (Axis Mining Champ Gyro). The single shot surveys have been converted to surface (Axis Mining Champ) along with a selection of drill holes using a DeviGyro tool - confirming sufficient accuracy for the survey.</p> <p>A LIDAR survey was completed over the project area in November 2018 to create a topographic model for the project with a spatial accuracy of +/- 0.1m. The topography is generally low relief to flat, elevation within the dune complex is generally low, ranging from 100m to 200m above the Australian Height Datum (AHD) steepening to the southeast. All coordinates are in the Geocentric Datum of Australia (GDA20 Zone 51). All relative depths are in metres. The drill hole spacing ranges from 40-100m within the SE Crescent and 100-200m within the breccia zones over an area of ~2km<sup>2</sup>. The data spacing is sufficient to support the grade continuity for an Indicated Mineral Resource and Inferred Mineral Resource within the Breccia zones.</p>
Data spacing and distribution	<p>Significant assay intercepts remain open. Further drilling is required to define mineralisation. No sample compositing is applied to samples.</p> <p>Drilling intersects mineralisation at various angles. Drill holes exploring the extents of the Haverton mineral system intersected siliciclastic sedimentary facies, mineralised breccia and sub-vertical zones. The mineralisation has been interpreted from historic and Newcrest drill holes.</p>
Orientation of data in relation to geological structure	<p>Variable brecciation, alteration and sulphide mineralisation are observed within the project area. The mineralisation is generally subvertical and subhorizontal, with a 650m x 350m trending in a north west orientation and 1000m in vertical extent.</p> <p>The subvertical southeast high grade arcuate crescent sulphide zone has been defined over a strike length of up to 550m, and over 700m in vertical extent.</p> <p>Drilling direction is oriented to intersect the steeply dipping high-grade mineralisation at an intersection angle of greater than 40 degrees. The drilled length of the holes is greater than the true width of mineralisation.</p>

Criteria	Commentary
	The security of samples is controlled by tracking samples from drill rig to the Havieron core yard. Drill core was delivered from the drill rig to the Havieron core yard and geotechnical logging, core processing was completed by Newcrest. High resolution core photography and cutting of drill core was undertaken at processing facilities.
Sample security	Samples were freighted in sealed bags by air and road to the Laboratory. Samples are received by the Laboratory and checked by project representatives. Sample numbers are generated directly from the samples and recorded onto pre-numbered calico bags.
	Verification of sample numbers and identification is conducted by the Laboratory and checked against the sample receipt advice issued to Newcrest.
Audits or reviews	Details of all sample movement are recorded in a database table. Details of analytical suite requested are recorded with the dispatch of sample. Discrepancies are logged at the receipt of samples into the analytical suite. Internal reviews of core handling, sample preparation and assays are conducted on a regular basis by both project personnel and owner representatives.

## Section 2: Reporting of Exploration Results

Criteria	Commentary
Mineral tenement and land tenure status	The Havieron Project is entirely contained within mineral tenement M45/1287. Greatland Pty Ltd and Newcrest Operations Limited. The Project is held under a Joint Venture Agreement (effective 30 November 2020) and Farm-In Agreement between Greatland Gold plc and Newcrest. Newcrest is the Manager of the Havieron Project. The Project is subject to a farm-in requirement and has earned an additional 20% interest in the Project, resulting in an overall joint venture interest of 70% (Greatland) and 30% (Newcrest). Greatland has the option to acquire a further 5% at fair market value.
Exploration done by other parties	Newcrest and the WDLAC are parties to an ILUA which governs current operations at Telfer and its activities within a 60km radius of the Havieron Project. The parties have agreed that the Joint Venture Participants (Newcrest and Greatland) will be responsible for the joint venture interest in the Project.
	The mining tenement M45/1287 wholly replaces the 100% interest in the exploration tenement on which the Havieron Project is located. Newcrest has obligations with respect to legislative requirements including the registration of the Project and the transfer of the Project, including standing for prior exploration tenement E45/4701. Newcrest completed six core holes in the vicinity of the Project in 2018. The completed drill targeting and drilling of nine Reverse Circulation holes totalled approximately 6,800m in 2018. Results of drilling programs have been reported on the Greatland Gold website.

### Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Data are stored in a SQL acQuire database. Assay and geological data are acQuire and the database is replicated in Newcrest's centralised database validation tools are used in the acQuire® database and data loggers errors, flag potential errors and validate against internal library codes. Regularly conducted by site and corporate teams prior to resource estimation. Final site locations are checked against the original collar GPS pickup and the Lidar topographic surface. Data is visually and statistically for outliers. Assay data is checked for negative, extreme and missing values. Below detection assay values are set to half the lower detection limit. Data domains are reviewed against core photography, geochemistry and Corescan and missing intervals. Data that is found to be in error is investigated and corrected. If data cannot be corrected it is removed from the data set used for resource estimation. The Competent Person for the Indicated Mineral Resource and Inferred Mineral Resource is an employee of Newcrest and is based in Telfer. The Competent Person has reviewed the project at all stages and has completed numerous site inspections on a regular basis completed in 2021. The Competent Person has reviewed the drilling, sampling and data management and is satisfied with the quality of the measures undertaken.
Site visits	

Criteria	Commentary The geology model is based on grouped primary logging domain codes integrated into the geology model. The geological units were modelled in Leapfrog Geo 6.1 using vein, intrusive and erosional implementation.
Geological interpretation	The geology model for the Havieron deposit comprises a cover sequence and a basement sequence. The cover sequence consists of variably mineralised and altered metasediments. The cover sequence consists of the Permian whilst the basement sequence consists of the Crescent Zone. The cover sequence consists of the massive sulphides including locally banded pyrrhotite or chalcopyrite, Calcite Cemented Breccia, Actinolite Cemented Breccia, Crackle Breccia and the post mineralisation.
Dimension	Mineralisation in Havieron is hosted in the Crescent and to a lesser extent the SE Crescent Zone. The mineralisation is hosted in Calcite Cemented and Actinolite Cemented Breccia. These units are therefore the main host units for mineralisation. The confidence in the geological volumes that were used to define the estimated Mineral Resource classification.
Estimation and modelling techniques	Variable brecciation, alteration and sulphide mineralisation are observed within the mineralised zones. The mineralisation is hosted in 650m x 350m trending in a north west orientation and 1000m in vertical extent. The SE Crescent Zone Mineral Resource extents are ~550m in unfolded plan extent and ~750m in vertical extent, mineralisation remains open at depth. The Breccia complex "Northern Breccia" occurs as a 50-100m sleeve around the SE Crescent Mineral Resource and is a 1000m long trending zone in the north western half on the breccia complex "Northern Breccia". The mineralisation remains open at depth and to the northwest. Geostatistical testing of the gold and copper grade distributions showed that the mineralisation is moderately diffusive in nature, and the Crescent Zone is relatively weakly diffusive. The mineralisation in the Crescent Zone is weakly diffusive in nature, the estimation method of Ordinary kriging was chosen due to the consideration of the geological setting, geological observation from the field and the nature of the domain.
Moisture	All drillhole samples were composited to 5 metre intervals downhole and hole OK estimation of gold, copper, sulphur, iron, cobalt, bismuth, arsenic, lead, zinc and tin were conducted. The samples were discretised into 10 m x 10 m x 10 m blocks for the Crescent Zone and 20 m x 20 m x 20 m blocks for the SE Crescent Zone. The discretisation of 4 x 4 x 4. A single pass run was conducted for gold, copper and zinc and two passes were conducted for bismuth, arsenic, lead, zinc and tin. The maximum number of informing composites were 10 and between 20 to 50 composites for the mineralisation. Due to the highly skewed nature of the mineralisation, a capping strategy has been applied for variables including Au, Cu, Co, Bi, As and Sn. The capping strategy is applied to the mineralisation, typically around the value at a 99 <sup>th</sup> percentile of distributions. The model grade estimation was conducted using the software. Gold and copper were the only revenue generating elements, no other elements were assumed. Variables were estimated independently. The block size was chosen to reflect the quality and likely scale of mining.
Cut-off parameters	The block model used for interpolators was populated with local rotations for the mineralisation. The model grade estimation was conducted using the software. Gold and copper were the only revenue generating elements, no other elements were assumed. Variables were estimated independently. The block size was chosen to reflect the quality and likely scale of mining.
Estimation and modelling techniques	The block model used for interpolators was populated with local rotations for the mineralisation. The model grade estimation was conducted using the software. Gold and copper were the only revenue generating elements, no other elements were assumed. Variables were estimated independently. The block size was chosen to reflect the quality and likely scale of mining.
Dimension	All tonnages are calculated and reported on a dry tonnes basis. A value algorithm is used to calculate the NSR for each block using revenue factors, metallurgical recovery factors, transport costs and refining charges and royalty charges with the gold price of US\$3.40 per pound and a 0.75 AUD:USD exchange rate.
Geological interpretation	The NSR calculation takes account revenue factors, metallurgical recovery factors, transport costs and refining charges and royalty charges with the gold price of US\$3.40 per pound and a 0.75 AUD:USD exchange rate.
Criteria	The Indicated Mineral Resource was defined based on a threshold of A\$100/t. A smoothed shell was generated based on a threshold of A\$50/t and includes blocks and excludes isolated above cut-off blocks applied for the definition of the Indicated Mineral Resource. Both Indicated Mineral Resources and Inferred Mineral Resources are represented as a range of prospects of eventual economic extraction. The A\$100/t cut-off for Indicated Mineral Resources and the A\$50/t cut-off for Inferred Mineral Resources are based on Newcrest's experience and current understanding of the Havieron deposit and other benchmarked open pit mining operations.

Criteria	Commentary
Mining factors or assumptions	<p>The Indicated Mineral Resource estimate is reported based on the A\$100/t average weighted distance of 45metres within the SE Crescent Zone, base</p> <p>The Inferred Mineral Resource estimate is reported within a notional constr NSR value cut-off, based on bulk mining and therefore all internal materials constraining shell.</p> <p>The current proposal is to potentially commence mining the high-grade Cre SLOS.</p> <p>Havieron underground ore will be processed on a campaign basis through circuit at a throughput of approximately 2Mtpa. Metal recovery will be through produce a copper/gold concentrate and doré through a newly installed flota technology associated with the ore processing is conventional and the flow other operations.</p>
Metallurgical factors or assumptions	<p>Metallurgical recovery assumptions are based on detailed analysis and lab work completed on 38 variability samples during the Havieron Concept (202 studies with good spatial coverage of the SE Crescent Zone. Of the 38 samples the Breccia zones and 30 samples are located in the SE Crescent Zone, of within the SE Crescent Zone Indicated Mineral Resources. Based on these for gold are anticipated to average approximately 88% and recoveries of approximately 84% throughout the life of the project.</p>
Environmental factors or assumptions	<p>Bismuth is the key deleterious element for the gold/copper concentrate produced incurred on the basis of bismuth content. The impact of bismuth in concentr sequencing and concentrate blending.</p>
Bulk Density	<p>Bulk sample or pilot scale test work has not been undertaken.</p> <p>As Havieron is a brownfields project the potential environmental impact ass however, the assumption is that there will be no significant impediments to of rock and tailings as utilised at Newcrest's Telfer Operations based on the Havieron and Telfer deposits.</p> <p>All bulk density measurements have been carried out in accordance with standard water immersion method.</p>
Classification	<p>Intervals for bulk density determination are selected according to lithology/ best represent certain intervals as defined by the geologist.</p> <p>The measurements are performed on site by geologists or geological ass process. Measurements are based on 10 cm to 20 cm lengths generally take intervals down hole.</p> <p>Bulk density from several thousand measurements was estimated into the distance method on a domain-wise basis.</p> <p>The Mineral Resource estimate has been classified as an Indicated Mineral Resource.</p>
Audits or reviews	<p>The resource classification is based on drillhole spacing and geological and assessment of average weighted distance of informing samples. The Indicated classified within the SE Crescent Zone only with a nominal drill spacing less Mineral Resource estimate is classified within a nominal drill spacing less the contiguous footprint of the reasonable prospect of eventual economic extraction. Resource and Inferred Mineral Resource classifications appropriately reflected Person.</p> <p>Derisk Geomining Consultants conducted an independent review of the pre Mineral Resource estimate (November 2020) and concluded that the estimate accepted industry practice, has been completed in accordance with the JO for preparing a public report documenting the Mineral Resource estimate. S noted from this review and have been included in this updated estimate.</p>

Criteria	Commentary
Discussion of relative accuracy/ confidence simulation.	The uncertainty of the geological domain at the upper part of SE Crescent is to low. The grade uncertainty of the Indicated classification of the SE Crescent $\pm 15\%$ variability at 90% confidence interval of the mining rate 2-3Mtpa derived from the simulation. The breccia is considered Inferred Mineral Resources and reflects the geological evidence is sufficient to imply but not verify geological and grade not necessary to assess the relative uncertainty in tonnage, grade and metal content of Inferred Mineral Resources. There is no production data for Havieron.
<h4>Section 4: Estimation and Reporting of Ore Reserves</h4>	
Criteria	Commentary
Mineral Resource Estimate for conversion to Ore Reserves	<p>Havieron is a gold and copper deposit located within the border of the Goldfields-Esperance Province, Western Australia (WA), and is located approximately 10 km to the west of the Telfer fly-out Telfer Mine. The Havieron deposit lies unconformably on top of the overlying post-mineral, flat-lying Permian fluvio-glacial sediments of the Canning Basin.</p> <p>Mineralisation of gold and copper in the current resource estimate is located in the SE Crescent and the Breccia zones. High grade gold mineralisation is associated with the SE Crescent Zone which occurs on the margin of the Breccia zones. A series of massive to semi-massive sulphide replacement veins have developed on the SE of the system forming as arcuate, cross-cutting veins.</p>
Site Visits	<p>The SE Crescent Zone is 5-40 m wide, extending 550 m in length, and is in contact and defined up to 900 m vertically, tapering to ~300 m. The SE Crescent Zone has been the focus of drilling and has been intersected laterally, and 100 m vertically.</p> <p>OK estimation has been used for gold, copper, sulphur, iron and manganese. A panel size of 10 mE x 10 mN x 10 mRL for the SE Crescent Zone is used for estimation with a parent block size of 5 mE x 5 mN x 5 mRL.</p>
Study Status	<p>The Mineral Resource estimate for the SE Crescent has been converted to an Inferred Mineral Resource based on data quality and quantity, estimation confidence and reasonable prospect of the eventual conversion to an Ore Reserve.</p>
Cut-off Parameters	<p>The reported Havieron Mineral Resources are inclusive of Cut-off values. The Competent Person for the Ore Reserve estimate is an independent geologist who conducted a site visit in January 2020.</p> <p>A Pre-Feasibility Study was completed in 2021 to generate an Ore Reserve Estimate. The Pre-Feasibility Study shows that the project is technically and economically viable taking into consideration all material factors.</p> <p>The Havieron Ore Reserve employs a value based cut-off criteria, which is a value equal to the site operating cost included within the Pre-Feasibility Study.</p>
	<p>The NSR calculation takes into account revenue factors, mining costs, refining charges, and royalty charges.</p>
	<p>The site operating costs include mining cost, processing costs, and relevant sustaining capital costs. This cost equates to a value of approximately AUD130/t milled, and a marginal cut off value of approximately AUD130/t.</p>

Criteria	Commentary
	<p>Estimation of the Havieron Ore Reserve involved standard steps of mine operation planning, production scheduling and financial modelling. The basis of the analysis is at the mine level.</p>
	<p>The Pre-Feasibility Study supports the appropriateness of the selected mining method (open pit and stoping) at a 2Mtpa mining rate as the basis of the Ore Reserve estimate.</p>
	<p>To view an enhanced version of this graphic, please visit:  <a href="https://orders.newsfilecorp.com/files/7614/99291_newcrestfigure5.jpg">https://orders.newsfilecorp.com/files/7614/99291_newcrestfigure5.jpg</a></p>
	<p>The following Modifying Factors have been applied to all mining shapes to account for unmined tonnes and grades:</p>
	<ul style="list-style-type: none"> <li>● Dilution factors for overbreak in primary, secondary and tertiary stopes (average 6%) and stope paste (average 3%);</li> <li>● Dilution included at zero grade; and</li> <li>● Mining recovery factor of 97.5%</li> </ul>
Mining factors or assumptions	<p>The resource model is comprised of Indicated Mineral Resources and Inferred Mineral Resources. The plans are based on the definition of mining shapes solely delineated on the Indicated Mineral Resources.</p>
	<p>Ore Reserves estimates and statements are required to include estimates of the total Ore Reserve. The total Ore Reserve is approximately 2.7Mt which is comprised of Inferred Mineral Resources and Indicated Mineral Resources. The Inferred Mineral Resources are unclassified material and paste fill dilution. Only metal from the Inferred Mineral Resources is considered in the dilution estimate. This is a relatively small proportion (2% of the total copper metal) of the total Ore Reserve and does not have a material impact on the total Ore Reserve. The analysis indicates an economic Probable Ore Reserve.</p>
	<p>The Havieron Project is a greenfield mining project and will require the following infrastructure to support the mine:</p>
	<ul style="list-style-type: none"> <li>● decline, accesses to the levels, ore passes, ventilation raises and other infrastructure;</li> <li>● paste fill plant and underground distribution system;</li> <li>● ventilation fans, regulators and refrigeration equipment; and</li> <li>● dewatering, electrical and other service equipment</li> </ul>
	<p>Havieron underground ore will be processed on a campaign basis through a circuit at a throughput of approximately 2Mtpa. Metal recovery will be through a浮选 (flotation) process to produce a copper/gold concentrate and doré through a newly installed floatation plant. The technology associated with the ore processing is conventional and the flowsheet is similar to other operations.</p>
	<p>Metallurgical recovery assumptions are based on detailed analysis and laboratory work completed on 38 variability samples during the Havieron Concept (2010) studies with good spatial coverage of the SE Crescent Zone. Of the 38 samples, 10 are located in the SE Crescent Zone and 30 samples are located in the SE Crescent Zone, of which 28 are breccia zones and 30 samples are located in the SE Crescent Zone, of which 28 are breccia zones and 30 samples are located in the SE Crescent Zone Indicated Mineral Resources. Based on these samples, recoveries of gold and copper are anticipated to average approximately 88% and recoveries of copper and gold are anticipated to average approximately 88% and recoveries of copper and gold are anticipated to average approximately 84% throughout the life of the project.</p>
	<p>Bismuth is the key deleterious element for the gold/copper concentrate produced. Recovery of gold and copper is anticipated to be approximately 88% throughout the life of the project. Recovery of gold and copper is anticipated to be approximately 84% throughout the life of the project.</p>
Metallurgical factors or assumptions	<p>Bulk sample or pilot scale test work has not been undertaken.</p>

Criteria	Commentary
	<p>Detailed environmental studies have been undertaken in the project area and include surface and subsurface geological mapping, surface and subsurface fauna, subterranean fauna, waste rock characterisation, soil and landform surveys, a basic hydrogeological assessment and a greenhouse gas emissions assessment.</p> <p>The Project has been designed to recognise biodiversity values and, through their native title corporation (WDLAC), minimise the impacts to sites and landscapes. The footprint for the Project has been minimised through the use of existing infrastructure, as well as utilising the existing Telfer Gold Mine infrastructure to process the ore material.</p>
Environmental	<p>Waste rock characterisation has been undertaken and shows that it contains acid forming (PAF) and metalliferous drainage, in addition to dispersive or soluble material. The PAF material is less than 1% of total waste volumes. Waste dumps have been designed to contain the PAF material and have incorporated cells to safely encapsulate the PAF material. The waste dump is located within the boxcut to minimise haulage distance and considering the local surface terrain and environmental aspects.</p> <p>A staged approach for approvals is being undertaken, with Stage 1 currently underway, involving the development of the boxcut, decline and service corridor. These approvals are required for the evaporation ponds and supporting infrastructure such as offices and worksites.</p> <p>Stage 2 approvals will consist of a SLOS underground mine, permanent infrastructure and changes to Telfer approvals to accept Havieron tailings in the future.</p> <p>The Havieron Sub-Level Open Stoping mine is a greenfield project and will be developed in two stages to support mining operations:</p> <ul style="list-style-type: none"> <li>• Ventilation fans and refrigeration equipment;</li> <li>• Paste plant;</li> <li>• Surface Mining Infrastructure Area (MIA) including camp, offices, workshop, electrical substations, explosive magazines, batch plant, waste dump and haulage road;</li> <li>• Haulage road to transport the ore from Havieron to the Telfer Processing plant;</li> <li>• Modifications to the existing Telfer Processing plant to treat the ore containing PAF material.</li> </ul> <p>The capital and operating costs for the above have been estimated in the Pre-Feasibility Study.</p> <p>Capital and operating costs have been determined as part of the Pre-Feasibility Study.</p> <p>Capital cost estimates are based on multiple market prices across all technical areas including mining, processing, transport, infrastructure, labour, processing upgrade and mine development costs along with associated sustainability costs. These costs will be reviewed and updated during the life of the mine based on most recent Pre-Feasibility plan estimates and will be factored into the project capital cost estimate consistent with the level of accuracy.</p> <p>The operating cost estimate includes the mining cost, surface transport costs, processing costs, labour costs, site general and administration costs. Ore Reserve cost estimates have been developed for the mine life and are considered to be to a Pre-Feasibility Study level.</p> <p>Long term metal prices and exchange rate assumptions adopted in the Pre-Feasibility Study are US\$1,300/oz for gold, US\$3.00/lb for copper, at a USD:AUD exchange rate of 0.75, consistent with Newcrest metal price guidelines for 2021 Ore Reserve reporting.</p> <p>Transport and refining charges have been developed from first principles and are based on the current Telfer operation. These included charges for deleterious elements, such as arsenic and mercury.</p> <p>Costs include a revenue based payment from mining the Havieron Project.</p> <p>State royalties are 2.5% for gold, 5% for copper after allowable deductions.</p>
Infrastructure	
Costs	

Criteria	Commentary
Revenue factors	<p>Long term metal prices and exchange rate assumptions adopted in the Pre-Feasibility Study are US\$1,300/oz for gold, US\$3.00/lb for copper, at a US\$0.70/lb for silver and US\$0.03/lb for lead. These assumptions are consistent with Newcrest metal price guidelines for 2012.</p> <p>The NSR calculation takes into account Ore Reserve revenue factors, metal prices, transport costs and refining charges and royalty charges. Newcrest is a price taker and gold is sold on the open market and subject to market demand. The demand for gold from Telfer and Havieron is not a constraint in the estimation.</p>
Market assessment	<p>Telfer has sold copper concentrate for its operational life into the world concentrate market. It is assumed to continue under conditions similar to Newcrest's current market assessment.</p> <p>Concentrate volume forecasts were derived from the Pre-Feasibility Study price assumptions. The Ore Reserve has been evaluated through a financial model. All operational revenue factors stated in this document were included in the financial model. A sensitivity analysis was applied. This process demonstrated the Havieron Ore Reserve to have a positive NPV.</p>
Economic	<p>Sensitivities were conducted on the key input parameters including commodity prices, ore grade, mined tonnes, mining rate, exchange rate and metallurgical recovery. The NPV range has not been provided as it is considered to be robust.</p> <p>The landowners, the Martu people and the WDLAC are key project stakeholders. They have native title rights and interests over more than 130,000km<sup>2</sup> of land in the Telfer mine and Havieron Project. The ILUA with WDLAC, centred on the Havieron Project.</p>
Social	<p>The only identified material naturally occurring risk at Havieron is flooding from surface water associated with the cyclone season. The existing boxcut has been located to the surface have been designed above a modelled 1 in 1,000 year Average Recurrence Interval (ARI) event where possible, or will be elevated such that large volumes of water do not enter the mine.</p>
Other	<p>A number of State and Commonwealth statutory requirements are relevant to the Project. The Project aspects of the Project will comply with the relevant Government Acts and Regulations and the jurisdiction of Western Australia.</p> <p>A staged approach for approvals is being undertaken with Stage 1 currently comprising the development of the boxcut, decline and service corridor. These approvals are required for evaporation ponds and supporting infrastructure such as offices and worksites. Approvals are in the process of being obtained and include a Groundwater Licence and associated Water Management Plan which will allow the operation of the evaporation ponds, waste water treatment plant and a landfill for non-mineralised waste.</p> <p>The Part V licence and registrations have approved Works Approvals and a Groundwater Licence and associated Water Management Plan has occurred.</p> <p>Stage 2 approvals will consist of a SLOS underground mine, permanent infrastructure and changes to Telfer approvals (processing of Havieron ore, mining of the Telfer deposit, raise to accept Havieron tailings), groundwater use at Havieron.</p> <p>The approval strategy for Stage 2 consists of both Commonwealth and State approvals. Engagement is well advanced with all regulatory bodies. The timelines outlined are considered achievable.</p> <p>A Mining Lease has been granted over the orebody, and miscellaneous leases have been issued for the service corridor. For Stage 2 approvals, an additional miscellaneous lease will be issued to provide access for an infrastructure corridor to connect Telfer and Havieron (haul roads). This is not considered a risk to the timelines or project.</p>

Criteria	Commentary
Classification	<p>Inferred Mineral Resource material has been included within the Probable Ore Reserve. This is due to the nature of stoping mining. This is a relatively small proportion (0.03 Mtpa or 1.6%) of the total Ore Reserve. Even without consideration of Inferred Mineral Resource material within the mining inventory, the proportion of Indicated Mineral Resource material would be within the Probable Ore Reserve.</p> <p>It is the Competent Person's view that the classifications used for the Ore Reserve were appropriate. Golder Associates Pty Ltd (Golder) was commissioned to conduct an independent review of the estimation processes and results.</p>
Audits or reviews	<p>Golder concluded that the Ore Reserve had been prepared using accepted methods and was considered suitable and reported in accordance with the JORC Code, 2012 Edition.</p> <p>The accuracy of the estimates within this Ore Reserve is mostly determined by the quality of the data associated with the Mineral Resource estimate, the geotechnical input and the estimation methods.</p>
Discussion of relative accuracy/ confidence	<p>The Competent Person views the Haverton Ore Reserve as reasonable and appropriate. Some risk and opportunity is associated with the Ore Reserve process due to the nature of the project. Remaining areas of uncertainty at this stage are associated with:</p> <ul style="list-style-type: none"> <li>Cost base assumptions rely on current technology and macroeconomic assumptions. Any changes to these assumptions will have an impact on the Ore Reserve estimate.</li> <li>The Modifying Factors (key inputs) for Ore Reserve estimation rely upon data inherent to the orebody. This data, such as geological structures, is used to define the orebody and has been applied within the Pre-Feasibility Study. Further data is required to confirm the geological and geotechnical information used in the Forward Works Programme.</li> </ul>

### Forward Looking Statements

This document includes forward looking statements and forward looking information within the meaning of securities laws of applicable jurisdictions. Forward looking statements can generally be identified by the use of words such as "may", "will", "expect", "intend", "plan", "estimate", "anticipate", "believe", "continue", "objectives", "targets", "outlook" and "guidance", or other similar words and may include, without limitation, statements regarding estimated reserves and resources, certain plans, strategies, aspirations and objectives of management, anticipated production, study or construction dates, expected costs, cash flow or production outputs and anticipated productive lives of projects and mines. Newcrest continues to distinguish between outlook and guidance. Guidance statements relate to the current financial year. Outlook statements relate to years subsequent to the current financial year.

These forward looking statements involve known and unknown risks, uncertainties and other factors that may cause Newcrest's actual results, performance and achievements or industry results to differ materially from any future results, performance or achievements, or industry results, expressed or implied by these forward-looking statements. Relevant factors may include, but are not limited to, changes in commodity prices, foreign exchange fluctuations and general economic conditions, increased costs and demand for production inputs, the speculative nature of exploration and project development, including the risks of obtaining necessary licences and permits and diminishing quantities or grades of reserves, political and social risks, changes to the regulatory framework within which Newcrest operates or may in the future operate, environmental conditions including extreme weather conditions, recruitment and retention of personnel, industrial relations issues and litigation. For further information as to the risks which may impact on Newcrest's results and performance, please see the risk factors included in the Operating and Financial Review included in the Appendix 4E and Financial Report for the year ended 30 June 2021 which is available to view at [www.asx.com.au](http://www.asx.com.au) under the code "NCM" and on Newcrest's SEDAR profile.

Forward looking statements are based on Newcrest's good faith assumptions as to the financial, market, regulatory and other relevant environments that will exist and affect Newcrest's business and operations in the future. Newcrest does not give any assurance that the assumptions will prove to be correct. There may be other factors that could cause actual results or events not to be as anticipated, and many events are

beyond the reasonable control of Newcrest. Readers are cautioned not to place undue reliance on forward looking statements, particularly in the current economic climate with the significant volatility, uncertainty and disruption caused by the COVID-19 pandemic. Forward looking statements in this document speak only at the date of issue. Except as required by applicable laws or regulations, Newcrest does not undertake any obligation to publicly update or revise any of the forward looking statements or to advise of any change in assumptions on which any such statement is based.

#### Non-IFRS Information

Newcrest's results are reported under International Financial Reporting Standards (IFRS). This document includes certain non-IFRS financial information within the meaning of ASIC Regulatory Guide 230: 'Disclosing non-IFRS financial information' published by ASIC and within the meaning of Canadian Securities Administrators Staff Notice 52-306 - Non-GAAP Financial Measures. Such information includes: 'Free Cash Flow' (calculated as cash flow from operating activities less cash flow related to investing activities and 'AISC' (All-In Sustaining Cost) as per the updated World Gold Council Guidance Note on Non-GAAP Metrics released November 2018. AISC will vary from period to period as a result of various factors including production performance, timing of sales and the level of sustaining capital and the relative contribution of each asset. These measures are used internally by Newcrest management to assess the performance of the business and make decisions on the allocation of resources and are included in this document to provide greater understanding of the underlying performance of Newcrest's operations. The non-IFRS information has not been subject to audit or review by Newcrest's external auditor and should be used in addition to IFRS information. Such non-IFRS financial information/non-GAAP financial measures do not have a standardised meaning prescribed by IFRS and may be calculated differently by other companies. Although Newcrest believes these non-IFRS/non-GAAP financial measures provide useful information to investors in measuring the financial performance and condition of its business, investors are cautioned not to place undue reliance on any non-IFRS financial information/non-GAAP financial measures included in this document. When reviewing business performance, this non-IFRS information should be used in addition to, and not as a replacement of, measures prepared in accordance with IFRS, available on Newcrest's website, the ASX platform and SEDAR.

#### Ore Reserves and Mineral Resources Reporting Requirements

As an Australian Company with securities listed on the Australian Securities Exchange (ASX), Newcrest is subject to Australian disclosure requirements and standards, including the requirements of the Corporations Act 2001 and the ASX. Investors should note that it is a requirement of the ASX listing rules that the reporting of ore reserves and mineral resources in Australia is in accordance with the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code) and that Newcrest's ore reserve and mineral resource estimates comply with the JORC Code.

Newcrest is also subject to certain Canadian disclosure requirements and standards, as a result of its secondary listing on the Toronto Stock Exchange (TSX), including the requirements of National Instrument 43-101 (NI 43-101). Investors should note that it is a requirement of Canadian securities law that the reporting of Mineral Reserves and Mineral Resources in Canada and the disclosure of scientific and technical information concerning a mineral project on a property material to Newcrest comply with NI 43-101.

Newcrest's material properties are currently Cadia, Lihir, Red Chris and Wafi-Golpu. Copies of the NI 43-101 Reports for Cadia, Lihir and Wafi-Golpu, which were released on 14 October 2020, are available at [www.newcrest.com](http://www.newcrest.com) and on Newcrest's SEDAR profile. The Red Chris NI 43-101 report is expected to be submitted within 45 days of the date of this market release.

#### Competent Person's Statement

The information in this document that relates to Havieron Ore Reserves is based on and fairly represents information compiled by Pasqualino Manca. Pasqualino Manca is the Group Manager Mining Studies and a full-time employee of [Newcrest Mining Ltd.](#). He is a shareholder in [Newcrest Mining Ltd.](#) and is entitled to participate in Newcrest's executive equity long term incentive plan, details of which are included in Newcrest's 2021 Remuneration Report. He is a Fellow of the Australasian Institute of Mining and Metallurgy.

Pasqualino Manca has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code and as a Qualified Person under NI 43-101. Pasqualino Manca approves the disclosure of scientific and technical information contained in this document and consents to the inclusion of material of the matters based on his information in the form and context in which it appears.

The information in this document that relates to Havieron Mineral Resources is based on and fairly represents information compiled by Ashok Doorgapershad. Ashok Doorgapershad is the Chief Geologist and a full-time employee of [Newcrest Mining Ltd.](#). He is a shareholder in [Newcrest Mining Ltd.](#) and is entitled to participate in Newcrest's executive equity long term incentive plan, details of which are included in Newcrest's 2021 Remuneration Report. He is a Fellow of the Australian Institute of Mining and Metallurgy. Ashok Doorgapershad has sufficient experience which is relevant to the styles of mineralisation and types of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the JORC Code and as a Qualified Person under NI 43-101. Ashok Doorgapershad approves the disclosure of scientific and technical information contained in this document and consents to the inclusion of material of the matters based on his information in the form and context in which it appears.

The information in this document that relates to Exploration Results at Havieron has been extracted from Newcrest's releases titled "Exploration Update" dated 9 September 2021 and "Quarterly Exploration Report" dated 22 July 2021, 28 January 2021 and 29 October 2020 (the original releases). The original exploration releases are available to view at [www.asx.com.au](#) under the code "NCM" and on Newcrest's SEDAR profile. Newcrest confirms that it is not aware of any new information or data that materially affects the information included in the original releases and that all material assumptions and technical parameters underpinning the estimates in the original releases continue to apply and have not materially changed. Newcrest confirms that the form and context in which the competent person's findings are presented have not been materially modified from the original releases.

Authorised by a Newcrest Board Committee

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1 The Pre-Feasibility Study is subject to an accuracy range of  $\pm 25\%$ . The findings in the Study and the

implementation of the Havieron Project are subject to all the necessary approvals, permits, internal and regulatory requirements and further works. The estimates are indicative only and are subject to market and operating conditions. They should not be construed as guidance.

2 The production targets underpinning the Study estimates are LOM average annual gold and copper production of 160koz Au and 6.9kt Cu. The production targets are based on the utilisation of 100% of the total Havieron Ore Reserves, being 1.6Moz Au and 73Kt Cu Probable Ore Reserves, as set out on Page 12, which have been prepared by a Competent Person in accordance with Appendix 5A of the ASX Listing Rules.

3 As Havieron's functional currency is AUD, the Study has been assessed in AUD. AUD values have been converted to USD using an exchange rate of 0.75.

4 Payback is the earliest date that net accumulated free cash flow is equal to zero. This is calculated from first commercial production which is defined as the expected commencement date of saleable gold production.

5 Subject to market and operating conditions, all necessary approvals, regulatory requirements and no unforeseen delays (including any delays due to COVID-19).

6 Represents 100% of the Ore Reserve for Havieron. Newcrest's joint venture interest in the Ore Reserve is currently 40%. Newcrest has now met the Stage 3 farm-in requirement and has earnt an additional 20% joint venture interest, resulting in a joint venture interest of 60%. Upon delivery of the PFS, Newcrest is entitled to earn an additional 10% joint venture interest, resulting in an overall joint venture interest of 70% (Greatland Gold 30%).

7 Inclusive of previously approved Early Works funding totalling A\$146 million (US\$112 million). See Newcrest release titled "Havieron Project receives regulatory and funding approval" dated 13 January 2021 which is available to view at [www.asx.com.au](http://www.asx.com.au) under the code of "NCM" and on Newcrest's SEDAR profile.

8 Upon finalisation of the Study, Greatland Gold is obliged to fund 30% of all project expenditure going forward and Newcrest is obliged to fund 70%. This funding split will adjust to 25% Greatland Gold and 75% Newcrest if Newcrest exercises its option to acquire the additional 5% interest in the 12 months from 12 December 2021.

9 Using a discount factor of 4.5% (real).

10 Newcrest has now met the Stage 3 farm-in requirement and has earnt an additional 20% joint venture interest, resulting in a joint venture interest of 60%. Upon delivery of the PFS, Newcrest is entitled to earn an additional 10% joint venture interest resulting in an overall joint venture interest of 70% (Greatland Gold 30%).

11 Total operating costs includes mining costs, processing costs, infrastructure costs and general and administrative costs.

12 Data is reported to two significant figures to reflect appropriate precision in the estimate and this may cause some apparent discrepancies in totals. Data represents 100% of the Mineral Resource for Havieron. Newcrest's joint venture interest in the Mineral Resource is 40%. Newcrest has now met the Stage 3 farm-in requirement and has earnt an additional 20% joint venture interest, resulting in a joint venture interest of 60%. Upon delivery of the PFS, Newcrest is entitled to earn an additional 10% joint venture interest, resulting in an overall joint venture interest of 70% (Greatland Gold 30%).

13 Data is reported to two significant figures to reflect appropriate precision in the estimate and this may cause some apparent discrepancies in totals. Data represents 100% of the Ore Reserve for Havieron. Newcrest's joint venture interest in the Ore Reserve is 40%. Newcrest has now met the Stage 3 farm-in requirement and has earnt an additional 20% joint venture interest, resulting in a joint venture interest of 60%. Upon delivery of the PFS, Newcrest is entitled to earn an additional 10% joint venture interest, resulting in an overall joint venture interest of 70% (Greatland Gold 30%).

14 The Havieron drill results included in this document have been extracted from Newcrest's releases titled "Exploration Update" dated 9 September 2021 and "Quarterly Exploration Report" dated 22 July 2021, 28 January 2021 and 29 October 2020. These releases include the exploration results for all material drill holes (including those referred to in this document).

To view the source version of this press release, please visit <https://www.newsfilecorp.com/release/99291>

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