

Newcrest Mining Limited - Lihir PFS Supports Production Growth to 1Mozpa+ from FY24

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- Lihir Phase 14A PFS indicates potential for growth and large scale, long life, low cost production
- Confirms Lihir's pathway to become a 1Moz+ gold producer for at least 10 years from FY24¹
- \$179m investment projected to deliver outstanding return metrics of 37% IRR & 2.6 year payback^{2,3,4}
- Increases Lihir's Ore Reserves by 1 million ounces⁵
- Project implementation to enhance operational flexibility and risk management
- Potential to deploy Phase 14A mining techniques in other parts of the mine to unlock more value
- Feasibility Study expected to be completed in the second half of FY22⁶

Melbourne, October 11, 2021 - [Newcrest Mining Ltd.](#) (ASX: NCM) (TSX: NCM) (PNGX: NCM) is pleased to announce that the Newcrest Board has approved the Lihir Phase 14A Pre-Feasibility Study (the Phase 14A Study), enabling the commencement of the Feasibility Study and Early Works Program.

The Study focuses on extending the Phase 14 cutback and safely steepening the walls of the pit utilising civil engineering techniques to access existing Indicated Mineral Resources that would have otherwise been inaccessible through standard mining techniques. The Study integrates Phase 14A's future mine design and sequence into Lihir's mine plan and establishes the expected costs, schedule and sustainable production rate.

Newcrest Managing Director and Chief Executive Officer, Sandeep Biswas, said "The findings of our Lihir Phase 14A Pre-Feasibility Study accelerate the realisation of our aspiration for Lihir to be a 1 million ounce plus per annum producer from FY24, which will benefit landowners, all Lihirians and PNG. Phase 14A increases Lihir's Ore Reserves, brings forward gold production and improves operational flexibility by establishing an additional independent ore source. The Study also highlights the opportunity for Phase 14A techniques to be applied to future cutbacks at Lihir, potentially unlocking more value. We have also confirmed the deferral of the need for the Seepage Barrier to Q2 FY26, with the potential to further defer the timing of the barrier."

Summary of Phase 14A Study Findings^{2,3,7}

The Phase 14A Study has identified the following:

- Estimated project capital expenditure of \$179 million
- Internal Rate of Return (IRR) of 37% (real, after tax)
- Payback of 2.6 years⁴
- Net Present Value (NPV) of \$284 million^[8]
- Mill feed increase of 483koz contained gold, with ~400koz of additional gold produced from FY23 to FY26
- Additional Life of Mine (LOM) gold production of 965koz

The Feasibility Study is expected to be completed in the fourth quarter of FY22⁶, with the expenditures and study scope expected to include:

- Early Works expenditure of \$47 million for fleet procurement and initial bench establishment
- Trial works for ground support anchors to validate design, costs and schedule
- Additional drilling and test work to validate ore deposit knowledge

The Lihir Ore Reserves estimate has been updated to include the conversion of the Phase 14A Indicated Mineral Resource to Probable Ore Reserves, increasing Lihir's Total Ore Reserves by 1Moz to 23Moz as at 30 June 2021⁵.

Mining of Phase 14A is expected to take place between FY22 and FY26. Ore mined from this Phase will replace lower grade ore feed to the processing plant, with an initial 13Mt of high and medium grade ore from Phase 14A planned to be fed between FY22 and FY26. Lower grade material will be stockpiled and fed progressively over the remaining LOM. This is expected to deliver an additional 965koz of gold production over the LOM.

In addition, Newcrest has completed its Seepage Barrier Feasibility Study, which enables further definition of the expected construction costs and schedule. The findings from the project field trials indicate that the Seepage Barrier can be constructed using hydromill cutters and grouting methods. Approval of the Seepage Barrier Feasibility Study to move to Execution has been deferred until FY23, in line with the findings of the Lihir Mine Optimisation Study (LMOS) which established that the eastern limits of Phases 16 and 17 could be moved further east, deferring the need for the Seepage Barrier by ~18 months to Q2 FY26.

Table 1: Key Phase 14A Study Findings⁷

Area	Measure	Unit	Study Outcomes	
			Phase 14A ^{2,3}	LOM ⁹
Production	Ore milled / milling rate (max)	Mtpa	15.5	15.5
	Ore milled	Mt	-	310
	LOM	Years	5 ^[10]	22
	Ore mined	Mt	20.5	236
	Average gold grade	g/t	2.4	2.3
	Gold produced	Moz	1.0	19
	Production stripping (capitalised)	US\$m (real)	111	
Capital	Sustaining capital	US\$m (real)	69	
	Total capital	US\$m (real)	179	
Economic assumptions	Gold price	US\$/oz	1,500	
Financials ¹¹	NPV ⁸	US\$m (real)	284	
	IRR	% (real)	37	
	Payback period ⁴	Years	2.6	

Phase 14A Overview²

In February 2021, Newcrest announced the findings of the LMOS which included the identification of a new, essentially brownfield opportunity called Phase 14A. The Phase 14A Study focused on extending the Phase 14 cutback and safely steepening the walls of the pit by utilising civil engineering techniques to access existing Indicated Mineral Resources which would have otherwise been inaccessible through standard mining techniques. The Phase 14A cutback is expected to provide an additional mining front enabling further flexibility for fresh competent ore feed. The Phase 14A cutback is fully permitted and is within the existing mine lease.

Field trials of the wall support technology are planned for the December 2021 quarter⁶, with long lead materials to be ordered and the engagement of specialist contractors in progress.

The addition of Phase 14A into the Lihir mine plan accelerates Newcrest's aspiration for Lihir to be a 1Moz+ per annum producer from FY24.

Mining of Phase 14A is expected to take place from FY22 to FY26 and include:

- Total ex-pit mining of 34Mt, including 13Mt of high and medium grade ore at an average of 3g/t, which will displace lower grade ore (mostly stockpile) that would otherwise have been processed in the mill
- An uplift in the total mill feed grade and an additional 483koz of gold in feed and 400koz recovered gold over FY23 - FY26³

Material Class	Tonnage (Mt)	Au Grade (g/t)
High Grade (HG)	4.5	4.5
Medium Grade (MG)	8.5	2.2
Low Grade (LG)	7.5	1.3

Waste	13.5
Total	34
Stripping Ratio (Waste: Ore)	0.66

Table 2: Phase 14A Inventory Summary³

Figure 1: Phase 14 Mining ore production by financial year³

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

https://orders.newsfilecorp.com/files/7614/99289_498f7c99e4a7bb50_003full.jpg

Backfilling the cutback will occur after the completion of mining and will act as a buttress supporting long-term stability of the highwall.

A program of infill resource definition drilling and trial installations of the ground anchors is underway and will be completed in FY22. This program is expected to improve resource definition, further reducing project risk.

Figure 2: Lihir Mine cutbacks including Phase 14A

To view an enhanced version of Figure 2, please visit:

https://orders.newsfilecorp.com/files/7614/99289_498f7c99e4a7bb50_004full.jpg

The Phase 14A design utilises civil engineering techniques, in conjunction with existing mining practices, to increase pit wall angles. The upper Argillic horizons without ground support typically have an unsupported slope angle of ~45° which has been increased to ~77° using soil anchors to provide stability. The soil anchors will be installed in the upper benches of the cutback to support the steeper wall angles in these areas. The slope angles of the lower benches will be similar to the existing walls in Phase 14. The increase in pit wall angle enables access to ore within the current permitted pit shell.

Figure 3: Phase 14A design showing current vs supported design slopes

To view an enhanced version of Figure 3, please visit:

https://orders.newsfilecorp.com/files/7614/99289_498f7c99e4a7bb50_005full.jpg

The soil anchors provide ground support in the form of multi-strand anchors with shotcrete and/or high tensile wire mesh as face support in the Argillic and upper Epithermal zones.

Figure 4: Phase 14A wall stabilisation design

To view an enhanced version of Figure 4, please visit:

https://orders.newsfilecorp.com/files/7614/99289_newcrestfigure4.jpg

To integrate with the civil construction, mining will be conducted by a dedicated mining fleet which will comprise a small excavator and dump trucks mining 3m flitches. The 3m flitches are required to provide a working platform for installation of soil anchors at 3m vertical spacings.

The Lihir base case gold production schedule projects mining rates to increase up to 50Mtpa over the coming years and an average milling rate of 15.5Mtpa⁹. Ore from Phase 14A is expected to be mined

between FY22-26 and will be processed over the LOM.

Figure 5: Lihir LOM indicative gold production profile⁹

To view an enhanced version of Figure 5, please visit:
https://orders.newsfilecorp.com/files/7614/99289_newcrestfigure5.jpg

Base Case Expit Mining to 50Mtpa

Mining rates for Lihir are expected to increase (as identified in the LMOS) over the coming years through a combination of equipment capacity and mining efficiency projects. Additional mining capacity is expected to be delivered through increased truck availability as a result of a program of truck re-builds and the replacement of primary dig units. This program is currently underway and is scheduled to be completed by December 2021⁶.

Mine efficiency improvements identified in the Study include improved fleet utilisation, which is expected to be achieved by increasing operator availability and improving dispatch tactics to reduce equipment delays.

Process Plant Improvements¹²

Newcrest is currently implementing numerous throughput improvement initiatives which are targeting the achievement of a process plant throughput rate of 15.5Mtpa from FY24. Lihir has previously demonstrated annualised milling performance rates of ~16Mtpa during Q4 FY18 and Q4 FY19.

Recovery Improvements

Recovery improvements are expected to be achieved through a combination of increasing mill feed grades, improved feed blends and recovery improvement projects that are currently in progress. Phase 14A is expected to provide additional fresh ore to the mill, offsetting lower grade and lower performing recovery material types.

The Front End Recovery project is expected to deliver increased recoveries from the beginning of FY23, with further studies assessing recovery improvements underway.

Project Investment

The Phase 14A Project requires a total capital investment of \$179 million and comprises:

Activity	\$m ^{2,7}
Study and trial costs	22
Mining and ancillary fleet (Excluding contractor ground support equipment)	46
Production stripping cost (capitalised)	111
Total	179

Production Stripping

Pre-production stripping of Phase 14A waste material is expected to commence in the second half of FY22⁶. Due to the initial civil works requirements and available bench space, there is expected to be a ramp up of the mining rate to a peak of ~1Mtpa per month through FY23 and FY24.

Phase 14A has a very low strip ratio of 0.66 and as such will start producing HG and MG ore within six months from the commencement of mining. This is expected to provide significant HG mill feed through FY24 and FY25, lifting intended production rates to 1Moz+ per year from FY24, prior to completion of

pre-stripping in Phase 17⁹.

Indicative Mine Production Profile (Includes Phase 14A)^{9,13,14,15}

Year	Sources	Total Material Movement (Mt) ^[16]	Waste (Mt)	Tonnes
FY22-24	Lienetz, medium/low grade stockpiles and pre-strip	200 - 220	100 - 120	1
FY25-27	Lienetz, Kapit, medium/low grade stockpiles and pre-strip	210 - 230	90 - 110	2
FY28-30	Lienetz, Kapit, low grade stockpiles and pre-strip	160 - 180	80 - 100	5
FY31-33	Lienetz, Kapit, Minifie and low grade stockpiles	140 - 160	40 - 60	2
FY34-36	Lienetz, Kapit, Minifie and low grade stockpiles	130 - 150	50 - 70	1
FY37-39	Minifie and low grade stockpiles	50 - 70	0 - 10	0
FY40-42	Minifie and low grade stockpiles	30 - 50	0 - 10	0
FY43+	Remaining Reserves subject to ongoing study			

Metal Price and Exchange Rate Sensitivity Analysis^{2,3,7}

The IRR of the Phase 14A Project will vary according to the gold prices realised. Base case assumptions include a gold price of \$1,500/oz.

The table below outlines how the estimated Base Case Phase 14A Project IRR of 37% varies using different price assumptions:

Scenario	Assumption
Gold price (\$/oz)	2,200
	2,700
	5,800

Seepage Barrier Feasibility Study Update¹⁸

The development of the Kapit orebody requires construction of a seepage barrier to cut off ocean water inflows from Luise Harbour to the open pit as shown in Figures 6 and 7.

The LMOS defined a base case for the Lihir mine plan which found that through further geotechnical analysis, the eastern limits of Phases 16 and 17 could be moved further east, deferring the need for the Seepage Barrier by 18 months to Q2 FY26 to coincide with mining Phase 18.

Additional mining studies are underway to identify further options to delay timing and/or alter the scope for the Seepage Barrier, including:

- Kapit Pit Slope Optimisation (steepening of pit walls using conventional methods)
- Installation of a mini seepage barrier to access Phase 18 without the need for the full seepage barrier
- Combined pit slope steepening with a mini seepage barrier

The Seepage Barrier Feasibility Study has further defined the technical elements, cost and execution of the Seepage Barrier. It has determined:

- A cut-off wall can be constructed in line with the designed method using standard hydromill cutters and grouting methods with a sea water slurry cooling system and confirmation of the concrete mix
- An expected capital cost of US\$569 million⁷
- Construction duration of approximately 72 months

Figure 6 & 7 - Cut of wall Alignment and Seepage Barrier / Kapit Pit at EOM

To view an enhanced version of Figure 6 & 7, please visit:

https://orders.newsfilecorp.com/files/7614/99289_newcrestfigure6.jpg

Estimated Development Capital Profile^{7,18}

	FY23	FY24	FY25	FY26	FY27	FY28	FY29	Total
Stage 1 - Cut-Off Wall (\$m)	30	74	194	52	-	-	-	350
Stage 2 - Seepage Control Berm (\$m)	-	-	-	35	95	70	19	219
Total (\$m)	30	74	194	87	95	70	19	569

Lihir Mineral Resource¹⁹

The Lihir Mineral Resource has been updated for mining depletion to 30 June 2021 from that reported in the Annual Mineral Resources and Ore Reserves Statement as of 31 December 2020. All other assumptions remain unchanged. A summary of material assumptions is included in Appendix 1, JORC Table 1. It is reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves 2012 (JORC Code). Mineral Resources are reported inclusive of Ore Reserves. Mineral Resources that are not Ore Reserves do not have demonstrated economic viability.

Mineral Resource Gold			
	Mt	g/t Moz	
Measured Mineral Resource	63	2.0	4.0
Indicated Mineral Resource	530	2.3	39
Total Measured and Indicated	590	2.2	43
Mineral Resource Gold			
	Mt	g/t Moz	
Inferred Mineral Resource	67	2.3	4.9

Lihir Ore Reserve¹⁹

A summary of material assumptions is provided below and included in Appendix 1, JORC Table 1. 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.

Ore Reserve Gold		
	Mt	g/t Moz
Proved Ore Reserve	63	2.0 4.0
Probable Ore Reserve	250	2.4 19
Total Ore Reserve	310	2.3 23

Material Assumptions for Ore Reserves

Lihir is an operating open pit mine on Lihir Island, and the Study incorporates learnings from operational execution to date. Work is progressing on a Feasibility Study for the Phase 14A cutback and any adjustments to the Ore Reserves statement will be made following the completion of the Feasibility Study.

Ore Reserve Classification

All of the in-situ Probable Ore Reserve is based on Indicated Mineral Resources. The Proved Ore Reserve is based on Measured Mineral Resources defined for known and quantified low grade stockpiles. The in-situ resource classification is based on an assessment of geological confidence as a function of geological and mineralisation continuity.

Mining Method

Current mining activity at Lihir is via conventional truck and shovel operation, with offshore barge disposal of waste rock and land based and in-pit stockpiling and reclaim of lower grade ore.

Ore Processing

Ore processing at Lihir involves the main operations of crushing, grinding, flotation, pressure oxidation, leaching and electrowinning to recover gold from relatively high-grade sulphide feed producing gold doré. The Lihir process plant utilises proven technology that is widely used in the gold industry for this style of mineralisation. The ore processing facility has been operating since it was commissioned in 1996 and upgrades took place during 2011 and 2012. Comminution circuit operating optimisations and minor upgrades are planned to achieve a 15.5Mtpa plant capacity¹².

The metallurgical recovery assumption for ore feed to the autoclave is dependent on the gold and sulphide sulphur grades, and dependent on sulphur to calcium ratio and proportion of aged stockpile feed for flotation material. Overall metallurgical recovery is reconciled with historic production data, laboratory test samples for stockpiled ore and reflects a partial oxidation metallurgical operating strategy. Average life of mine gold recovery is modelled to be 81-82%.

Cut-Off Grade

Lihir open pit employs a grade based cut-off, taking into account gold price, metallurgical recovery assumptions and site operating costs. The site operating costs include transport and refining costs, royalty charges, mining and processing costs, relevant site general and administration costs and relevant sustaining capital costs. These costs equate to a break even cut off value of US\$38/t milled used to define the ultimate pit shell and a marginal cut off value of US\$33/t milled or 1.0 g/t gold used to define ore and waste material within the ultimate pit shell.

The marginal site cost is based on an end of mine life low grade stockpile reclaim strategy, reducing the site activity and long term cost base. The mining cost in the marginal site cost represents the stockpile reclaim cost.

Estimation Methodology

Estimation of the Lihir Ore Reserve involved standard steps of mine optimisation, mine design, production scheduling and financial modelling. Factors and assumptions have been based on operating experience and performance at the Lihir 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 Lihir Ore Reserve has a positive NPV. Sensitivities were conducted on the key input parameters including commodity prices, capital and operating costs, ore grade, discount rate, exchange rate and recovery which confirmed the estimate to be robust.

Material Modifying Factors

The resource estimation process allows for ore dilution and recovery to be built into the resource model based on the assumption of the selective mining unit (SMU) as the block size. The SMU assumption is based on the mining fleet size and is consistent with a high mill throughput/bulk mining strategy. Due to the Localised Uniform Conditioning (LUC) approach adopted in the resource model no additional mining dilution or recovery factors have been applied to the Ore Reserve estimate.

This assumption is supported by the actual reconciliation between resource model and mill performance at Lihir to date being within an acceptable uncertainty range for the style of mineralisation under consideration.

The pit optimisation takes into account Inferred Mineral Resources, however only Measured and Indicated Mineral Resources are reported in the Ore Reserve estimate. The Inferred Mineral Resource represents a small portion of material within the ultimate pit design and both the design and financial model are insensitive to the exclusion of this material.

Civil engineered wall support is required for the Phase 14A cutback to allow access to the orebody. The cutback design also requires mining by a fleet of small equipment owing to the narrow ramp configuration

required. Allowances for these activities are included in the preparation of the Ore Reserve estimate.

Other Modifying Factors

Lihir Gold Limited and the Lihir Open Pit are in material compliance with all legal and regulatory requirements. Naturally occurring risks that might have a material impact upon the Lihir ore reserve are discussed in the risks section of Newcrest's Operating and Financial Review (in the Appendix 4E and Financial Report for the year ended 30 June 2021 which is available to view at www.asx.com.au under the code "NCM" and on Newcrest's SEDAR profile) and include the potential impacts of seismic activity.

Environmental permitting for the Phase 14A Project has been assessed and approved by the Conservation and Environment Protection Authority (CEPA).

The known legal, political, environmental or other risks that could materially affect the potential development of the mineral resources or ore reserves are identified in Sections 3 and 4 of Appendix 1.

Appendix 1

JORC Table 1 - Lihir (100% Newcrest)

Section 1: Sampling Techniques and Data

Criteria	Commentary
Sampling techniques	Lihir is located in an active geothermal area and procedures have been developed to ensure that all sampling activities are conducted in a safe manner which is appropriate for the environment. All sampling activities intersected. Data used for the resource estimation is obtained by two methods: diamond core drilling and reverse circulation (RC) drilling. All available diamond drill holes are sampled with a diamond saw with sample intervals being either 1m or 2m in length. Samples are placed in a calico bag with a sample number and sent to the laboratory for assay. RC samples are collected via a cyclone and split with a riffle splitter. The riffle splitter sample is placed in a calico bag with a sample number and sent to the laboratory for assay.
Drilling techniques	Drilling is the primary source of data for Mineral Resource estimation. Two drilling methods-diamond coring and RC drilling. The majority of diamond drill core (93%), comprising PQ (84.8 mm core diameter), and RC (47.6 mm core diameter). Very little core orientation is performed on RC samples. Due to the geothermal conditions make it very difficult to obtain accurate orientation. RC (5 1/4" diameter) completed prior to 2002 used both vertical and horizontal drilling. RC drilling has been comprised of diamond core. Stockpile drilling is comprised of RC. Hole lengths are routinely 36m.
Drill sample recovery	Core recovery is recorded and stored in an acQuire software database. Core recovery is generally excellent with no loss or poor core recovery. Core recovery is generally excellent with no loss or poor core recovery. There is no identified relationship between core loss and grade and recovery is unlikely. There are no records of RC sample recovery.
Logging	All diamond drill holes are geologically logged. Due to the nature of the geothermal area, RC is not logged for lithology and alteration and quantitatively logged for structure. RC core is logged and photographed after marking up metre intervals. RC data are entered into the acQuire database via a laptop computer.

Criteria	<p>Commentary</p> <p>The sampling technique used is considered appropriate for the assessment of the completion of drill core logging, the geologist defines which intervals are sampled. All recent drilling is analysed on 2m intervals on the metre mark. Prior to cutting the core in half with a diamond blade saw when intact and then placed in a calico bag marked with the appropriate sample number and sent to the laboratory. Where the core is too soft to be cut with a diamond saw, a knife is used. Where the core is too broken or brittle to be cut by the saw, the fragment is used. The core is not cut in half as the entire section is sampled so that sample is representative. The sampling interval is 2m but has varied over time from 1m to 2m. The original trays on pallets at the core processing facility.</p>
Sub-sampling techniques and sample preparation	<p>Lihir has a sample preparation facility at the mine and up to January 2015, samples were prepared as duplicates. Drill core was crushed and RC and blast hole samples were prepared without laboratory splitting. After 2015 there was a reduction in core size and samples were transferred directly to a bank of 6 * LM5 pulverisers without crushing. The bank of crushers with a small single deck riffle splitter which are rarely used.</p> <p>Sample preparation for analysis is as follows: Samples are crushed and split to a nominal weight of 2.5 - 3kg using a riffle splitter. Split samples are dried until dry. Each sample is pulverised using a Labtechnics LM5 pulveriser to 95% passing 106µm. A 200g sub-sample is collected for analysis and 100g is used for Pulp replicates (not duplicates) are routinely undertaken. Crushed samples are sent to the Orange laboratory.</p> <p>The sample preparation and size is considered appropriate for assessment of this type.</p> <p>The Lihir onsite laboratory has been the primary laboratory used for sample preparation and assaying completed at the Newcrest Services laboratory (Orange, NSW).</p> <p>Samples are routinely assayed for gold and sulphur. Gold analysis is by Atomic Absorption Spectroscopy (AAS) finish and detection limit of 0.1g/t is complete. Sulphide sulphur is by Labfit method where the sample is heated in the presence of oxygen. The resulting sulphur dioxide is measured by an infra-red analyser.</p>
Quality of assay data and laboratory tests	<p>A detailed Quality Assurance/Quality Control (QAQC) program is in place covering sampling and analytical procedures. The process currently involves the submission of reference material (standards) to Lihir laboratory, duplicates from the same batch, blind resubmission of pulps to Lihir laboratory, replication to an alternative laboratory for analysis, submission of coarse blank samples, checks on grind and crush size from the sample preparation process and monthly QA/QC meetings. A monthly report is prepared detailing QA/QC results. Resource estimate. There have been 30 standards used, not all of which are 16 standards were commercially available standards. Since 2008, the use of matrix-matched standards has been implemented.</p> <p>Data suggests that during the period between 2007 and 2012 there was a 20% in sulphide sulphur analysis conducted at Lihir laboratory data compared to reference materials. This suggests the Lihir method during this period was less accurate than the sulphide sulphur of the certified reference materials. In 2013, new standards were introduced at Lihir which have improved the method accuracy. A method improvement was implemented in 2016, with the installation of the new equipment.</p>

Criteria	<p>Commentary</p> <p>All data and interpretative inputs to Mineral Resource estimates are a range of Newcrest standard operating procedures. Procedures w programs at Lihir. Diamond drill core samples are processed in-ho facility, sample preparation and analytical laboratory. All resource l the resource database via logging notebook computers. Newcrest database team to check, verify and validate new data and to ensur database. Day-to-day management of the resource data is underta using the acQuire database system. Prior to resource estimation a further data checks to ensure data integrity prior to estimation.</p> <p>Regular internal and external reviews of all geological and Mineral conducted to check the quality and integrity of these procedures. N data.</p> <p>The grid applied is a local Mine Grid that has it based on AMG Zon</p> <p>The original topography surface is a Light Detection and Ranging (Mining activities are surveyed each month and incorporated into a purposes.</p>
Verification of sampling and assaying	
Location of data points	<p>All completed drill hole collars are surveyed by the mine surveyors</p> <p>A variety of methods have been used to measure down hole devia conventional borehole camera, electronic single shot and gyroscop have been surveyed using conventional borehole camera methods Historical drilling has been nominally on 35m eastings, but noting t orientation due to complex mineralisation events.</p> <p>The Mineral Resource has been classified into Indicated and Inferred following factors: drill hole spacing (only areas drilled to 70m x70m Indicated Resource), style of mineralisation and geological continu grade continuity and proposed mining selectivity and scale of minir Classification for further details.</p>
Data spacing and distribution	<p>The data spacing and distribution is sufficient to establish geologic Mineral Resource estimation and classification and supported by h production results.</p> <p>Samples for estimation purposes have been taken, but no physical during the analysis process.</p> <p>Gold mineralisation in the Luise Caldera is hosted within volcanics undergone extensive alteration. Two major alteration episodes hav much of the original host rock lithologies, and due to this an "ore ty based largely upon various combinations of alteration, hardness, th matrix material, and the presence of late stage anhydrite veining. T</p>
Orientation of data in relation to geological structure	<p>The nature of the mineralisation distribution is such that it is insens of orientations having been used. Diamond holes prior to 2002 are used subsequently to define the Mineral Resource. RC holes comp angled holes.</p> <p>Samples were transported from drill site to core shed and to site la zone of the mine. Sample dispatches are reconciled against Labor reconciled by geology staff.</p> <p>An independent review of assaying and QAQC in September 2012 gold has now been rectified at Lihir, sulphur from sulphide has not during some stages of the life of operation. Assaying precision for standards but lacking for sulphide sulphur. Overall the quality of th</p>
Sample security	
Audits or reviews	
Section 2: Reporting of Exploration Results	

Criteria	<p>Commentary</p> <p>Mining and ore processing operations at Lihir are conducted under the Mining Act of the State of Papua New Guinea and the related special mining laws, including exploration licenses, leases for mining purposes and other approvals. The granted tenements and permits cover the entire Lihir mine site, including the open pit, accommodation, plant, roads, and bore fields. All infrastructure is in place for the current operations.</p>
Mineral tenement and land tenure status	<p>Current tenements granted under the PNG Mining Act include one granted Exploration License (EL) and one granted Mining Lease (ML) and one granted Exploration License for purpose and easement leases. The total area under the current tenements is 1,000 hectares. The Mineral Resource lies entirely within SML 6. The registered holder of the Mineral Resource is a subsidiary of Newcrest Mining Ltd. since late 2010. SML 6 was granted on 1 March 2020. Process for a new renewal from 1 April 2021 is underway. SML 6 has no restrictions and will be lodged for EL485. The two MLs are SML 1 and SML 2. The first systematic mineral exploration in the area was conducted by the Geological Survey of PNG between 1969 and 1974. It identified the hydrothermal alteration and thermal activity on Lihir and the geologic environment for epithermal gold mineralisation.</p>
Exploration done by other parties	<p>The Ladolam gold deposit was initially discovered in 1988 by Rio Tinto and Niugini Mining. A feasibility study was completed in 1995. In 1996, a joint venture was formed between Kennecott Mining and Rio Tinto. The joint venture formed to hold the Mining Development Contract, the operations commenced at Lihir in 1997.</p>
Geology	<p>In 2005 Rio Tinto sold its interest in LGL, then, in late 2006, the joint venture of arrangement.</p> <p>Exploration has identified several adjacent and partly overlapping gold deposits which are collectively called the Ladolam Deposit. The Ladolam Deposit includes Minifie, Coastal and Kapit. Gold mineralisation in the Ladolam Deposit is a porphyry gold system with the gold hosted in volcanic rocks. Several alteration episodes have been identified which have contributed to the development of this "ore type" classification has been developed based on the degree of alteration, hardness, the degree of brecciation and/or the degree of stage anhydrite veining. The majority of the gold is contained within the Ladolam Deposit.</p>
Drill hole Information	<p>The limits of the mineralisation have not been completely defined along strike and to the east (currently limited by the PML). No exploration has been reported in this release, therefore this section is not relevant to this report on Ore Reserves and Mineral Resources.</p>
Data aggregation methods	<p>Comments relating to drill hole information relevant to this report on Ore Reserves and Mineral Resources are contained in Section 1 - "Sampling techniques", "Drilling techniques". No exploration has been reported in this release, therefore this section is not relevant to this report on Ore Reserves and Mineral Resources.</p>
Relationship between mineralisation widths and intercept lengths	<p>Comments relating to data aggregation methods relevant to this report on Ore Reserves and Mineral Resources are contained in Section 1 - "Sampling techniques", "Drilling techniques". No exploration has been reported in this release, therefore this section is not relevant to this report on Ore Reserves and Mineral Resources.</p>
Diagrams	<p>No exploration has been reported in this release; therefore this section is not relevant to this report on Ore Reserves and Mineral Resources.</p>
Balanced reporting	<p>No exploration has been reported in this release, therefore this section is not relevant to this report on Ore Reserves and Mineral Resources.</p>
Other substantive exploration data	<p>Previously reported drilling results have confirmed the current Mineral Resource seaward constraint.</p>
Further work	<p>A concept study of mining beyond the current seaward constraint is being conducted to assess the reasonable prospects for eventual economic extraction of the current Mineral Resource seaward constraint.</p>

Section 3: Estimation and Reporting of Mineral Resources

Criteria	Commentary
Database integrity	Data is stored in a SQL Server database known as acQuire. Assay and geochemical data is loaded into acQuire and the database is replicated in Newcrest's centralized data warehouse. Regular reviews of data quality are conducted by site and corporate teams prior to reporting and external reviews.
Site visits	The Competent Person for the Lihir Mineral Resource is part of the operational management of the Lihir Mine. Gold mineralisation in the Luise Caldera is hosted within volcanics, intrusives and metasediments that have undergone extensive alteration. Two major alteration episodes have been identified: a "porphyry style" event resulting in potassic alteration grading laterally into phyllic and argillic alteration, and a higher level epithermal event producing argillic, advanced argillic, phyllic, and siliceous alteration. This intensive alteration has destroyed much of the original host rock. An "ore type" classification has been developed based essentially upon variations in mineralogy, hardness, the degree of brecciation and/or leaching of matrix material, and the presence of anhydrite veining. The ore types are roughly sub-horizontal in occurrence and are defined by a sequence of clay-rich rock, grading into white mica-feldspar rock, then feldspar-biotite-anhydrite rock. Within and at the boundaries of the ore type zones, there is a major influence on the localization of higher gold grades in the orebodies.
Geological interpretation	The maximum extent of the Mineral Resource is 3km x 1km x 350m. The dimension of the resource with the reporting of the Mineral Resource extent limited by a seaward extension of the resource known as Kapit North East is a seaward extension outside the Mineral Resource boundary.
Dimension	The Lihir resource estimate contains estimates for gold, arsenic, silver, copper, iron, and sulphide sulphur. Gold is the primary economic metal with sulphur and carbonates being managed in an autoclave feed management. Estimates of minor elements are required to allow for a comprehensive performance management.
Estimation and modelling techniques	The estimation for each element was undertaken using the non-linear estimation method of Uniform Conditioning (LUC) and is based on an underlying 'diffusion' model where the grade is assumed to trend from lower to higher values and vice versa in a relatively continuous manner. The model is applied to 12m intervals for gold and all other elements. Uniform Conditioning (UC) is applied to sulphide sulphur within 100x100x12m panels. The UC model was converted to a block model of 12m x 12m blocks that define the selective mining unit (SMU). Ordinary Kriging is used for the estimation of density into the SMU blocks. All other elements (arsenic, silver, copper, iron, and molybdenum and calcium) were estimated into the SMU. All elements are estimated into the SMU. In 2017 the estimation domains were updated for geologically interpreted facies and mineralogical domains. These were assessed and validated using contact metamorphic domains were used for gold (used also for sulphide sulphur, carbonate, silver, copper, iron, and molybdenum). Top cutting of extreme values for each element was done on the histogram of data such that the top 1% samples were cut so that they contained less than 1% of total metal (for example this ranged from 4 to 30 g/t for gold domains). The resource estimate is validated via visual, geostatistical and production reconciliation.
Moisture	The December 2017 model is the basis of the Lihir December 2020 Mineral Resource estimate. All tonnages are calculated and reported on a dry tonnes basis. Lihir open pit employs a grade based cut-off, taking into account metallurgical grade, processing costs, transport costs, refining charges and royalty charges. The site operating costs, processing cost, relevant site general and administration costs and relevant infrastructure costs equate to a break even cut off value of US\$40/t milled used to define the marginal cut off value of US\$35/t milled or 1.0 g/t gold used to define ore and waste.
Cut-off parameters	The marginal site cost is based on an end of mine life low grade stockpile resource and a long term cost base. The mining cost in the marginal site cost model is based on the cost of the marginal site cost model.
Mining factors or assumptions	The Mineral Resource estimate is reported within a constraining notional pit shell. The resource is extracted via a large Open Cut. Consequently, some aspects of the model are based on the bulk mining method of open pit mining on 12 m benches with a 20m x 20m grid.

Criteria	<p>Commentary</p> <p>Gold extraction is by pressure oxidation of ore from a combination of direct depending on sulphur levels. The target sulphur content in slurry to the auto ensure auto-thermal operation of the autoclave. Ore blending and flotation manner to maintain feed sulphur content in this range. Metallurgical test work site has shown that there are four main rock /alteration domain groups identified Argillic, Epithermal and Porphyry.</p>
Metallurgical factors or assumptions	<p>Gold recoveries recognise float recovery differences between in-situ and stockpiles. Neutralisation cyanidation adsorption (NCA) recovery formulae reflect oxidation. Lihir operations comprise an open pit mine, ore processing plant, and associated infrastructure. Higher-grade ore is processed via pressure oxidation and carbon-in-leach circuit. Lower-grade ore stockpiled for later processing. Lihir uses deep sea tailings placement. Heavy rainfall typically experienced on Niolam Island, the lack of suitable area and the high seismicity of the region, DSTP was the preferred tailings placement. Tailings are premixed with sea water within the confines of the mining lease. Baseline studies were undertaken prior to the approval by PNG environment for commencement of the DSTP. Regular monitoring is undertaken to verify the system and is subject to the regulatory criteria established by the PNG CER. Tailings are either used for construction purposes or transported in barges for off-shore disposal. Disposal is carefully planned and controlled to achieve a continuous rill slope floor and to prevent uncontrolled slumping triggering a rise in water levels.</p>
Environmental factors or assumptions	<p>The Mineral Resource assumes the continued use of these waste management practices. All bulk density measurements are carried out in accordance with site standard Gravity. The physical determination of bulk density is undertaken on solid p. Intervals for bulk density determination are selected according to lithology changes (to best represent certain intervals as defined by the geologist). The measurements (as part of the logging process), by geological assistants. Measurements are taken down hole, or more frequently if required. This is a dry air method of analysis.</p>
Bulk Density	<p>Ordinary Kriging (OK) was used for the local estimation of density into the resource. The in-situ Mineral Resource has been classified into Indicated and Inferred assessments using the criteria of slope of regression (SOR) and the variogram. For Indicated classification a guideline of SOR > 0.7 and WTD <75 meters was applied. For Inferred classification a guideline of SOR > 0.65 and WTD <160 meters was applied.</p>
Classification	<p>Stockpiles were classified as Measured and Indicated Mineral Resources based on the methodology.</p>
Audits or reviews	<p>In-situ resource classification methodology has been tested with geostatistical reconciliations, and appropriately confirms the Competent Persons view of the resource. The current Mineral Resource estimate has been externally reviewed by SRP. There were no issues or concerns with the Mineral Resource inputs, process and the Mineral Resource estimate was suitable for reporting in accordance with the Code (2012).</p>
Discussion of relative accuracy/ confidence	<p>For an Indicated Resource it is considered reasonable for the relative uncertainty in grade and metal (exclusive of each other, i.e., each variable has to satisfy the production volume at a 90% confidence level. Geostatistical evaluations including processing throughputs from the pits this criteria is satisfied globally within the Indicated Resource relative uncertainty band, globally.</p>

Section 4: Estimation and Reporting of Ore Reserves

Criteria	Commentary
	A technical description of the Mineral Resource estimate and the Ore Reserve estimate is presented in the preceding section.
Mineral Resource Estimate for conversion to Ore Reserves	<p>The Ladolam gold deposit is located within the Louise Caldera, Milne Bay Province, Papua New Guinea. Gold mineralisation is associated with intrusives, and breccias that have undergone extensive alteration. The deposit is a hydrothermally-altered porphyry gold system with the gold located within the caldera. The majority of the gold is contained in sulphide minerals.</p> <p>The Measured and Indicated Mineral Resources reported in this study are those Mineral Resources modified to produce the Ore Reserve estimate. The Competent Person for the Ore Reserve estimate is an experienced geologist of Phase 14A Ore Reserve preparation was the Senior Specialist. He has been on site from 2015 to 2020 providing long term and strategic advice and studies. This experience has been used to validate technical aspects of the preparation of this Ore Reserve estimate.</p>
Site Visits	Production at Lihir commenced in 1996 and it is now a mature operation with mining and processing performance.
Study Status	Lihir open pit employs a grade based cut-off, taking into account all relevant assumptions and site operating costs. The site operating costs include site charges, mining and processing costs, relevant site general and administrative capital costs. These costs equate to a break even cut off value of US\$33/t milled or 1.0 g/t Au within the ultimate pit shell.
Cut-off Parameters	The marginal site cost is based on an end of mine life low grade activity and long term cost base. The mining cost in the marginal site cost.

Criteria

Commentary

Estimation of the Lihir Ore Reserve involved standard steps scheduling and financial modelling. Factors and assumptions prefeasibility level study completed in 2020, or are based on

Current mining activity at Lihir is via conventional truck and waste rock and land based and in-pit stockpiling and reclaim demonstrate the appropriateness of this mining method as

Phase 14A design parameters are tabled below:

To view an enhanced version of this graphic, please visit:
https://orders.newsfilecorp.com/files/7614/99289_newcrest

Geotechnical slope parameters are based on the detailed a which influence geotechnical performance within the Phase parameters are also based on the assumption that a compr mesh, shotcreting and depressurisation is used to provide a during cutback development, and that a backfill buttress is completion. The design parameters are based on current g study for the cutback mining area.

Mining factors or assumptions

The Lihir Resource Model utilises LUC to estimate block go and recovery to be built into the resource model based on t as the block size. The SMU assumption (20m x 20m x 12m consistent with a high mill throughput/bulk mining strategy. resource model no additional mining dilution or recovery fa estimate. This assumption is supported by the actual recon performance at Lihir project to date being within an accepta mineralisation under consideration.

The pit optimisation takes into account Inferred Mineral Res Resource is reported in the Ore Reserve estimate. The Infe material within the ultimate pit design and both the design a exclusion of this material.

The selected mining method requires civil engineered wall s Phase 14A orebody. The cutback design also requires mini narrow ramp configuration required. Allowances for these a Reserve estimate.

A backfill buttress required for long term support of the final Reserves inventory.

The Ore Reserve estimate is based on a maximum 15.5Mtp Ore processing at Lihir involves the main operations of crus leaching and electrowinning to recover gold from relatively utilises proven technology that is widely used in the gold inc

The ore processing facility has been operating since it was during 2011/2012. Comminution circuit operating optimisati 15.5Mtpa plant capacity.

Metallurgical factors or assumptions

The metallurgical recovery assumption for ore feed to the a sulphur grades, and dependent on sulphur to calcium ratio material. Overall metallurgical recovery is reconciled with h stockpiled ore and reflects a partial oxidation metallurgical o recovery is modelled to be 81-82%.

The potential impact of the presence of low concentrations consumption has been assessed and is not considered an are generally below 500ppm, and historical performance in material impact.

Criteria	Commentary
Environmental	Lihir open pit is an operating mine and has been granted an environmental licence for Phase 14A cutback.
Infrastructure	The Lihir operation is an operating mine and has the necessary infrastructure for operation. Capital and operating costs have been determined as part of the pre-feasibility study. Operating costs for a drilling, shotcreting and cable bolt installation are considered to be pre-feasibility level. Provision has also been made for a fleet of smaller mining equipment suited to the cutback access. The total capital is estimated in the range of US\$60-70 million.
Costs	No cost impact is expected from deleterious elements. It has been assumed that additional costs relating to minor elements when preparing the Ore Reserve. Transport and refining charges have been developed from the current operating input assumptions for these costs used by the current operating mine. The estimated to average US\$2.24/oz of gold. A royalty of 2.0% of gold revenue (net of refining and transportation costs) to governments and local level governments and landowners. (transport costs) is also applied in the preparation of this reserve estimate. Long term metal prices and exchange rate assumptions adopted for the pre-feasibility process are US\$1,300/oz for gold at a AUD:USD exchange rate of 1.30. The process with Newcrest metal price guideline for December 2020 Ore Reserve estimate. Newcrest is a price taker and gold is sold on the open market. The demand for gold from Lihir is not a constraint in the estimate. The Ore Reserve has been evaluated through a financial model. The revenue factors stated in this document were included in the evaluation of the Lihir Ore Reserve to have a positive NPV.
Revenue factors	
Market assessment	
Economic	Sensitivities have been conducted on the key input parameters. The estimate to be robust. The NPV range has not been provided due to sensitive information.
Social	Engagement with landowners for affected blocks within the project area has been undertaken through a series of meetings in conjunction with the project. Approval for the project has been endorsed by block executive minutes.
Other	Environmental permitting for the Phase 14A Project has been completed. Lihir Gold Limited and the Lihir Open Pit are in material compliance with requirements.
Classification	Naturally occurring risks that might have a material impact on the Ore Reserve are risks section of Newcrest's Operating and Financial Review for the year ended 30 June 2021 which is available to view at www.newcrest.com.au (Newcrest's SEDAR profile) and include the potential impact of the Ore Reserve. All of the in-situ Ore Reserve is currently derived from Indicated Resources. The density of drilling, the ore body experience and the mining method. Reserves derived from Measured Resources are those reported in the Ore Reserve.
Audits or reviews	It is the Competent Person's view that the classifications used in the Ore Reserve. Golder Associates Pty Ltd (Golder) was commissioned in 2020 to review the Reserve estimation processes and results that did not include the Ore Reserve.
Discussion of relative accuracy/ confidence	Golder concluded that the Ore Reserve had been prepared and is considered suitable and reported in accordance with the JCR.
Forward Looking Statements	A competent independent review of the Phase 14A Ore Reserve has been completed with no non-compliances or material issues identified. The accuracy of the estimates within this Ore Reserve is moderate. The associated with the geotechnical slope parameters, the Mining Method.

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 in the Appendix 4E and Financial Report for the year ended 30 June 2021 which is available to view at 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 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 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 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 Lihir Ore Reserves is based on and fairly represents information compiled by

Mr David Grigg. Mr David Grigg is the Senior Specialist Long Term Planning 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 Member of the Australasian Institute of Mining and Metallurgy. Mr David Grigg 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. Mr David Grigg 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 Lihir Mineral Resources is based on and fairly represents information compiled by Mr Benjamin Likia. Mr Likia is the Manager - Mining and a full-time employee of [Newcrest Mining Ltd.](#) He 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 Member of the Australian Institute of Mining and Metallurgy. Mr Likia 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. Mr Likia consents to the inclusion of material of the matters based on his information in the form and context in which it appears.

Technical and Scientific Information

The technical and scientific information contained in this document relating to Lihir (including the Mineral Resource and Ore Reserve) was reviewed and approved by Craig Jones, Newcrest's Chief Operating Officer Papua New Guinea, FAusIMM and a Qualified Person as defined in NI 43-101.

Authorised by a Newcrest Board Committee

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- 1 The production targets underpinning the estimates are contained in the column titled "LOM" in the table on Page 2 under the heading "Table of Key Study Findings". The production target is based on the utilisation of 100% of Lihir's Ore Reserves, being 4Moz Proved and 19Moz Probable Ore Reserves, as set out on Page 9, which have been prepared by a Competent Person in accordance with Appendix 5A of the ASX Listing Rules.
- 2 The Study has been prepared with the objective that its findings are subject to an accuracy range of $\pm 25\%$. The findings in the Study and the implementation of the Phase 14A 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.
- 3 The production targets underpinning the Study estimates are contained in the column titled "Phase 14A" in the table on Page 2 under the heading "Table of Key Study Findings". The production target is based on the utilisation of $\sim 4\%$ of the total Lihir Ore Reserves, being 4Moz Proved and 19Moz Probable Ore Reserves, as set out on Page 9, which have been prepared by a Competent Person in accordance with Appendix 5A of the ASX Listing Rules.
- 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 date that Phase 14A is forecast to gate to execution.
- 5 After mining depletions from 1 January 2021 to 30 June 2021 and the conversion of the Phase 14A Indicated Mineral Resource to Probable Ore Reserves. Refer to Page 9 for a summary of the Lihir Ore Reserve.
- 6 Subject to market and operating conditions and no unforeseen delays (including any delays due to COVID-19).
- 7 As Lihir's functional currency is US dollars, the Studies have been assessed in US dollars.
- 8 Using a discount factor of 6.0% (real).
- 9 The production targets are based on the utilisation of 100% of the total Lihir Ore Reserves, being 4Moz Proved and 19Moz Probable Ore Reserves, as set out on Page 9, which have been prepared by a Competent Person in accordance with Appendix 5A of the ASX Listing Rules.
- 10 Based on ore mined of 20.5Mt for the period FY22-26.
- 11 Financial estimates are based on the production targets shown as "gold produced" in the Phase 14A column in the table above.
- 12 Throughput targets are subject to market and operating conditions and no unforeseen circumstances occurring. They should not be construed as production guidance.
- 13 Indicative only and should not be construed as guidance. Subject to market and operating conditions, regulatory and landowner approvals and further studies.
- 14 Based on the Company's knowledge and good faith assumptions at the release date of this document. The indicative mine plan will be updated on an annual basis, or sooner if there are significant changes in the underlying assumptions.
- 15 Indicative estimates are provided on a Base Case basis. Further optionality and potential upside exists in relation to the operation, with there being a number of projects and studies in progress to pursue these.
- 16 Includes sheeting material and crusher rehandle.
- 17 Plant feed = Ex-pit + Stockpile feed.
- 18 The Seepage Barrier Feasibility Study has been prepared with the objective that its findings are subject to an accuracy range of $\pm 15\%$. The findings in the Study and the implementation of the Lihir Seepage Barrier 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.
- 19 Data is reported to two significant figures to reflect appropriate precision in the estimate and this may cause some apparent discrepancies in totals.

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