



MERLIN SCOPING STUDY DEMONSTRATES STRONG ECONOMICS TO BE A LONG-LIFE DIAMOND PRODUCER

The scoping study is a preliminary technical and economic study of the viability of the Merlin Diamond Project (“Merlin” or “the Project”).

- ❖ Demonstrates strong economics for a long-life mine using open pit and vertical pit mining techniques
- ❖ Total mine production target of ~2.1 million carats
- ❖ ~14-year life-of-mine averaging ~153,000 carats/ annum
- ❖ ~71% of plant throughput sourced from Indicated Resources
- ❖ Board already progressing feasibility study with results expected in mid-2022
- ❖ Kimberlite exploration aimed at identifying new discoveries at Merlin to commence in 2022

Disclaimer and Cautionary Statement

The scoping study referred to in this release is a preliminary technical and economic study of the viability of Merlin Diamond Project in the Northern Territory, Australia (“Merlin” or “the Project”) through an open pit and vertical pit development (“Scoping Study”).

The Scoping Study results (outcomes, production targets and forecast financial information) contained in this release are based on lower-level technical and economic assessments in line with a scoping level study accuracy and are not sufficient to support the estimation of ore reserves. Further evaluation work and appropriate studies are required before Lucapa will be in a position to estimate any ore reserves or to provide any assurance of an economic development case. The Scoping Study has been completed to a level of accuracy of +/- 30%. While the Company considers all the material assumptions to be based on reasonable grounds, there is no certainty that they will prove to be correct or that the range of outcomes indicated by the Scoping Study will be achieved.

Of the Mineral Resources scheduled for extraction for the Scoping Study production target, approximately 71% of the 14-year life-of-mine production is sourced from Indicated Resource and approximately 29% is sourced from Inferred Resource. The proportion of Inferred Resource is not a determining factor in Project viability. Approximately 50% of the current JORC (2012) compliant Indicated and Inferred Resource tonnes are mined during the life-of-mine. There is a low-level of geological confidence associated with Inferred Resources and there is no certainty that further exploration work will result in the determination of Indicated Resources or that the production target itself will be realised. The Scoping Study is based on the material assumptions outlined elsewhere in this release.

The Mineral Resource underpinning the production target is based on and fairly represents information and supporting documentation prepared and compiled by a competent person in accordance with the requirements of the JORC Code (2012). For full details of the Mineral Resource estimate, please refer to the ASX announcement on 24 May 2021. This release and Scoping Study have been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the production target and forecast financial information are based have been included in this release.

The Company has concluded it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this release. This includes a reasonable basis to expect that the Company will be able to fund or source the funds of ~A\$96 million for the proposed development of Merlin upon successful delivery of higher-level studies and/ or key development milestones and as and when required. The detailed reasons for these conclusions are outlined in this release, but there is no certainty that the Company will be able to source the funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Lucapa’s existing shares. It is also possible that Lucapa could pursue other strategies such as a sale, partial sale or joint venture of the Project. If it does, this could reduce Lucapa’s proportionate ownership of the Project.

Given the level of accuracy of this Scoping Study, investors should not make any investment decisions based solely on its results.

KEY OUTCOMES		
	Life-of-mine	Average/ annum
Production target	~2.1 million carats	~153,000 carats
Life-of-mine	~14 years	-
Tonnes treated	~14 million	~1 million
Project revenue	~A\$1.6 billion	~A\$115 million
EBITDA	~A\$702 million	~A\$50 million
Undiscounted free cashflow (pre-tax)	~A\$558 million	~A\$40 million
Pre-production process & infrastructure capital	~A\$69 million	-
NPV_{7%} (pre-tax)	~A\$343 million	-
Internal rate of return (pre-tax)	~59%	-

- Expected payback (pre-tax) by the end of the 2nd year of production
- Initial capital estimate of ~A\$96 million, including waste pre-strip of ~A\$18m
- Anticipated two-year development timeline from final investment decision
- Significant value and benefits for nearby communities and the Northern Territory
- Lucapa already progressing feasibility study with results expected in mid-2022

Lucapa Diamond Company Limited (ASX: LOM) (“Lucapa” or “the Company”) is pleased to present the range of outcomes of the scoping study (“Scoping Study”) completed for its 100% owned Merlin Diamond Project in the Northern Territory of Australia.

The Scoping Study is a preliminary technical and economic study of the viability of Merlin, which demonstrates positive economics and strong potential for a long-life mine development, using conventional open pit and vertical pit mining techniques.

Commenting on the key outcomes of the Scoping Study, Managing Director Stephen Wetherall said: “The results of the Scoping Study confirm the great potential identified by Lucapa using an innovative hybrid open pit and vertical pit mining methodology to establish a mining operation at Merlin.

“The Scoping Study sets out strong economics for a long-life mine with a production target of 2.1 million carats, A\$1.6 billion in revenues and substantial earnings and cashflows to Lucapa over a 14-year life. There is potential to deliver further significant value through the operational opportunities and from mineral resource extensions, underground development and exploration as the kimberlites continue at depth and there are a significant number of anomalies that have the potential to deliver new source discoveries.

“Lucapa’s existing mining assets are delivering for shareholders in 2021, and with the transformative strategic acquisition of Merlin showing strong potential, we look forward to delivering the feasibility study, commencing exploration and putting our third producing asset into operation.”

WEBINAR: Lucapa will host an investor webinar on the outcomes of the Scoping Study and next steps in January 2022. Webinar details will be published to the ASX in the week prior.

Introduction

In May 2021, Lucapa executed binding agreements to acquire 100% of the historic Merlin Diamond Project in the Northern Territory of Australia. As per the ASX announcement on 13 December 2021, the formal acquisition process has been completed and Lucapa has, through its wholly owned subsidiary, Australian Natural Diamonds Pty Ltd, acquired 100% of Merlin.

The acquisition of Merlin is a transformative strategic investment that is highly complementary to Lucapa’s existing asset portfolio. Merlin adds a near-term mine development opportunity on a 4.4 million carat JORC (2012) compliant Mineral Resource and significant exploration upside or blue-sky potential.

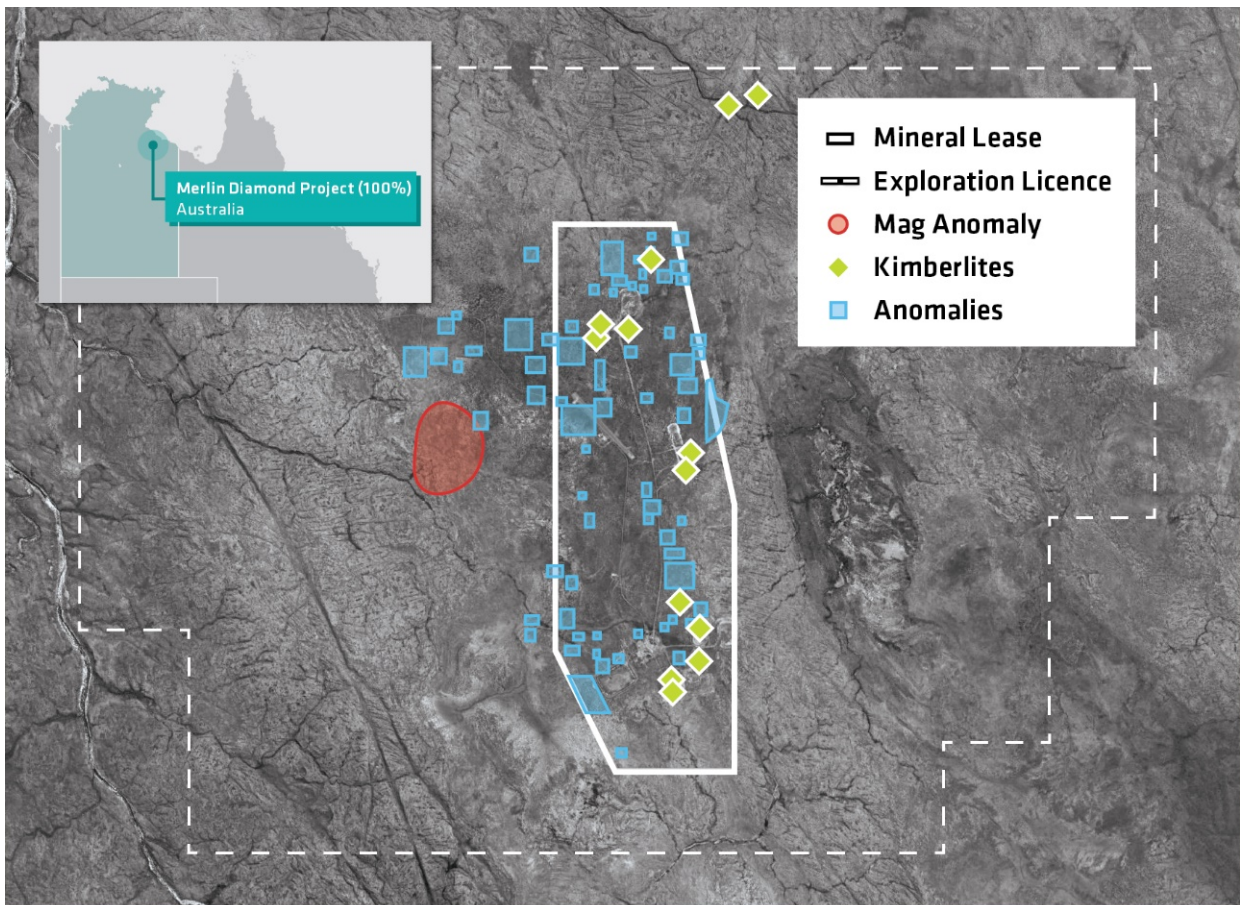
Merlin provides Lucapa with the opportunity to develop its third producing mine and build what Lucapa expects will be the largest commercial diamond mine in Australia, elevating Lucapa into a mid-tier diamond producer.

A preliminary technical and economic Scoping Study of the viability of Merlin through an open pit and vertical pit mine (“VPM”) development has been conducted by Lucapa and is outlined herein and the attached Summary Report.

Merlin Overview

Merlin is located in the Northern Territory, approximately 720km south-east of Darwin, 100km from the coast and 180km from the Queensland border. It comprises two tenements - a 24km² mineral lease (“MLN 1154”) and a 283km² exploration licence (“EL 26944”) encompassing the mineral lease.

MLN 1154 contains 11 known diamondiferous kimberlite pipes in three kimberlite clusters (North, Centre, and South), with two diamondiferous kimberlites also discovered on EL 26944. Merlin also contains significant exploration upside with over 70 unresolved anomalies where all previous kimberlite discoveries on the mineral lease and exploration licence are known to be diamondiferous.



Picture: Merlin mineral lease and exploration licence with 13 known kimberlites and ~70 anomalies

MLN 1154 has a kimberlite diamond Mineral Resource containing 27.8Mt at an average grade of ~16 carats per one hundred tonnes (“cpht”) for 4.4 million contained carats. Just under half of the Mineral Resource (13.4Mt and 2.3 million carats) is classified as Indicated Resource. The acquisition includes all existing equipment and assets on MLN 1154 and EL 26944, including an airstrip, access roads, camp, workshop, a Tomra XRT sorter, and various other items.

Merlin was previously mined by Rio Tinto and Ashton Mining Limited (“Ashton”) between 1999 and 2003. Rio Tinto/ Ashton mined eight of the kimberlite pipes, producing over 500,000 carats from ~2.2Mt of kimberlite processed, including the recovery of Australia’s largest natural rough diamond on record, a 104 carat Type IIa diamond.

A summary of the Scoping Study highlights is shown below with additional details provided in the Scoping Study Summary Report appended to this announcement.

Study Highlights

The Scoping Study demonstrates positive economics for a long-life mine development at Merlin using conventional open pit and VPM techniques. Lucapa has also identified clear opportunities for upside and, in addition, is undertaking a separate scoping study to evaluate a potential underground development. The Scoping Study does not include any upside from these opportunities or underground development.

Very attractive financial and physical outcomes are delivered from the Scoping Study, approximating:



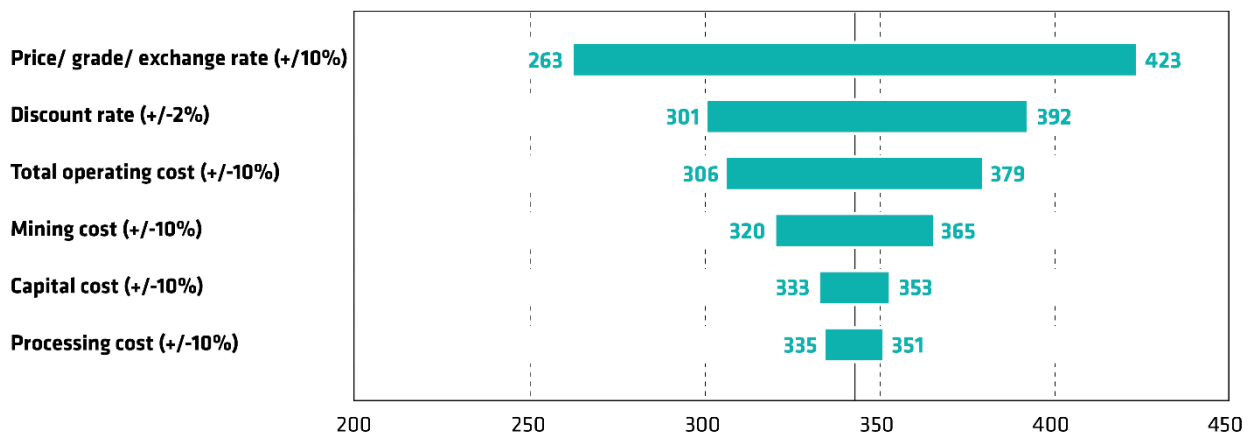
- Estimated two-year development timeline post feasibility study due to advanced stage of project and existing infrastructure
- Nameplate production of ~1.2Mt/ annum
- Average diamond production at ~153,000 carats/ annum
- Average EBITDA of ~A\$50 million/ annum
- Average life-of-mine diamond price of ~A\$715/ carat (~US\$508/ carat)
- 2%/ annum real price escalation from 2022
- ~A\$1.6 billion diamond revenue generated (including 5% increment estimated for additional cutting & polishing margins)
- ~71% of ore in ~14-year mine plan in Indicated Resource category
- ~49% of total resource carats extracted from 4.4 million carat JORC (2012) compliant Mineral Resource

- Initial capital estimate of ~A\$96 million, including waste pre-strip of ~A\$18 million scheduled during plant construction phase
- 8 kimberlite pipes mined in the current mine plan
- Workforce estimated at 200 persons
- Renewable energy sources being investigated as preferred supplementary power supply
- Excludes any resource extension of known kimberlites, which are open at depth, or new discoveries

Sensitivity

The sensitivity analysis on the approximate pre-tax NPV_{7%} of A\$343 million shows the Project to be quite resilient to changes in key inputs. The Project pre-tax NPV_{7%} is most sensitive to revenue (price, grade, exchange rate) inputs and least sensitive to processing and capital cost inputs.

Pre-tax NPV Sensitivity (A\$m)



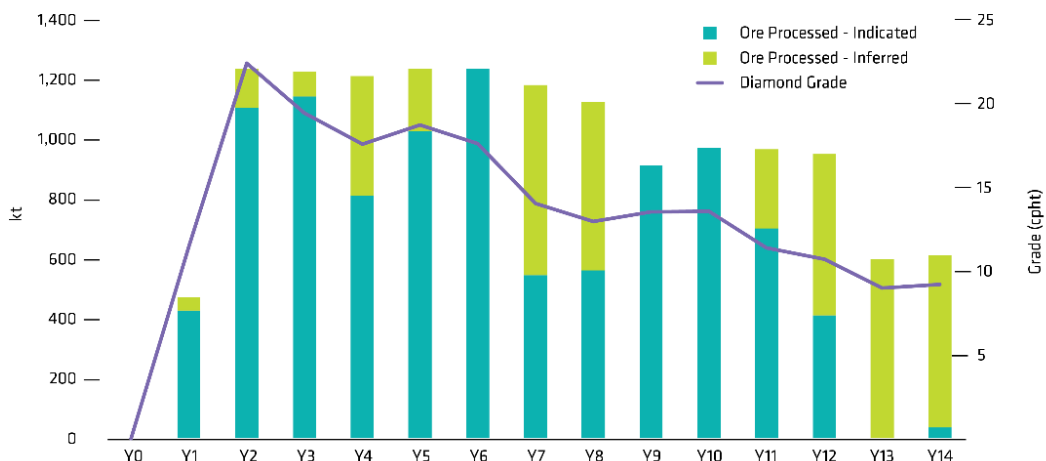
Graph: Sensitivity on changes to key inputs to the discounted cash flow model and impact on the NPV_{7%}

Production

The annual processing capacity is ~1.2Mtpa, treating a total of ~14Mt over the ~14-year life. Production over the mine life is predominantly sourced from Indicated and Inferred Resources, with ~71% from Indicated Resources and ~29% from Inferred Resource (see graph below).

In the first 3 years of production, which includes the payback period, ~91% of the ore processed is sourced from Indicated Resource and ~9% sourced from Inferred Resource. The proportion of Inferred Mineral Resource is not a determining factor in Project viability.

Processing Schedule and Grade



Graph: Annual production target, grade and contribution from Indicated and Inferred Resource

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There is a low-level of geological confidence associated with Inferred Resources and there is no certainty that further exploration work will result in the determination of Indicated Resources or that the production target itself will be realised.

Key Assumptions

A discounted cashflow analysis has been undertaken for the proposed Merlin development using a base case maximum capacity of up to 1.2Mtpa of kimberlite material being delivered from eight pipes to the plant for processing, delivering ~2.1 million carats.

The key inputs and assumptions used in the Scoping Study resulting in the approximate outcomes, production targets and forecast financial information are outlined below:

		Open Pit	Vertical Pit
Capital	Pre-production	A\$78m	
	Post-commissioning	A\$48m	
	Waste pre-strip	A\$18m	
Mining	Method	Conventional – drill, blast, load and haul	Lateral ground/ wall support, drill, blast, kibble hoist and haul
	Technology	Continuous miner to be trialled (remove need for drill and blast)	
	Cost per tonne (processed)	A\$51 (includes waste)	A\$21 (includes waste)
	Waste Strip Ratio	11.2	0.1
Processing	Method	Ore preparation and concentration by three stage crushing, scrubbing, screening and DMS	
	Tonne per hour/annum	175tph/ 1.2Mtpa	
	Bottom cut-off screen size	1.5mm	
	Cost per tonne (processed)	A\$12	
Recovery	Method	Recovery and sorting by XRT and X-ray luminescence	
	Factor	100% as based on actual historic production grades per pipe	
Site services	Cost per tonne (processed)	A\$11	
Royalty	State	Based on greater of 2.5% of gross revenue or 20% of the calculated net value	
	Traditional Owner	Up to 5% of calculated net profit. To be renegotiated following feasibility study publication	
	Biddlecombe	0.75% of gross revenue	
Marketing	Method	Tender and/ or auction in international rough market	
	Cost as a % of revenue	1.5%	
	Manufacturing	Rough diamonds extracted for cutting & polishing and branding strategy	
	Margin as a % of revenue	5%	
Exchange rate	US\$:A\$/ A\$:US\$	0.71/ 1.41	
Diamond prices	Starting US\$/ carat per pipe	Refer diamond price section for US\$ price/ carat for each pipe	
	Escalation/ annum	2% real	

Capital

Initial estimates of capital expenditure required to establish the 1.2Mtpa mining and processing operations on a pre-production phase (2023 and 2024 construction) and post-commissioning phase (ongoing development and sustaining capital from mid-2024 onwards) are as follows:

Item	Pre A\$m	Post A\$m	Total A\$m
Plant	52	-	52
Infrastructure and TSF	11	5	16
Contingency	7	-	7
Sub-Total	69	5	75
Pre-strip	18	-	18
Owner costs	6	-	6
Environmental	1	-	1
VPM development	-	28	28
Sustaining	-	12	12
Rehabilitation	-	2	2
Contingency	2	-	2
Sub-Total	27	42	69
Total	96	48	144

Pre-production plant and infrastructure capital estimate of ~A\$69 million, including a contingency of ~A\$7 million. Total initial capital required, including a waste pre-strip investment of ~A\$18 million, is ~A\$96 million. Post-commissioning capital of ~A\$48 million will be funded from operations.

Capital cost estimates were derived as follows:

- Open pit capital costs of the waste pre-strip have been estimated by AMC Consultants (“AMC”), for contractor mining with 120t excavators and 40t ADT’s, developed from their cost database for similar projects;
- VPM capital costs have been estimated by AMC with input from Area Square (Pty) Ltd (“Area Square”), for the fixed and mobile mining equipment;
- Processing plant capital costs have been provided by Consulmet (Pty) Ltd, as a lump sum design and supply price for all equipment and materials and a reimbursable estimate for shipping and installation. Process related exclusions from this proposal have been estimated by Lucapa;
- Tailings storage facility (“TSF”) capital costs for the expansion, equipping and subsequent raises of the existing TSF have been provided by Tailcon Projects (“Tailcon”);
- Infrastructure, site services, environmental and rehabilitation capital costs have been estimated by Lucapa;
- Sustaining capital costs have been estimated by Lucapa at 2% of annual operating costs.

A 30% contingency has been applied to all pre-production capital except for the waste pre-strip and processing plant. A 7% contingency has been allowed for in the processing plant estimate as it has been estimated to a higher level of accuracy than a scoping study.

Operating Costs

The operating costs for the life-of-mine at Merlin have been estimated for the three key areas of mining, processing and site (administration) as follows:

Item	A\$/ tonne treated	A\$/ carat	A\$m
Mining	31	206	403
- Open Pit	51	298	188
- Vertical pit	21	142	215
Processing	12	80	172
Site	11	70	149
Total	54	356	724

Total mine operating costs for the life-of-mine are estimated at ~A\$724 million or ~A\$356/ carat. Open pit mining costs of ~A\$298/ carat versus VPM of ~A\$142/ carat reflect, inter alia, the lower waste-stripping requirement for a VPM development, off-set by the VPM establishment capital and vertical wall support costs.

Operating cost estimates were derived as follows:

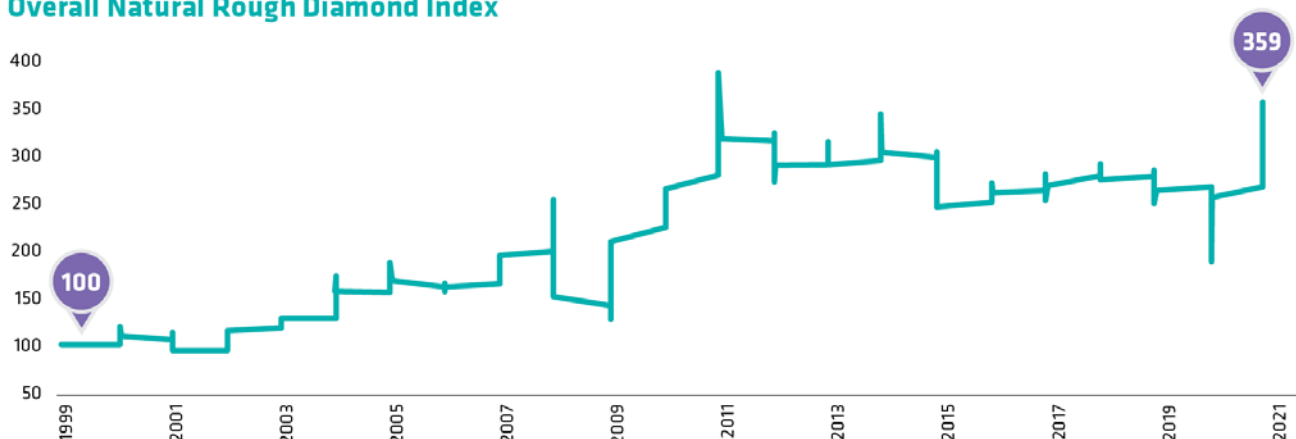
- Open pit mining operating costs have been estimated by AMC for contractor mining, with 120t excavators and 40t ADT's, developed from their cost database for similar projects;
- VPM operating costs have been estimated by AMC, with input from SRK on the support requirements and Area Square on all other operating costs;
- Processing and TSF operating costs have been estimated by Lucapa, based on their Mothae Mine actual costs, adjusted for Australian labour costs; and
- Site operating costs have been estimated by Lucapa.

Diamond Prices

As Merlin was non-operational when acquired, there are no physical diamonds to inspect for valuation, so Lucapa has developed diamond pricing models using historic production and sales records of diamonds recovered from each of the pipes mined by Rio Tinto and Ashton, data from marketing rough diamonds produced and sold from its operating mines in Africa, worldwide rough diamond price indices from 1999 to November 2021 and results of its cutting & polishing partnerships.

The overall natural rough diamond index has increased by approximately 270% from 1999, when commercial production first commenced at Merlin, to November 2021. Prices have not been at these levels in over a decade.

Overall Natural Rough Diamond Index



Graph: Overall natural rough diamond index from 1999 (indexed to 100) to 2021 showing a 270% increase in overall prices

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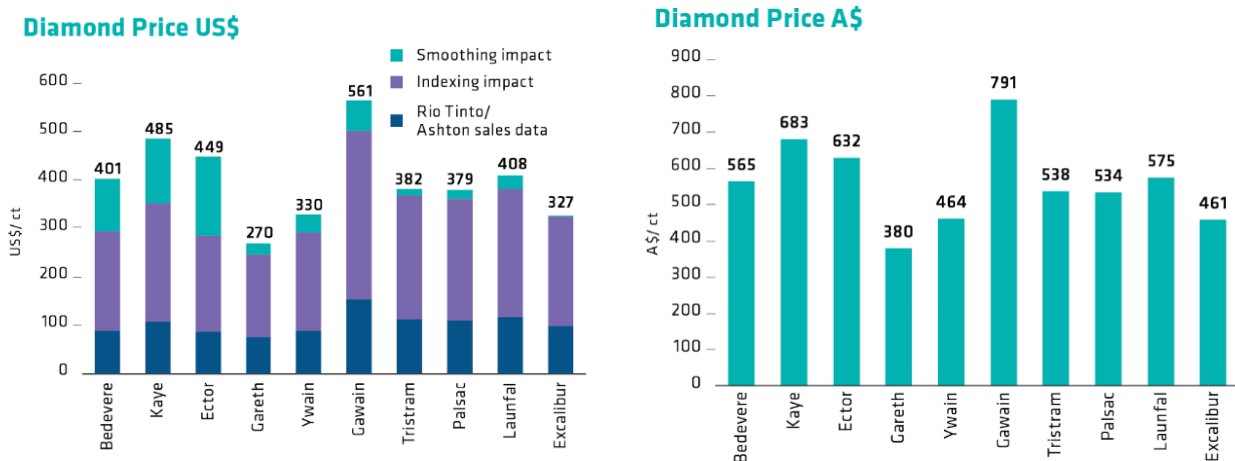
For those pipes which have not been mined previously and therefore for which there are no records (Bedevere and Tristram), the average of the pipes within the same cluster for which there are records was used. The average of the two individual pipes, Palomides and Sacramore, was used for Palsac (which is the name derived due to these two pipes coalescing at depth).

Different pricing models were reviewed by Lucapa and the pricing model selected for economic assessment in the Scoping Study was based on:

- US\$/ carat prices for each pipe as obtained through review of the historic sales by Rio Tinto and Ashton between 1999 and 2003;
- Historic prices being indexed to current day using the overall natural rough diamond index as sourced from GTD Consulting to November 2021 (refer graph below); and
- Anomalous prices for certain size fractions where insufficient historic data was available were mathematically smoothed. The smoothed prices were then compared with prices achieved for similar sizes in other pipes for reasonableness, where such data existed.

To derive an average price for diamonds produced from Merlin over the ~14-year mine life, a real escalation rate of 2%/ annum was applied from 2022 onwards. The average diamond price for the life-of-mine is A\$715/ carat (US\$508/ carat).

The below graphs reflect the Company's estimate of current rough diamond prices for each pipe:



Graphs: Starting diamond price in US\$ (left) and A\$ equivalent (right)

Project Funding

The development of Merlin is dependent on structuring and securing a funding solution to deliver the scoped development, which Lucapa believes will maximise the benefits for all stakeholders. The primary aim of the Scoping Study was to demonstrate that the scoped development of Merlin had positive economics and strong potential to be a long-life producer.

The technical and economic outcomes of the Scoping Study provide a strong platform for Lucapa to structure and secure a funding solution through one or a combination of sources, including:

- Debt and/ or Equity markets;
- Co-ownership/ joint venture partners;
- Government agencies (funding/ grants); and
- Lucapa's own returns.

Based on the Scoping Study results, there are reasonable grounds on which the funding assumptions are based, which include the following:

- Recent significant improvement in the global diamond market;
- 100% ownership;

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- Tier 1 and stable jurisdiction;
- Merlin has been mined historically with past production informing a JORC (2012) compliant Mineral Resource of 4.4 million carats;
- Development would be significant to the Northern Territory and Australian diamond industry (likely to be the largest producing diamond mine in Australia);
- Lucapa Board and management team have extensive experience in diamond exploration, mine development, financing, production and diamond sales and marketing; and
- Lucapa has a strong track record of securing development funding as and when required to further the exploration, evaluation and development of the Company's diamond projects.

Lucapa has already had preliminary engagement with a resource company, various financial institutions, funds and government agencies with respect to the potential mine development at Merlin and these entities have expressed interest, particularly when Lucapa progresses the study to feasibility level.

There is, however, at Scoping Study level, no certainty that Lucapa will be able to secure the funding solution as and when required.

Indicative Timetable

The Company is targeting full commercial production in 2024. The indicative timetable from acquisition to production is set out below:

	2021				2022				2023				2024			
Conclude acquisition																
Scoping Study																
Geotechnical drilling and evaluation																
Feasibility study (including environmental and social studies)																
Exploration program (for new discoveries)																
Environmental submissions and approvals																
Plant order, construction and commissioning																
Mining contractor mobilisation, pre-strip																
Plant ramp-up																

Conclusion and Next Steps

The Scoping Study provides strong justification that Merlin will be commercially viable and accordingly the Board of Lucapa has already progressed to a feasibility study which is planned to be completed in the middle of 2022.

Kimberlite exploration aimed at identifying new discoveries at Merlin will also commence in Q2 2022 following the end of the wet season.

Authorised by the Lucapa Board.

STEPHEN WETHERALL
MANAGING DIRECTOR

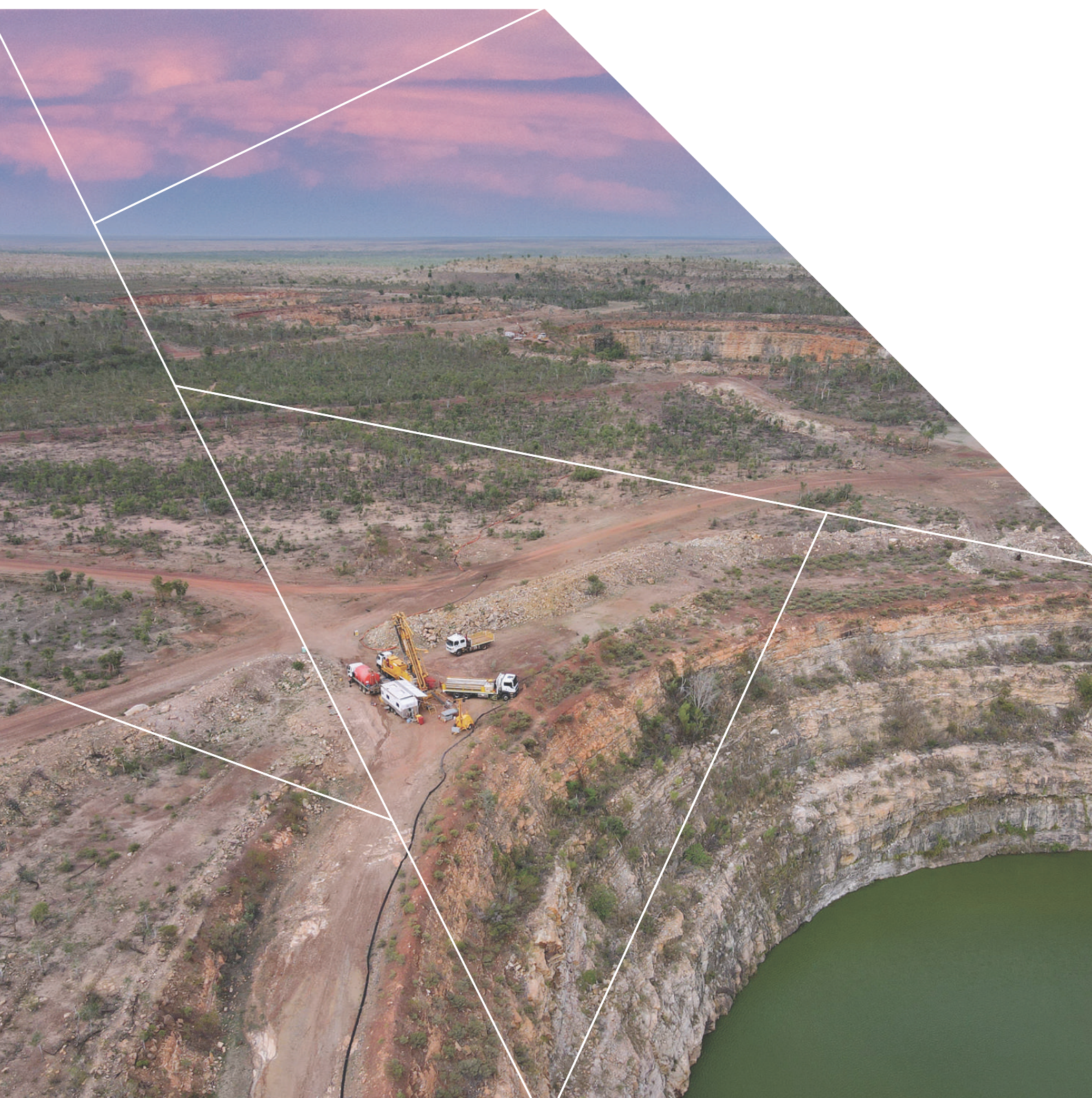
For further information, please contact:

CANDICE SGROI
HEAD OF INVESTOR RELATIONS & CORPORATE COMMUNICATIONS
Lucapa Diamond Company Limited
Mobile: +61 400 492 285 | Email: csgroi@lucapa.com.au

Merlin Diamond Project

Scoping Study Summary Report

December 2021



Disclaimer and Cautionary Statement

The Scoping Study summarised in this report has been undertaken by Lucapa Diamond Company Limited (“Lucapa” or “the Company”) for the purposes of initial evaluation of a potential mine development at the Merlin Diamond Project in the Northern Territory, Australia (“Merlin” or “the Project”) through an open pit and vertical pit development (“Scoping Study”). An underground development scoping study is also being completed, the results of which will be published separately.

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The Mineral Resource underpinning the production target is based on and fairly represents information and supporting documentation prepared and compiled by a competent person in accordance with the requirements of the JORC Code (2012). Mr. Richard Price, who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of the Company has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Price consents to the inclusion in this report of the matters based on this information in the form and context in which it appears. For full details of the Mineral Resource estimate, please refer to the ASX announcement on 24 May 2021. The Company confirms that it is not aware of any new information or data that materially affects the information included in that release and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in that release continue to apply and have not materially changed.

This report includes a series of forward-looking statements and comments about future events, including the Company’s expectations about the performance of its business or proposed business. Statements which are not historical facts, are forward-looking statements and involve risks and uncertainties, such as and amongst others Mineral Resource estimates, market prices of diamonds, capital and operating expenditures, amendments to proposed project development as plans continue to be evaluated, continued availability of financing and general economic, market or business conditions, and statements by the Company that describe future plans, objectives or goals. Forward-looking words such as “expect”, “should”, “could”, “may”, “predict”, “plan”, “will”, “believe”, “forecast”, “estimate”, “target” or other similar expressions are intended to identify forward-looking statements. By their very nature forward-looking statements involve known and unknown risks, uncertainties, assumptions and other important factors,



many of which are beyond the control of the Company and which may cause actual results, performance or achievements to differ materially from those expressed or implied by such statements. Forward-looking statements are provided as a general guide only and should not be relied on as an indication or guarantee of future performance. Given these uncertainties, recipients are cautioned to not place undue reliance on any forward-looking statement. Subject to any continuing obligations under applicable law, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in this report to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions and/or circumstances on which any such statement is based.

The Company has concluded it has a reasonable basis for providing these forward-looking statements and the forecast financial information included in this report. This includes a reasonable basis to expect that the Company will be able to fund or source the initial capital of ~A\$96 million for the proposed development of Merlin upon successful delivery of higher-level studies and/or key development milestones and as and when required. The detailed reasons for these conclusions are outlined in this report, but there is no certainty that the Company will be able to source the funding when needed. It is also possible that such funding may only be available on terms that may be dilutive to or otherwise affect the value of Lucapa's existing shares. It is also possible that Lucapa could pursue other strategies such as a sale, partial sale or joint venture of the Project. If it does, this could reduce Lucapa's proportionate ownership of the Project.

While the Company considers all of the material assumptions to be based on reasonable grounds, a number of factors could cause actual results or expectations to differ materially from the results expressed or implied in the forward-looking statements. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of this report. Neither the Company or any other person makes any representation

or gives any assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements in the report will occur or outcomes indicated by the Scoping Study will be achieved.

This report and Scoping Study have been prepared in compliance with the current JORC Code (2012) and the ASX Listing Rules. All material assumptions, including sufficient progression of all JORC modifying factors, on which the production target and forecast financial information are based have been included in this report.

This report does not constitute an offer, invitation or solicitation with respect to the purchase or sale of any security in the Company nor does it constitute financial product advice. This report is not a prospectus, product disclosure statement, pathfinder for the purposes of the Corporations Act 2001 (Cth) or other offer document under any law.

This report has not been filed, registered or approved by regulatory authorities in any jurisdiction. The distribution of this report outside Australia may be restricted by law. Any recipient of this report outside Australia must seek advice on and observe any such restrictions. Any non-compliance with these restrictions may contravene applicable securities laws.

This report is not intended to be relied upon as advice or a recommendation to investors and does not take into account the investment objectives, financial situation, taxation situation or needs of any particular investor. An investor must make its own assessment of the Company and conduct its own investigations and analysis. Investors should assess their own individual financial circumstances and consider talking to a financial adviser, professional adviser or consultant before making any investment decision.

Lucapa respectfully acknowledges the Wurdaliya and Wuyaliya people,
Traditional Owners of the land on which the Merlin Diamond Project is located.

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Lucapa Overview

Lucapa Diamond Company Limited (“Lucapa” or “the Company”), an ASX listed diamond miner and explorer, is a growing global producer of high-value diamonds.

Lucapa has successfully developed two diamond mines located in Africa (Angola and Lesotho) and is furthering three primary source exploration programs in Africa (Angola and Botswana) and Australia (Western Australia).

The large, high-value diamonds produced from its two niche diamond mines, Lulo (Angola, 40% ownership) and Mothae (Lesotho, 70% ownership), attract some of the highest US\$/carat prices for natural rough diamonds globally.

Lucapa and its project partners in the Lulo concession in Angola, Endiama and Rosas & Petalas, are also exploring for the primary kimberlite source(s) of the exceptional alluvial diamonds it recovers in the mining operations on the same concession.

Lucapa has advanced down the diamond value chain by extending its rough diamond marketing activities beyond the mine gate. Through unique cutting & polishing partnerships, with a select diamantaire, its mines share directly in a significant portion of the post mine gate margins.

Lucapa is actively deploying its marketing and branding initiatives as the group implements its downstream strategy.



Lulo production



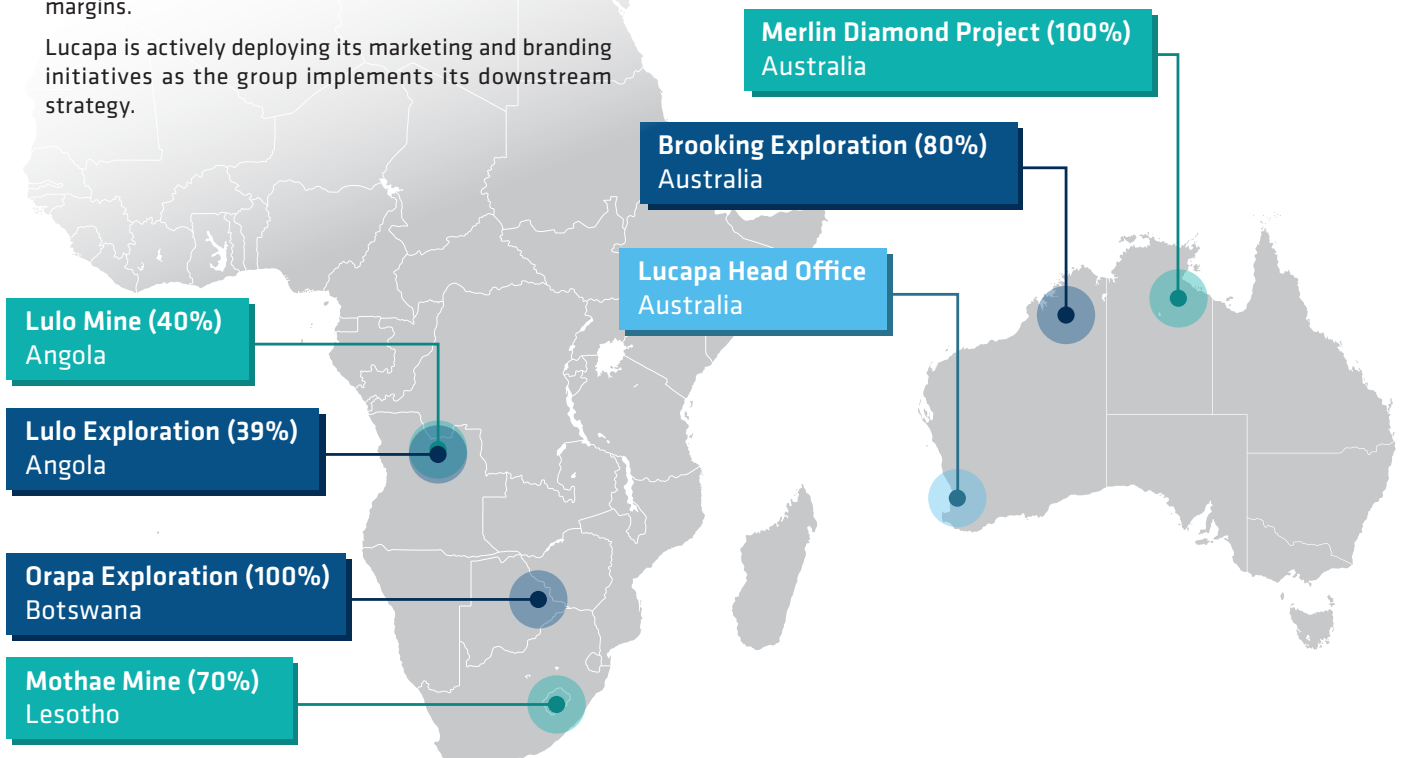
Mothae 21ct cushion



Lulo 15ct heart



Mothae 25ct square cut emerald



Merlin Acquisition and Scoping Study

In May 2021, Lucapa executed binding agreements to acquire 100% of the historic Merlin Diamond Project in the Northern Territory of Australia (“Merlin” or “the Project”). As per ASX announcement on 13 December 2021, the formal acquisition process has been completed.

The acquisition of Merlin is a transformative strategic investment which is highly complementary to Lucapa’s existing asset portfolio. Merlin adds a near-term mine development opportunity on a 4.4 million carat JORC (2012) compliant Mineral Resource and significant exploration upside or blue-sky potential.

Merlin provides Lucapa with the opportunity to develop its third producing mine and build what Lucapa expects will be the largest commercial diamond mine in Australia, elevating Lucapa into a mid-tier diamond producer.

A preliminary technical and economic Scoping Study of the viability of Merlin through an open pit and vertical pit mine (“VPM”) development has been conducted by Lucapa and is outlined herein (“Scoping Study”).



The acquisition of Merlin is a transformative strategic investment which is highly complementary to Lucapa’s existing asset portfolio.



104 carat Type IIa diamond recovered at Merlin in 2002

Key Outcomes



Scoping Study Highlights

The Scoping Study demonstrates positive economics for a long-life mine development at Merlin using conventional open pit and vertical pit mining techniques. This Scoping Study does not include any value that could potentially be derived from an underground development. A separate scoping study is being undertaken to evaluate a potential underground development.

- ~Two year development timeline estimate post feasibility study due to advanced stage of project and existing infrastructure
- Nameplate production of ~1.2Mt/ annum
- Average diamond production at ~153,000 carats/ annum
- Average EBITDA of ~A\$50 million/ annum
- Average life-of-mine diamond price of A\$715/ carat (~US\$508/ carat)
- 2%/ annum real price escalation from 2022
- ~A\$1.6 billion diamond revenue generated (including 5% increment estimated for additional cutting & polishing margins)
- ~71% of ore in ~14-year mine plan in Indicated Resource category
- ~49% of total resource carats extracted from 4.4 million carat JORC (2012) compliant Mineral Resource
- Initial capital estimate of ~A\$96 million, including waste pre-strip of ~A\$18 million scheduled during plant construction phase
- 8 kimberlite pipes mined in the current mine plan
- Workforce estimated at 200 persons
- Renewable energy sources being investigated as preferred supplementary power supply
- Excludes any resource extension of known kimberlites, which are open at depth, or new discoveries

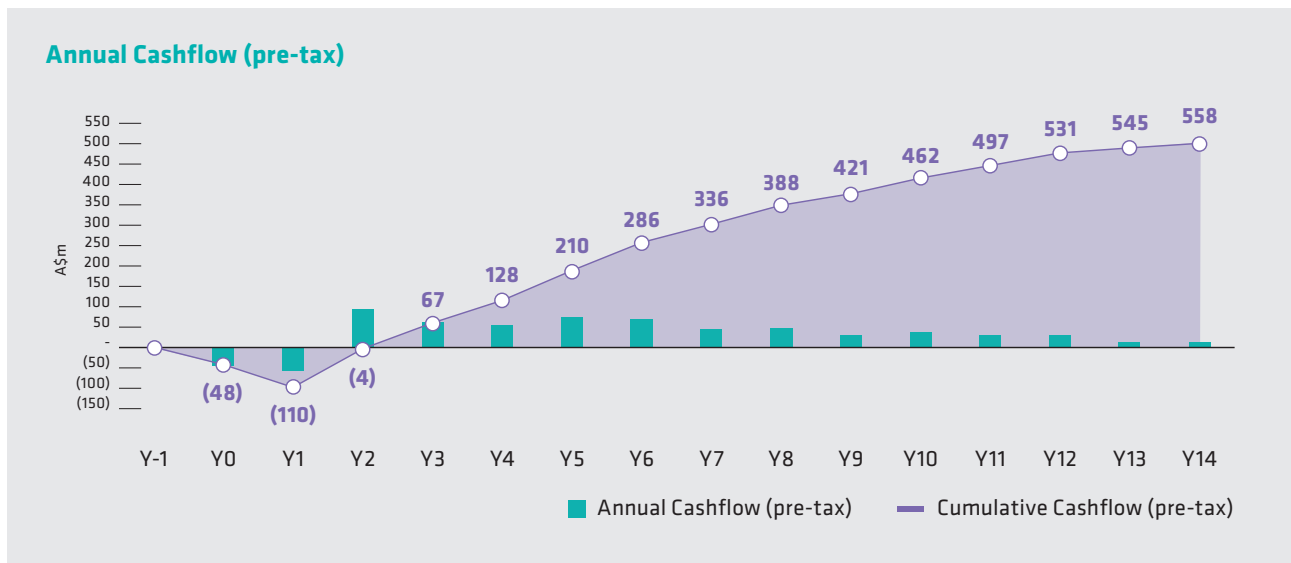
Project Advantages:

- ✓ 100% ownership, 100% attributable
- ✓ Long-life production & exploration upside
- ✓ Jurisdiction (NT, Australia)
- ✓ Significant historic information – previously operated by Rio Tinto/ Ashton
- ✓ Existing infrastructure – enabling quick mobilisation and studies
- ✓ Known geology - JORC (2012) compliant Mineral Resource – 4.4 million carats and known to host large high-value diamonds
- ✓ Low acquisition cost - ~A\$2/ resource carat
- ✓ Innovative mining solution - hybrid open pit and vertical pit developments
- ✓ Management team have successful track record of conversion from exploration/ evaluation to production
- ✓ ESG embedded across project decisions
- ✓ Other potential upsides outlined in the Scoping Study

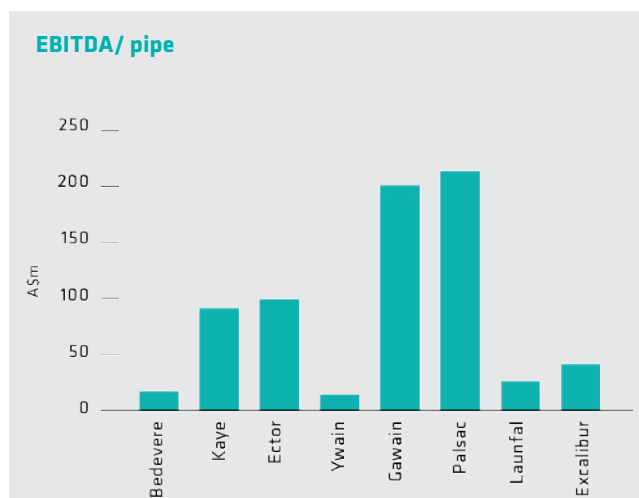
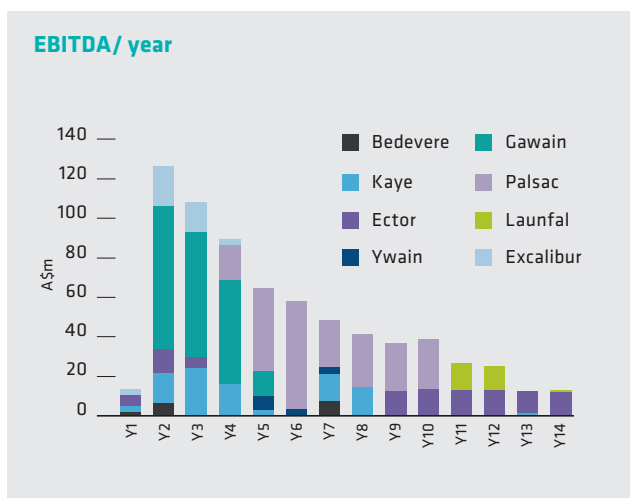


The Scoping Study demonstrates positive economics for a long-life mine development at Merlin using conventional open pit and vertical pit mining techniques.

The estimated pre-tax annual cashflow is as below:



The estimated EBITDA on a per year and per pipe basis is as below:



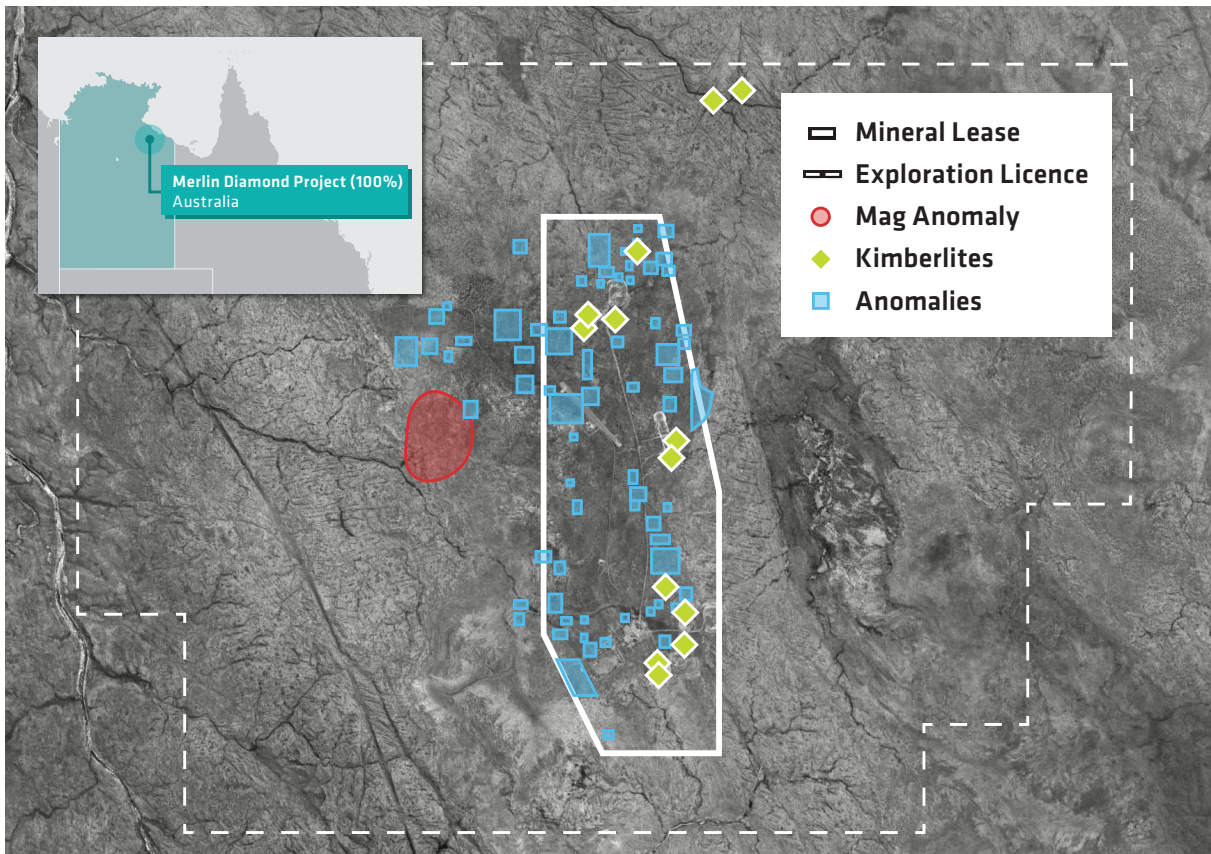
Note: EBITDA, a non-AIFRS measure, is equal to total diamond revenue less total operating costs (including ore and waste mining, processing, on- and off-site overhead costs, royalties, selling costs and inventory movements).

Potential Upsides

There are a number of potential upsides that have been identified by the Company through the acquisition and Scoping Study process which have not been included in the results.

These include:

- Provenance and sustainability branding opportunities over and above the estimated 5% margin uplift assumed for cutting & polishing
- Underground mining potential beneath the vertical pits – significant resources remain below the current open pit and vertical pit mining plan - a scoping study for underground mining is underway on the South and Centre cluster pipes
- Extension of the vertical pit depth to beyond the currently scoped 125m
- Resource extension below the current resources – pipes known to continue at depth
- Conversion of Inferred Resource to Indicated Resource (reducing constraint on incorporation in reportable mine plans)
- Local exploration of known diamond anomalies and other mineral anomalies as well as identifying new anomalies
- Regional exploration potential leveraging off expertise and location in the larger diamond province
- Increase in plant throughput above scoped 175tph capacity
- Use of mechanical mining (surface miners and road-headers) for improved safety, efficiency and reduced costs
- Reduced power costs and emissions through:
 - Solar hybrid power supply
 - Use of battery powered mining equipment
 - Use of gas from McArthur River pipeline or the surrounding McArthur gas field



The Diamond Market

Overall natural rough diamond price index:

Up 270%

from 1999 to November 2021

Highest levels

in a decade

Up 39%

in 2021 alone

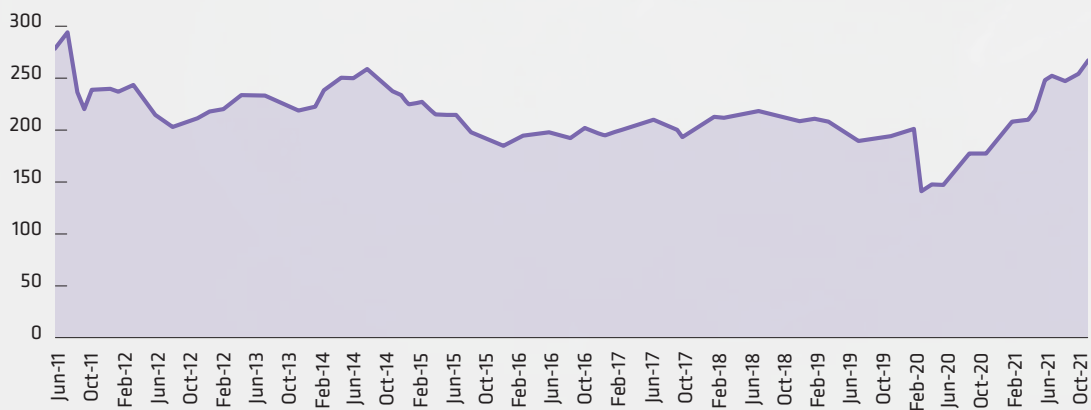
Supply Constrained:

- Natural rough diamond supply at low levels
- Mine closures (Argyle diamond mine closure reduced world supply by ~10%)
- Existing large mines maturing and/ or going underground (reducing ability to scale up production)
- Reduced exploration investment globally in recent years resulting in no new large discoveries. No new large mines in the pipeline (outside of Luaxe in Angola)
- Major miners, De Beers and Alrosa, operating at low or critically low levels of inventory
- Pre-pandemic polished inventory levels/ overhang significantly reduced by continued purchases during pandemic

Demand Returning/ Growing:

- Returning demand post pandemic in largest consumer market (United States of America – 50% of world consumption)
- Growth in consumer demand in emerging markets (particularly China and India, with an estimated combined 25% share of world consumption)
 - China's largest jeweller Chow Tai Fook to expand to 7,000 stores from 4,850 by 2025
 - Tiffany & Co expands into India
- Demand boosted by economic stimulus, e-commerce, reduced tourism and middle-upper class wealth creation

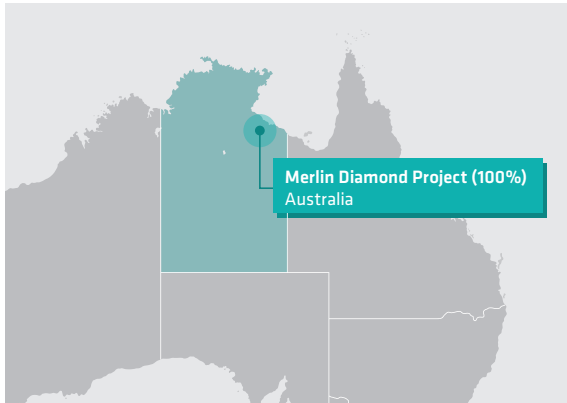
Overall Natural Rough Price Index



Source: GTD Consulting

Merlin Overview

Lucapa has, through its wholly owned subsidiary Australian Natural Diamonds Pty Ltd (“AusND”), acquired 100% of Merlin (refer ASX announcements 24 May 2021 and 13 December 2021).



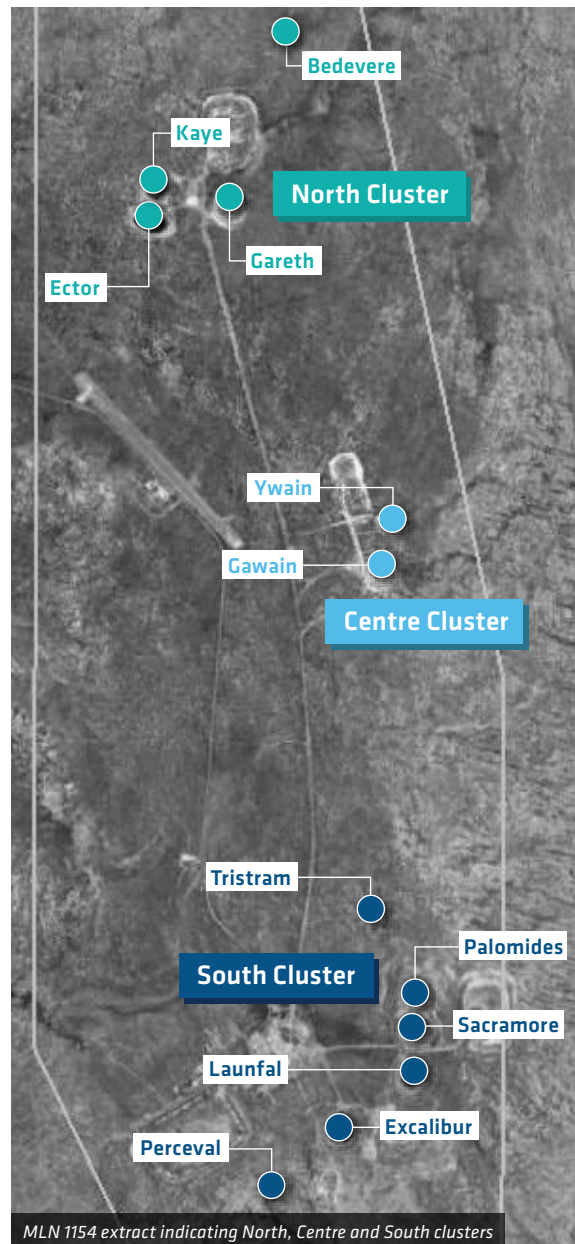
Merlin is located in the Northern Territory, approximately 720km south-east of Darwin, 100km from the coast and 180km from the Queensland border. It comprises two tenements - a 24km² mineral lease (“MLN 1154”) and a 283km² exploration licence (“EL 26944”) encompassing the mineral lease.

MLN 1154 contains 11 known diamondiferous kimberlite pipes in three kimberlite clusters (North, Centre, and South), with two diamondiferous kimberlites also discovered on EL 26944.

Merlin was previously mined by Rio Tinto and Ashton Mining Limited (“Ashton”) between 1999 and 2003. The acquisition includes all existing equipment and assets on MLN 1154 and EL 26944, including an airstrip, access roads, camp, workshop, a Tomra XRT sorter, and various other items.

Eight of the kimberlite pipes were previously mined by Rio Tinto and Ashton, producing over 500,000 carats from 2.2Mt of kimberlite processed, including the recovery of Australia’s largest natural rough diamond on record, a 104 carat Type IIa diamond.

MLN 1154 has a kimberlite diamond Mineral Resource containing 27.8Mt at an average grade of ~16 carats per one hundred tonnes (“cpht”) for 4.4 million contained carats. Just under half of the Mineral Resource (13.4Mt and 2.3 million carats) is classified as Indicated Resource. The Mineral Resource grade is based predominantly on recovered grades from the 1999 – 2003 Rio Tinto/ Ashton mining campaign.



Merlin also contains significant exploration upside with over 70 unresolved anomalies where all previous kimberlite discoveries on the mineral lease and exploration license are known to be diamondiferous.

Geology and Exploration

Geology

The Merlin kimberlite field is situated on the eastern side of the North Australian Craton, ~100km south-west of the coast of the Gulf of Carpentaria.

The Merlin kimberlites are Devonian in age (382 million to 352 million years ago) and intrude mid-Proterozoic shales and dolomites of the McArthur Group and the unconformably overlying Cambrian Bukalara Sandstone. Thin deposits of Cretaceous sediments and laterite overlie the pipes (Figure 1).

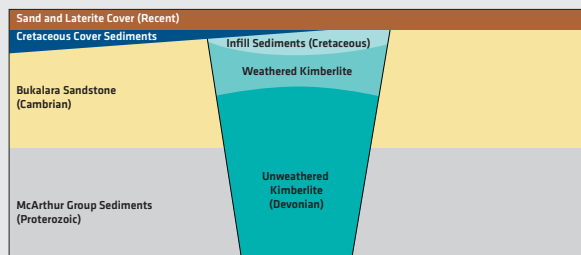


Figure 1: Schematic geological section of a Merlin kimberlite pipe

The Merlin pipes are small, with the diameter of the upper levels varying between 50m–125m (Figure 3). At surface the shapes of the pipes are circular to elliptical and maintain their regular shape and near vertical sides within the Bukalara sandstone.

In the softer sediments beneath the Bukalara/ Proterozoic unconformity, some pipes increase in diameter. In the case of Palomides and Sacramore they coalesce into a larger single vent named PalSac (Figure 2).

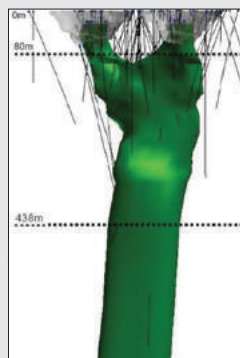


Figure 2: Coalescing of Palomides and Sacramore vents

The kimberlites are strongly weathered to 60m - 80m depth from surface and appear to have sunk back down into the craters, that have been in-filled with Cretaceous sediments that are up to 40m thick. The sagged nature of the infill sediments, the upturned edges with associated slickensides, the presence of a basal non-kimberlitic

conglomerate and the thickened iron pisolite profiles, all suggest that the Cretaceous aged sediments have subsided into the pipe structures possibly due to solution weathering of the kimberlite.

The pipes are located within four main clusters over an area of 10km by 5km and are located close to the projected trace of the north-west trending Merlin Fault, which appears to have had a strong influence on the intrusion of the kimberlite volcanoes.

The most northerly Emu cluster, consisting of two pipes (on the exploration licence), lies outside the current mineral lease and from the limited sampling data available are currently not known to be economic.

The remaining 11 pipes (contained in three clusters) are all significantly diamondiferous and are situated within the mining lease. They are named Bedevere, Kaye, Ector, Gareth, Ywain, Gawain, Tristram, PalSac, Excalibur, Launfal, and Perceval.

Five broad categories of kimberlite facies have been recognised: these being epiclastic kimberlite, tuffisitic kimberlite, tuffisitic kimberlite breccia, pelletal tuffisitic kimberlite and micaceous tuffisitic kimberlite.

The presence of epiclastic kimberlite in the Emu 1 pipe and in Gawain, indicate the pipes are preserved at the upper diatreme level. The Crater facies evident at Merlin would have been present subsequent to emplacement but have since been eroded and only the diatreme facies are currently evident.

Exploration

Extensive exploration has been undertaken within the mineral lease and the surrounding exploration licence, with both soil and stream heavy mineral sampling supported by extensive airborne and ground electromagnetic, magnetic and gravity surveys.

Due to the small target sizes, presence of in-fill, presence of cover over the pipes and generally weak geophysical signatures, it is considered that the project area still has considerable residual exploration potential.

A review of the available exploration data by the previous operator identified over 70 remaining targets within the mineral lease and exploration licence.

In addition to the kimberlite exploration potential, a large magnetic anomaly has been identified on the exploration licence which is believed to have not been adequately drill tested and may have potential for base metal discovery.



Figure 3: Relative Merlin pipe sizes in plan view

Mineral Resources

The Scoping Study is based on the Mineral Resource reported in Lucapa's ASX announcement "Acquisition of Merlin Diamond Project and A\$23M Capital Raising" on 24 May 2021.

The total Mineral Resource of 27.8Mt contains 4.4 million carats. The Mineral Resource geological model has been based on a series of drilling programs used to define the shape of the kimberlite pipes and assess the overall kimberlite lithology.

Past mining of the Merlin kimberlite pipes has indicated variable facies both laterally and vertically, however there was no discernible grade variation identified in any of the pipes due to changes in facies.

There is also no evidence in the drilling data to suggest that the kimberlite lithology is materially different at depth.

Therefore, for Mineral Resources purposes each kimberlite has been treated as a single geological unit.

The Mineral Resource grade has primarily been based on recovered grade data collected during the mining conducted by Rio Tinto and Ashton between 1999 and 2003, when eight of the 11 pipes were mined producing over 500,000 carats from 2.2Mt of processed ore.

Additional grade data from large diameter reverse circulation and core drilling and bulk sampling has been incorporated into the estimation. A grade estimate has been determined for each pipe based on the assumption that the diamonds are homogeneously distributed throughout the pipes and that this distribution does not vary with depth.

Merlin Classified Mineral Resource JORC Code (2012)⁴

Cluster	Pipe	Indicated			Inferred			Total Resource		
		Mt	kcts	cpht	Mt	kcts	cpht	Mt	kcts	cpht
North	Bedevere ^{1,3}	0	0	0	0.4	87	22	0.4	87	22
	Kaye ²	1.1	134	12	1.7	158	9	2.9	293	10
	Ector ¹	2.0	209	10	2.8	248	9	4.9	457	9
	Gareth ¹	0.1	22	18	0.1	10	17	0.2	32	18
	Sub-Total	3.3	366	11	5.0	504	10	8.3	869	10
Centre	Ywain ²	0.1	47	65	0.1	37	55	0.1	83	60
	Gawain ²	1.0	314	32	0.6	180	30	1.6	493	31
	Sub-Total	1.1	360	34	0.7	216	32	1.7	576	33
South	Excalibur ¹	0.3	109	31	0.2	60	26	0.6	169	29
	Launfal ¹	1.5	199	14	1.5	200	14	2.9	399	14
	Palsac ¹	7.2	1,248	17	6.4	1,057	16	13.7	2,305	17
	Tristram ^{2,3}	0	0	0	0.6	36	6	0.6	36	6
	Sub-Total	9.0	1,556	17	8.7	1,352	15	17.8	2,908	16
Total		13.4	2,282	17	14.4	2,072	14	27.8	4,354	16

1. Mineral Resource grades based on previous mining operations recovery using a +0.95mm slotted bottom screen and +5DTC cut-off;

2. Mineral Resource grades based on bulk sample test work using a +0.8mm slotted bottom screen and +5DTC cut-off;

3. Insufficient grade data available to determine +5DTC cut-off grade for Tristram and Bedevere pipes therefore full-cut-off grades are used;

4. Rounding of tonnage and carats may result in computational inaccuracies.



The mineral resource grade has primarily been based on recovered grade data collected during the mining conducted by Rio Tinto and Ashton between 1999 and 2003, when eight of the 11 pipes were mined producing over 500,000 carats from 2.2Mt of processed ore.

Mining

AMC Consultants Pty Ltd (“AMC”) were engaged to conduct the mining studies for this Scoping Study. AMC have significant prior knowledge of the project having conducted scoping studies in 2007 and 2011 on both open pit and underground mining at Merlin.

Two different but complementary mining methods for the Merlin kimberlite pipes have been planned.

Initially each deposit will be mined by conventional open pit mining. When the open pit has been completed to the planned depth, vertical pit mining (“VPM”) will be used to deepen the mine below the base of the open pit.

There is potential for viable underground mining beneath the VPM on certain pipes, however this has not been included in this Scoping Study and is the subject of a separate scoping study currently underway.

Open Pit Mining Method

The Scoping Study has assumed conventional load and haul operations by a mining contractor for the open pit mining of each pipe. Drill and blast will be employed for all waste rock and for kimberlite below the weathered zone. In the weathered zone, kimberlite will be free dig. The use of 120t class excavators and 40t articulated dump trucks (“ADT’s”), mining 2.5m high flitches has been assumed. With a selective mining unit of 5m x 5m x 5m, a 2.5% ore loss factor was applied to the resource model. No dilution factor has been applied as the resource grades are based predominantly on historical recovered grades.

In all cases the open pit mining will be extending the depth of existing open pits, except for the Bedevere pipe, which has not been mined previously.

Vertical Pit Mining Method

VPM is well suited to small, near vertical ore bodies such as the Merlin kimberlite pipes. It utilises systematic lateral ground support to maintain the stability of vertical walls as mining progresses.

VPM significantly reduces the amount of waste stripping required compared to open pit mining and has a lower capital and operating cost than underground mining. It also reduces the footprint of open pit mining and waste dumps thus providing significant environmental benefits.

The VPM mining method, is shown conceptually in Figure 4 and has been used successfully at the Inyala chrome mine in Zimbabwe and the Koidu diamond mine in West Africa as shown in Figure 5.

Consultants who were closely involved with the Inyala and Koidu vertical pits have been engaged by AusND to provide expert input into the Scoping Study. SRK Consulting (“SRK”) were geotechnical consultants to both Koidu and Inyala and a founding director from mining consultants Area Square (Pty) Ltd (“Area Square”) was employed at the time by the mining contractor at Inyala.

SRK have provided the lateral support design for the vertical pit walls. This support will be provided by a combination of cable anchors, grouted dowels, mesh and shotcrete. The cable anchors lengths will range from 12m to 40m long. A high level of inspection and monitoring, as well as remote operation of certain equipment will be utilised to ensure the safety of personnel.

Area Square provided cost and production rate estimates for each of the vertical pits and defined the equipment required.

A minimum 10m wide bench around the vertical pits will be developed at the base of each open pit for installation of the required VPM infrastructure. This infrastructure will include an annular concrete working platform, safety barrier wall, an A-frame headgear and rock bin, hoist, compressor and pumping and ventilation equipment. The headgear and hoist will be utilised to hoist the rock from the base of the pit with a kibble bucket and for delivering equipment and consumables to the pit floor. Each pit will also be fitted with an Alimak hoist to allow for personnel transport.

Allowance has been made in the capital cost estimate for four headgears and hoists to allow for operations to proceed at three pits consecutively whilst another is being prepared. Two 250kVA hoists and two 150kVA hoists have been allowed for to cater for different sized pipes production capacity. These respectively have been estimated to have the capacity to hoist up to 50ktpm and 30ktpm.

The vertical pits will be mined to a maximum depth of 125m below the base of the open pits.

It has been assumed for the Scoping Study that drilling and blasting will be used for rock breaking and costs and productivities have been estimated accordingly. However the use of mechanical mining equipment such as continuous miners and road headers will be evaluated in the feasibility study as an alternative. Pre-splits and buffer blasts will be used to minimise blasting damage to final walls and support.

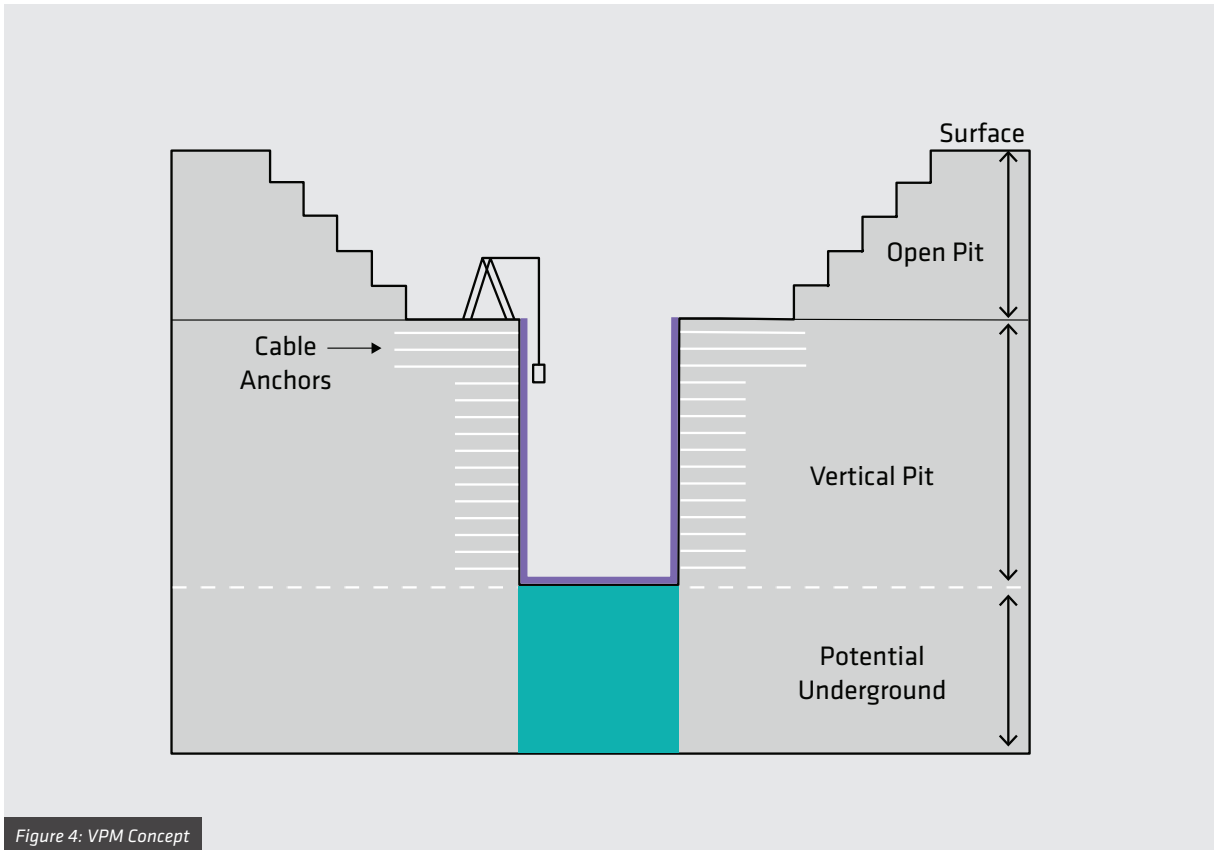


Figure 4: VPM Concept



Figure 5: Koidu Vertical Pit

Blasted rock will be loaded by front end loader in the pit bottom either directly into a kibble or into an ADT for hauling to a stockpile near the kibble loading point in the larger pits. It will then be hoisted to the crest of the vertical pit and then loaded into an ADT for haulage to the pit top stockpile, waste dump or process plant ROM stockpiles.

Effective dewatering of the vertical pit walls will be important. This will be achieved through the use of upwardly inclined drain holes drilled up to 50m into the side walls and if required, vertical dewatering bores around the pit perimeter.

Pit optimisation

Pit optimisation was undertaken by cluster (North, Centre and South) using Gemcom Whittle Four-X pit optimisation software. Optimisations were completed for both open pit and VPM to identify and quantify potential mining inventories.

Eight of the ten pipes that comprise the JORC (2012) compliant Mineral Resource generated viable shells. Only the Gareth and Tristram pipes were not viable at this stage (Figure 6).

Mine designs

Detailed designs were then completed by AMC for each of the eight pipes guided by the selected pit optimisation shells. Design parameters assumed for the open pits included batter face angles of 75 degrees, batter height of 20m, berm width of 10m, double ramp widths of 18m and single ramps of 11m for the last vertical 40m in each pit. This results in an inter-ramp slope angle of 52 degrees and an overall slope angle of between 42 degrees and 52 degrees. These slope parameters are similar to those used by Rio Tinto/ Ashton for the existing pits, which have performed well in the sandstone.

Minimum mining widths vary for each pit. Most of the pits have been designed around existing excavations and their minimum mining widths range between 20m and 80m. These widths can be practically achieved with the selected mining fleet.

Scheduling

Minemax Scheduler ("Minemax"), a strategic mine scheduling software package, was used to determine the optimum mining sequence. The software optimises the schedule for maximum NPV within certain constraints that are applied and ensuring that the mining schedule is both practical and achievable. Maximising early cashflows following capital expenditure early in the project life was a key objective.

A maximum plant throughput rate of 1.2Mtpa (175tph) was applied. The resulting mining and processing schedules are shown in the graphs below.

Key features of the schedules include:

- Over the ~14-year mine life ~14Mt of ore will be mined and treated at an average grade of ~15cph to produce ~2.1Mcts. ~4Mt is from open pits and ~10Mt from vertical pits
- Total waste mined is ~42Mt of which ~41Mt is from open pit mining, resulting in an overall strip ratio of 3.0. Annual waste mining peaks at ~10Mt in 2027
- There will be an initial waste pre-strip starting in Q4 2023 of ~4Mt of waste from Bedevere, Gawain and Excalibur over a period of eight months before ore mining commences in mid-2024
- Starter pits were designed for Kaye and Ector to access ~0.5Mt of ore that requires only minor waste stripping and these will provide the first ore for processing

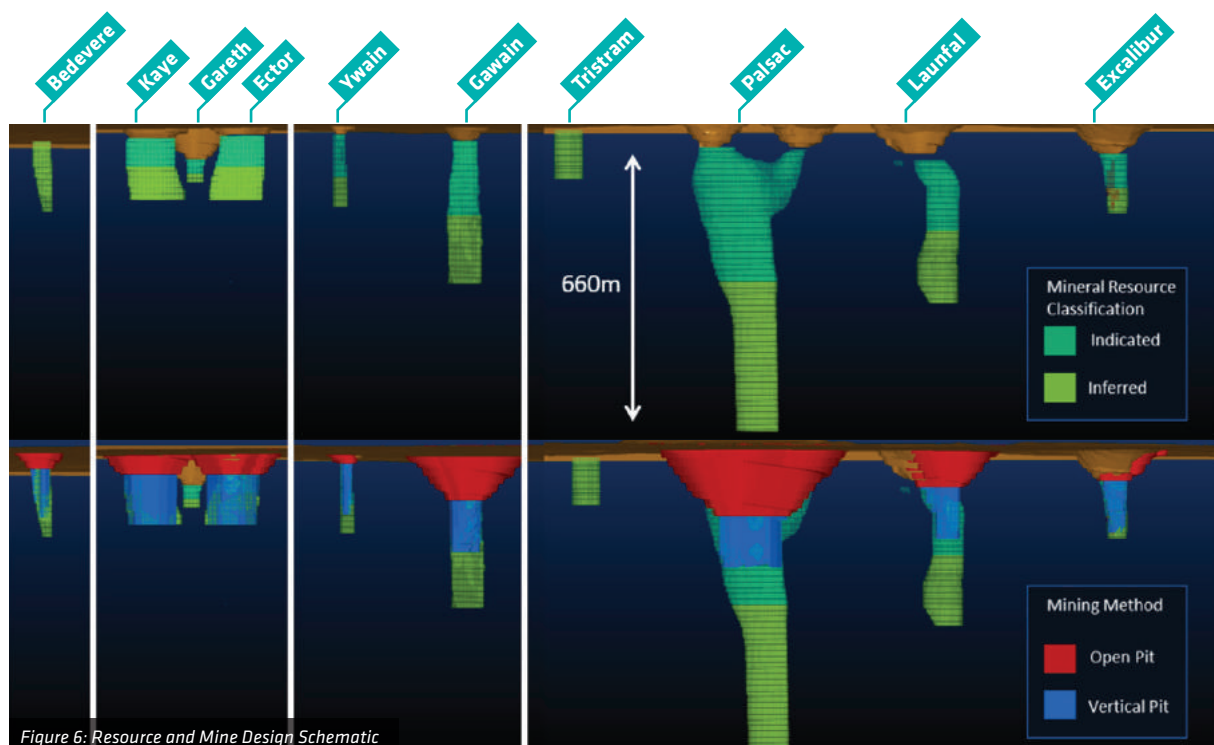


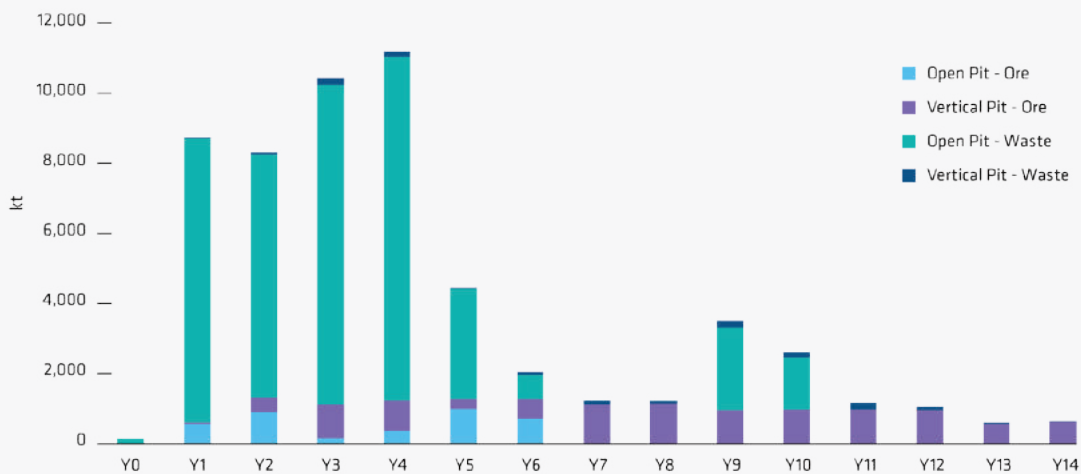
Figure 6: Resource and Mine Design Schematic

- The majority of ore in the early years comes from the higher grade Gawain pipe and the lower strip ratio pipes Kaye and Ector
- Bedevere, Ywain, Launfal and Excalibur will be mined by open pit methods for waste only, to open up the area required to establish VPM at the base of the open pit.
- Stockpiles adjacent to the open pits and at the process plant will be used to smooth feed to the plant.
- ~71% of the kimberlite mined and treated is classified as Indicated Resource and the remaining ~29% is classified as Inferred Resource.

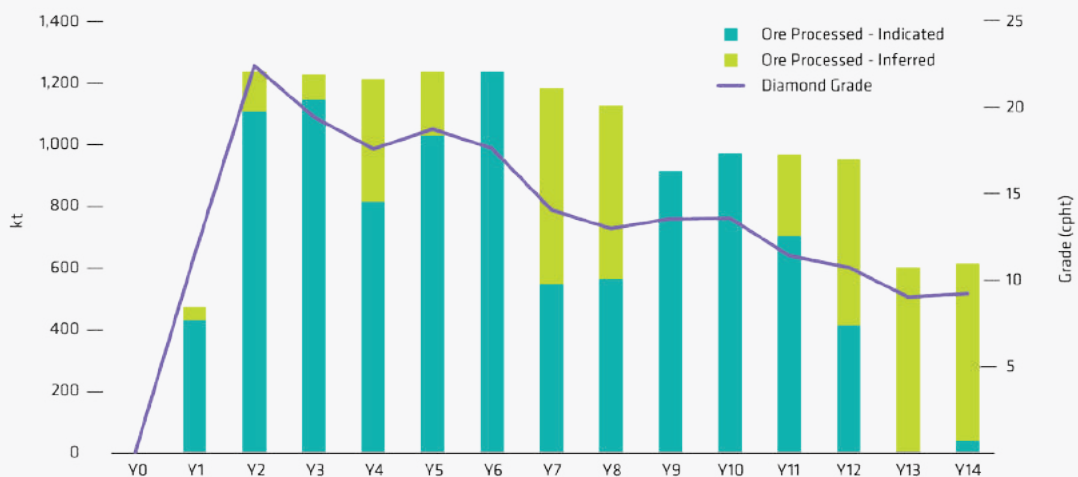
Geotechnical and hydrogeological investigations

The previous AMC Scoping Studies identified that additional geotechnical and hydrogeological information is required for the Proterozoic sediments underlying the Bukalara sandstone to advance beyond scoping level studies. To address this, AusND have completed a geotechnical drilling program in Q4 2021 and will be conducting hydrological testing of those holes in early 2022. The drilling program comprised 26 cored holes totalling 4,313m, with drilling taking place at all the pipes planned for mining. The results of this work will inform the feasibility study to be conducted in 2022.

Annual Mining Schedule



Processing Schedule and Grade



Mineral Processing and Tailings Storage

Introduction

A new processing plant will be constructed on the existing plant site, with the ability to treat 1.2Mtpa at the planned overall utilisation of 81%. The plant has been designed by Consulmet (Pty) Ltd (“Consulmet”), who also designed and constructed the Mothae plant for Lucapa in Lesotho.

Consulmet have prior knowledge of Merlin, having undertaken a feasibility study for Merlin Diamonds Limited (in liquidation) in 2011. They have provided a detailed proposal for the supply and installation of a 175tph plant, on which the capital estimate for this Scoping Study has been based. The level of work done exceeds that required for a scoping study. The capital estimate assumes all new equipment with the exception of a refurbished primary crusher.

The capital estimate has been updated in November 2021 to take account of substantial increases in steel prices and increased shipping costs.

The process design is well suited to the range of ore materials that are anticipated. The high clay content in the weathered zones has been catered for in the design and equipment scoping. All the metallurgical processes applied in the plant design are well tested technology. The X-ray Transmission (“XRT”) technology that will be utilised is well proven for diamond recovery.

The treatment by Ashton/ Rio Tinto of 2.2Mt of ore from eight pipes from 1999 to 2003 and subsequent testwork and trial mining by subsequent owners has provided metallurgical information that is representative of the Merlin kimberlite orebodies. Of particular note were the losses identified due to low-fluorescing diamonds by X-ray luminescence recovery, which will be remedied by the use of XRT recovery.

Metallurgical recoveries are assumed to be 100% because the resource grades are based primarily on actual recovery data from previous production.

A schematic layout of the plant is shown in Figure 8.

Process Description

Primary Crushing Circuit

The primary crushing section is the first stage of the kimberlite processing plant and receives run-of-mine (“ROM”) material from the mining fleet. This section reduces the size of the incoming material to a size compatible with the scrubber feed inlet and conveying system top size constraints, as well as to start the diamond liberation process. Material particles larger than 600mm

are prevented by the static grizzly from entering the feed bin and are rejected for mechanical size reduction before re-entering the processing plant. The primary crushing plant produces a product size smaller than 192mm.

Scrubbing & Primary Screening Circuits

From primary crushing, material is conveyed to the scrubbing section for washing and clay dis-agglomeration. From the scrubber, washed material gravitates to primary screening for material classification and clay removal. Scrubbing and screening are wet processes.

Due to the reduced economics of fine diamond recovery, material smaller than 1.5mm is discarded and pumped to the degritting section, which is the first stage of the water recovery process. Material particles larger than 32 mm are conveyed to secondary crushing for further size reduction. Particles in the -32 +1.5mm size range are conveyed to secondary screening for further classification by size before subsequent beneficiation processes.

Degrit & Water Recovery Circuits

Plant effluent is pumped to the degrit plant for grits removal. The degrit plant separates slimes (-0.5mm) from grits (-1.5 +0.5mm) by means of hydrocyclone classification and vibrating screening. Grits are conveyed to the tailings stockpile for fines disposal. Degrit plant effluent is pumped to the thickener for water recovery. In the thickener, slimes settle to the bottom of the thickening vessel and are pumped away for slimes disposal. Slimes settling is accelerated with the addition of a flocculating agent. Thickener overflow gravitates to the process water dam for re-use in the plant as process water.

Secondary Crushing Circuit

Secondary crushing is the second stage of diamond liberation. Crushing is performed sequentially to facilitate diamond liberation from the host rock while minimising potential diamond damage. The secondary crusher is operated in a closed loop, with crusher product being conveyed back to primary screening for grits removal and material classification and any oversized material is conveyed back to the crusher.

Secondary Screening Circuit

Secondary screening receives material that has already undergone grits (-1.5 mm) removal. This section separates incoming material into three size fractions, namely coarse (-32 +12mm), middlings (-12 +6mm), and fines (-6 +1.5 mm) by dry screening.

XRT & DMS Circuits

Due to their higher throughput capacity, as well as lower operating costs versus Dense Media Separation (“DMS”) processing, the coarse and middlings fractions are beneficiated by XRT sorter (Figure 7). The low throughput rates of XRT sorters when processing finer particles resulted in the selection of DMS to beneficiate the fines fraction.

XRT is a sensor-based sorting technology that can separate carbonaceous material (including diamonds) from surrounding rock by distinguishing between atomic number differences due to X-ray attenuation, when irradiated by X-rays. The coarse and middlings XRT products are gravitated into the sorthouse in the recovery plant for final diamond recovery. XRT tailings are conveyed to the re-crushing plant for the liberation of locked-up fine diamonds that may be present in larger particles rejected by the XRT sorter.

The DMS separates incoming material based on differences in material density. Diamondiferous material present in the plant feed has a higher density than host rock and therefore preferentially reports to “sinks”, whereas the rest of the material reports to “floats”. DMS floats are transported for tailings disposal. DMS sinks are transported to the X-ray recovery plant for subsequent further diamond recovery processes.



Figure 7: XRT sorter

Re-Crush Circuit

Re-crushing of XRT tailings is achieved by way of a High-Pressure Grinding Roll (“HPGR”). Liberation of locked-up diamonds is achieved through inter particle crushing. HPGR product, in the form of compressed briquettes, is conveyed back to the scrubber for disagglomeration before reporting back to primary screening for grits removal and material reclassification.

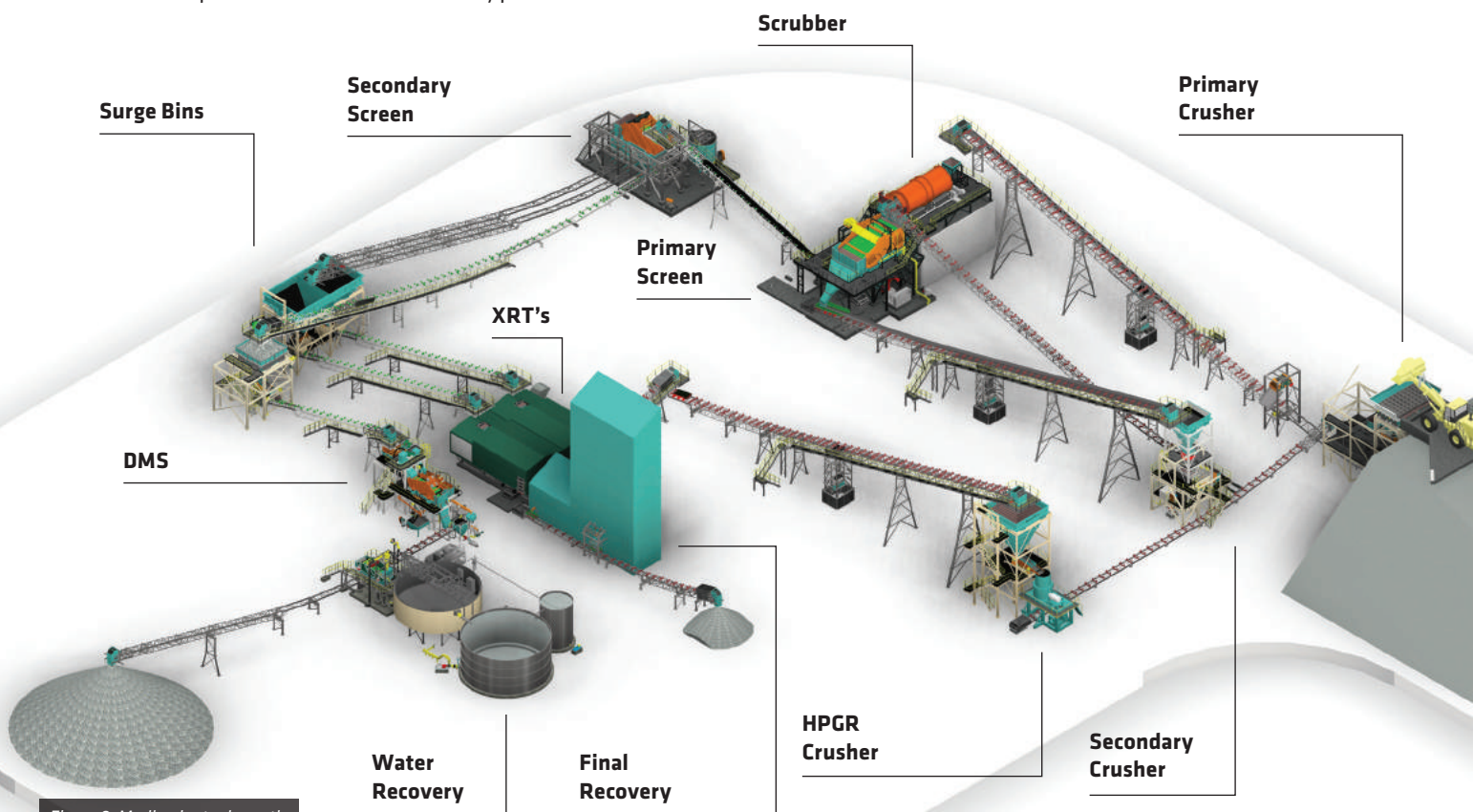


Figure 8: Merlin plant schematic

Final Recovery

The X-ray recovery further differentiates between diamonds and other dense particles present in DMS concentrate by exploiting the luminescent properties of diamonds when subjected to X-ray radiation.

X-ray sorter tailings are conveyed to the recovery tailings stockpile for controlled disposal. X-ray sorter, as well as XRT sorter concentrates are gravitated to the sorthouse for final diamond recovery. These concentrates are fed into gloveboxes, where sorters/pickers visually differentiate and manually collect diamonds within the confines of the glovebox. Collected diamonds are deposited into a drop safe attached to the glovebox.

Diamonds undergo de-falsification and cleaning prior to export. Conventional de-falsification processes are conducted with various industrial acids which dissolves all non-diamond material present and is known as an acid wash or deep acid boil. Due to legislation in Australia, de-falsification by way of alternative corrosive substances are also being investigated e.g. caustic fusion.

Tailings Storage

Tailcon Projects ("TailCon") were engaged by AusND to develop a concept for the life-of-mine storage of coarse and fine plant tailings.

The site has an existing tailings storage facility ("TSF") that was utilised by Ashton and Rio Tinto for the impoundment of the tailings generated from the treatment of ~2.2Mt of kimberlite treated. It was designed by GHD in 1998, raised in 2001 in accordance with a design by Metago Environmental Engineers and decommissioned and rehabilitated in 2004. It is approximately 630m x 430m and the perimeter embankments are constructed mainly with blocky sandstone, with laterite sheeting on the batters. The facility is located to the south-west of the proposed plant facility as shown below in Figure 9.

The relatively small quantity of tailings generated subsequent to Ashton/ Rio Tinto operations were placed mainly in the Launfal open pit.



Figure 9: Merlin TSF location

New TSF concept design

The tailings facility will be an integrated waste landform, staged to accommodate all tailings and the waste rock from the south pits to provide a life-of-mine coarse and fine tailings co-disposal solution.

The facility will incorporate the existing TSF, expanding around the perimeter to facilitate a downstream constructed mine waste embankment. The final landform will incorporate flatter downstream batter slopes as a final closure landform.

It will consist of the following:

- A downstream constructed rock embankment (Figure 10) using waste rock generated from mining
- A seepage collection system in the base of the embankment to collect any seepage as a result of rainfall and/ or tailings consolidation. The seepage will be directed into a perimeter seepage collection trench, which will flow in a split stream to a return water facility constructed in the western corner of the facility.
- An upstream filter zone made from coarse cyclone underflow material placed around the facility perimeter
- An elevated drain installed on the existing embankment to facilitate the drainage of the coarse tailings and slimes
- A decant causeway and decant structure
- Tailings distribution piping

The tailings will be pumped from the plant in a dedicated HDPE line and distributed around the facility using spigot pipes. The total tailings stream will be classified on the facility using cyclones.

The spigot arrangement around the facility perimeter will allow for pool control, with all decant water being collected at decant and pumped to the plant for reuse. The concept is to place the decant causeway and associated infrastructure in the south-west corner of the facility.

The embankment wall is to be raised a total of 32m in four stages. The first stage consists of downstream raising of the existing embankment by 5m, with the crest width planned to be 20m for vehicle access. The second stage will be raised a further 5m, with the upstream batter having a 7m step-in to provide a working platform for the piping and cyclone operations. The piping and cyclones will be raised once the stage is filled with tailings and the next stage embankment is constructed. A typical cross-section is shown in Figure 11.

The first 3 stages will have a capacity to store ~6.4Mt of tailings, equivalent to ~5 years production, assuming an in-situ dry tailings density of ~1.4t/ m³. The fourth raise of 15m will provide adequate capacity for the remaining life-of-mine.

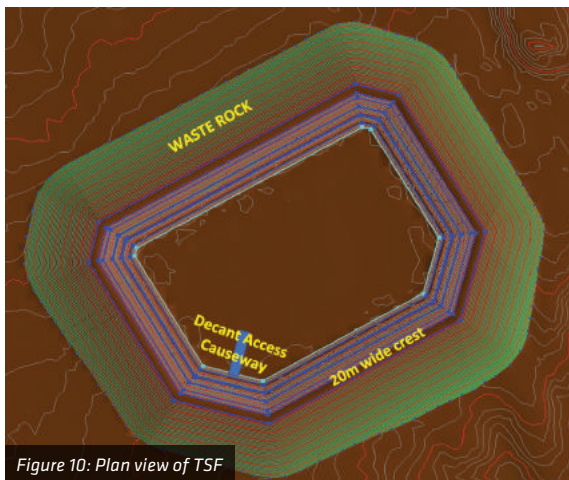


Figure 10: Plan view of TSF

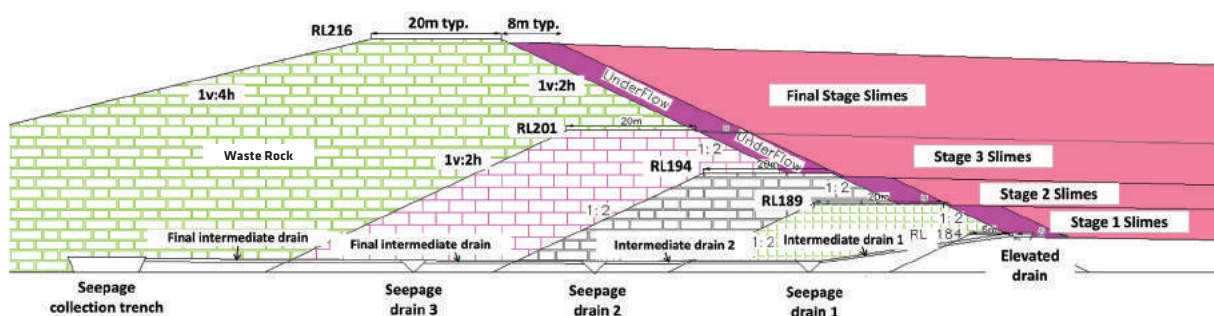


Figure 11: Typical section through TSF embankment

Infrastructure and Services

Power

Based on Lucapa's experience at its 1.6Mtpa Mothae Mine in Lesotho, peak power requirements are estimated to be 3MW for the 1.2Mtpa plant. For the purposes of the Scoping Study, capital has been provided for the purchase of 5 x 1MW diesel generators as part of a solar-diesel hybrid power solution.

Discussions have commenced with a renewable energy company for the design of the system. The power station will be located near the plant area and will supply both the plant and the camp.



As part of the feasibility study the use of gas from the McArthur River pipeline and other sources for power generation will also be investigated. It is of note that the Merlin operation is located within the McArthur gas field being explored and planned to be developed by McArthur Oil and Gas with a gas pipeline planned that would pass in close proximity to Merlin.

Water

Process make-up water will be primarily sourced from the nine current open pits on the mining lease, plus the new Bedevere open pit.

Water will be pumped from the pits that are being mined at the time to maintain working areas in a sufficiently dry condition for operations to proceed. Any additional requirements will be pumped from selected pits not being mined and potential circumferential pit dewatering bores and other bores.



North cluster pits current water levels

Heavy rainfall occurs during the wet season, which extends from November to April, that together with seepage from the Bukalara sandstone aquifer will result in some recharge of the open pit water levels.

Water will be transferred between pits by pumping to maximise the use of pit water and minimise discharge requirements from the pits.

A more detailed hydrological and hydrogeological model will be developed following the current geotechnical drilling program which includes hydrogeological testing and the necessity for any pit dewatering around the perimeter of the pits will be determined. This would provide an additional water source.

Water usage will be minimised by recycling via a tailings dam and return water dam. Make-up water to replace evaporation and other losses is estimated at 0.5m³ per tonne treated and this will be pumped from the working and non-working open pits.

The nine existing open pits will provide water storage and rainwater collection whilst not being mined. Potable water will be sourced from existing bores at the camp and plant sites.

Camp and Offices

There is an existing camp and offices with the capacity to accommodate 35 persons in ensuite rooms.

The camp has recently been re-commissioned for the geotechnical drilling program with satellite communications, potable water, power generation, diesel storage and a sewage plant being restored.

The camp will be expanded substantially for the anticipated workforce of ~200 persons of whom around 100 will be on site at any one time. Current planning assumes that the existing camp will be expanded to minimise any new ground disturbance and make use of the existing infrastructure.



Camp & offices

Airstrip

There is an existing 2.5km all weather airstrip at Merlin. It has been recently recommissioned by AusND for Code 1 (light aircraft below 5,700kg) and only minor works will be required for it to be used for larger (Code 3) aircraft, such as the Metro 23 that which would be used for planned FIFO flights to and from Darwin.



Merlin airstrip

Access and site roads

Road access to Merlin is via the sealed Carpenteria highway to a turn off close to the McArthur River Mine. A purpose built 60km long gravel access road was constructed in the 1990's to give vehicular access to the site. This road access can be cut off for extended periods during the latter stages of the wet season by rising levels in the McArthur and Glyde Rivers. This has in the past required stockpiling of diesel supplies in advance of the wet season. AusND refurbished the road in 2021 to allow access for the geotechnical drilling program and will investigate options for allowing year round vehicular access during the feasibility study.



Access road

There are existing mining haulroads between the pipe clusters and the processing plant site that were constructed for 100t class dump trucks by Ashton/ Rio Tinto. They will require only minor maintenance to recommission.



Environment and Approvals

Lucapa is adopting the International Council on Mining and Metal's ("ICMM") principles and in line with implementing good environmental, social and governance practices will investigate and seek to:

- Lower emissions through hybrid power solutions and use energy efficiently
- Create local employment opportunities
- Drive local and regional procurement
- Create training opportunities
- Engage Traditional Owners and local Aboriginal Groups regularly
- Protect biodiversity
- Reuse and recycle
- Utilise existing infrastructure
- Conserve water

A considerable body of work has been completed over the years to inform the Mining Management Plans ("MMP's"), and environmental reports and other studies that have been required for previous activities on the Merlin tenements.

Diamond mining and processing is a benign process when compared to many other minerals due to not needing to use hazardous or harmful chemicals in the diamond recovery process.

To date, no environmental issues have been identified that are expected to impede granting of the required government approvals for the proposed development of Merlin as per the Scoping Study.

Merlin currently has an MMP for the prior owner's mine plans approved by the Northern Territory Department for Industry, Tourism and Trade. A review of this MMP has been carried out by independent consultancy Rescology, to provide Lucapa with a proposed pathway to approval of an MMP for its scoped mine development. The existing environmental studies, as highlighted by this review will be updated during the contemplated feasibility study period, in readiness for submission of an updated MMP. The likely required Environmental Protection Authority assessment, is planned to run in parallel with the MMP process.

Lucapa has already started engaging the key departments and stakeholders within the Northern Territory Government ("NTG") to outline Lucapa's plans and to discuss the required approval processes that will need to be followed.

A key objective is to minimise carbon emissions and overall footprint. Major studies being carried out by the two largest diamond producers, De Beers and Alrosa, into the use of kimberlite tailings for carbon capture, as kimberlite has an unusual ability to absorb carbon dioxide through the formation of carbonates. Lucapa will monitor progress in this regard as it may have potential to be applied at Merlin with the old and new fine tailings generated.

Native Title, Community and Stakeholders

Native Title and Heritage

There is a pre-existing Native Title agreement for MLN 1154 between Merlin Operations Pty Ltd (the company from which tenements and related assets have been acquired), the Northern Land Council (“NLC”) and the Wurdaliya and Wuyaliya Landholding Groups, originally negotiated by Ashton Mining Limited in 1998.

As per ASX announcement on 13 December 2021, the assumption of this agreement by AusND is in the process of being agreed and completed with the NLC and the Traditional Owners. As per this agreement with the NLC and Traditional Owners, AusND will engage with them to update and contemporise the Native Title agreements post the completion of the feasibility study.

Community and Stakeholders

Lucapa and AusND is committed through its stakeholder engagement to maintain strong community relationships and to support and benefit the local communities surrounding the mine in Borroloola and the greater Roper Gulf region. Many of the suppliers and service providers will be sourced from the local regions, with fuel, food and labour already being sourced from Borroloola during the recent geotechnical drilling program and ongoing activities

at Merlin, this will only increase in magnitude as the mine is developed and the size of the operation grows. The mine will provide more than 200 jobs in the Northern Territory, many of them from the local communities surrounding the mine, with as many as possible being Indigenous, providing a significant economic stimulus to the region. Indigenous businesses will be chosen to supply goods and services wherever possible and community engagement and training programs will help develop lasting skills in the community that can be used long after the mine is rehabilitated. Lucapa has initiated and strongly supported various community programs at its other operations in Africa and will continue to do so at Merlin.

The majority of the land tenure in the surrounding community consists of pastoral leases and Aboriginal land as per the land tenure map (Figure 12).

The mining lease is situated on a 174,700Ha Crown Lease in Perpetuity (“CLP”) owned by Wardell Nominees (NT Portion 4412). AusND has full access rights to the mining lease situated on the CLP.

The McArthur River, Kiana and Spring Creek pastoral leases together with Garawa Aboriginal Land comprise the land holdings around the Crown lease.

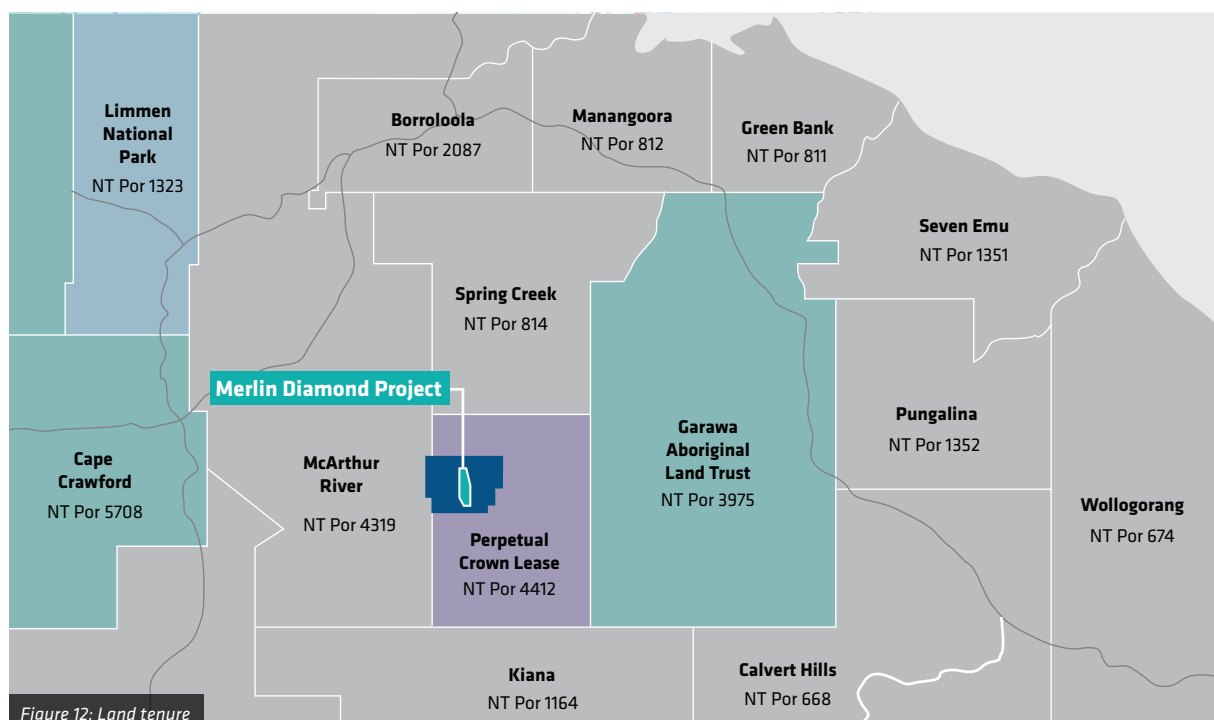


Figure 12: Land tenure

Funding, Feasibility and Development

The development of Merlin is dependent on structuring and securing a funding solution to deliver the scoped development which Lucapa believes will maximise the benefits for all stakeholders.

The primary aim of the Scoping Study was to demonstrate that the scoped development of Merlin had positive economics and strong potential to be a long-life producer.

The technical and economic outcomes of the Scoping Study provide a strong platform for Lucapa to structure and secure a funding solution through one or a combination of sources, including:

- Debt;
- Equity;
- Co-ownership/ joint venture partners;
- Government agencies (funding/ grants); and
- Lucapa's own returns

Based on the Scoping Study results, there are reasonable grounds on which the funding assumptions are based, which include the following:

- Recent significant improvement in the global diamond market;
- 100% ownership;
- Tier 1 and stable jurisdiction;
- Merlin has been mined historically with past production informing a JORC (2012) compliant Mineral Resource of 4.4 million carats;
- Development would be significant to the Northern Territory and Australian diamond industry (likely to be the largest producing diamond mine in Australia);

- Lucapa Board and management team have extensive experience in diamond exploration, mine development, financing and production; and
- Lucapa has a strong track record of securing development funding as and when required to further the exploration, evaluation and development of the Company's diamond projects.

Lucapa has already had preliminary engagement with a resource company, various financial institutions, funds and government agencies with respect to the potential mine development at Merlin and these entities have expressed interest, particularly when Lucapa progresses the study to feasibility level.

There is, however, at Scoping Study level, no certainty that Lucapa will be able to secure the funding solution as and when required.

Study Work Program

Following the release of the Scoping Study, Lucapa will commence work to complete a feasibility level study in order to aid in securing the desired funding solution.

A geotechnical drilling program has been completed and a hydrology program is planned at Merlin for 2022. The results of these programs will inform the feasibility study.

Completion of the feasibility study is expected to take approximately 6 months and Lucapa plans to publish the results of the study in 2022.



The primary aim of the Scoping Study was to demonstrate that the scoped development of Merlin had positive economics and strong potential to be a long-life producer.

Diamond Price Estimates

As Merlin was non-operational when acquired there were no physical diamonds to inspect for valuation, so Lucapa has developed diamond pricing models using historic production and sales records of diamonds recovered from each of the pipes mined by Rio Tinto and Ashton, data from marketing rough diamonds produced and sold from its operating mines in Africa, worldwide rough diamond price indices from 1999 to November 2021 and results of its cutting & polishing partnerships.

For those pipes which have not been mined previously and therefore for which there are no records (Bedevere and Tristram), the average of the pipes within the same cluster for which there are records was used. The average of the two individual pipes, Palomides and Sacramore, was used for Palsac (which is the name derived due to these two pipes coalescing at depth).

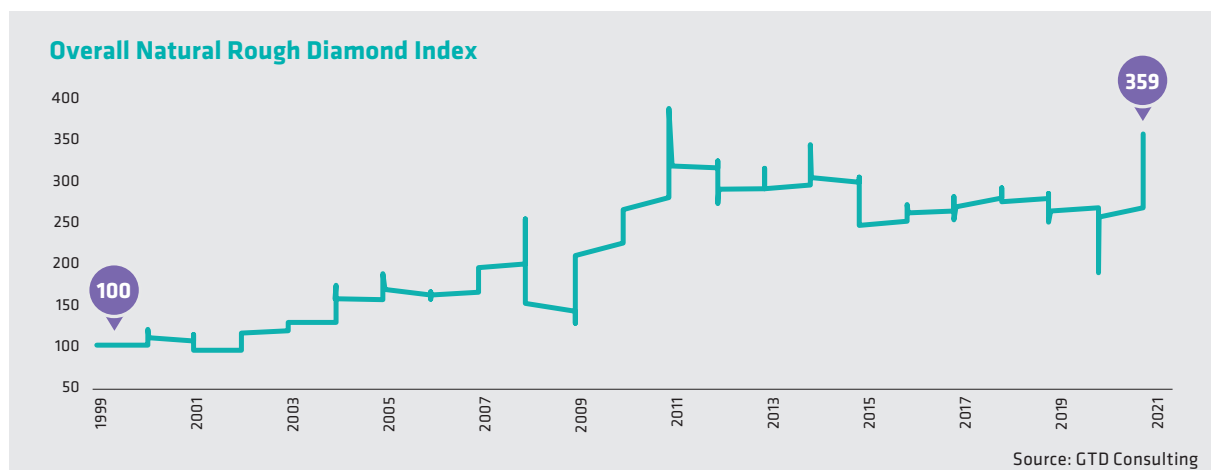
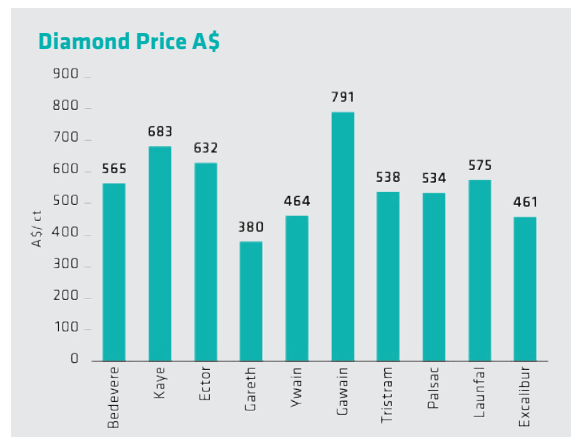
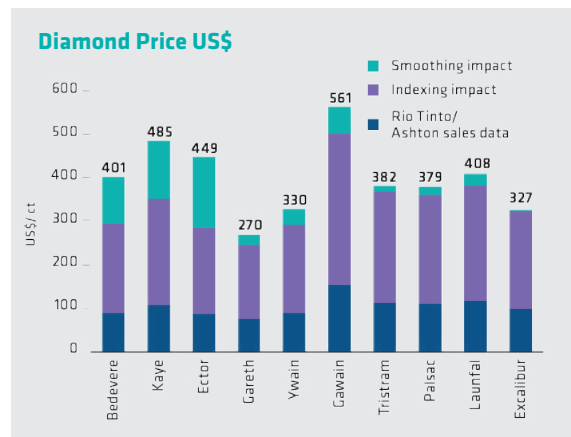
Different pricing models were reviewed by Lucapa and the pricing model selected for economic assessment in the Scoping Study was based on:

- US\$/carat prices for each pipe as obtained through review of the historic sales by Rio Tinto and Ashton between 1999 and 2003;
- Historic prices being indexed to current day using the overall natural rough diamond index as sourced from GTD Consulting to November 2021 (refer graph below); and
- Anomalous prices for certain size fractions where insufficient historic data was available were mathematically smoothed. The smoothed prices were then compared with prices achieved for similar sizes in other pipes for reasonableness where such data existed.

To derive an average price for diamonds produced from Merlin over the ~14-year mine life, a real escalation rate of 2%/annum was applied from 2022 onwards.

The overall natural rough diamond index has increased by approximately 270% from 1999, when commercial production first commenced at Merlin to November 2021.

The below graphs reflect the Company's estimate of current rough diamond prices for each pipe in US\$ and A\$.



Financials

Investment Evaluation

A discounted cashflow analysis has been undertaken for the proposed Merlin development using a base case production target of up to 1.2Mtpa of kimberlite material being delivered from eight pipes to the plant for processing.

A foreign exchange rate of US\$0.71: A\$1.00 has been used for the full ~14-year life-of-mine to derive the Australian dollar forecast financial information.

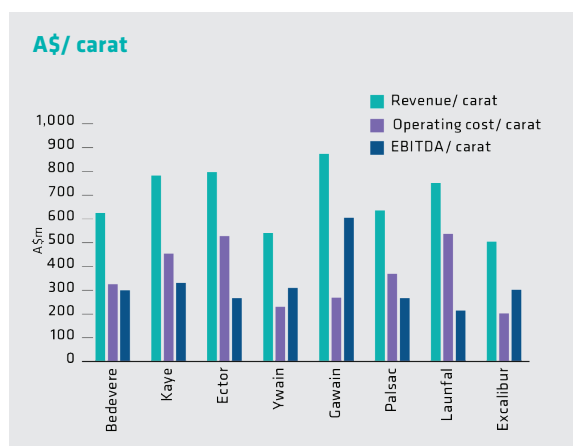
Life of mine metrics	A\$m
Revenue (incl polished)	1,605
Royalty and selling	180
Operating costs	724
EBITDA	702
Net cashflow (pre-tax)	558
NPV_{7%} (pre-tax)	343
NPV_{7%} (post-tax)	223
IRR (pre-tax)	59%
IRR (post-tax)	41%
Payback	Year 2

Strong Project Economics

The Scoping Study demonstrates positive economics for the development based on the assumptions, production targets and forecast financial information.

- Pre-tax NPV (@ a real discount rate of 7%) of ~A\$343m
- Over the ~14-year life, Merlin is expected to deliver pre-tax cashflows of ~A\$558m; and
- The development is expected to repay the initial capital by the end of the 2nd year of commercial processing, excluding the impact of tax.

The proportion of Inferred Mineral Resource in the production plan is not a determining factor in Project viability.



Capital

Initial estimates of capital expenditure required to establish the 1.2Mtpa mining and processing operations on a pre-production phase (2023 and 2024 construction) and post-commissioning phase (ongoing development and sustaining capital from mid 2024 onwards) are as follows:

Item	Pre A\$m	Post A\$m	Total A\$m
Plant	52	-	52
Infrastructure and TSF	11	5	16
Contingency	7	-	7
Sub-Total	69	5	75
Pre-strip	18	-	18
Owner costs	6	-	6
Environmental	1	-	1
VPM development	-	28	28
Sustaining	-	12	12
Rehabilitation	-	2	2
Contingency	2	-	2
Sub-Total	27	42	69
Total	96	48	144

Pre-production plant and infrastructure capital estimate of ~A\$69 million, including a contingency of ~A\$7 million. Total initial capital required, including a pre-strip investment of ~A\$18 million, is ~A\$96 million. Post-commissioning capital of ~A\$48 million will be funded from operations.

Capital cost estimates were derived as follows:

- Open pit capital costs of the waste pre-strip have been estimated by AMC, for contractor mining with 120t excavators and 40t ADT's, developed from their cost database for similar projects;
- VPM capital costs have been estimated by AMC with input from Area Square, for the fixed and mobile mining equipment;
- Processing plant capital costs have been provided by Consulmet, as a lump sum design and supply price for all equipment and materials and a reimbursable estimate for shipping and installation. Process related exclusions from this proposal have been estimated by Lucapa;
- TSF capital costs for the expansion, equipping and subsequent raises of the existing TSF have been provided by Tailcon;

- Infrastructure, site services, environmental and rehabilitation capital costs have been estimated by Lucapa;
- Sustaining capital costs have been estimated by Lucapa at 2% of annual operating costs.

A 30% contingency has been applied to all pre-production capital except for the waste pre-strip and processing plant. A 7% contingency has been allowed for in the processing plant estimate as it has been estimated to a higher level of accuracy than a scoping study.

Operating Costs

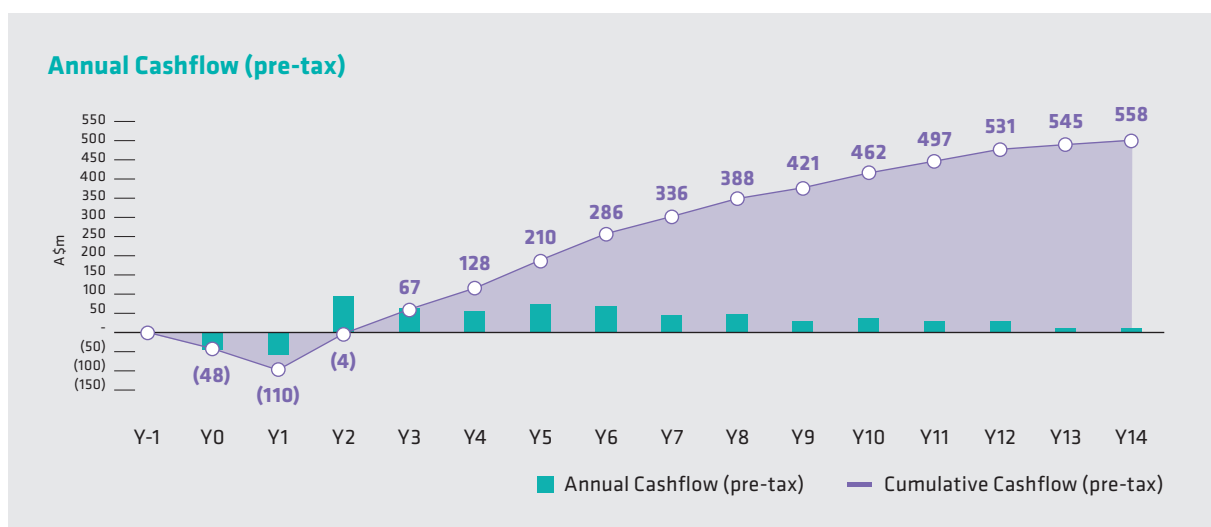
The operating costs for the life-of-mine at Merlin have been estimated as follows:

Item	A\$/ tonne treated	A\$/ carat	A\$m
Mining	31	206	403
- Open Pit	51	298	188
- Vertical pit	21	142	215
Processing	12	80	172
Site	11	70	149
Total	54	356	724

Total mine operating costs for the life-of-mine are estimated at ~A\$724 million or ~A\$356/ carat. Open pit mining costs of ~A\$298/ carat versus VPM of ~A\$142/ carat, reflect, inter alia the lower waste-stripping requirement for a VPM development, off-set by the VPM establishment capital and vertical wall support costs.

Operating cost estimates were derived as follows:

- Open pit mining operating costs have been estimated by AMC for contractor mining, with 120t excavators and 40t ADT's, developed from their cost database for similar projects;
- VPM operating costs have been estimated by AMC, with input from SRK on the support requirements and Area Square on all other operating costs;
- Processing and TSF operating costs have been estimated by Lucapa, based on their Mothae mine actual costs, adjusted for Australian labour costs; and
- Site operating costs have been estimated by Lucapa.



Sensitivity

A sensitivity analysis has been performed on pre-tax NPV. The inputs into the discounted cashflow model were flexed between a range of +/- 15% on 5% increments.

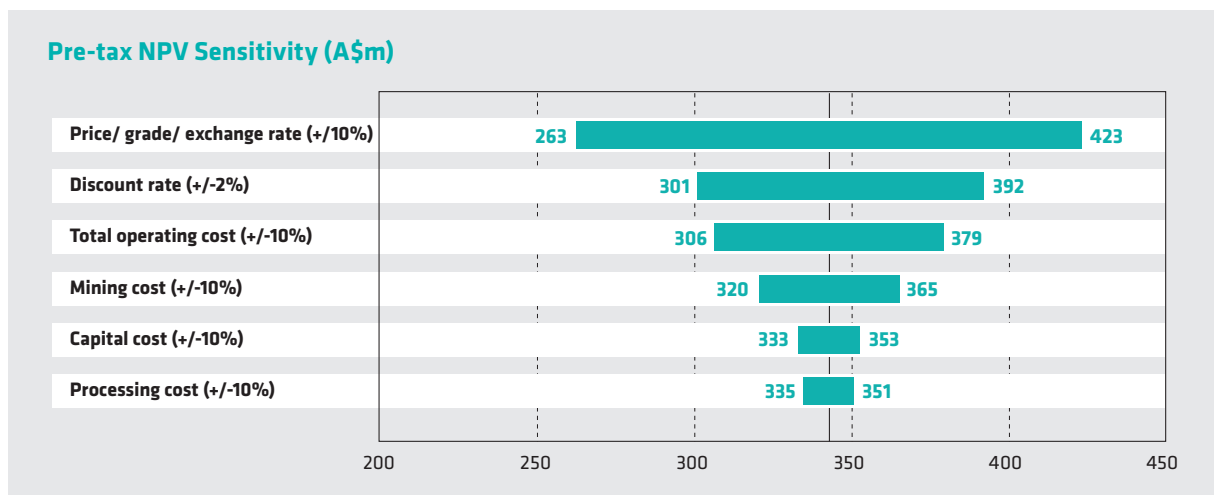
The analysis indicates that the most sensitive inputs are those related to revenue, i.e. price, grade and the exchange rate, and the NPV is least sensitive to processing and capital cost inputs.

Model Inputs	-15%	-10%	-5%	Base	+5%	+10%	+15%
Capital costs	358	353	348	343	338	333	328
Mining costs	376	365	354	343	332	320	309
Processing costs	355	351	347	343	339	335	330
Operating costs	397	379	361	343	325	306	288
Price/ grade/ exchange rate	222	263	303	343	383	423	463

The following is the impact of using different discount rates:

Model Inputs	5%	Base (7%)	10%
Discount rate	392	343	282

The tornado chart below highlights the sensitivity of pre-tax NPV to the modelled inputs on a +/- 10% basis (except for the discount rate at +/- 2%).



Indicative Timeline

The Company is targeting full commercial production in 2024. The indicative timetable from acquisition to production is set out below.

	2021				2022				2023				2024			
Conclude acquisition																
Scoping Study																
Geotechnical drilling and evaluation																
Feasibility study (including environmental and social studies)																
Exploration program (for new discoveries)																
Environmental submissions and approvals																
Plant order, construction and commissioning																
Mining contractor mobilisation, pre-strip																
Plant ramp-up																

Annexure

Key Assumptions Table

The key inputs and assumptions used in the Scoping Study resulting in the outcomes, production targets and forecast financial information are outlined below:

		Open Pit	Vertical Pit
Capital	Pre-production	A\$78m	
	Post-commissioning	A\$48m	
	Waste pre-strip	A\$18m	
Mining	Method	Conventional – drill, blast, load and haul	Lateral ground/ wall support, drill, blast, kibble hoist and haul
	Technology	Continuous miner to be trialled (remove need for drill and blast)	
	Cost per tonne (processed)	A\$51 (includes waste)	A\$21 (includes waste)
	Waste Strip Ratio	11.2	0.1
Processing	Method	Ore preparation and concentration by three stage crushing, scrubbing, screening and DMS	
	Tonne per hour/annum	175tph/ 1.2Mtpa	
	Bottom cut-off screen size	1.5mm	
	Cost per tonne (processed)	A\$12	
Recovery	Method	Recovery and sorting by XRT and X-ray luminescence	
	Factor	100% as based on actual historic production grades per pipe	
Site services	Cost per tonne (processed)	A\$11	
Royalty	State	Based on greater of 2.5% of gross revenue or 20% of the calculated net value	
	Traditional Owner	Up to 5% of calculated net profit. To be renegotiated following feasibility study publication	
	Biddlecombe	0.75% of gross revenue	
Marketing	Method	Tender and/ or auction in international rough market	
	Cost as a % of revenue	1.5%	
	Manufacturing	Rough diamonds extracted for cutting & polishing and branding strategy	
	Margin as a % of revenue	5%	
Exchange rate	US\$:A\$/ A\$:US\$	0.71/ 1.41	
Diamond prices	Starting US\$/ carat per pipe	Refer diamond price section for US\$ price/ carat for each pipe	
	Escalation/ annum	2% real	

Criteria	JORC Code explanation	Commentary
	<ul style="list-style-type: none"> Any minimum mining widths used. The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion. The infrastructure requirements of the selected mining methods. 	<ul style="list-style-type: none"> Refer Mining section of the Summary Report Refer Mining section of the Summary Report Refer to Infrastructure and Services and Mining Sections of the Summary Report
Metallurgical factors or assumptions	<ul style="list-style-type: none"> The metallurgical process proposed and the appropriateness of that process to the style of mineralisation. Whether the metallurgical process is well-tested technology or novel in nature. The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery factors applied. Any assumptions or allowances made for deleterious elements. The existence of any bulk sample or pilots scale test work and the degree to which such samples are considered representative of the orebody as a whole. For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications? 	<ul style="list-style-type: none"> Refer Mineral Processing and Tailings Storage section of the Summary Report Refer Mineral Processing and Tailings Storage section of the Summary Report Refer Mineral Processing and Tailings Storage section of the Summary Report n/a n/a No Ore Reserve has been declared
Environmental	<ul style="list-style-type: none"> The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported. 	<ul style="list-style-type: none"> Refer Environmental, Geology and Resources and Mineral Processing and Tailings Storage sections of the Summary Report
Infrastructure	<ul style="list-style-type: none"> The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed. 	<ul style="list-style-type: none"> Refer Infrastructure and Services section of the Summary Report
Costs	<ul style="list-style-type: none"> The derivation of, or assumptions made, regarding projected capital costs in the study. The methodology used to estimate operating costs. Allowances made for the content of deleterious elements. The source of exchange rates used in the study. Derivation of transportation charges. The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc. The allowances made for royalties payable, both Government and private. 	<ul style="list-style-type: none"> Refer Financials section and Key Assumptions Table of the Summary Report Refer Financials section and Key Assumptions Table of the Summary Report n/a Current US\$:A\$ exchange rate assumed n/a n/a Refer Key Assumptions Table of the Summary Report

Criteria	JORC Code explanation	Commentary
Revenue factors	<ul style="list-style-type: none"> The derivation of, or assumptions made regarding revenue factors including headgrade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc. The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products. 	<ul style="list-style-type: none"> Headfeed grades comes from the Mineral Resource estimate referenced in the Geology and Resources section combined with the dilution and recovery factors referenced in the Mining and Mineral Processing and Tailings Storage sections of the Summary Report Refer Diamond Price Estimates section of the Summary Report
Market assessment	<ul style="list-style-type: none"> The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future. A customer and competitor analysis along with the identification of likely market windows for the product. Price and volume forecasts and the basis for these forecasts. For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract. 	<ul style="list-style-type: none"> Refer Diamond Market section of the Summary Report n/a Refer Diamond Market section of the Summary Report n/a
Economic	<ul style="list-style-type: none"> The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc. NPV ranges and sensitivity to variations in the significant assumptions and inputs. 	<ul style="list-style-type: none"> Refer Financial Section and Key Assumptions Table of the Summary Report Refer Financial section of the Summary Report
Social	<ul style="list-style-type: none"> The status of agreements with key stakeholders and matters leading to social licence to operate. 	<ul style="list-style-type: none"> Refer Native Title, Stakeholders and Community Section of the Summary Report
Other (incl Legal and Governmental)	<ul style="list-style-type: none"> To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves: <ul style="list-style-type: none"> Any identified material naturally occurring risks. The status of material legal agreements and marketing arrangements. The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent. 	<ul style="list-style-type: none"> No Ore Reserve has been declared No material naturally occurring risks have been identified The company intends to market diamonds from Merlin as per its existing marketing methods. Assignment of Native Title agreements - refer ASX announcement 13 December 2021. Merlin Project agreement (between AusND & NTG) in place. Biddlecombe Royalty agreement in place. The tenements which are the subject of the Study have been granted and are 100% owned by Lucapa through Australian Natural Diamonds Pty Ltd. The Company continues to undertake relevant studies to support necessary Government approvals processes. There are reasonable grounds from the studies conducted to date to expect that all necessary Government approvals will be received within the timeframes anticipated. The Company is commencing a feasibility study in 2022.

Criteria	JORC Code explanation	Commentary
Classification	<ul style="list-style-type: none"> The basis for the classification of the Ore Reserves into varying confidence categories. Whether the result appropriately reflects the Competent Person's view of the deposit. The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any) 	<ul style="list-style-type: none"> No Ore Reserve has been declared No Ore Reserve has been declared No Ore Reserve has been declared
Audits or reviews	<ul style="list-style-type: none"> The results of any audits or reviews of Ore Reserve estimates. 	<ul style="list-style-type: none"> No Ore Reserve has been declared
Discussion of relative accuracy/confidence	<ul style="list-style-type: none"> Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate. The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used. Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage. It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available. 	<ul style="list-style-type: none"> No Ore Reserve has been declared No Ore Reserve has been declared

Acknowledgement

Lucapa acknowledges the following study participants, consultants and advisors:

Lucapa team

Stephen Wetherall

Managing Director

Neil Kaner

Chief Technical Officer

Nick Selby

Chief Operating Officer

Alex Kidman

Principal Group Projects

Richard Price

Mineral Resource Manager

Johan van Wyk

Group Financial Manager

Candice Sgroi

Head of IR and Corporate Communications

External consultants and advisors



AMC Consultants

Mine planning



Consulmet

Process design and construction



Tailcon Projects

Tailings storage



SRK Consulting

Vertical pit mining geotechnical



Area Square

Vertical pit mining engineering



GTD Consulting

Indexing and diamond valuation



IDVI

Diamond valuation



K&L Gates

Legal



Cozens Johansen

Legal and Native Title



Rescology

Environmental



Bespoke Territory

Stakeholder and Government relations



Ashanti

Corporate advisory

Abbreviations

ADT	Articulated dump truck	Merlin	Merlin Diamond Project
AMC	AMC Consultants (Pty) Ltd	Minemax	Minemax Scheduler software
Area Square	Area Square (Pty) Ltd	MMP	Mining Management Plan
Ashton	Ashton Mining Ltd	M	Million
AusND	Australian Natural Diamonds Pty Limited	Mt	Million tonnes
CLP	Crown Lease in perpetuity	Mtpa	Million tonnes per annum
Company	Lucapa Diamond Company Limited	MW	Megawatt
Consulmet	Consulmet (Pty) Ltd	NLC	Northern Land Council
cpht	Carats per one hundred tonnes	NPV	Net present value
cts	Carats	NTG	Northern Territory Government
EBITDA	Earnings before interest, taxes, depreciation, and amortization	Project	Merlin Diamond Project
DMS	Dense media separation	Rio Tinto	Rio Tinto Ltd or subsidiary of Rio Tinto Ltd
HPGR	High pressure grinding roll	SRK	SRK Consulting (Pty) Ltd
ICMM	International Council on Mining and Metals	Tailcon	Tailcon Projects Pty Ltd
IRR	Internal rate of return	tph	Tonnes per hour
kcts	Thousand carats	TSF	Tailings storage facility
kt	Thousand tonnes	VPM	Vertical pit mining
ktpm	Thousand tonnes per month	XRT	X-ray transmission
Lucapa	Lucapa Diamond Company Limited		

Historical Photos of Merlin Mine







LUCAPA
DIAMOND COMPANY

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Competent Person's Statement

The Mineral Resource contained in this announcement underpinning the production target is based on and fairly represents information and supporting documentation prepared and compiled by a competent person in accordance with the requirements of the JORC Code (2012). Mr. Richard Price, who is a Member of the Australasian Institute of Mining and Metallurgy and an employee of the Company has sufficient experience which is relevant to the style of mineralisation and type of deposits under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the Australasian Code for Reporting Exploration Results, Mineral Resources and Ore Reserves. Mr Price consents to the inclusion in this announcement of the matters based on this information in the form and context in which it appears.

No New Information

To the extent that this announcement contains references to prior exploration results and Mineral Resource estimates, which have been cross referenced to previous market announcements made by the Company, unless explicitly stated, no new information is contained. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.

Forward-Looking Statements

This announcement has been prepared by the Company. This document contains background information about the Company and its related entities current at the date of this announcement. This is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained in this announcement.

This announcement includes a series of forward-looking statements and comments about future events, including the Company's expectations about the performance of its business or proposed business. Statements which are not historical facts, are forward-looking statements and involve risks and uncertainties, such as and amongst others Mineral Resource estimates, market prices of diamonds, capital and operating expenditures, amendments to proposed project development as plans continue to be evaluated, continued availability of financing and general economic, market or business conditions, and statements by the Company that describe future plans, objectives or goals. Forward-looking words such as "expect", "should", "could", "may", "predict", "plan", "will", "believe", "forecast", "estimate", "target" or other similar expressions are intended to identify forward-looking statements. By their very nature forward-looking statements involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of the Company and which may cause actual results, performance or achievements to differ materially from those expressed or implied by such statements. Forward-looking statements are provided as a general guide only, are current as at the date of this announcement, and should not be relied on as an indication or guarantee of future performance. Given these uncertainties, recipients are cautioned to not place undue reliance on any forward-looking statement.

While the Company considers all of the material assumptions to be based on reasonable grounds, a number of factors could cause actual results or expectations to differ materially from the results expressed or implied in the forward-looking statements. Given the uncertainties involved, investors should not make any investment decisions based solely on the results of this announcement.

Neither the Company or any other person makes any representation or gives any assurance or guarantee that the occurrence of the events expressed or implied in any forward-looking statements in this announcement will occur. No responsibility for any errors or omissions from this document arising out of negligence or otherwise is accepted. Subject to any continuing obligations under applicable law and ASX Listing Rules, the Company disclaims any obligation or undertaking to disseminate any updates or revisions to any forward-looking statements in this announcement to reflect any change in expectations in relation to any forward-looking statements or any change in events, conditions and/ or circumstances on which any such statement is based.

MERLIN SCOPING STUDY DEMONSTRATES STRONG ECONOMICS TO BE A LONG-LIFE DIAMOND PRODUCER

This announcement is for information purposes only. It does not constitute an offer, invitation or solicitation with respect to the purchase or sale of any security in the Company nor does it constitute financial product advice. This announcement is not a prospectus, product disclosure statement, pathfinder for the purposes of the Corporations Act 2001 (Cth) or other offer document under any law.

This announcement has not been filed, registered or approved by regulatory authorities in any jurisdiction. The distribution of this announcement outside Australia may be restricted by law. Any recipient of this announcement outside Australia must seek advice on and observe any such restrictions. Any non-compliance with these restrictions may contravene applicable securities laws.

This announcement is not intended to be relied upon as advice or a recommendation to investors and does not take into account the investment objectives, financial situation, taxation situation or needs of any particular investor. An investor must make its own assessment of the Company and conduct its own investigations and analysis. Investors should assess their own individual financial circumstances and consider talking to a financial adviser, professional adviser or consultant before making any investment decision.