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ASX Announcement

Scoping Study confirms Letlhakane as long-life, high value uranium project

Lotus Resources Limited (**ASX: LOT, OTCQX: LTSRF**) (**Lotus** or the **Company**) is pleased to announce the results of the Scoping Study (**Scoping Study** or **Study**) for its Letlhakane Uranium Project in Botswana (**Letlhakane** or the **Project**), which has confirmed the Project's potential to support an economically viable long-life operation under a variety of uranium price scenarios. Lotus is developing Letlhakane in parallel with planning for the restart of production at the Kayelekera Uranium Project in Malawi in 2025 and aims to become a globally significant U_3O_8 producer when combining both assets.

HIGHLIGHTS

- **Scoping Study shows Letlhakane can support ~3Mlbpa over an extended life-of-mine (LoM), with flexibility to adjust production with uranium price fluctuations**
  - Base Case is a 15-year LoM producing 3Mlbpa for total LoM production of 42Mlb.
- **Optimisation of mining costs and acid consumption demonstrates a base case cash cost of US$36/lb compared to a non-optimised cost of US$42/lb**
- **Independent assessment determined Letlhakane geology is favourable for an in-situ recovery (ISR) operation, which could positively impact overall opex**
- **Letlhakane resource size, grade and LoM compare favourably with other sub-Saharan Africa projects such as Deep Yellow's (ASX: DYL) Tumas Project and Bannerman Energy's (ASX: BMN) Etango Project**
  - Lotus aims to deliver similar opex and capex structures to peers through optimisation.
- **Botswana is the highest ranked mining jurisdiction in Africa, with a global ranking of 4 (Policy Perceptions Index) in the 2023 Fraser Institute global survey**
- **Lotus has commenced trade-off studies and is progressing a Mineral Resource Estimate update for Letlhakane**
  - Lotus progresses trade-off studies including acid consumption, downstream process optimisation and mining methodology, and will provide an update in **4QCY24**.
  - An ISR assessment, starting with pumpability testing and then a possible field leach trial, is being planned.
  - Lotus's infill drill program at Letlhakane[1] is near completion and will inform a resource update due in November, aiming to increase Measured and Indicated resource categories.
  - An updated study incorporating remaining optimisation work and potentially ISR due in **1QCY25**.
- **Lotus is well funded to continue development at Kayelekera and Letlhakane with $34.1 million cash at bank as at 30 June 2024**

Lotus CEO Greg Bittar commented: *"Our Scoping Study clearly demonstrates Letlhakane's merits as our second, longer life uranium project that can meet the longer-term supply shortfall. In a stronger long-term uranium price environment, which experts have forecast, Letlhakane increases the life of mine for Lotus. Coupled with Kayelekera, where we aim to restart production next year, this positions Lotus as a ~5.5Mlb per annum producer, potentially making it one of the largest uranium producers on the ASX.*

Our optimisation programs have delivered promising results to potentially decrease the cash cost from US$42/lb. It is also encouraging to note the "blue sky" potential of this project if the uranium price increases, as a US$100/lb price could see 65Mlbs of uranium for recovery, growing to 83Mlbs if we include low grade stockpiles at the tail end of operations.

[1] See ASX announcements 25 June, 25 July, 15 August and 10 September 2024

The team has also identified the potential of an in-situ recovery process, or ISR, for some of the deeper mineralised zones at the project. We have received encouraging feedback on this based on an initial assessment carried out by expert consultant, ERM Australia Consultants. We will be following up on this opportunity over the next few months to determine the impact this could have on the project operating costs, which we believe could be significant.

We look forward to providing further updates on the trade-off study results and ISR work before proceeding with a feasibility study to progress Letlhakane in the fastest and most efficient manner, to take advantage of the buoyant uranium market conditions."

CAUTIONARY STATEMENT

The Scoping Study referred to in this announcement is a preliminary technical and costing study to establish the potential viability of the Letlhakane Uranium Project. The Scoping Study referred to in this announcement is based on lower-level technical and preliminary economic assessments and is insufficient to support estimation of Ore Reserves or to provide assurance of an economic development case at this stage, or certainty that the conclusions of the Scoping Study will be realised.

Approximately 32% of the Life-of-Mine production is in the Measured and Indicated Mineral Resource category and 68% is in the Inferred Mineral Resource category. The Company has concluded it has reasonable grounds for disclosing a preliminary production profile and cost information, but notes that as there is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of additional Measured or Indicated Mineral Resources or that the production profile or preliminary economics will be realised.

The Inferred portion of the Mineral Resource Estimate is currently the subject of an extensive infill drilling program, the results of which have been contained in announcements made to the market on the 25 June 2024, 25 July 2024, 15 August 2024 and 10 September 2024. These results have shown that the continuation, extent and grade of these portions of the deposits conform with those predicted by the Inferred Mineral Resource Estimate. An updated Mineral Resource Estimate for the Project, which should allow conversion of the Inferred Mineral Resource to Measured and Indicated Status, will be undertaken when all the drilling results have been compiled.

The Scoping Study is based on the material assumptions outlined elsewhere in this announcement. These include assumptions about the availability of funding. 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.

To realise the potential mine development outcomes indicated in the Scoping Study, funding in the order of ~USD465 million will likely be required for start-up capital. Investors should note that there is no certainty that the Company will be able to raise funding when needed; however, the Company has concluded it has a reasonable basis for providing the forward-looking statements included in this announcement and believes that it has a reasonable basis to expect it will be able to fund the development of the Project in due course.

It is also possible that such funding may only be available on terms that may be dilutive to, or otherwise affect the value of, the Company's existing shares. It is also possible that the Company could pursue other strategies to provide alternative funding options including project finance.

Given the uncertainties involved, investors should not make any investment decisions based solely on the results of the Scoping Study.

REFERENCE TO PREVIOUS ASX ANNOUNCEMENTS

The information in this announcement that relates to the Mineral Resource at Letlhakane was announced on 9 May 2024. Lotus confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 9 May 2024 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in that announcement continue to apply and have not materially changed.

FORWARD-LOOKING STATEMENTS

This Announcement includes "forward-looking statements" within the meaning of securities laws of applicable jurisdictions. Forward-looking statements involve known and unknown risks, uncertainties and other factors that are in some cases beyond Lotus Resources Limited's control. These forward-looking statements include, but are not limited to, all statements other than statements of historical facts contained in this announcement, including, without limitation, those regarding Lotus Resources Limited's future expectations. Readers can identify forward-looking statements by terminology such as "aim," "anticipate," "assume," "believe," "continue," "could," "estimate," "expect," "forecast," "intend," "may," "plan," "potential," "predict," "project," "risk," "should," "will" or "would" and other similar expressions. Risks, uncertainties and other factors may cause Lotus Resources Limited's actual results, performance, production or achievements to differ materially from those expressed or implied by the forward-looking statements (and from past results, performance or achievements). These factors include, but are not limited to, the failure to complete and commission the mine facilities, processing plant and related infrastructure in the time frame and within estimated costs currently planned; variations in global demand and price for uranium; fluctuations in exchange rates between the U.S. Dollar and the Australian Dollar; uncertainty in the estimation of mineral resources and mineral reserves; the failure of Lotus Resources Limited's suppliers, service providers and partners to fulfil their obligations under construction, supply and other agreements; the inherent risks and dangers of mining exploration and operations in general; environmental risks; unforeseen geological, physical or meteorological conditions, natural disasters or cyclones; changes in government regulations, policies or legislation; foreign investment risks in Botswana; breach of any of the contracts through which the Company holds property rights; defects in or challenges to the Company's property interests; uninsured hazards; industrial disputes, labour shortages, political and other factors; the inability to obtain additional financing, if required, on commercially suitable terms; reliance on key personnel and the retention of key employees; the impact of the Covid-19 pandemic on the Company's business and operations; and global and regional economic conditions. Readers are cautioned not to place undue reliance on forward-looking statements. The information concerning possible production in this announcement is not intended to be a forecast. They are internally generated goals set by the board of directors of Lotus Resources Limited. The ability of the Company to achieve any targets will be largely determined by the Company's ability to secure adequate funding, implement mining plans, resolve logistical issues associated with mining and enter into any necessary off-take arrangements with reputable third parties. Although Lotus Resources Limited believes that its expectations reflected in these forward-looking statements are reasonable, such statements involve risks and uncertainties and no assurance can be given that actual results will be consistent with these forward-looking statements.

LOTUS RESOURCES

EXECUTIVE SUMMARY

A Scoping Study has defined a base case scenario for the development of the Letlhakane uranium project, which has considered a balanced approach to the combination of production rate, life-of-mine and operating costs. The Study has predominantly focused on the mining elements of the Project using an updated Mineral Resource Estimate that delivered in May 2024. The process plant and non-process infrastructure has been based on the 2015 Technical Study completed by the previous owners A-Cap Energy Ltd[2] i.e. two-stage heap leach with a sequential solvent extraction and ion exchange recovery circuit feeding a two-stage uranium precipitation circuit to produce a yellow cake product. The costs from this study (opex and capex) have been escalated and benchmarked to actual construction and installation cost data to generate an updated estimate which reflects the reduced tonnage throughput and production.

To complement the base case, two other scenarios were also considered; the first of which considered a smaller operation, with less total material movements and was developed by analysing pit shells from the optimisation work with a reduced revenue factor. The second scenario considered a much larger project with a higher throughput based on analysing pit shells with an increased revenue factor. The base case pit shells were based on a price of US$80/lb U_3O_8, while the other scenarios were based on revenue factors equivalent to US$65/lb and US$100/lb.

Lotus completed the Scoping Study with the support of the following independent consultants:

- Mineral Resources – SnowdenOptiro
- Open Pit Optimisation and mining costs – SnowdenOptiro
- Updated Plant and Infrastructure capex and opex – Ashmet Pty Ltd

The Scoping Study was completed to an overall +/-30% accuracy (AACE Class 5) using the key parameters and assumptions set out in Table 1. The material assumptions on which the production target is based and that underpin the Study are provided in Appendix 1. Further details regarding the production scheduling are shown in Appendix 2.

Table 1: Summary of production and cost data (estimated)

General	Scenario 1 – Base Case LOM total / Avg	Scenario 2 – Early Wins LOM total / Avg	Scenario 3 – Bulking Up LOM total / Avg
Mine Life (Years)	15	13	22
Total Material Mined (Mt)	960	576	1,932
Strip Ratio	9.3	6.1	5.7
Total U_3O_8 Mined (Mlbs)	66.8	52.7	105
Production Total	LOM total / Avg	LOM total / Avg	LOM total / Avg
Plant Feed (Mt)	94.1	82.9	159.9
Plant Feed Grade (ppm U_3O_8)	317	280	283
Plant Recovery (%)	63.3	61.9	61.5
Av. Annual U_3O_8 Production (Mlbs)	3.0	2.7	2.9
Max Annual U_3O_8 Production (Mlbs)	3.2	3.0	3.0
LOM U_3O_8 Production (Mlbs)	42.3	32.6	64.5
Operating Cost	LOM total / Avg	LOM total / Avg	LOM total / Avg
Mining Costs (US$/t mined)	1.51	1.51	1.51
Mining Costs (US$/t ore processed)	8.4	6.0	10.5
Processing Costs (US$/t ore)	9.9	10.2	10.0
G&A Costs (US$M pa)	5.9	5.9	5.9
Total Cash Costs (US$/lb)	42.0	41.4	52.9
Capital Costs	LOM total / Avg.	LOM total / Avg.	LOM total / Avg.
Initial Capital (US$M)	465	465	465
Pre-Production (US$M)	23.5	23.5	23.5

[2] Letlhakane Technical Study announcement June 2015 by A-Cap Resources Ltd

The Scoping Study aimed to provide Lotus with an understanding of the key cost and value drivers for the Project such that a detailed optimisation program can be established to drive further improvements for the Project.

Based on the original due diligence that was carried out on the Project as part of the acquisition process, the Company was already aware of the criticality of resource grade, acid consumption and mining methods. The results from this Study have confirmed this and provided additional areas to target for improvement. The first phases of a metallurgical testwork programme are well advanced, giving insight into beneficiation, reduced acid consumption and flowsheet modifications that should deliver a simpler, more cost-effective process.

Due to the large material movements associated with this Project, mining costs are a significant cost driver. The Study assumes for all scenarios that drill and blast with truck and shovel loading and hauling will be employed for waste mining and continuous miners used for ore mining. Any saving on mining unit rates would have a significant flow on effect for operating costs. Therefore, mining methodologies will form a crucial part of the optimisation process.

To demonstrate the impact these optimisation programs could have on operating costs, a simple sensitivity analysis was carried out to assess the impact of acid consumption in the leaching process and the quantity of drill and blast for waste mining. The results of this are shown in Table 2 below.

Table 2: Opex sensitivity to acid consumption and mining unit cost (estimated) – Approx. Base Case shaded

Leaching Acid Consumption kg/t	Mining Drill and Blast Requirements		
	0% D&B US$1.25/t material	60% D&B US$1.51/t material	100% D&B US$1.61/t material
25	35.6	37.3	38.4
35	38.6	40.3	41.5
41	39.8	41.5	42.6

The Study has identified that some parts of the Letlhakane deposit may be amenable to an in-situ recovery (ISR) process. This is of specific interest for areas of the deposit where the mineralisation is deeper and where there is significant overburden. An ISR specialist, ERM Australia Consultants Pty Ltd, was engaged towards the end of the Study to assess this option and concluded that Letlhakane is probably favourable for ISR, with the deposit having the critical aspects needed for successful ISR including being below the water table, being a flat tabular deposit with high grade x thickness mineralised zones and having the necessary aquitards above and below the mineralisation to control the fluids.

The ISR evaluation is still in the very early stages, but there are sufficient positive results for the Company to move ahead with developing a comprehensive program to develop this further. If successful, the ISR would not replace the proposed open pit / heap leach process assumed in this Study but rather complement it by being applied to the more costly mining areas. Significant reductions in overall operating costs would be expected from this approach.

NEXT STEPS

Lotus is focused on identifying further optimisation opportunities to improve the overall Project, such as mining, processing, infrastructure, water, energy and environmental / social considerations.

Opportunities already identified that could reduce capex, operating costs, extend the LOM and/or optimise the production rates are listed below. These opportunities form the basis of a multi-stage process for the development of Letlhakane that will lead into a Definitive Feasibility Study (DFS). The stages incorporate the following:

- Consider alternate mining methods that may be more efficient and cost effective for large-scale bulk material movement to reduce waste mining costs.
- Work to better understand the composition of the waste overburden so as to improve the accuracy of the estimate for the quantity of drill and blast required for waste mining.

- Conduct a metallurgical testwork program to optimise acid addition and acid consumption in the leach. This will also consider crush size and agglomeration to optimise the heap leach parameters including stack height and residence time.

- Downstream processing to optimise uranium recovery from the leach solution and produce a high-quality final product. The aim is to direct feed an ion-exchange process with the leach liquor and avoid the intermediate solvent extraction process. With ion-exchange the impurity removal step included in the current flowsheet could also be eliminated.

- Perform a detailed assessment of the ISR applicability to the Project. This will focus on the Gorgon area of the deposit where the grades are lower, but mineralisation is thicker and generally deeper. This will require a significant program incorporating field work and laboratory testwork to validate the potential. If the initial work demonstrates amenability, a field leach trial may be considered.

- Undertake a review of Project infrastructure including confirming the inclusion of an onsite acid plant for producing acid required for processing. This can also be a significant power generator for the Project by making use of the waste heat generated in the acid plant. Water usage, source and management will also be considered.

- Initial results from the works described above will be incorporated into an updated study planned for completion during 1QCY25, which should establish a revised base case for the Project that can then be further engineered and derisked.

- Following completion of an updated study, the Company will initiate a Definitive Feasibility Study to further derisk the Project, in parallel with an assessment and potential update to the Environmental and Social Impact Assessment (ESIA) that the Project obtained in 2015.

INTRODUCTION

Lotus has undertaken a Scoping Study to determine a base case scenario for the commencement of uranium production at its Letlhakane Project in Botswana. This Study is also being used to define the key value drivers and cost drivers for the Project such that a detailed optimisation program can be undertaken to add further value to the Project. This Study has been prepared based on studies undertaken by the previous owners, A-Cap Energy Ltd (including their 2015 Technical Study), an updated pit-constrained Mineral Resource Estimate, preliminary results from the Company's own metallurgical testing, and past experience from optimising the Kayelekera uranium mine in Malawi. The Company has used a number of expert consultants to assist in developing the Study.

The Letlhakane Uranium Project in Botswana, Africa is one of the largest undeveloped uranium projects, with a resource base of 155Mt at 345ppm U_3O_8 for 118Mlb contained uranium (RPEEE basis); 29% of which is Measured and Indicated (see Table 3). The project is located close to high quality infrastructure, with a sealed road, rail line and power line running past the Mining Licence area. Francistown, a major population centre, is located within 50km of the Project.

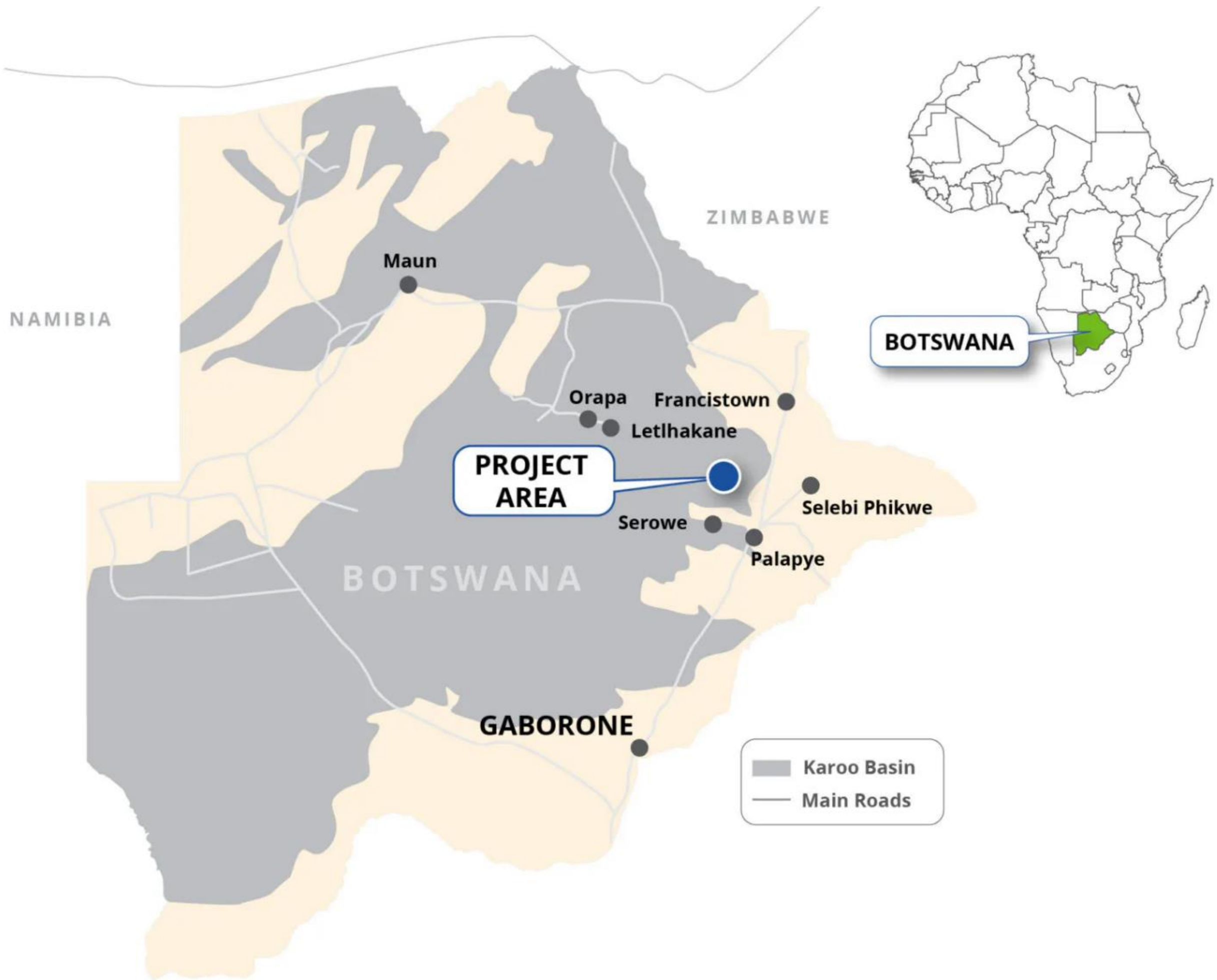

Figure 1: Project Location.

Botswana is the highest ranked mining jurisdiction in Africa, achieving a global ranking of 4 (Policy Perceptions Index) in the 2023 Fraser Institute global survey.

MINERAL RESOURCE AND GEOLOGY

Geology

The Letlhakane mineralisation occurs in the lower Ecca Group of the Karroo Supergroup. The mineralisation occurs within the upper parts of the Mea Arkose where it is in contact with the Tlapana Formation, as well as within the lower part of the Tlapana Formation. Parts of the deposit occur at surface within more recent pedogenic and valley calcretes and within the upper parts of the Tlapana Formation.

Three distinct styles of mineralogy related to weathering, have been identified in the main resource area and are closely related to the geological setting found in this area. The mineralisation is defined as Secondary, Oxide and Primary. Secondary mineralisation is dominated by the mineral carnotite and occurs in calcrete and the upper mudstones. Oxide and Primary mineralisation are dominated by orthobrannerite (U_4+U_6+$Ti_4O_{12}(OH)_2$) and uraninite (UO_2). These minerals occur as discrete grains up to 250 µm on quartz grain boundaries, partially or wholly encapsulated in calcite, kaolinite and/or illite. Uranium anomalies associated with the organic bands in the sandstone show a strong correlation to titanium and this may imply orthobrannerite is present within the bands or that titanium is also incorporated into the humate along with uranium. The weathering defines the boundary between the oxide and the primary and due to the alteration of minerals in the oxide zone, they display differing metallurgical characteristics.

Mineralisation appears to closely follow basement topography and valleys can be traced following fluid flow paths and containing higher uranium grade areas. The Mea group sediments dip 1 degree to the west and mineralisation has been intersected further out to the west past the defined resource area. This mineralisation, although deeper and presently not defined, can be potential future resources for the Project.

Mineral Resource

The May 2024 Mineral Resource Estimate (MRE) for Letlhakane comprises five deposit areas Gorgon, Mokobaesi, Kraken and Serule West and East. See resource domains and pit shells in Figure 2.

The estimation methodology used by SnowdenOptiro consisted of developing a model for the uranium mineralisation within a 200ppm grade envelope to reduce the amount of low-grade material being reported. Snowden Optiro then applied reasonable economic parameters to generate pit shells which were used to constrain the resource, producing what is termed resources with ‘reasonable prospects of eventual economic extraction’ (RPEEE). See pit shells in Figure 2. It is important to note that The Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves ('the JORC Code') is being updated and, when the new Code comes out later this year (or next year), it may mandate that all Mineral Resource Estimates are defined in such a manner.

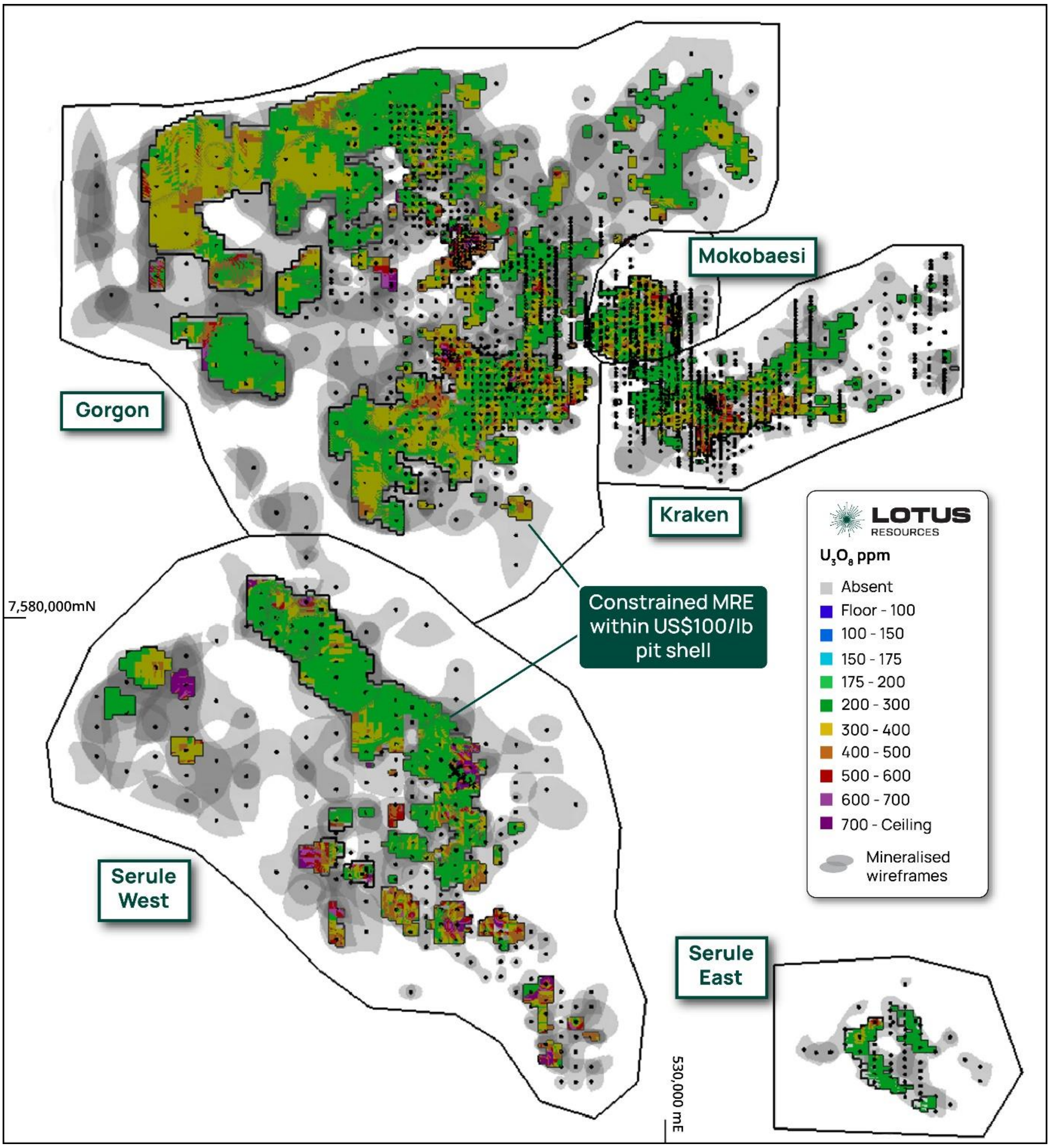

Figure 2: Letlhakane deposit and pit shells

The parameters used to develop the pit shells used for the MRE were:

- U_3O_8 price assumptions – base case is US$100/lb U_3O_8.
- Metallurgical Recovery – 70% to 80%, depending on type of ore feed.
- Mining parameters including mining dilution, pit slope angles were based on the use of continuous surface miners as the primary ore extraction method.
- Mining cost – US$20/tonne ore. This cost is driven primarily by the relatively high strip ratio that has come out of the modelling.
- Processing cost – US$22/lb of recovered U_3O_8.
- General and Admin cost – US$0.6/tonne ore.

Table 3 presents the Mineral Resources as at May 2024[3] reported above a 200ppm U_3O_8 lower cut-off.

Table 3: Mineral Resource Estimate – May 2024

		Indicated			Inferred			Total		
Ore type	**Deposit**	**Mt**	**U_3O_8 ppm**	**U_3O_8 Mlb**	**Mt**	**U_3O_8 ppm**	**U_3O_8 Mlb**	**Mt**	**U_3O_8 ppm**	**U_3O_8 Mlb**
Secondary	Mokobaesi	2.1	344	1.6				2.1	321	1.6
	Total Secondary	**2.1**	**344**	**1.6**				**2.1**	**321**	**1.6**
Oxide	Gorgon	9.5	326	6.8	9.7	296	6.3	19.2	311	13.2
	Mokobaesi	3.1	323	2.2				3.1	323	2.2
	Kraken	3.1	307	2.1	0.5	237	0.3	3.6	297	2.4
	Serule East				0.8	239	0.4	0.8	239	0.4
	Serule West	0.1	289	0.1	4.7	382	4.0	4.9	379	4.1
	Total Oxide	**15.9**	**322**	**11.2**	**15.7**	**317**	**11.0**	**31.6**	**319**	**22.2**
Primary	Gorgon	20.7	322	14.7	64.4	319	45.2	85.0	319	59.9
	Mokobaesi	0.3	316	0.2				0.3	316	0.2
	Kraken	5.3	384	4.5	0.5	289	0.3	5.8	376	4.8
	Serule West	1.9	539	2.3	28.6	432	27.3	30.5	439	29.5
	Total Primary	**28.2**	**348**	**21.6**	**93.5**	**352**	**72.8**	**121.6**	**352**	**94.4**
Total		**46.1**	**339**	**34.4**	**109.2**	**348**	**83.8**	**155.3**	**345**	**118.2**

Notes:

- *The preceding statement of Mineral Resources was prepared by a competent person in accordance with the JORC Code.*
- *All tonnages are dry metric reported.*
- *Open pit resources are constrained to a US$100/lb pit shell and reported above a 200 ppm U3O8 cut-off and comprise classified resources only.*
- *Totals account for all five deposits (Gorgon, Kraken, Mokobaesi, Serule West and East).*

Preliminary economic analysis conducted on the May 2024 MRE indicated viable processable material in a grade range between 100 to 200 ppm U_3O_8. A model that comprised the high-grade domaining strategy (as used in the May 2024 MRE) with an incorporation of a modelled and estimated lower-grade halo of mineralisation above a 100 ppm U_3O_8 cut-off, was adopted in the Scoping Study. Modelling of the low-grade haloes, external to the high-grade domains was completed using Leapfrog Geo. The output volumes for each deposit area were exported to Datamine Studio RM Pro to facilitate data coding, statistical review and estimation.

The Company is currently undertaking an infill drill program at the project to convert the Inferred material to Measured and Indicated status. The program is focused on Serule West and Gorgon where the majority of the Inferred material is located. The program is nearing completion and previous announcements of the interim results to the market[4] indicate that the continuity of the mineralisation, the grades and ore thickness are consistent with the Inferred model.

MINING

Mining will be undertaken through a combination of conventional truck and shovel load and haul operations for waste removal and continuous miners for ore extraction. Bulk waste will be stripped in advance of ore mining with continuous miners targeting cuts of approximately 25cm.

Ore will be stockpiled in high, medium and low-grade stockpiles with high grade preferentially fed to the process plant. Direct tip into the process plant will be undertaken when possible.

Mining areas will be developed sequentially, initially targeting Serule West. Each mining area will be depleted to allow backfilling of completed pits to minimise ex-pit dumping and waste haulage requirements. Pit optimisations were completed on individual deposits due to model size and minimal overlap between areas.

[3] See ASX announcement 9 May 2024
[4] See ASX announcements 25 June, 25 July, 15 August and 10 September 2024

The pit optimisation results were split into various mining areas to reflect potential staging of the pits. Schedule scenarios targeted mining areas on a sequential basis with a maximum of two mining areas concurrently mined.

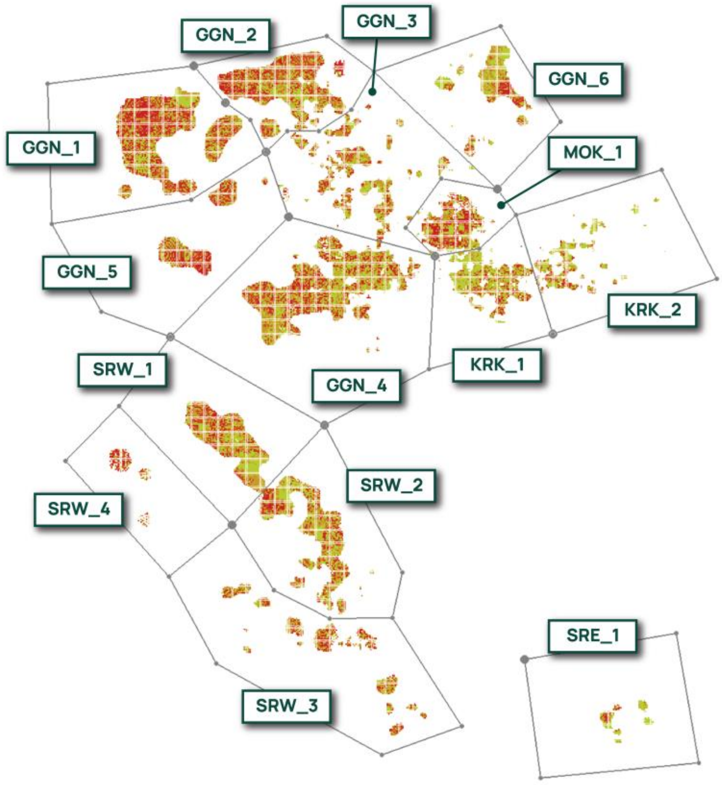

Figure 3: Letlhakane Mine sequence

Twenty-six mine plan scenarios were evaluated in detail, resulting in the selection of three scenarios summarised in Table 4. The schedule variations were produced based on the following key inputs:

- Total material movement
  - 55 Mt/a to 120 Mt/a
- Process feed tonnage
  - 7.0 Mt/a to 9.0 Mt/a
- U_3O_8 production
  - 3.0 Mlbs/a to 4.0 Mlbs/a
- High grade bins
  - 175 to 300 ppm U_3O_8
- Medium grade bins
  - 125 to 200 ppm U_3O_8
- Low grade bins
  - Economic cut-off to 150 ppm U_3O_8
- Pit size
  - Revenue factor 0.85 to 1.00
- Mining sequence
  - Serule W before Gorgon
  - Gorgon before Serule W

Table 4: Mining Scenarios

Item	Units	Scenarios		
		1 - Base Case	2 - Early Wins	3 - Bulk Up
Description		7Mtpa throughput, maintaining consistent production profile for LOM	7Mtpa plant throughput, reduced total material movement focusing on the lowest cost areas	7-9Mtpa plant throughput, maximising total Mlb produced[5]
Ore tonnes	Mt	94.1	82.9	292
Waste tonnes	Mt	880	503	1,669
Total mined tonnes	Mt	960	577	1,933
Mined grade	ppm U_3O_8	317	280	216
Strip Ratio	w:o	9.3	6.1	5.7
LOM plant feed tonnes	Mt	94.1	82.9	159
Plant feed avg grade	ppm U_3O_8	317	280	284
Process Recovery	%	63.3	61.9	61.5
Total Product	Mlbs U_3O_8	43	33	65

The Base Case Scenario was selected as it produced a consistent production profile, minimised stockpile requirements and maintained the life of mine of the Project.

The Early Wins Scenario evaluated the potential of focusing on reduced material movements, by using a lower uranium price ~US$65/lb (revenue factor 0.85) targeting lower cost portions of the deposits and mining with a higher cut-off grade. This scenario delivered a consistent production profile at a lower average operating cost but with a reduced mine life.

The Bulk Up scenario evaluated the potential upside of the Project, scheduling a larger pit estimated at a price of ~ US$100/lb U_3O_8 (revenue factor 1.25). A significantly larger mining inventory is available, with production initially providing 7 Mt/a process feed, increasing to 9 Mt/a by year 14. Consistent production of 3.0 Mlbs/a is maintained for 20 years, with U_3O_8 production dropping off later in the mine life as high-grade reserves are depleted. This scenario has the option to include at the tail end of the LOM the treatment of the low-grade stockpiles that have been built up during the mining phase. With this option, the LOM could be extended by a further 10 to 15 years but the uranium production during the period would be relatively low at only 1.3Mlbs/a.

Uranium production profiles for the three scenarios are shown in Figure 4 and mill feed tonnes and mill feed grades for the three scenarios are shown in Figure 5.

[5] The numbers presented in this scenario exclude the processing of the low-grade ore at end of LOM

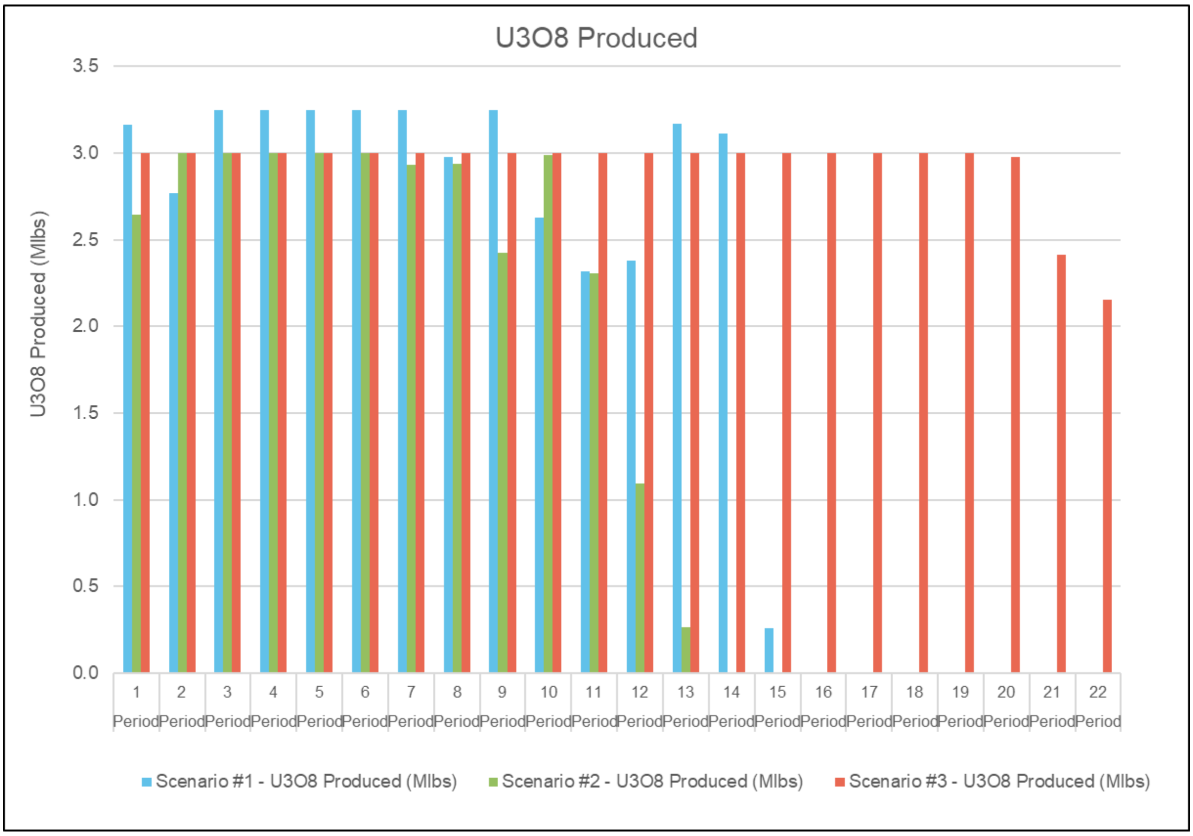

Figure 4: Letlhakane uranium production scenarios

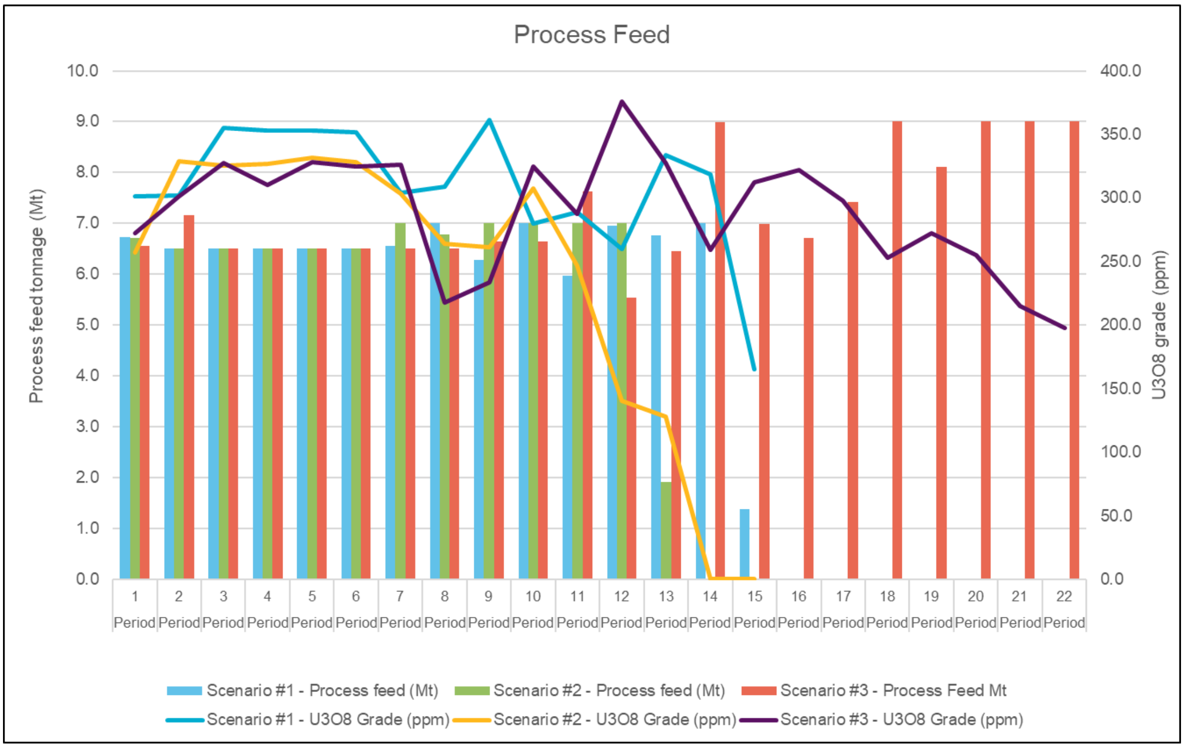

Figure 5: Letlhakane mill feed and grade scenarios

Further work aimed at improving the efficiency and cost effectiveness of the waste mining method employed on the project will be completed during the next phase of project optimisation. Any reduction in the cost of waste mining will translate into substantial savings in the overall operating cost of the project. The optimisation work planned will include the following:

- Investigate the use of draglines to handle the waste overburden. Drag lines are routinely employed as a high productivity and low cost means of overburden removal on coal mines in various locations around the globe. They are particularly effective when deployed on flat dipping tabular orebodies of up to 50m in depth. The large mining pits planned for Serule West and Gorgon West have mining parameters that are well suited for dragline mining, and it may be possible to employ draglines in these areas to improve waste stripping productivity and reduce operating costs.
- Investigate the viability of using in pit crushing and conveying (IPCC) as an alternative to conventional truck and shovel hauling for the handling of ore and waste.
- Conduct a study to improve the understanding of the geotechnical characteristics of the waste overburden across the project area. This improved understanding will inform the development of a more accurate estimate for the proportion of the waste overburden that will require drilling and blasting. The cost for drilling and blasting has been estimated to be US$0.3/t in this study and if drilling and blasting is not required, an equivalent reduction in mining unit cost can be realised (estimated at ~US$160M over LoM or US$3.75/lb U_3O_8 produced).

PROCESSING

Flowsheet

The Study has used the processing plant flowsheet developed by A-Cap Energy in its 2015 Technical Study as the basis for this assessment and the associated estimates generated. Lotus has already identified improvement opportunities for the process and process plant, but sufficient work has not been completed yet to allow them to be incorporated into this Study.

A brief description of the A-Cap process is as follows; the primary and oxide ores from the Serule West, Gorgon Main, Gorgon West, Gorgon South and Kraken deposits, together with the Lower Mudstone ores from the Mokobaesi area, will be treated in a sulphuric acid heap leach operation at the nominal rate of 7.0 Mtpa.

The uranium will be recovered from the acidic leach solution from a combined solvent extraction and ion exchange (SX/IX) circuit, which will reject impurity elements to generate a concentrated uranium-bearing solution. The solution will then be treated via a sodium diuranate (SDU) precipitation and redissolution circuit for further impurity rejection before a final precipitation step to generate a uranium oxide concentrate (UOC) product for subsequent centrifugation, washing, drying and packaging. See Figure 6.

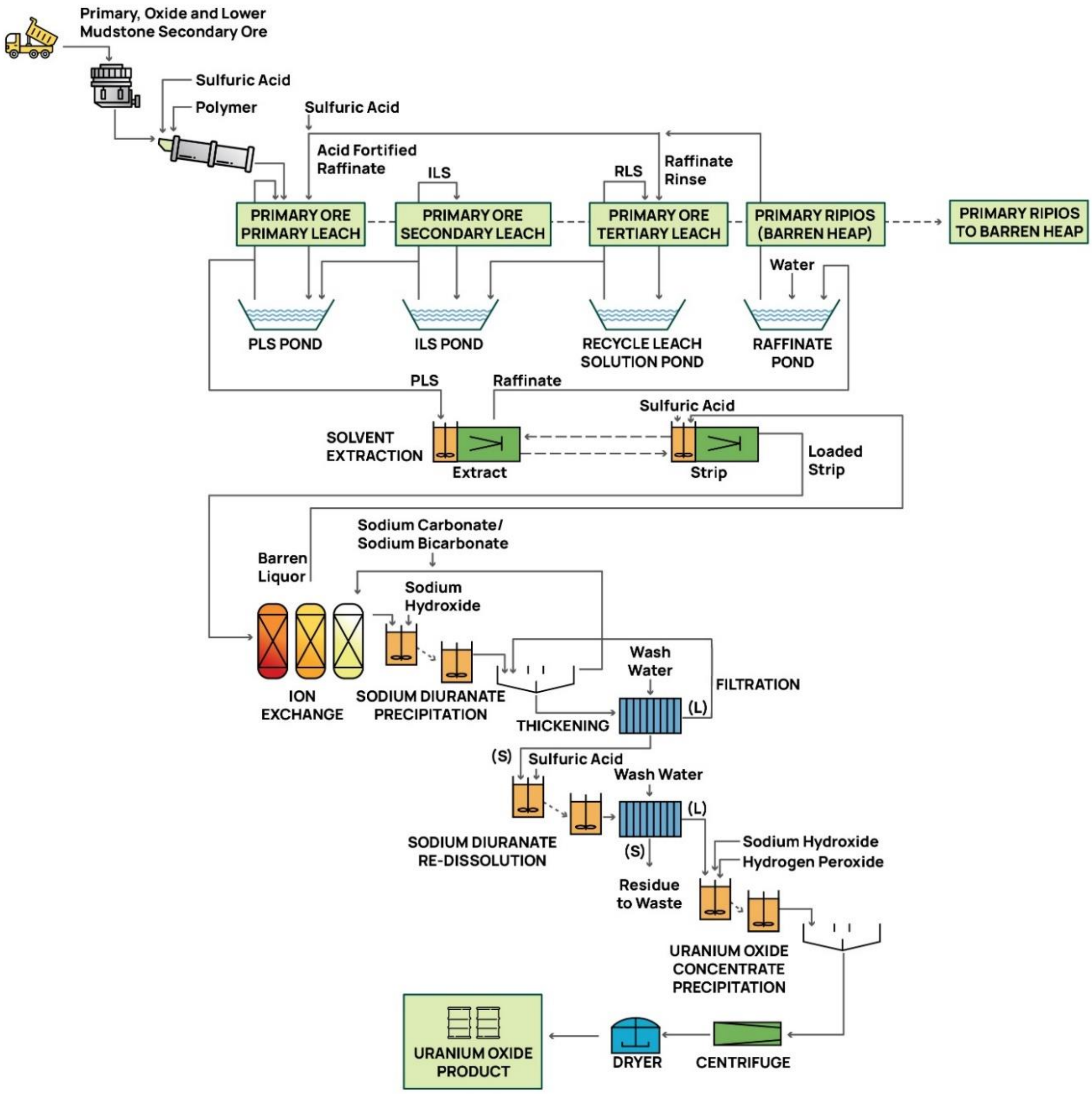

Figure 6: Letlhakane Process Plant Flowsheet

Ore Beneficiation

The inclusion of ore beneficiation techniques in the Letlhakane uranium flowsheet to upgrade the valuable minerals and reduce the mass of ore required for processing, has previously been considered by Lotus. Ore upgrade methods which exploit ore physical properties such as specific gravity (dense media separation, gravity tables, spirals, jigs, etc.), and particle size (screens, cyclones) were considered, as well as sensor-based ore sorting methods (XRT, XRF, laser, colour camera) to exploit other mineral properties. Mineralogical analysis has shown that there are no mineral assemblages directly associated with uranium mineralisation in the Letlhakane uranium bearing material and it is impossible to visually distinguish ore from waste. In addition to the uranium being associated with multiple different rock types, it is also fine-grained, and thus any upgrade potential is probably only likely if the uranium minerals are suitably liberated. A sighter testwork programme conducted in 2024 on various Letlhakane ore samples using a number of different beneficiation techniques failed to show any significant ore upgrade benefits. On this basis it was recommended to exclude any beneficiation techniques from the current flowsheet and focus instead on alternative hydrometallurgical means of enhancing the Project economics.

Metallurgical Recoveries

The uranium extraction estimates applied in the 2015 Technical Study have been updated following a programme of acid soluble uranium (ASU) tests. ASU tests were performed on relatively small samples to determine both uranium extraction and acid consumption. The results of the ASU tests performed on 396 samples from the Gorgon, Kraken, and Serule West ore deposits have subsequently been used to predict the metallurgical response of the ore across the resource. Allocation of samples into discrete U_3O_8 head grade bands, each of 50 ppm U_3O_8 intervals, yielded an approximate linear relationship between uranium extraction and the various head grade intervals, as shown in Figure 7.

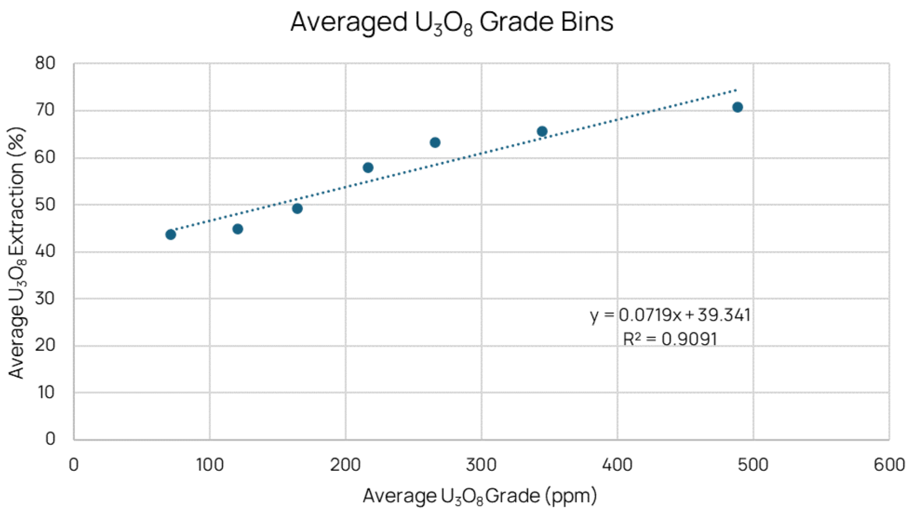

Figure 7: Letlhakane uranium extraction vs mill feed grade

Acid Consumption

The same programme of ASU testwork used to establish the uranium head grade / extraction relationship has been used to predict sulphuric acid consumption. Although the results indicated a strong correlation between acid consumption and calcium head grade, no calcium assay data is currently available across the resource and thus the correlation has not been applied to the resource modelling. Consequently, the sulphuric acid consumption data applied to this Scoping Study is the same as that used for the 2015 Technical Study.

Sulphuric acid consumption for the Letlhakane uranium heap leach project is by far the single largest contributor to the overall operating cost of the plant. Based on an assumed sulphuric acid cost of USD$130/t, and acid consumption rates of 45.1 kg/t, 36.0 kg/t, and 64.5 kg/t for oxide, primary, and secondary ore respectively, it is expected that sulphuric acid consumption alone will account for more than 50% of the total life-of-mine plant operating cost.

There is considerable incentive, therefore, to reduce the impact of sulphuric acid cost and/or consumption to improve the overall project economics. Lotus is currently testing an alternative heap leaching flowsheet that will reduce acid consumption by operating in a lower acidity environment in the first stage of leaching. This flowsheet option still retains flexibility to increase acidity in the latter stages of the leaching process to balance acid consumption with uranium extraction. A secondary benefit of this flowsheet is that lower acidity in the initial leaching stage allows consideration of a simplified pregnant leach solution (PLS) processing facility that could remove solvent extraction and directly process the PLS with ion exchange, thereby removing a stage of processing and reducing capex.

INFRASTRUCTURE

The main components of the Letlhakane operation will include:

- Open Cut Mine Pit
- Run of Mine (ROM) Pad with crusher and agglomerator
- Waste Rock Dumps (WRD)
- Low Grade Ore Stockpiles
- Heap leach pads and associated ponds
- Process Plant and Facilities

Power

It is assumed that reliable grid power will be available from the Serule switching yard, which is located within the mining licence boundary, with back-up generating capacity to be installed for emergency supply only. A new 220 kV power line will run from there parallel to the railway line to a new switchyard and sub-station at the plant site. From here, power will be distributed to the plant at 11 kV, to the mine services, crushing and agglomeration areas at 33 kV and to the wellfield at 66 kV.

Electric power consumption has been calculated based on the installed power from the mechanical equipment list, with drive efficiency factors and equipment utilisation applied as appropriate. Electrical power unit costs, as supplied by the Botswana Power Corporation (BPC), have been used to calculate the process plant and infrastructure power costs.

Acid Plant

The potential to generate sulphuric acid on site from imported sulphur in a sulphur-burning acid plant is a key means of reducing the impact of sulphuric acid on the overall operating cost. The factored estimate from a recent budget proposal for a sulphur-burning acid plant, generating 960 t/day of 98%w/w sulphuric acid, results in an installed capital expenditure cost of ~US$71 million. Based on the sulphur delivered cost to site of US$350/t, and the additional power, labour, and maintenance requirements of an on-site acid plant, a unit sulphuric acid price of ~US$130/t is predicted. The option to install a sulphur-burning acid plant has subsequently been adopted for this Scoping Study. In addition to the acid plant the installation of a nano-filtration (NF) process to recover acid from the elution circuit will also be considered.

Water

The heap leach process has relatively high evaporation losses of water which need to be replenished, and the process will also require water for reagents preparation, general process use, and for potable water supplies to the offices and other buildings.

Any rainfall onto the heap leach pads, ponds and process plant areas will be captured and used in the process. Contact water (e.g. runoff from waste dumps, roads, etc.) will be classified as 'dirty' and used in the process. Diversion bunds and channels will be established to keep clean water away from the mining operations and to ensure that contact water is directed into sediment control structures before being pumped into the process system.

Development of the open pits will result in groundwater inflows to the pits. The volume and quality of this water will vary considerably, from small flows of relatively good quality water in the northeast of the operations to large flows of saline water in the southwest. Wherever possible, this water will be used in the process, otherwise it will be used for dust suppression on haul roads, etc. Any excess water will be treated to a standard that it is either suitable for use in the process or discharge.

If there is still insufficient water from other sources of suitable quality, then make-up water for the operations will be sourced from a wellfield to be established about 30 to 40 km to the west of the operations. Early estimates of the water volume required for make-up and process use were revised so that the wellfield has been sized to deliver about 1.52 Mm^3/a (about 60 L/s). This is the likely demand in the early years of operation before the pits have developed to the extent that appreciable quantities of run-off or groundwater become available.

Laboratory

It has been assumed that the onsite laboratory will be operated and managed by Lotus Resources, and will be used for all plant, mine and exploration samples. Laboratory costs have been calculated based on standard estimates for various assay procedures and allowances for operating consumables, utilities and equipment maintenance costs items.

Access

Access to the mine site is already well established with the main A1 highway connecting Gaborone with Francistown running directly past the mining licence boundary. A new access road to the plant site will be constructed from the A1 Highway, with an intersection on the highway designed to cater for the expected traffic loads. The road will also service the construction camps area and extend to the mining services area. Additional site roads and tracks will provide access to the wellfield, waste dump ponds and dewatering facilities.

The rail siding off the main Gaborone to Bulawayo railway line that runs adjacent to the mine boundary and parallel to the highway will be used for delivery of bulk materials such as sulphur for the future acid plant if trucking is not practical. Other consumables / reagents can also be delivered by rail if feasible.

Accommodation

Construction contractors, including the mining contractor engaged in pre-stripping operations to develop the open pits, will be required to provide their own accommodation for their workforce. A separate camp will be established for the EPCM engineer's and Owner's teams during construction.

Operations personnel will be drawn from the surrounding towns and villages wherever practical and so most staff will live locally and travel to site each day via contracted bus services. Up to 50 houses will be established in a housing estate in Serule for middle managers and their families, while senior management will reside in Francistown.

CAPITAL COST ESTIMATES

The capital cost estimate (CCE) for the revised 7.0 Mtpa heap leach operation has been derived from the 2015 Technical Study CCE. Standard estimating factors and procedures, together with annual inflation percentages, benchmarked to actual construction and installation cost data, have been applied to the 2015 CCE to generate an updated estimate which reflects the reduced tonnage throughput and production. The revised CCE is deemed to have an accuracy level of ±30%.

Table 5: Capital Cost Estimates

Item	Capital Cost Estimates (US$M)
Construction Indirects	30.7
Treatment Plant Costs	181.6
Reagents & Plant Services	30.8
Acid Plant	71.5
Infrastructure	34.9
Mining	13.3
EPCM Costs	32.2
Owners Team Costs	3.6
Mobile Equipment	6.0
Contingency	60.7
Total	**465.4**

The Pre-production Cost summary is presented below in Table 6.

Table 6: Pre-production Cost Estimates

Item	Pre-production Cost Estimates (US$M)
Pre-production Labour	5.4
Opening Stocks	2.0
First Fills	6.6
Training	0.2
Commissioning Spares	6.3
Resettlement Costs	1.1
Contingency	2.2
Total	**23.5**

A CCE for the incremental cost to increase the plant size to 9Mtpa in the second decade of the LoM was also developed for Scenario #3. This estimate was factored from the base case scenario and indicated incremental capex of US$57.9M.

OPERATING COST ESTIMATES

Operating costs were based on the Scenario # 1 base case and were escalated and/or requoted from values estimated in the 2015 Technical Study and are considered to be a Class 5 estimate with an accuracy of ±30%. The operating costs are presented in United States dollars (USD) based on prices obtained during the third quarter of 2024 (3Q2024). No contingency has been included in the estimate.

Each estimate has been prepared by major category (i.e. power, labour, consumables, product transportation, maintenance materials, laboratory, and general and administration costs), and has been compiled using data from a variety of sources including:

- Metallurgical testwork
- Mass balance information (adjusted for the revised ore throughput and grade)
- Metallurgical consultants and typical industry values
- Supplier quotations
- Assumed rates of exchange, unit energy costs, delivered reagent costs
- First principal estimates.

Exchange rates used to develop the costs are as follows:

- Australian Dollar 1.00 AUD = USD 0.650
- Botswana Pula 1.00 BWP = USD 0.075
- Euro 1.00 EUR = USD 1.100
- South African Rand 1.00 ZAR = USD 0.055
- Namibian Dollar 1.00 NAD = USD 0.055

All supplier pricing used to support this estimate has been quoted in either one of these listed currencies.

The operating cash costs have been defined as direct costs at mine site inclusive of all mining, processing and general & administration costs. Cash costs exclude:

- Exchange rate variation and escalation from date of estimate
- Project financing costs and interest charges
- Corporate overheads
- GST / VAT and withholding taxes
- Uranium marketing costs

Using the input data, the basis of the operating cash costs is shown in Table 5 below.

Table 7: Operating Cost Estimates – Scenario #1 Base Case Scenario

Item	Base Case Operating Costs		
	US$M LOM	US$/t ore	US$/lb U_3O_8
Mining			
Ore mining costs	142	1.51	3.36
Waste mining costs[6]	663	7.1	15.67
Stockpile reclaim	4	0.05	0.01
Subtotal	**809**	**8.7**	**19.04**
Processing			
Consumables	630	8.74	14.90
Transport	10	0.14	0.25
Power	90	1.25	2.13
Maintenance	114	1.59	2.71
Laboratory	9	0.12	0.21
Labour	82	1.14	1.94
Subtotal	**935**	**12.98**	**22.14**
General & Admin			
Labour	39	0.54	0.92
G&A	31	0.44	0.74
Subtotal	**70**	**0.98**	**1.66**
Grand Total	**1,815**	**22.62**	**42.84**

For the processing costs the break down is shown in Figure 8.

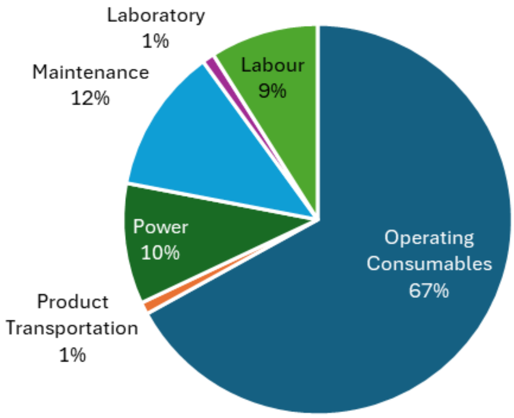

Figure 8: Letlhakane processing cost breakdown

The operating cash costs for the three scenarios over LOM based on the cost modelling are shown below in Table 8.

[6] This only includes the operating cost component of the waste mining. Some waste mining costs have been capitalised

Table 8: LOM Average Operating Cost Estimates

Item	Scenario 1 – Base Case	Scenario 2 – Early Wins	Scenario 3 – Bulk Up
	Ave LoM US$/lb U_3O_8	Ave LoM US$/lb U_3O_8	Ave LoM US$/lb U_3O_8
Mining	18.86	15.57	26.33
Processing	21.50	23.68	23.75
G&A	1.66	2.15	1.08
Total Site Operating Cost	**42.0**	**41.4**	**51.2**

Key parameters impacting the overall operating cost include the unit mining cost and acid consumption, as shown in Table 9. The Company is working to optimise these to reduce unit cash costs. A further potential cost reduction option is to operate Gorgon as an ISR, and this will be investigated as part of the planned optimisation work program.

Mining unit costs are driven by the cost of waste mining. The base case assumes that 60% of the waste mining volume will require drilling and blasting. There is, however, a significant possibility that a lower percentage of the waste volumes will require drilling and blasting and, if this can be demonstrated to be the case, a reduction in the unit waste mining cost can be realised.

Sulphuric acid consumption for the heap leach is by far the single largest contributor to the overall operating cost of the plant. Based on the sulphuric acid cost of US$130/t adopted for this current Scoping Study, and the acid consumption rates of 45.1 kg/t, 36.0 kg/t, and 64.5 kg/t for oxide, primary, and secondary ore respectively, it is expected that sulphuric acid consumption alone will account for more than 50% of the total life-of-mine plant operating cost.

There is considerable incentive, therefore, to reduce the impact of sulphuric acid cost and/or consumption to improve the overall project economics.

Column leach testwork results from historical testwork programmes would suggest that the acid consumption values currently adopted for this flowsheet and study are appropriate. However, there may be an opportunity to reduce the heap leach acid consumption following the outcomes of an additional testwork programme and/or the ability to successfully exclude ore containing elevated concentrations of carbonaceous material reporting to the heap leach pads. This is a follow up study that the Company is now undertaking.

Table 9: Opex sensitivity to acid consumption and mining unit cost (estimated) – Approx. Base Case shaded

Acid Consumption kg/t	Mining Drill and Blast Requirements		
	0% D&B US$1.25/t material	60% D&B US$1.51/t material	100% D&B US$1.61/t material
25	35.6	37.3	38.4
35	38.6	40.3	41.5
41	39.8	41.5	42.6

ENVIRONMENTAL AND PERMITTING

Lotus aims to minimise the impact of operations on the environment through effective environmental management across all aspects of the Project.

An ESIA was conducted by the previous owners to determine how the Project could impact on the biophysical, social, cultural and economic environment. The ESIA comprised a screening phase conducted in early 2009, a scoping phase between March 2009 and September 2011 and the detailed assessment phase culminating in submission of the ESIA report in April 2015. This ESIA work will be reviewed in the context of the updated operating plan and if necessary updated as required by the regulators.

Environmental Management Plans (EMPs) will be updated for the Construction and Operational phases. The Letlhakane Radiation Management System (RMS) will be updated and will form part on the EMP in compliance with international safety management systems.

The key licences and permits currently in place include the following:

- Mining Licence
- Environmental Licence
- Exploration Licence
- Radiation Licence

MARKETING

The current status and outlook of the uranium term market is relevant for the Project's offtake and contracting plans. As a result of the planned start-up of the Kayelekera Uranium Mine, the Company has initiated discussions with utilities in North America, Asia and Europe as to its proposed contracting plans for both Kayelekera and Letlhakane.

Nuclear generating capacity

As of July 2024, according to the International Atomic Energy Association[7], there are 440 operable units with nearly 395 GWe in net generating capacity in 31 countries around the world. The average age of the current fleet of operating reactors is roughly 32 years. Many of these plants are expected to remain online for the next 15–20 years or longer. In addition, there are 62 units with 65 GWe in active construction in 15 different countries, including three countries building their first nuclear power plants. The largest current markets for nuclear power are the U.S., France, China, Russia, South Korea and Japan. Combined, these six countries account for roughly 71% of the total world installed nuclear power capacity.

Uranium term market

Nuclear utilities cover their fuelling needs through long-term contracts, which tend to last between three and ten years or more in duration. On average, no more than ten percent of utility requirements are left open to spot purchasing.

A decline in utility contract coverage rates is observed by the market in North America, Asia and Europe, despite increased term contracting over the last two years. United States and European Union utility contract coverage rates published by the U.S. Energy Administration and Euratom agencies report decreasing rates over the mid-term in their respective markets. Contract coverage rates are reported at 13% and 30% for U.S. and EU utilities in 2031, respectively.

There is, therefore, an expectation that utilities will increase term contracting cycle in coming years, following the lack of term contracting since 2013. This is similar to what occurred prior to the contracting peak cycle between 2005-2012. According to UxC, over 1.5 billion lbs U_3O_8 were procured in term contracting by utilities worldwide in the 2005-2012 period with average annual purchases of 194Mlbs U_3O_8 versus 73Mlbs U_3O_8 in the out-of-peak cycle period from the last two decades.

Uranium term price

The term price tends to reflect transactions between nuclear utilities and primary uranium producers rather than spot price which reflects transactions involving non-producers such as trading companies or financial intermediaries. The indicator shows the uranium market conditions 2-3 years in the future as nuclear utilities pursue multi-year supply agreements well before actual needs. The widely used term price index is the Ux Long-Term U_3O_8 Price, which includes conditions for escalation, a delivery timeframe greater than or equal to 36 months and quantity flexibility (up to ±10%) considerations.

[7] https://pris.iaea.org/PRIS/WorldStatistics/OperationalReactorsByRegion.aspx, Accessed 11 Sep 2024

Since 2020, the Ux Long-Term U_3O_8 Price reported by UxC has increased from ~US$30/lb, to ~US$80/lb.

Demand status and outlook

The 2023 Nuclear Fuel Report by the World Nuclear Association (**WNA**) provides three scenarios for world nuclear generating capacity and reactor uranium requirements up to 2040, referred to as the Reference, Upper and Lower Scenarios.

Nuclear generation capacity is expected to grow by 3.6% annually, reaching 686GWe by 2040 in the WNA Reference Scenario, and is underpinned by three major trends:

- Reactor life extension beyond 60 years,
- New builds
- Small Modular Reactor (SMR) development.

Markets have structurally changed with the reduction of secondary supplies, depletion of inventories and reactions to geopolitical events.

World reactor requirements for uranium in 2022 are estimated at about 169Mlbs U_3O_8. In the Reference Scenario, these are expected to rise to approximately 218Mlbs U_3O_8 in 2030 and 335Mlbs U_3O_8 in 2040. In the Upper Scenario, uranium requirements are expected to increase to 234Mlbs U_3O_8 in 2030 and 455Mlbs U_3O_8 in 2040.

In 2022, only 76% of the reactor requirements were covered by primary uranium supply. Existing mine supply is forecast to cover ~60% by 2030F, and less than 20% by 2040F, in the reference scenario.

Even if all restarts and mines under development come on stream as forecast by WNA, there is a considerable supply / demand gap opening up from 2030 onwards, coinciding with a potential development of Letlhakane.

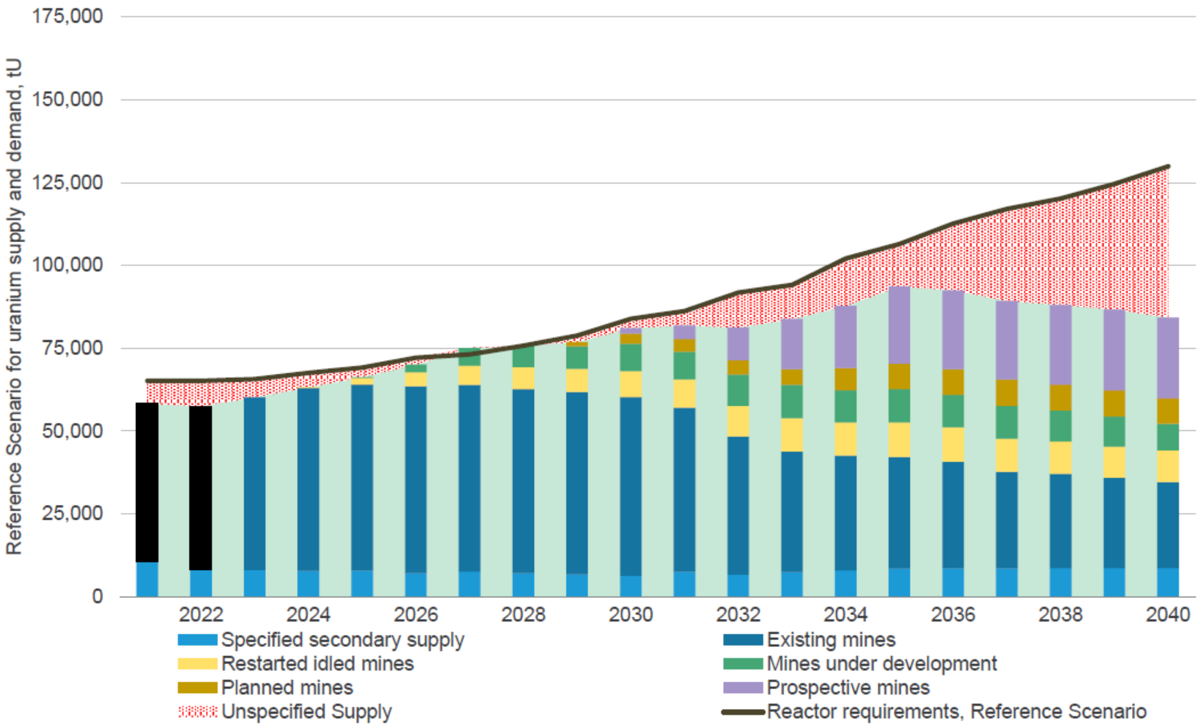

Figure 9: Reference scenario, World Nuclear Association, 2023*

*Conversion factor from tU to Mlb U_3O_8 is 2,600

FUTURE WORK

The Company is now progressing various trade-off studies and other assessment to further optimise the Project. These studies will focus on:

- Consider alternate mining methods that may be more efficient and cost effective for large scale bulk material movement with the aim of reducing the waste mining costs associated with the Project.
- Work to better understand the composition of the waste overburden to improve the accuracy of the estimate for the quantity of drill and blast required for waste mining.
- Metallurgical testwork program to optimise acid addition and acid consumption in the leach. This will also consider crush size and agglomeration to optimise the heap leach parameters including stack height and residence time.
- Downstream processing to optimise uranium recovery from the leach solution and produce a high-quality final product. The aim here is to direct feed an ion-exchange process with the leach liquor and avoid the intermediate step of solvent extraction. With ion-exchange the impurity removal step included in the current flowsheet could also be eliminated.
- A detailed assessment of the ISR applicability to the Project. This will be focused on the Gorgon area of the deposit where the grades are lower, but where the mineralisation is thicker and generally deeper. This will require a significant program incorporating field work and laboratory testwork to validate the potential. If the initial work demonstrates amenability, a field leach trial may be considered.
- A review of the Project infrastructure including confirming the inclusion of an onsite acid plant for producing the necessary acid for the process, which can also be a significant power generator for the project by making use of the waste heat generated in the acid plant. Water usage, source and management will also be key consideration for the Project's development.
- The initial results from the works described above will be incorporated into an updated study planned for completion in 1QCY25. This study should establish a revised base case for the Project that can then be further engineered and derisked in the next phase.
- Post completion of the updated study the Company will initiate a Definitive Feasibility Study to further derisk the Project. Running in parallel with this will be an assessment and potential update to the Environmental and Social Impact Assessment that the Project obtained back in 2025.

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ABOUT LOTUS

Lotus is a leading Africa-focused advanced uranium player with significant scale and resources. Lotus is focused on creating value for its shareholders, its customers and the communities in which it operates, working with local communities to provide meaningful, lasting impact. Lotus is **focused on our future**. Lotus owns an 85% interest in the Kayelekera Uranium Project in Malawi, and 100% of the Letlhakane Uranium Project in Botswana.

The Kayelekera Project hosts a current resource as set out in the table below, and historically produced ~11Mlb of uranium between 2009 and 2014. The Company completed a positive Restart Study[1] which has determined an Ore Reserve of 23Mlbs U_3O_8 and demonstrated that Kayelekera can support a viable operation. The Letlhakane Project hosts a current resource as set out in the table below.

LOTUS MINERAL RESOURCE INVENTORY – APRIL 2024[2,3,4,5]

Project	Category	Mt	Grade (U_3O_8 ppm)	U_3O_8 (M kg)	U_3O_8 (M lbs)
Kayelekera	Measured	0.9	830	0.7	1.6
Kayelekera	Measured – RoM Stockpile[6]	1.6	760	1.2	2.6
Kayelekera	Indicated	29.3	510	15.1	33.2
Kayelekera	Inferred	8.3	410	3.4	7.4
Kayelekera	Total	40.1	510	20.4	44.8
Kayelekera	Inferred – LG Stockpiles[7]	2.24	290	0.7	1.5
Kayelekera	**Total – Kayelekera**	**42.5**	**500**	**21.1**	**46.3**
Livingstonia	Inferred	6.9	320	2.2	4.8
Livingstonia	**Total – Livingstonia**	**6.9**	**320**	**2.2**	**4.8**
Kayelekera Project Total		**49.4**	**472**	**23.3**	**51.1**
Letlhakane	Indicated	46.1	339	15.6	34.4
Letlhakane	Inferred	109.2	348	38.0	83.8
Letlhakane	**Total – Letlhakane**	**155.3**	**345**	**53.6**	**118.2**
Total	**All Uranium Resources**	**204.7**	**377**	**76.8**	**169.3**

LOTUS ORE RESERVE INVENTORY – JULY 2022[8]

Project	Category	Mt	Grade (U_3O_8 ppm)	U_3O_8 (M kg)	U_3O_8 (M lbs)
Kayelekera	Open Pit - Proved	0.6	902	0.5	1.2
Kayelekera	Open Pit - Probable	13.7	637	8.7	19.2
Kayelekera	RoM Stockpile – Proved	1.6	760	1.2	2.6
Kayelekera	**Total**	**15.9**	**660**	**10.4**	**23.0**

[1] See ASX announcement dated 11 August 2022 for information on the Definitive Feasibility Study.
[2] See ASX announcement dated 15 February 2022 for information on the Kayelekera mineral resource estimate.
[3] See ASX announcement dated 9 May 2024 for information on the Letlhakane mineral resource estimate.
[4] See ASX announcement dated 9 June 2022 for information on the Livingstonia mineral resource estimate.
[5] Lotus confirms that it is not aware of any new information that materially affects the information included in the respective resource announcements of 15 February 2022 and 6 June 2022 and that all material assumptions and technical parameters underpinning the Mineral Resource Estimates in those announcements continue to apply and have not materially changed.
[6] RoM stockpile has been mined and is located near mill facility
[7] Low-grade stockpiles have been mined and placed on the medium-grade stockpile and are considered potentially feasible for blending or beneficiation, with initial studies to assess this optionality already completed.
[8] Ore Reserves are reported based on a dry basis. Proved Ore Reserves are inclusive of RoM stockpiles and are based on a 200ppm cut-off grade for arkose and a 390ppm cut-off grade for mudstone. Ore Reserves are based on a 100% ownership basis of which Lotus has an 85% interest. Lotus confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 11 August 2022 and that all material assumptions and technical parameters underpinning the Ore Reserve Estimate in that announcement continue to apply and have not materially changed.

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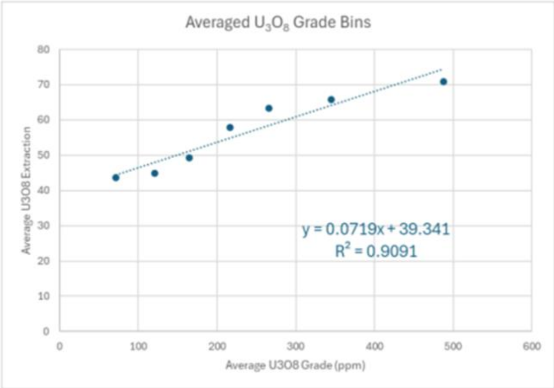
Appendix 1 – Material Assumptions

Area	Comment
Study Status	The Scoping Study has been prepared with accuracy of +/- 30%. There is no certainty that the conclusions of the Study will be realised.
Ore Reserves and Mineral Resources underpinning the study	The Mineral Resource estimate that underpins the Study was released by Lotus on 9th May 2024 ('Letlhakane's Revised Mineral Resource Estimate'). It was prepared by a competent person in accordance with the JORC Code 2012. There is no Ore Reserve at this date. The Scoping Study is based on a combination of Measured, Indicated and Inferred Resources. Approximately 32% of the Life-of-Mine (LOM) production is in the Measured and Indicated Mineral Resource category and 68% is in the Inferred Mineral Resource category. There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the conversion of Inferred Mineral Resources to Indicated or Measured Mineral Resources or that the production targets reported in this announcement will be realised. The Company is currently undertaking an infill drill program at the project to convert the Inferred material to Measured and Indicated status. The program is focused on Serule West and Gorgon where the majority of the Inferred material is located. The program is nearing completion and announced to the market with the results indicating that the continuity of the mineralisation, the grades and ore thickness are consistent with the Inferred model

Mining factors or assumptions	Mining is proposed to be completed by conventional open pit mining practices.
	The parameters associated with the pit optimisations and open-cut mine operation are as follows
	• Contractor mining
	• Dilution has been accounted for through the geological model. No additional mining dilution or recovery were applied in the optimisation
	• The pit optimisation was constrained to Measured, Indicated and Inferred resources only. Material with grade above the cut-off grade not within the classified resource was treated as waste.
	• Pit slopes with overall slope angle of 45.7deg
	    o Bench height 10m
	    o Berm width 8m
	    o Face angle 80deg
	• Reference mining cost of US$1.51/ tonne material
	• No exclusion zones or boundaries were applied to the resource model as all material is contained within the mining lease.

Metallurgical factors or assumptions	Recovery numbers were based on the 2015 Technical Study undertaken by the previous owners and an updated suite of 396 acid soluble uranium tests to generate the following graph:

Area	Comment
	 Metallurgical recoveries for the scenarios varied between 61.5 and 63.3%.
Environmental	The Company has an Environment Certificate and Mining Licence in place for the operation. Draft Environmental Management Plans, including Radiation Management Plans have been generated for the Project
Infrastructure	Proposed infrastructure required for the Project development include: • Extension to access roads within the ML area • Acid plant • Power connection to Serule switchgear / substation • Water supply infrastructure • Onsite laboratory • Accommodation These have all been considered in the CCE in this Study
Capital costs	The capital estimate is considered to have an accuracy of ±30%. A 15% contingency has been applied to account for any potential shortcomings in the data. The capital cost estimates have been derived from the 2015 Technical Study CCE. Standard estimating factors and procedures, together with annual inflation percentages, benchmarked to actual construction and installation cost data, have been applied.
Operating costs	Operating costs include all costs associated with mining, processing and general site administration. These costs were escalated and/or requoted from values estimated in the 2015 Technical Study and are a Class 5 estimate with an accuracy of ±30%. The operating costs are presented in United States dollars (US$) based on prices obtained during the third quarter of 2024 (3Q2024). No contingency has been included in the estimate. Mining costs were estimated at US$1.51/t material, plant US$10/t ore and G&A costs at US$5.9M per annum. The cash cost of US$41/lb U_3O_8 is based on the cost models.
Revenue factors	No revenue assumptions have been made for this Study.
Schedule and Project timing	The next stage of the Project's development commences with a number of Technical Studies that will be used to feed into a Feasibility Study (FS). While the Technical Studies are being completed, further exploration work and drilling will be undertaken, the results of which will be included in future studies.
Marketing	Production from the Project is expected to be contracted through term arrangements with utility and nuclear fuel buyers worldwide. The Company has initiated contact with previous off-takers of the Kayelekera product as well as potential new off-takers and intends to continue on

Area	Comment
	that path to build a supply order book required to support a decision to mine.
Economic parameters	The Study has been completed with a +/-30% accuracy for all cost information. No financial analysis has been reported as part of this study. A cost model has been run as a LOM model.
Exchange rates	Estimates in this announcement are presented in US$. Exchange rates used in this Study are: • Australian Dollar 1.00 AUD = USD 0.650 • Botswana Pula 1.00 BWP = USD 0.075 • Euro 1.00 EUR = USD 1.100 • South African Rand 1.00 ZAR = USD 0.055 • Namibian Dollar 1.00 NAD = USD 0.055
Community and Social Responsibility	Consultation with the local communities, the general public, non-governmental organisations and private interests are ongoing and will continue. No significant environmental or stakeholder issues have been identified at this stage with strong support for the Project received from key stakeholders.
Permitting	Letlhakane has a Mining Licence (granted in 2016) and a Prospecting Licence (granted in April 2023); water abstraction rights and provisional surface rights are also granted.
Other	Other risks to the Project relate to uranium price, social licence, and other risks as are customary for similar projects.
Audit and Reviews	Internally reviewed by Company personnel.

Appendix 2 – 2024 Mining Study

INTRODUCTION

Letlhakane Uranium Project (Letlhakane) a large-scale open pit mine located in Botswana. A-Cap Resources (A-Cap) undertook a Technical Study (TS) on the project in 2015 with the goal of developing a low grade, bulk project, targeting approximately 3.0 Mlbs/a U_3O_8 production from 9.0 Mt/a of process feed.

Lotus Resources (Lotus) have undertaken an updated mineral resource estimate (MRE) based on a high-grade interpretation of the deposit, targeting material above 200 ppm.

This Scoping Study examines the potential of targeting higher grade material to lower the operating cost per pound while maintaining a 3.0 – 4.0 Mlbs/a U_3O_8 production from 7.0 Mt/a of process feed.

Scenario analysis was undertaken based on pit optimisations results from the updated MRE to evaluate potential mining scenarios and develop a solution which produced a consistent level of U_3O_8 production, while minimising operating costs and maintaining a project life greater than 10 years.

METHODOLOGY

The study has followed the following methodology:

- Processing facility is based on the 2015 TS.
- Resource is based upon most recent resource update.
- Mining and processing operating costs, suitable for mine scheduling, were escalated to reflect the current market from values estimated in the TS.
- Updated operating costs were used to run a series of pit optimisations
    - Pit optimisation provided an initial estimate of total tonnes of ore and waste, and ore grade within each pit shell
    - Preliminary estimates of processing facility capacity, feed grade, life-of-mine and operating costs were calculated to differentiate the pits by probable production scenarios.
- The optimal pit shell was selected as the basis for mine scheduling.
- Mine scheduling then completed to estimate the annual mining rate required to provide a stable processing feed tonnage and grade profile to enable stable production.
- Redefine processing feed rate and production profile.
- Processing capital and operating expenditures re-estimated for the re-sized facility at current rates.
- Recommendations of study findings and proposed future studies.

GEOLOGY

The mineral resource for Letlhakane was updated in May 2024 and comprised the following changes:

- A revised high-grade domaining strategy, approximating a 175-200 ppm U_3O_8 cut-off from a previous 100 ppm U_3O_8 cut-off used in 2015.
- Updated lithological model using logged intersections to define carbonaceous horizons, instead of an indictor model and proportional application of density based on a probability threshold.
- Simplified estimation routine using dynamic anisotropy over a flattening algorithm and no recoverable resource post processing was undertaken, which previously used Uniform Conditioning and Localisation.
- Density assigned based on material and lithography type.
- Demonstration of Reasonable Prospects for Eventual Economic Extraction (RPEEE) using an open pit optimisation to constrain the Reportable Resource.

The Mineral Resources for Letlhakane as of May 2024 is shown in Table 10.

Table 10: Mineral Resource Estimate – May 2024

		Indicated			Inferred			Total		
Ore type	Deposit	Mt	U_3O_8 ppm	U_3O_8 Mlb	Mt	U_3O_8 ppm	U_3O_8 Mlb	Mt	U_3O_8 ppm	U_3O_8 Mlb
Secondary	Mokobaesi	2.1	344	1.6				2.1	321	1.6
	Total Secondary	**2.1**	**344**	**1.6**				**2.1**	**321**	**1.6**
Oxide	Gorgon	9.5	326	6.8	9.7	296	6.3	19.2	311	13.2
	Mokobaesi	3.1	323	2.2				3.1	323	2.2
	Kraken	3.1	307	2.1	0.5	237	0.3	3.6	297	2.4
	Serule East				0.8	239	0.4	0.8	239	0.4
	Serule West	0.1	289	0.1	4.7	382	4.0	4.9	379	4.1
	Total Oxide	**15.9**	**322**	**11.2**	**15.7**	**317**	**11.0**	**31.6**	**319**	**22.2**
Primary	Gorgon	20.7	322	14.7	64.4	319	45.2	85.0	319	59.9
	Mokobaesi	0.3	316	0.2				0.3	316	0.2
	Kraken	5.3	384	4.5	0.5	289	0.3	5.8	376	4.8
	Serule West	1.9	539	2.3	28.6	432	27.3	30.5	439	29.5
	Total Primary	**28.2**	**348**	**21.6**	**93.5**	**352**	**72.8**	**121.6**	**352**	**94.4**
Total		**46.1**	**339**	**34.4**	**109.2**	**348**	**83.8**	**155.3**	**345**	**118.2**

Notes:

- *The preceding statement of Mineral Resources was prepared by a competent person and reported in accordance with the JORC Code.*
- *All tonnages are dry metric reported.*
- *Open pit resources are constrained to a US$100/lb pit shell and reported above a 200 ppm U_3O_8 cut-off and comprise classified resources only.*
- *Totals account for all five deposits (Gorgon, Kraken, Mokobaesi, Serule West and East).*

Preliminary economic analysis conducted on the May 2024 MRE indicated viable processable material in a grade range between 100 to 200 ppm U_3O_8. A model was required that comprised the high-grade domaining strategy (as used in the May 2024 MRE) with an incorporation of a modelled and estimated lower-grade halo of mineralisation above a 100 ppm U_3O_8 cut-off. The April 2024 MRE was not suitable for this assessment, which used an unconstrained estimate outside of the mineralised domains. This externally estimated material was also not classified due to low confidence of the grade estimate.

An updated resource model was utilised as the basis of the scoping study which included material between 100 to 200 ppm U_3O_8. Modelling of the low-grade haloes, external to the high-grade domains were completed using Leapfrog Geo. The process is outlined below:

- Drillholes were filtered by deposit area.
- A radial base function (RBF) was built using a 100ppm threshold which approximates the lower cut-off for economic mineralisation and matches the modelling threshold chosen in 2015.
- The 5cm drillhole gamma data was composited to 0.25m increments within the boundary the modelled Karoo Formation.
- An interpolant was then generated using the composited drillhole data resulting in a three-dimensional solid wireframe enclosing mineralisation above the 100ppm threshold. To best represent the geometry of the mineralisation a structural trend was applied that created a geometric reference surface that followed the top of the basement. An identical process was used in the creation of the lithological carbonaceous domain in the May 2024 MRE.
- The output volumes for each deposit area were exported to Datamine Studio RM Pro to facilitate data coding, statistical review and estimation.

MINING

The updated resource model was used as the basis for the Scoping Study, with mining dilution and recovery applied through the process of regularisation. The mining model was regularised to 25.0 mX x 25.0 mY x 0.25 mZ from the resource models sub-celled dimensions of 5.0 mX x 5.0 mY x 0.25 mZ to reflect the proposed SMU.

At a cut-off grade of 100 ppm U_3O_8, regularisation resulted in a decrease in tonnes of 5.0% and in grade of 4.0%. Figure 10 shows the resource and regularised model comparison.

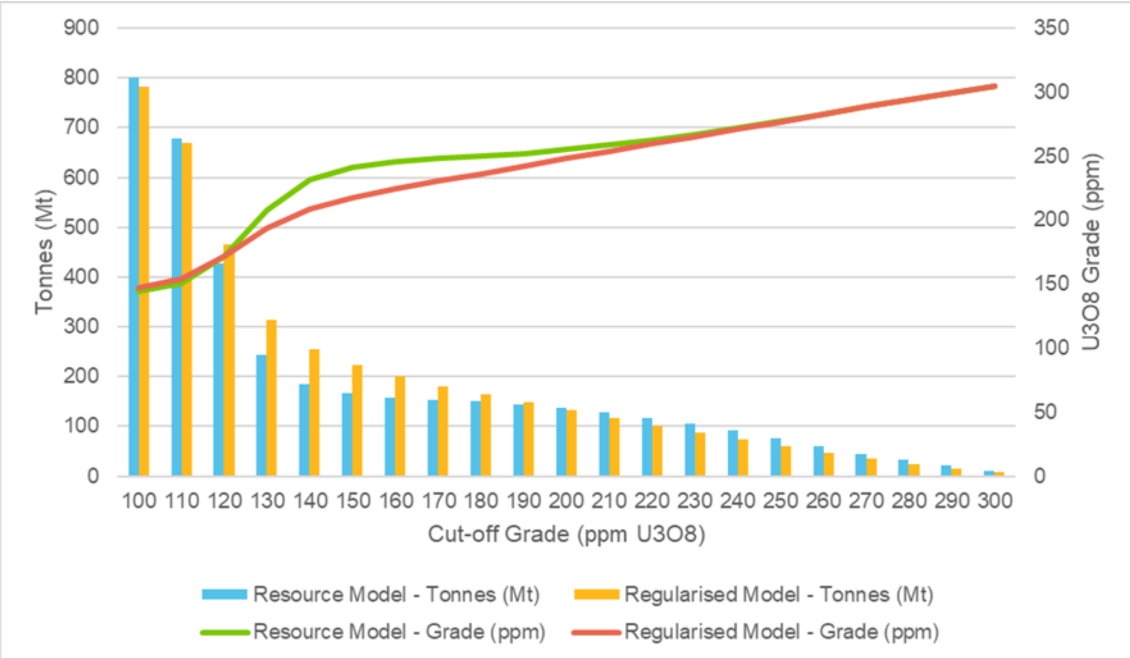


Figure 10: Resource and regularised model tonnes and grade comparison

The Letlhakane project is broadly split into five mining areas:

- Gorgon
- Kraken
- Mokobaesi
- Serule W
- Serule E.

Serule W currently has the highest level of drilling information available and is targeted as the initial mining area in the base case.

Equipment

Mining will be undertaken through a combination of conventional truck and shovel load and haul operations for waste removal and continuous miners for ore extraction. Ore will be stockpiled in high, medium and low-grade stockpiles with high grade preferentially fed to the process plant. Direct tip into the process plant will be undertaken when possible.

Conventional truck and shovel loading, with blasting as required, will be utilised to expose the orebody for selective mining. Waste will be backfilled into previously mined areas where possible to minimise external waste dumps and haul distances. Continuous miners will be utilised to selectively mine the orebody, with minimum cuts of approximately 25 cm removed. The use of continuous miners developed the selective mining unit (SMU) of 25 mX x 25 mY x 0.25 mZ applied to the resource model.

Ore will be trucked to a central processing facility and stockpiled in high grade (above 300 ppm U_3O_8), medium grade (200 to 300 ppm U_3O_8) and low grade (below 200 ppm U_3O_8) to allow preferential processing of high-grade material.

Equipment selection was estimated based on a bulk mining fleet for waste movements, exposing ore for mining with continuous miners. Mining will be primarily focussed in one region, with a secondary fleet developing an additional mining area.

The primary fleet will utilise 600 t class excavators loading 220 t class rigid haul trucks. The secondary fleet will utilise 140 t class excavators loading 100 t class rigid haul trucks. 100 t rigid haul trucks will also be utilised with continuous miners for ore extraction.

Bulk waste mining will be undertaken with the primary fleet with the secondary fleet utilised to selectively expose ore. Surface miners will be utilised to extract the ore horizon.

Mining areas will be developed sequentially, initially targeting Serule W. Each mining area will be depleted to allow backfilling of completed pits to minimise ex-pit dumping and waste haulage requirements.

Pit Optimisation

Pit optimisation was undertaken on the regularised model through the use of Studio NPVS to determine the optimal pit limits based on revenue, operating costs and pit design criteria.

Optimisation parameters were applied by deposit and material type to reflect variations in processing cost and acid consumption. No exclusion zones or boundaries were applied to the resource model as all material is contained within the mining lease. Geotechnical parameters applied based on values estimated in the A-Cap Technical Study to provide an overall slope angle for pit optimisation.

Table 11: Geotechnical parameters

Parameter	Unit	Value
Bench height	(m)	10
Berm width	(m)	8
Face angle	(deg)	80
Overall slope angle	(deg)	45.7

Table 12: Optimisation cost parameters

Parameter	Unit	Gorgon	Kraken	Mokebaesi	Serule E/W
Mining costs					
Mining cost	(US$/t)	1.51	1.51	1.51	1.51
Contingency	(%)	0.0%	0.0%	0.0%	0.0%
Total mining cost	(US$/t)	1.51	1.51	1.51	1.51
Ore costs					
Processing cost - Oxide	(US$/t ore)	2.99	2.99	2.99	2.99
Processing cost - Primary	(US$/t ore)	2.99	2.99	-	3.24
Processing cost - Mixed mudstone	(US$/t ore)	-	-	2.98	-
Processing cost - Lower mudstone	(US$/t ore)	-	-	2.93	-
Acid consumption - Oxide	(US$/t ore)	6.77	6.77	6.77	6.77
Acid consumption - Primary	(US$/t ore)	5.40	5.40	-	9.67
Acid consumption - Mixed mudstone	(US$/t ore)	-	-	5.74	-
Acid consumption - Lower mudstone	(US$/t ore)	-	-	5.80	-
Ore haulage and loading	(US$/t ore)	0.00	0.00	0.00	0.00
General and administration	(US$/t ore)	0.57	0.57	0.57	0.57
Total ore cost - Oxide	(US$/t ore)	10.33	10.33	10.33	10.33
Total ore cost - Primary	(US$/t ore)	8.96	8.96	0.00	13.48
Total ore cost - Mixed mudstone	(US$/t ore)	0.00	0.00	9.29	0.00
Total ore cost - Lower mudstone	(US$/t ore)	0.00	0.00	9.30	0.00

Figure 11 and Figure 12 show the pit optimisation results.

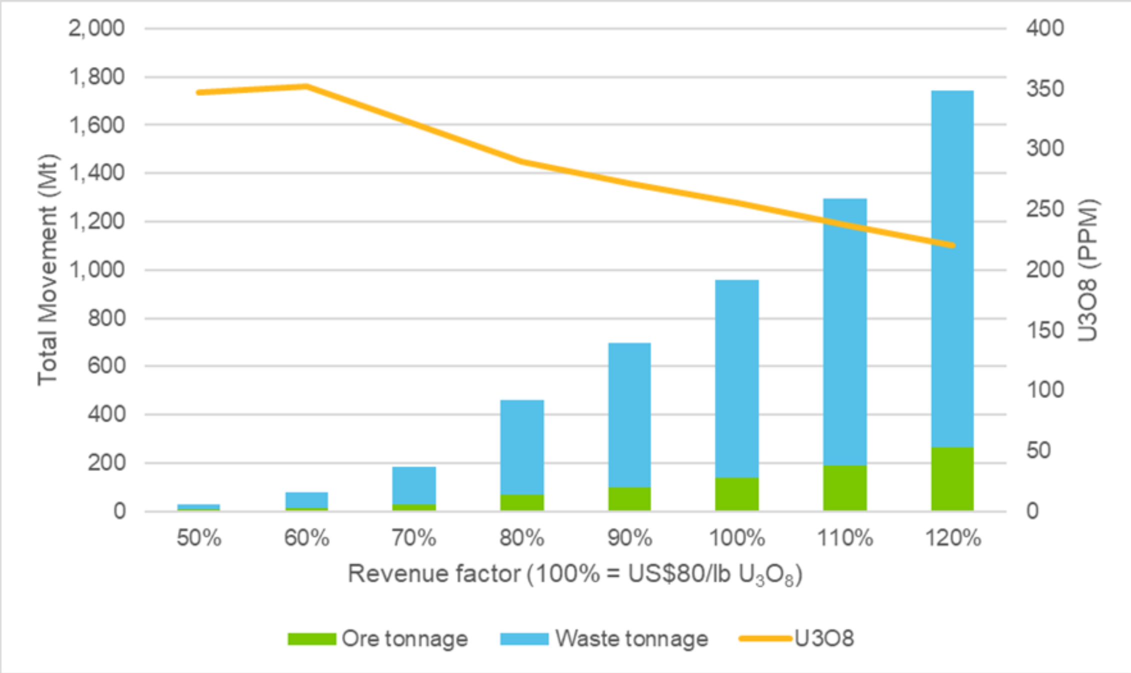


Figure 11: Pit optimisation results

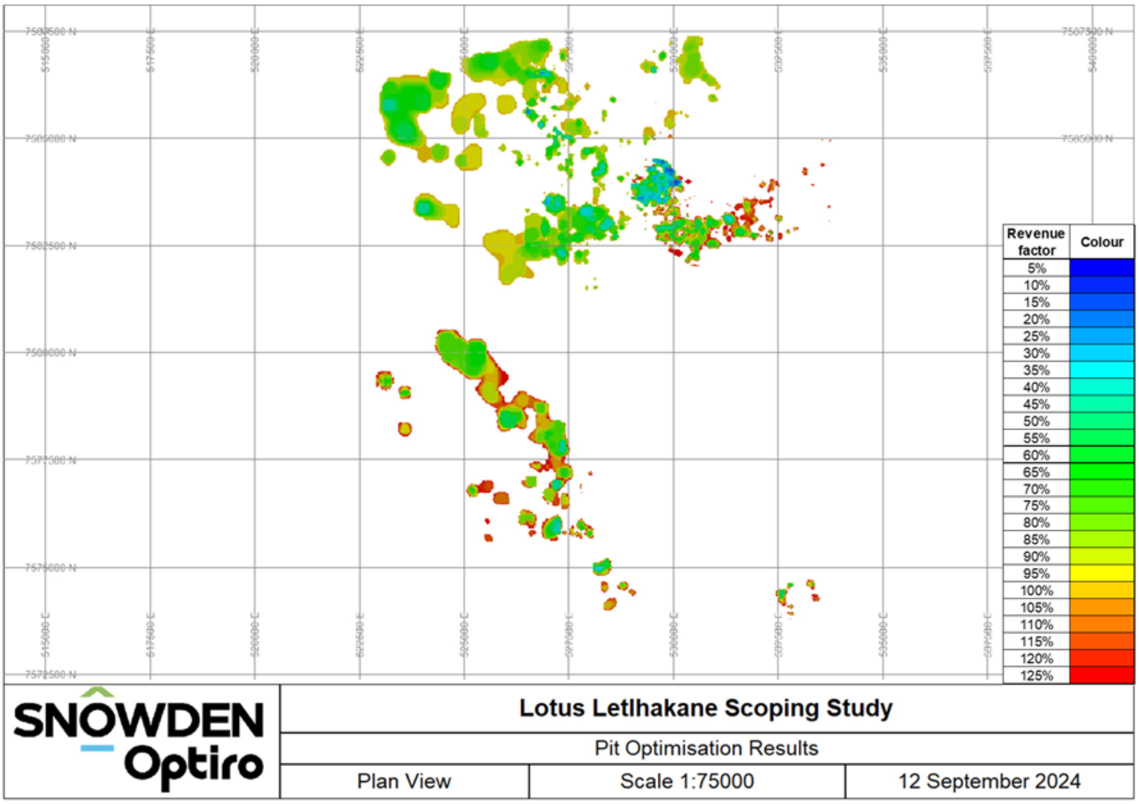


Figure 12: Pit optimisation results

Resource categories were limited to indicated and inferred resources for ore calculations. Initial mining focuses on shallow material at Mokebaesi, primarily indicated resources. Serule W was the primary focus for waste mining to access the ore zone, primarily Inferred resources. Figure 13 shows the location of indicated and Inferred resources at Letlhakane. The percentage of indicated material in the schedules average 32%, with remaining 38% in inferred resources. The pit optimisation was constrained to Indicated and Inferred resources only. Material with grade above the cut-off grade not within the classified resource was treated as waste.

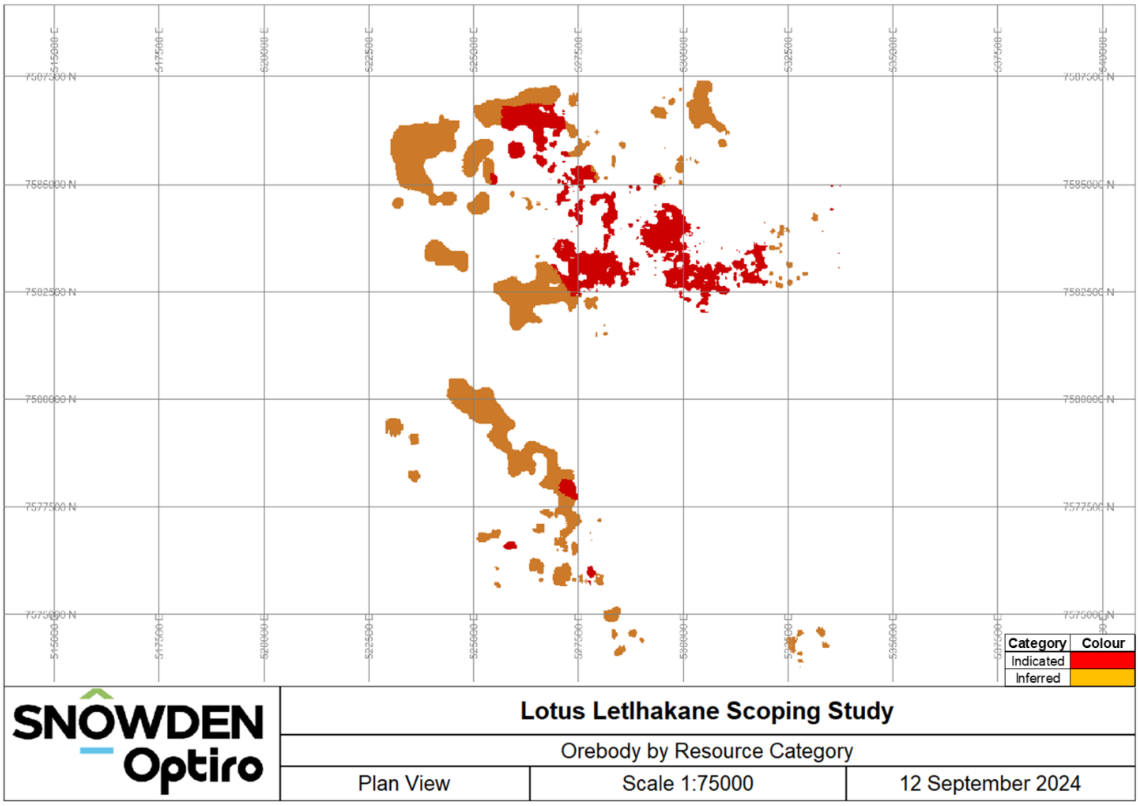


Figure 13: Orebody by resource category

Table 13: Pit optimisation results

Scenario	Resources	Total	Strip ratio	Waste	Ore	U3O8
		(Mt)	(wst:ore)	(Mt)	(Mt)	(ppm)
Gorgon	MII	540.9	5.1	451.5	89.4	224
Kraken	MII	58.8	4.4	47.9	10.9	240
Mokebaesi	MII	18.3	1.3	10.4	8.0	244
Serule E	MII	1.2	2.9	0.9	0.3	218
Serule W	MII	338.3	10.6	309.1	29.2	365
Total	MII	957.6	6.0	819.9	137.8	256

Pit optimisation shells were reported based on grade bins to report high, medium and low-grade tonnages for each deposit. Table 14 summarises the mining inventory estimated based on the following cut-off grade bins:

- High grade:
  - Above 300 ppm U_3O_8
- Medium grade:
  - 200 to 300 ppm U_3O_8
- Low grade:
  - Below 200 ppm U_3O_8

Table 14: Mining Inventory

Resource Category	Material Type	Total		Gorgon		Kraken		Mokebaesi		Serule E		Serule W	
		Ore (Mt)	U3O8 (ppm)	Ore (Mt)	U3O8 (ppm)	Ore (Mt)	U3O8 (ppm)	Ore (Mt)	U3O8 (ppm)	Ore (Mt)	U3O8 (ppm)	Ore (Mt)	U3O8 (ppm)
Measured	High grade	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
	Medium grade	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
	Low grade	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0
Indicated	High grade	12.0	423	6.1	415	2.7	412	2.2	391	0.0	0	1.1	559
	Medium grade	13.1	247	7.3	247	3.0	244	2.2	251	0.0	0	0.6	249
	Low grade	20.4	146	11.5	143	5.0	148	3.6	150	0.0	0	0.3	172
Inferred	High grade	27.8	461	14.4	408	0.0	380	0.0	504	0.0	361	13.3	519
	Medium grade	19.9	249	11.7	250	0.1	247	0.0	0	0.2	236	8.0	247
	Low grade	44.5	140	38.4	136	0.1	144	0.0	136	0.1	152	5.8	165
Total	High grade	39.8	450	20.5	410	2.7	412	2.2	391	0.0	361	14.4	522
	Medium grade	33.0	248	19.0	249	3.1	244	2.2	251	0.2	236	8.6	247
	Low grade	64.9	142	49.9	137	5.1	147	3.6	150	0.1	152	6.2	165
	Ore	137.8	256	89.4	224	10.9	240	8.0	244	0.3	218	29.2	365
	Mineralised waste	57.2	114	22.9	109	2.6	112	2.1	115	0.1	112	29.6	119
	Waste	762.6		428.7		45.4		8.2		0.8		279.6	
	Total	957.6		540.9		58.8		18.3		1.2		338.3	

Schedule optimisations were undertaken using Minemax to develop NPV optimised schedules based on the pit shells generated through the optimisation process. Multiple scenario iterations were undertaken to develop a scenario that maintained a consistent production rate, minimised operating cost and maintained a mine life greater than 10 years.

Schedule variations were produced based on the following key inputs:

- Total material movement
  - 55 Mt/a to 120 Mt/a
- Process feed tonnage
  - 7.0 Mt/a to 9.0 Mt/a
- U_3O_8 product produced
  - 3.0 Mlbs/a to 4.0 Mlbs/a
- High grade bins
  - 175 to 300 ppm U_3O_8
- Medium grade bins
  - 125 to 200 ppm U_3O_8
- Low grade bins
  - Economic cut-off to 150 ppm U_3O_8
- Pit size
  - Revenue factor 0.85 to 1.00
- Mining sequence
  - Serule W before Gorgon
  - Gorgon before Serule W

Twenty-six scenarios were evaluated. No scenario was identified as the clear best case as the scenarios resulted in a ±10% variation in NPV from the average of the results, within the accuracy of the input data.

Scenario naming was primarily based on the grade bins, process throughput and product target. All scenarios excluding Scenario 1E/2E/3E target mining Serule W prior to Gorgon.

Scenario 4 was selected as the base case (Scenario #1 in this report), developed on the following parameters:

- Revenue factor 1.0 pit shell
- 70 to 80 Mt/a total material movements

- 7.0 Mt/a process feed tonnage
- 3.25 Mlbs/a product recovered

Figure 14 to Figure 17 show the key outputs from the schedule produced.

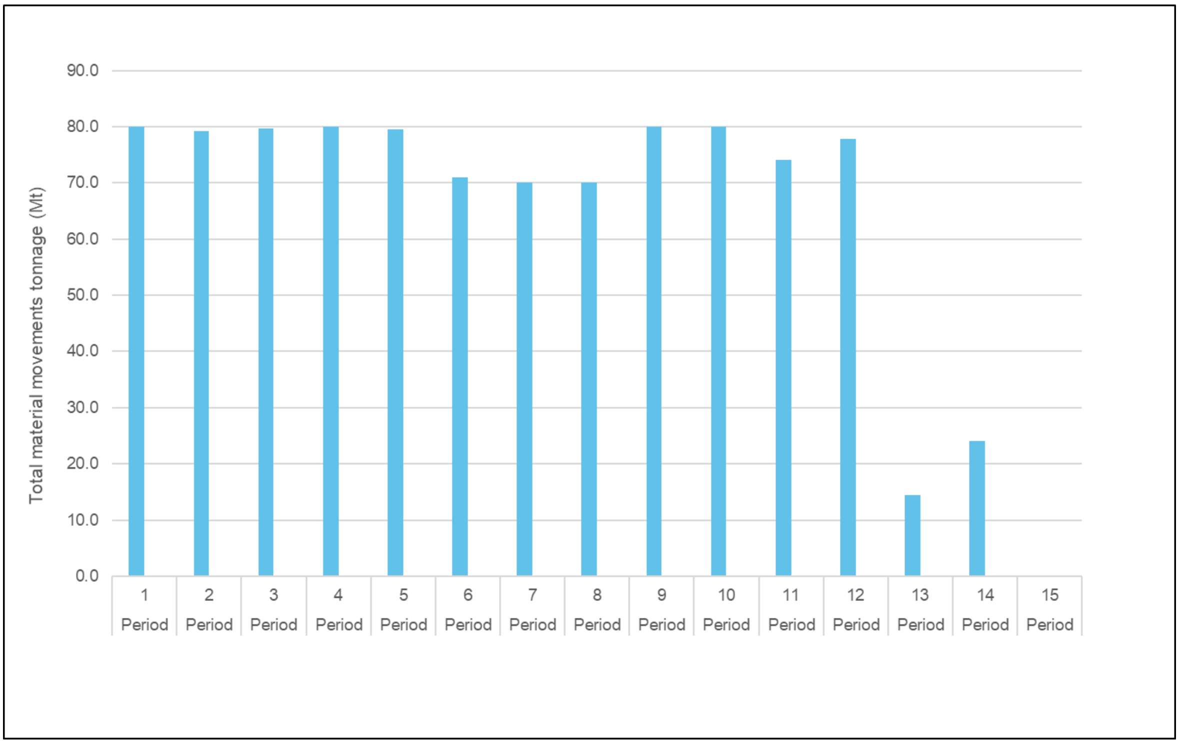


Figure 14: Total material movements (base case)

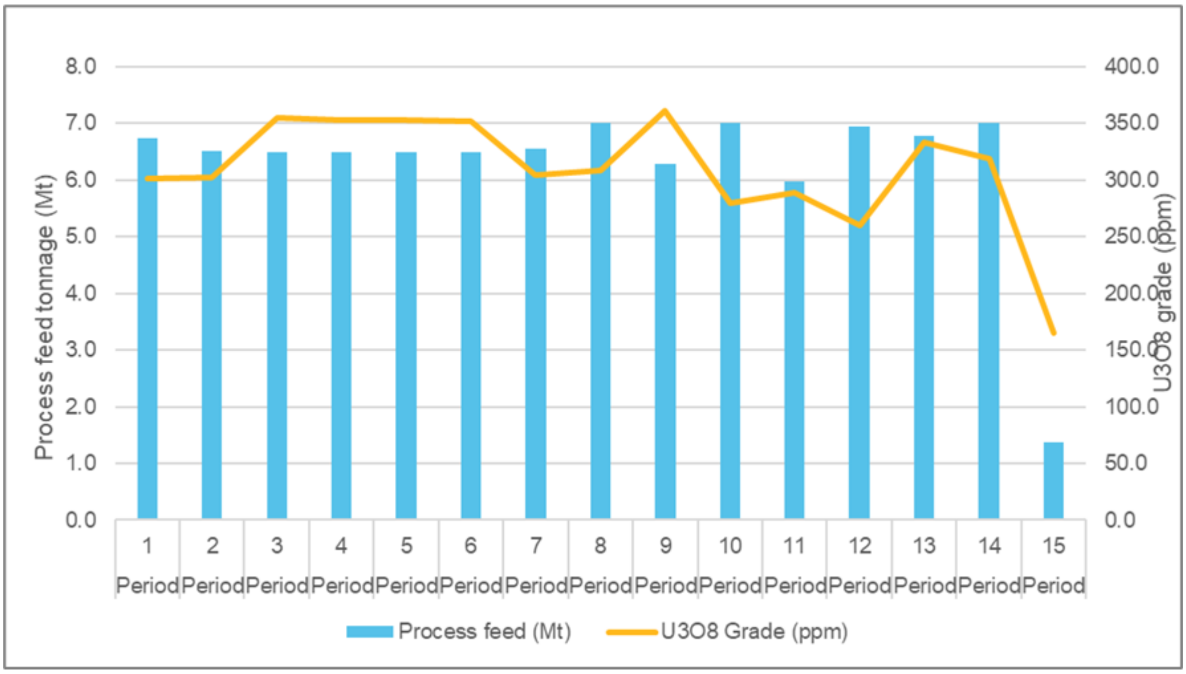


Figure 15: Process throughput (base case)

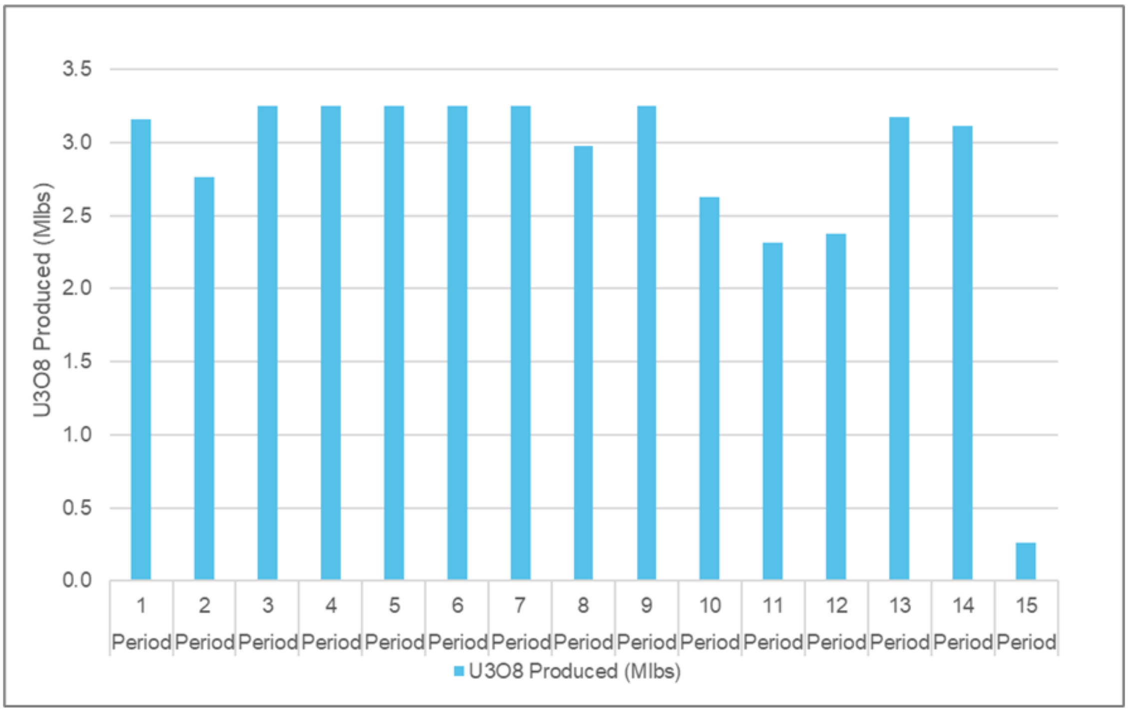


Figure 16: Uranium production (base case)

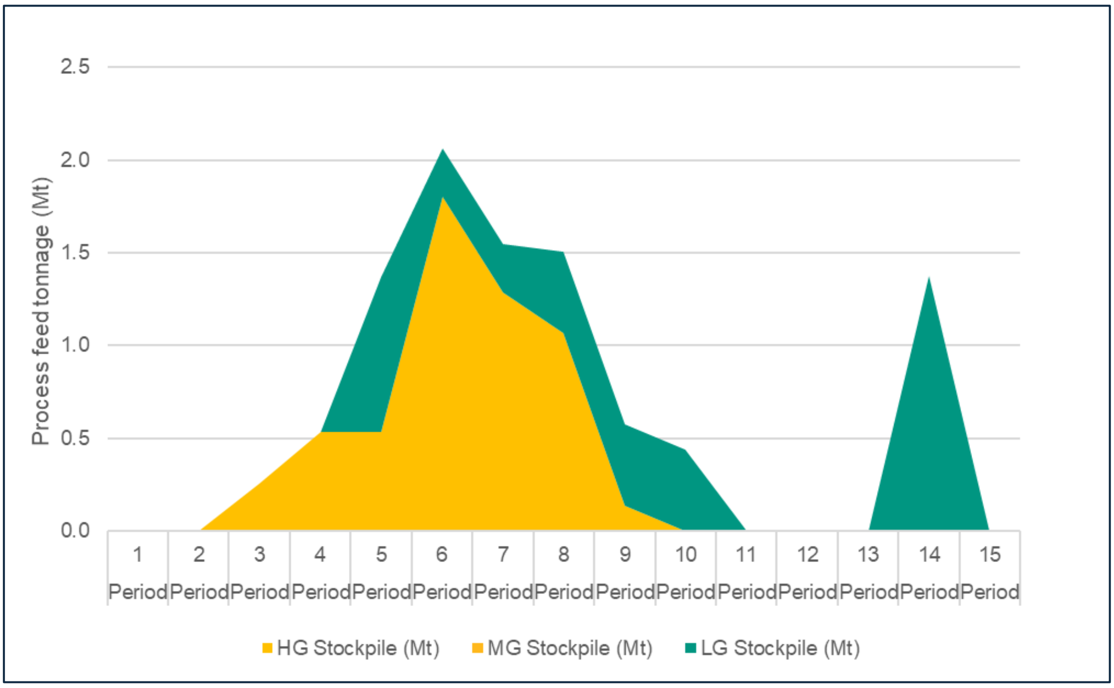


Figure 17: Stockpile balance (base case)

Scenario 7A/7B/8A/8B evaluated the impact of mining a lower revenue factor pit shell to reduce the operating cost per pound. The 85% revenue factor shell was selected to maintain a 10-year life of mine while reducing the total waste movements required.

Scenario 7B maintained a consistent production profile of 3.0 Mlbs/a U_3O_8 for 8 years and maximum stockpile capacity of approximately 7 Mt. The scenario also decreased the mine life by 4 years relative to the revenue factor 1.0 pit shell scenarios. This scenario was selected as Scenario #2 in this report (Early Wins).

Figure 18 to Figure 21 show the key outputs from the schedule produced.

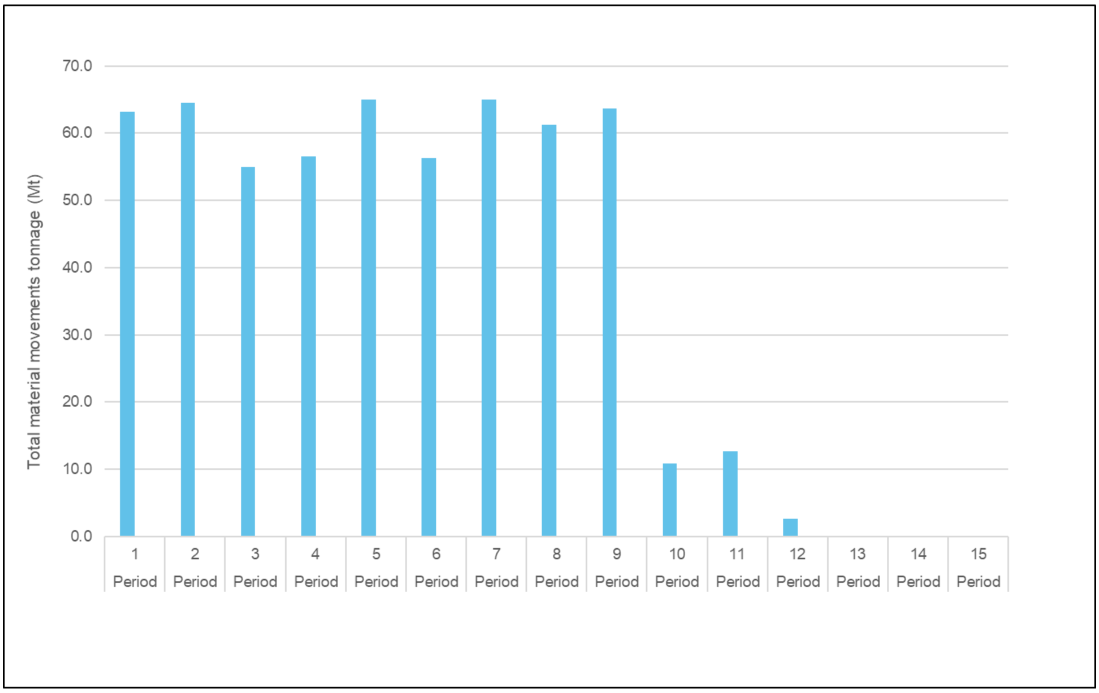


Figure 18: Total material movements (early wins)

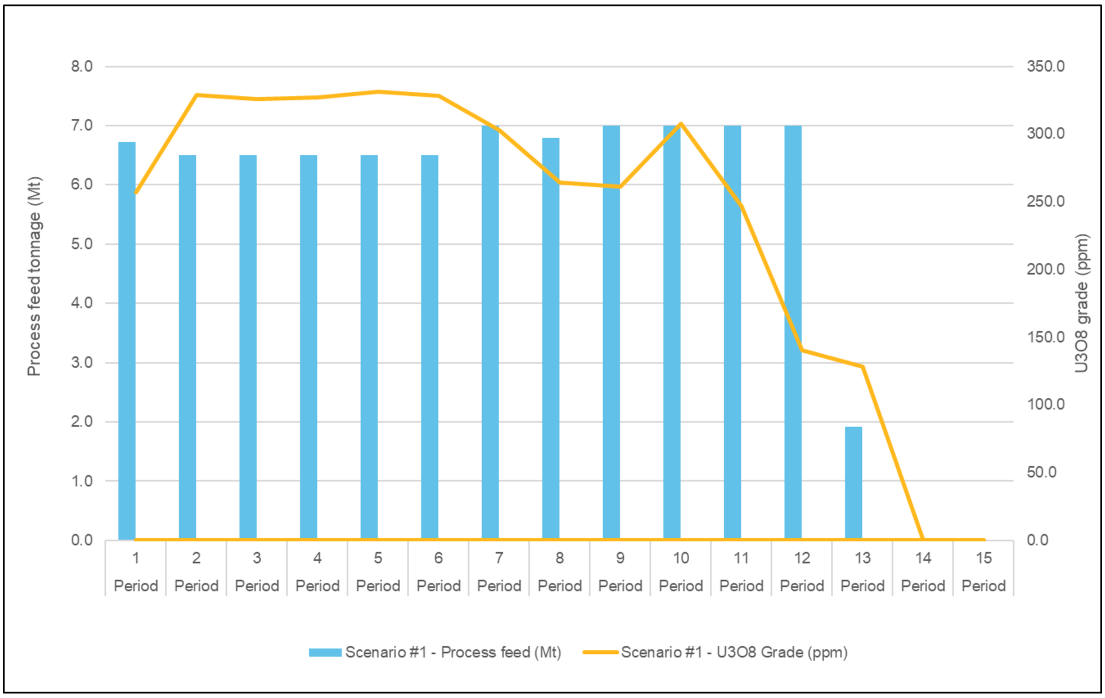


Figure 19: Process throughput (early wins)

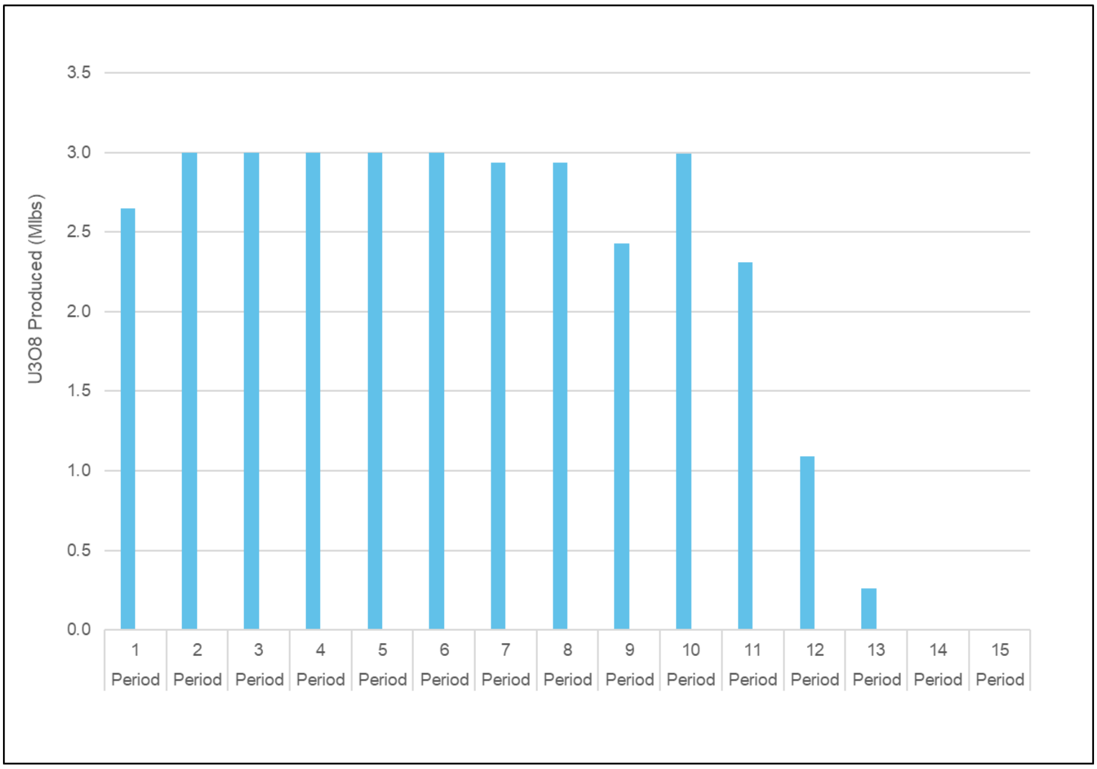


Figure 20: Uranium production (early wins)

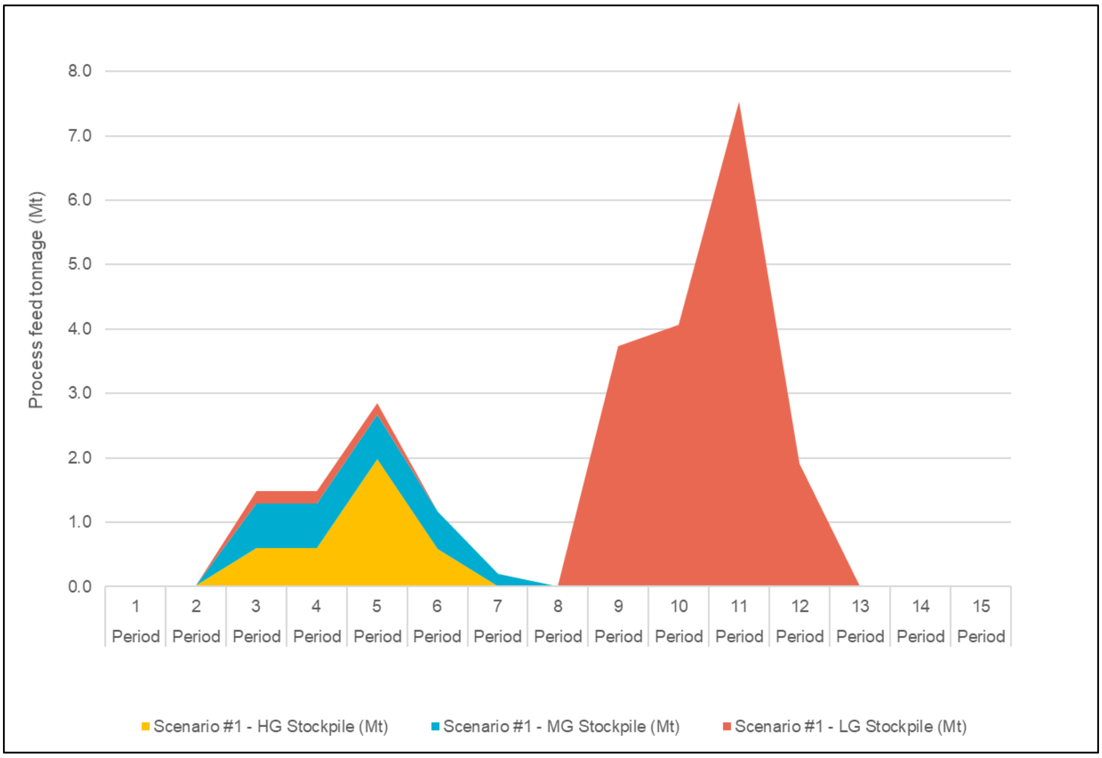


Figure 21: Stockpile balance (early wins)

Scenario 9 evaluated the potential upside of the project, scheduling a larger pit estimated at a US$100/lb U_3O_8 price (revenue factor 1.25). A significantly larger mining inventory is available, with production initially providing 7.0 Mt/a process feed, increasing to 9 Mt/a in year 14. Consistent production of 3.0 Mlbs/a is maintained for 20 years, with lower U_3O_8 production later in the mine life as high-grade reserves are depleted and low-grade stockpiles are included. This scenario was selected as Scenario #3 in this report (Bulking Up), but in the reporting scenario the processing of the low-grade stockpiles at the end of life of mine were excluded. With this additional processing the LOM could be extended by a further 10 to 15 years but the U_3O_8 production during the period would be relatively low at only 1.3Mlbs/a.

Figure 22 to Figure 25 show the key outputs from the schedule produced.

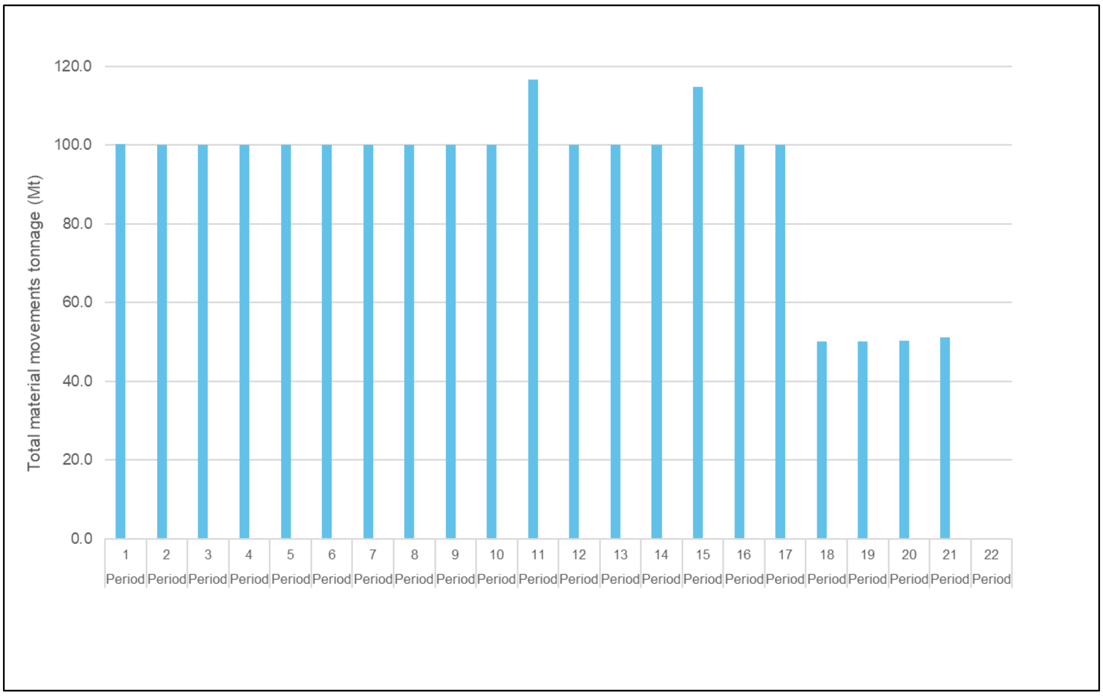


Figure 22: Total material movements (bulking up)

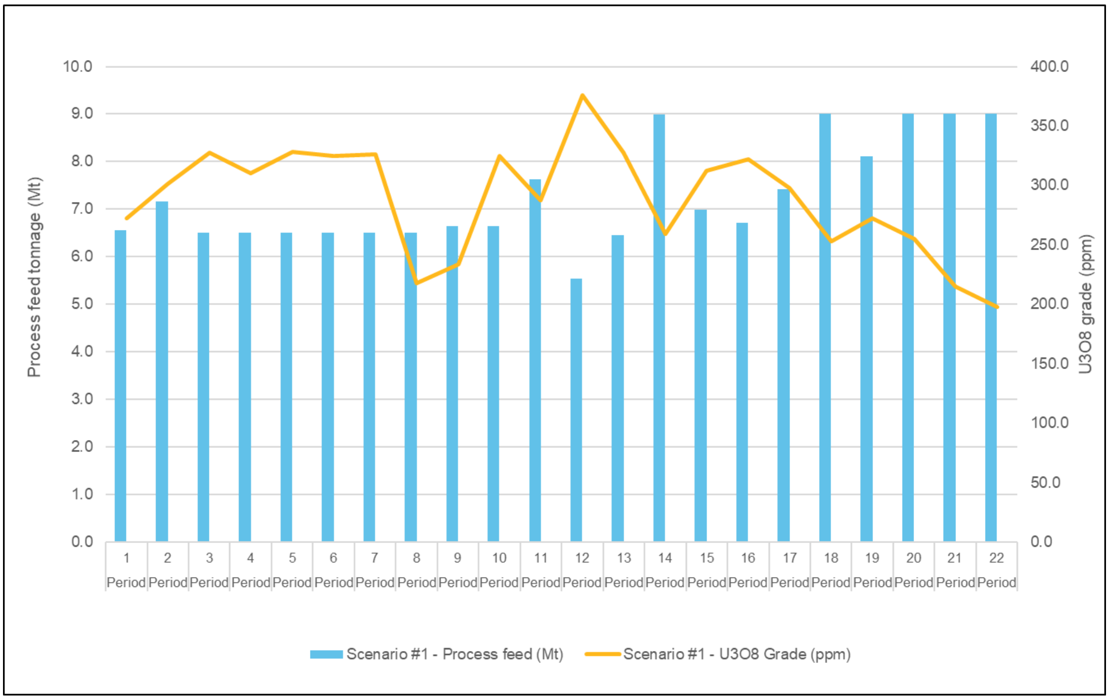


Figure 23: Process throughput (bulking up)

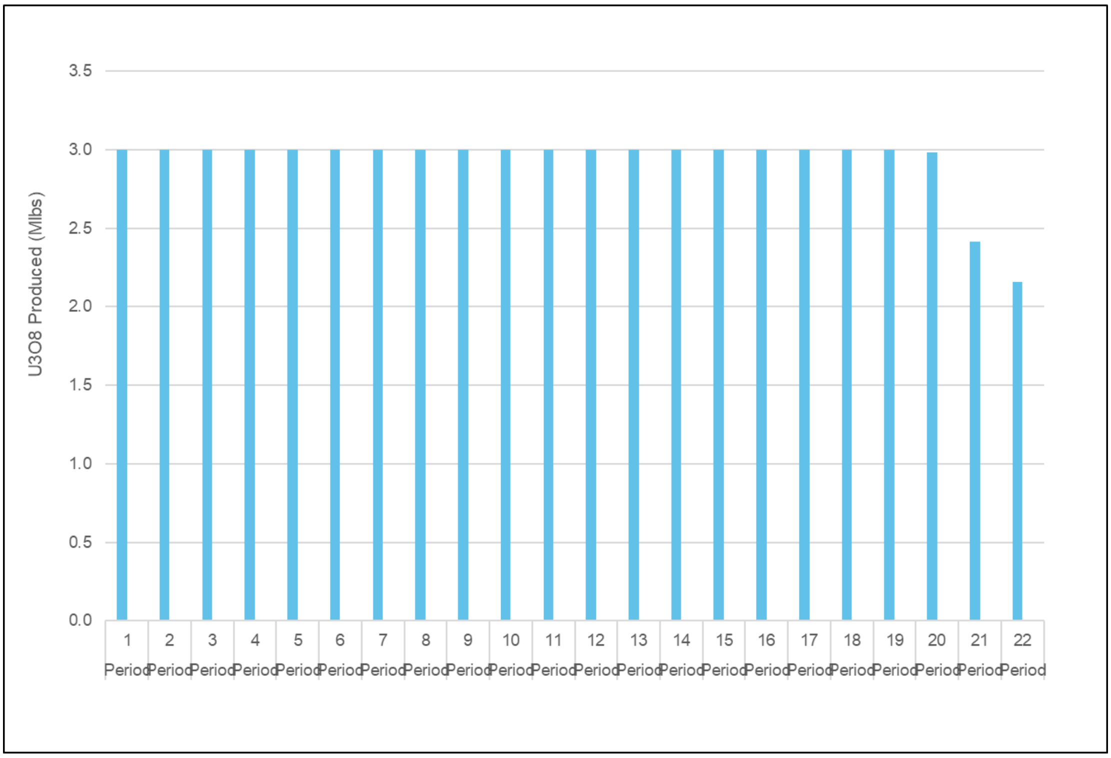


Figure 24: Uranium production (bulking up)

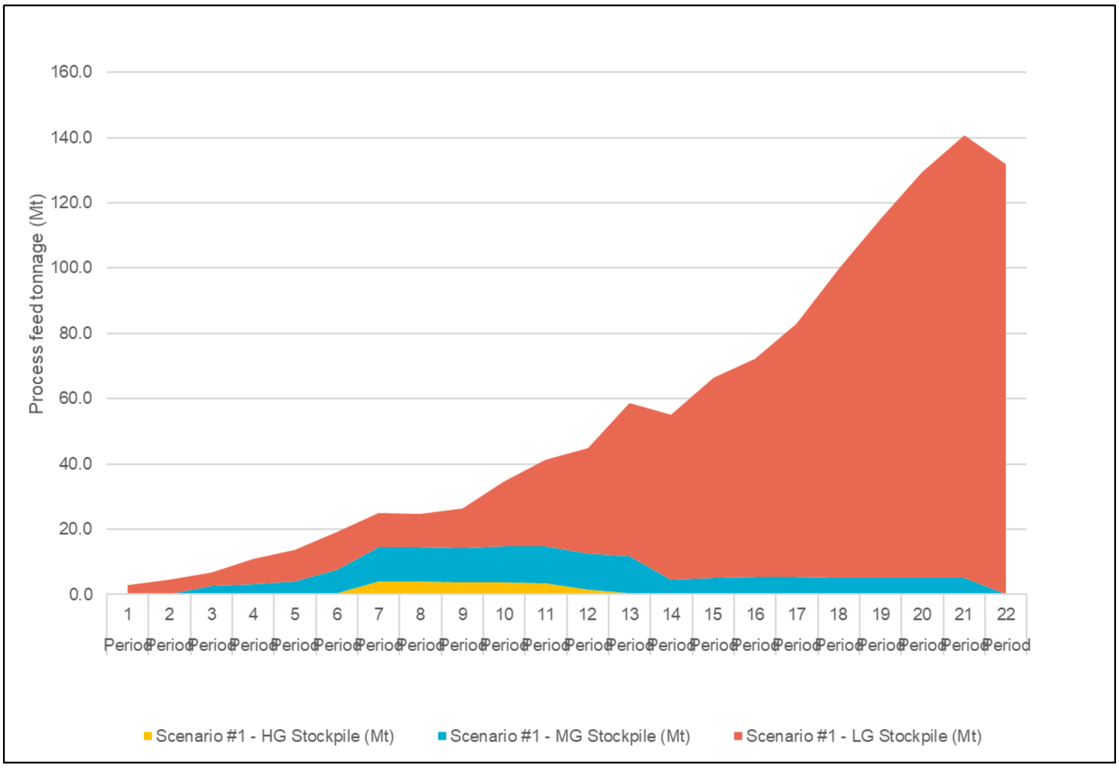


Figure 25: Stockpile balance (bulking up)

MINING FUTURE WORK

Further work is required to increase the accuracy of the inputs into the mine plan and provide additional detail to the mine design. Key future work tasks are detailed below:

- Updated MRE to incorporate material between 100 to 200 ppm U_3O_8.
- Assess possible grade variability impacts to the mine plan and incorporating updated mineral resource classifications. This may best timed following future resource drilling.
- Develop detailed life of mine and pushback designs for the basis of scheduling.
- Update mine schedules based on detailed mine design.
- Update mining operating costing to a higher level of accuracy through contractor quoting.
- Assess suitable capital allocation of the waste mining on a stage-by-stage basis.
- Develop detailed backfill strategy.
- Site layout planning to optimise infrastructure and travel routes.
- Explore material handling options and trade off comparisons to the truck and excavator strategy.
- Detailed blasting assessment and optimisation of fragmentation and mining costing.
- Further analysis of material grade separation (i.e grade bins) in terms of mineability and stockpiling strategy.
- Rehabilitation and closure planning.

Appendix 3 – Peer Comparison

Development projects of similar size in southern Africa, at DFS stage, include the Tumas project owned by Deep Yellow Limited (DYL) (market capitalisation ~A$1,100m) and the Etango Project owned by Bannerman Energy Ltd (BMN) (market capitalisation ~A$400m). Both have significant NPV, as reported in the ASX announcements by DYL[8] and BMN[9], respectively, see Table 1.

Table 15: Mining Inventory

Project / Owner	Letlhakane / Lotus	Tumas / DYL	Etango / BMN
Country	Botswana	Namibia	Namibia
Fraser Institute Ranking[10]	4	33	33
Resource, Mlb U_3O_8	118*	118	225
Resource grade, ppm U_3O_8	345	255	197
Resource cut-off, ppm U_3O_8	200	100	55
Study Outcomes			
Study Stage	Scoping Study	DFS	DFS / FEED
Date	2024	2023	2024
Reserve, Mlb U_3O_8	-	67	60
Reserve grade, ppm	-	345	240
Production rate, Mlb/a U_3O_8	3.0	3.6	3.5
Life-of-mine	15	22	15
Capex, US$M	465**	360	353
Cash Costs US$/lb U_3O_8	42.0***	34.4	35.8
AISC, US$/lb U_3O_8	To be determined	38.8	39.1
Valuation			
NPV (post tax) US$M	To be determined	663	390
IRR %	To be determined	28	21
Price assumption, US$/lb U_3O_8	80	81	80

**Letlhakane resource is stated on a Reasonable Prospects for Eventual Economic Extraction (RPEEE) basis.*
*** Letlhakane Capex includes acid plant US$71.5m, which is subject to review during optimisation study*
**** Optimisation targeting US$36/Mlb*

[8] See DYL ASX announcement 12 December 2023 and 11 September 2024
[9] See BMN ASX announcement 11 June 2024 and BMN Investor Presentation 29 August 20204
[10] https://www.fraserinstitute.org/sites/default/files/2023-annual-survey-of-mining-companies.pdf; Policy Perceptions Index ranking