Lotus Resources Limited
Level 20
140 St Georges Tce
Perth, WA, 6000

lotusresources.com.au
ABN: 38 119 992 175

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ASX Announcement

Letlhakane metallurgical testwork points to an optimised flowsheet opportunity

Lotus Resources Limited (**ASX: LOT, OTCQX: LTSRF**) (**Lotus** or the **Company**) is pleased to provide an update on metallurgical testwork program underway for its Letlhakane Uranium Project in Botswana (**Project**). Lotus developed the testwork program based on the opportunities identified in Lotus' Scoping Study[1] to further optimise the Letlhakane flowsheet.

HIGHLIGHTS

- Uranium recoveries increase up to 70% with increasing head grade (~500ppm U_3O_8).
- Lotus testwork demonstrates starting the leaching process at low acidity does not prevent the process from maximising uranium extraction.
    - Leaching can be carried out in 2 stages, with a higher acid tenor second stage ensuring optimal uranium recovery.
    - Low acid first stage leaching can eliminate the solvent extraction circuit proposed in the 2015 Technical Study[2], which simplifies the circuit and reduces plant capital costs.
- Finer crush / grind provides no significant uranium extraction benefit.
    - A coarse crush (~19mm) fed onto a heap leach pad provides similar uranium extractions to a fine grind tank leach process and is expected to require less acid consumption.
    - A finer crush/grind increases the likelihood of increased acid consumption for a comparable uranium extraction.
- Due to fine-grained uranium mineralogy, beneficiation to increase mill feed grade is unlikely to be successful for Letlhakane ore types.
    - The acid consumption data and uranium recovery information implies traditional beneficiation processes (which require finer particle sizes) would not be advantageous for Letlhakane.
- The Letlhakane project team are now focused on alternative hydrometallurgical solutions to optimise the economics of the project. The ISR preliminary wellfield design program has commenced.

CEO Greg Bittar commented: *"This initial phase of testwork has shown that the opportunities to optimise and reduce both capital and operating costs for the Letlhakane plant have a real basis. These preliminary results are very encouraging and give us confidence as we move into a more detailed second phase of testwork.*

With the excellent results from our infill drill program, which will be used to define an upgraded Mineral Resource Estimate due later this month, we are well on our way to presenting a more robust project development strategy for Letlhakane. I am also pleased to note we are moving ahead with our ISR assessment, which if proven as viable could be a game changer for the project".

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[1] ASX Announcement 19 September 2024 "Letlhakane study shows long life, high value" (**Scoping Study Announcement**). Note, the Company retracted forward looking statements in the form of production targets and forecast financial information included in the Scoping Study Announcement (refer to ASX Announcement 24 October 2024 "Retraction of Letlhakane Scoping Study Production Target Statements").
[2] ASX Announcement by A-Cap Resources Ltd June 2015 "Letlhakane Technical Study"

BACKGROUND

The Letlhakane processing flowsheet developed by previous owner A-Cap Energy was based on a high acidity leach (~100 g/l H2SO4) which resulted in high acid consumption (average of ~40 kg/t of ore). Lotus aims to optimise the process based on the idea that acid consumption can be reduced with minimal impact on uranium extraction by applying a two-stage leaching process where high acidity is only used in the second stage.

Compared to the original flowsheet studied by A-Cap Resources and presented in the 2015 Technical Study, the two-stage leach flowsheet currently proposed by Lotus has potential advantages including:

1. Limit the exposure of ore to high acidity conditions to only the second leaching stage, thereby potentially reducing overall acid consumption.
2. Utilise the neutralising capacity of the Letlhakane ore in the first stage leach to neutralise excess acid from the downstream second leach stage, and therefore create a low acidity initial leaching phase where high acidity is not required to leach minerals such as uraninite.
3. The resultant low-acidity pregnant liquor solution (**PLS**) is potentially suitable for recovery via direct Ion Exchange (**IX**) therefore removing the need for solvent extraction and reducing flowsheet complexity and cost.
4. Lower acidity IX which produces a low acidity raffinate that can be used as the initial rinse of highly acidic liquor from the Intermediate Leach stage, thereby reducing heap washing requirements.

The metallurgical testwork program was developed in a phased approach with the first phase, as reported here, defined to provide an initial assessment on the perceived advantages as described above, as well as investigating the impact of other leaching parameters including particle size.

The testwork was undertaken by Australian Nuclear Science and Technology Organisation (**ANSTO**) at their facilities in Lucas Heights, Sydney, New South Wales, Australia. This first phase of testwork used two samples that have been well characterised in previous programs. The two samples are representative of the Serule West Primary material (**SWP**) and the Gorgon South / Kraken Primary material (**GSK**) respectively. The program itself consisted primarily of a series of bottle roll tests under various conditions to test the proposed leaching parameters.

LEACHING TESTS

Prior to the commencement of the new testwork, Lotus' team undertook a detailed review and assessment of the work undertaken by A-Cap. In some instance a new evaluation technique was applied to the data to generate meaningful data sets. The first sets of testwork assessed were the acid soluble uranium tests (ASU)[3]. The ASU test leaches a pulverised sample in 100 g/L H2SO4, 2 g/L Fe^{3+} solution made from deionised water at 40° C for 8 hours and is assumed to generate the highest probable uranium extraction at the maximum acid consumption.

A total of 396 samples from Gorgon, Kraken and Serule West were tested. Results by grade bucket are shown below.

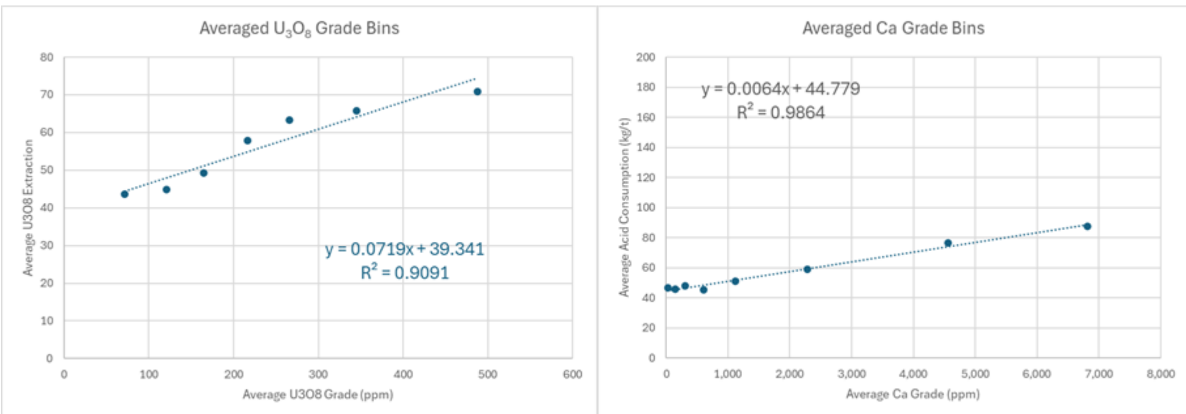

Figure 1: ASU Tests (2017)

[3] It is important to note that ASU tests are useful for identifying a relevant trend, however the more accurate estimate of uranium extraction and acid consumption require larger scale column testwork. Historical comparisons show that the uranium extraction are consistent with the column tests, but acid consumption can trend higher, or lower than the ASU test depending upon the acidity of the system.

In Figure 1, the data has been sorted into head U_3O_8 grade “bins” where each bin spans 50 ppm U_3O_8. Within the bin, the head grade and uranium extraction for all contained data were averaged, and it is averaged data that is presented. Whilst individual ASU tests exhibit variability around the trend, a statistically significant trend exists relating U_3O_8 extraction to head grade with extractions increasing as head grade increases.

As with uranium extraction, a viable trend exists between calcium (**Ca**) head grade and acid consumption, but the accuracy of this model is limited to feed grades below 7,000ppm Ca. Ca grades from 400-6,400ppm are within the range of expected feed grades and the model indicates that Ca is a good guide for expected acid consumption.

Further comparable analysis of the ASU data was completed. As described above the correlation analysis showed that calcium (Ca) was a dominant variable that explained the acid consumption. However, for Serule, sodium (**Na**) was also a significant variable. Brief analysis of the dataset showed that Na grades in Serule were skewed which appear to be related to greater quantities of albite (Jones, Nyangu, Motshaba, & Itumeleng, 2017) in that deposit.

From the ASU datasets and incorporating the predictive model, acid consumption was plotted spatially across all deposits (see Figure 2) which has allowed for the identification of areas that potentially contain high acid consuming ore. These zones appear to be limited to Serule West and further to this these occurrences can be isolated to specific lenses (i.e. lower basalt lens at Serule West).

Notably, the high sodium samples also commonly corresponded with lower U_3O_8 grades and therefore extractions. This information can be used in the pit optimisations and production scheduling with these ore types being given lower priority.

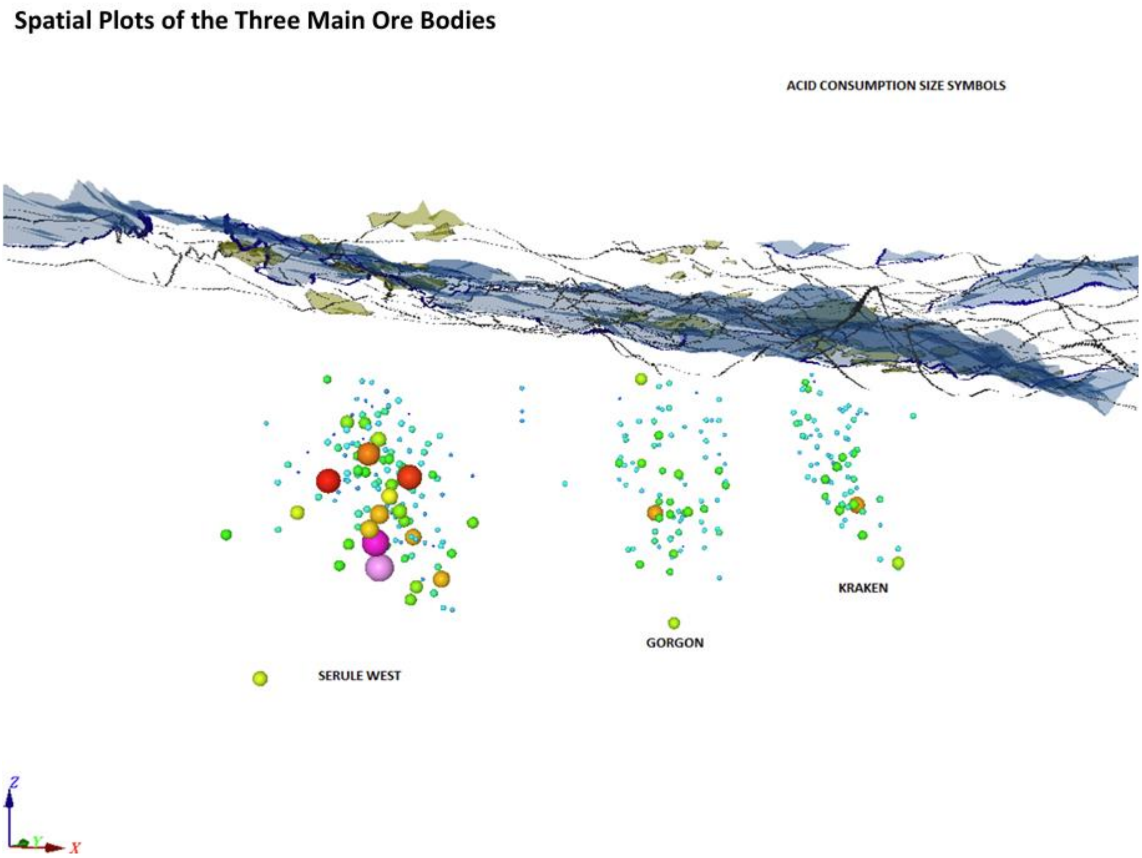

Figure 2: Spatial Plot of Acid Consumers. Three Main Orebodies with Vertical Exaggeration

The other key testwork results reanalysed were the column leach tests from 2015. These were carried out on the same samples as were proposed for the 2024 testwork program i.e. SWP and GSK. Two campaigns were completed as described below.

- Campaign 1 (A, B, C): 2m Column test on -19mm crushed product. PLS acidity targeting 50 g/L H_2SO_4.
- Campaign 2 (D, E, F): 4m Column test on -19mm crushed product. PLS acidity targeting 100 g/L H_2SO_4.

The results of the uranium extraction vs acid consumption for each sample across both campaigns is shown in Figure 3. The key observation is that Campaign 1 (50g/l acid) achieved comparable uranium extractions to Campaign 2 (100g/l acid) but at significantly reduced acid consumptions, notably lower than those assumed in the A-Cap Technical Study and lower than the base case assumed in Lotus' Scoping Study.

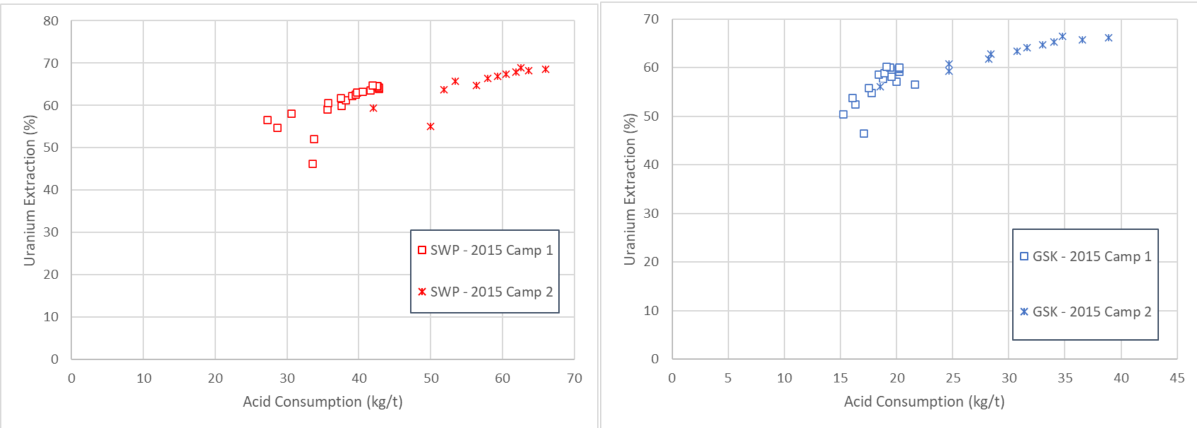

Figure 3: Uranium Extraction (2015)

For the 2024 testwork program, bottle roll tests were conducted on the two samples, SWP and GSK. All tests undertaken started by maintaining a liquor acidity of approximately 7.5 g/L H_2SO_4 for roughly 20 days. The liquor was then removed and replaced with fresh lixiviant at 20 g/L H_2SO_4. In the final stage, after ~10 days, the lixiviant was replaced again with fresh 50 g/L H_2SO_4 lixiviant.

The results of the uranium extraction for samples crushed (or milled) to 19mm, 8mm and 600um are shown in Figure 4.

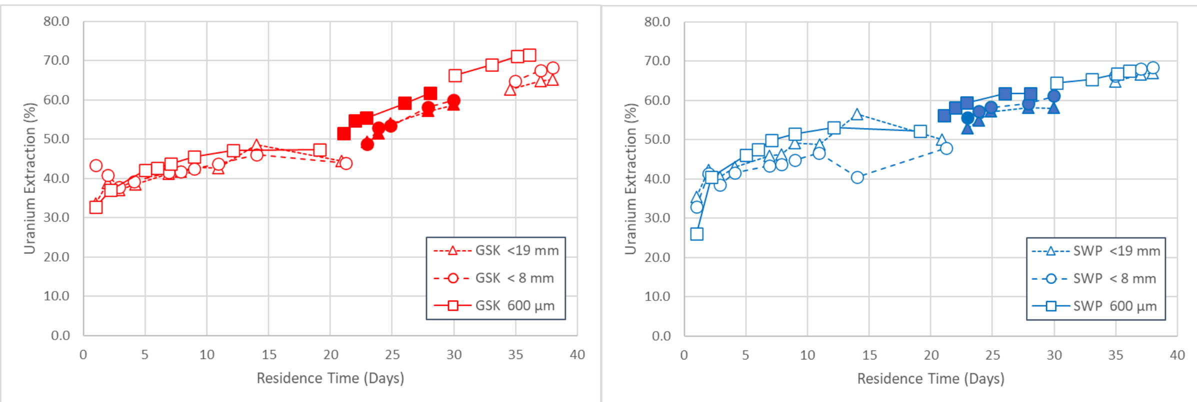

Figure 4: Uranium Extraction (2024)

Whilst there is some variability in extraction, it is likely that this represents the experimental error or sample variability as opposed to being a genuine consequence of crush/grind size as the highest extraction from each sample come from the coarser materials. As such, it can be reasonably concluded that uranium extraction is not significantly impacted by particle size in the range tested.

Significantly, whilst the rate of extraction of uranium did increase with the increase of acidity to 20 g/L H_2SO_4, the rate of extraction did not increase with the second increase in acidity (50 g/L H_2SO_4), with extractions appearing to continue at a comparable rate.

To assess the impact of crush/grind size on acid consumption, only the first stage of testwork at 7.5 g/L H_2SO_4 is presented. Figure 5 presents the acid consumption over time for the SWP and GSK samples respectively. Both show a consistent trend where the rate of acid consumption is greater as the particle size becomes finer.

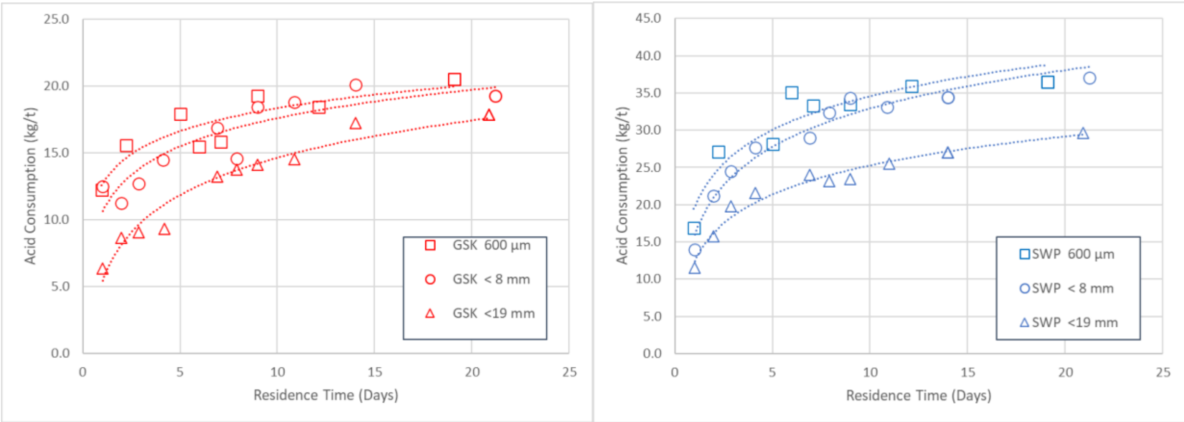

Figure 5: Acid Consumption (2024)

Analysis of this data suggests that a finer crush/grind size:

1. is not likely to result in a significant increase in uranium extraction; and
2. is likely to result in increased acid consumption for a comparable uranium extraction.

This result is a positive for heap leaching, as it suggests that the best operational result can be achieved from a coarse crush, and therefore the lowest capital and operating cost for a crushing circuit.

BENEFICIATION

As beneficiation is a mineral separation process, amenable mineralogy is critical for consistent beneficiation performance. Specifically, valuable mineralisation must predominantly occur in/as a separable mineral from barren (or low mineralisation) rock/particles and an appropriate technology must exist to exploit the physical properties of either the barren, or mineralised particle.

A total of 41 samples of Letlhakane ore were mineralogically characterised at SGS Johannesburg. The study showed that the bulk of these uranium minerals were typically very fine, <50microns (0.05mm) in size and disseminated throughout the host sedimentary rocks.

Further to this, the uranium ore is not confined to any particular rock type and all rock types can contain uranium mineralisation. The brittle nature of the host rocks, particularly the important carbonaceous mudstone component results in significant fines when crushed to even a coarse size fraction. There is also no density contrast associated with uranium mineralisation.

Upgrading therefore can only practically be achieved if the uranium minerals are suitably liberated (fine grind) and a beneficiation technique that selectively targets (or excludes) uranium minerals is applied.

To test this, three composite samples from Serule West Primary (SWP), Gorgon South Primary (GSP) and Kraken Primary (KRP) were subject to the following suite of beneficiation tests at Nagrom's testing facilities in Perth:

- P_{100} 1mm crush and Wet Screening at 45µm.
- Heavy Liquid Separation (HLS) on +45µm fraction of 1mm crush at the following SGs: 2.9, 2.8, 2.7, 2.6, 2.5 and 2.4.
- Wet table on deslimed 1mm crush product.
- XRT (density) Ore Sorting on +10mm fraction of P_{100} 31.5mm crush product.
- Flotation Tests on SWP only. One sighter test each on sample laboratory ground to P_{80} 106µm and 75µm.

This program was scoped as a sighter program to assess whether any beneficiation techniques show potential.

For Serule West, only XRT Ore Sorting measured a deviation against the "No Selectivity" line, but even this upgrade was minimal. For Gorgon and Kraken gravity separation (HLS/Wet Table) were more likely to affect an upgrade than the other techniques tested, but again, the selectivity was not prominent enough to be seriously considered and the associated uranium losses were high. These results are consistent with the supporting mineralogy which suggested that, for a beneficiation upgrade to be realised, it could only be achieved on a finely ground sample that liberated uranium from the host, non-valuable rocks.

As the leaching testwork has suggested that there is no extraction benefit from a finer crush/grind and acid consumption is likely to increase, the minimal grade uplift achieved from the sighter beneficiation does not justify more work on this front. Instead, the project is focused on alternative hydrometallurgical solutions to improve the economics of the project.

INSITU RECOVERY (ISR) UPDATE

As described in the Letlhakane Scoping Study Announcement, a preliminary assessment 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 was engaged towards the end of the Scoping 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).

To further the evaluation of the ISR concept, the team has worked with the ISR specialist to develop the next stage of work required to assess whether to carry out significant field work to further develop the concept. The proposal is to develop a conceptual ISR mining model which includes the following scopes of work:

- Assessment of the geological orientation of uranium lenses to identify likely ISR volumes
- Assumption and estimation of hydrogeological parameters for modelling
- Conceptual wellfield design
- Assumptions on grades and extractions
- Wellfield patterns and production profile
- Initial cost estimates.

This work has commenced, and results are expected to be available in early 2025 for potential inclusion in the updated scoping study.

NEXT STEPS

A proposed flowsheet considered for the two-stage leach and being used as the basis for the next phase of testwork is shown below in Figure 6.

The additional testwork to further define the two-stage leach flowsheet and to refine the uranium extraction and acid consumption expectations is as follows.

- Column Leaching - two pilot columns in series with the intermediate leach solution (**ILS**) from one column used to irrigate the first stage of a second column.
- Ion Exchange testwork - collection of pregnant leach solution (**PLS**) from the second column for use as process liquor for ion exchange resin screening and loading/elution condition definition.

The Company has also recently acquired its own desktop XRF unit which has been set up in the Gaborone offices. This unit will be used to assay historical drill core pulps and RC rock chips that have been collected from the various drill program carried out at Letlhakane. This assay data will be used to build a database from which acid consumption and indicative uranium mineralogy determinations can be made which will allow the next stage of pit optimisations and mine scheduling to not only consider uranium grades, but also acid consumptions and uranium mineralogy (indicative of metallurgical recoveries), producing a more economically derived production plan.

While the ISR mine design and mining model is in progress, the team is looking at a potential field program that would consist of a drill program and associated hydrogeological testing to determine well connectivity, permeability and pump rates. This program will be designed and costed such that it can be implemented on completion of a successful ISR mine plan.

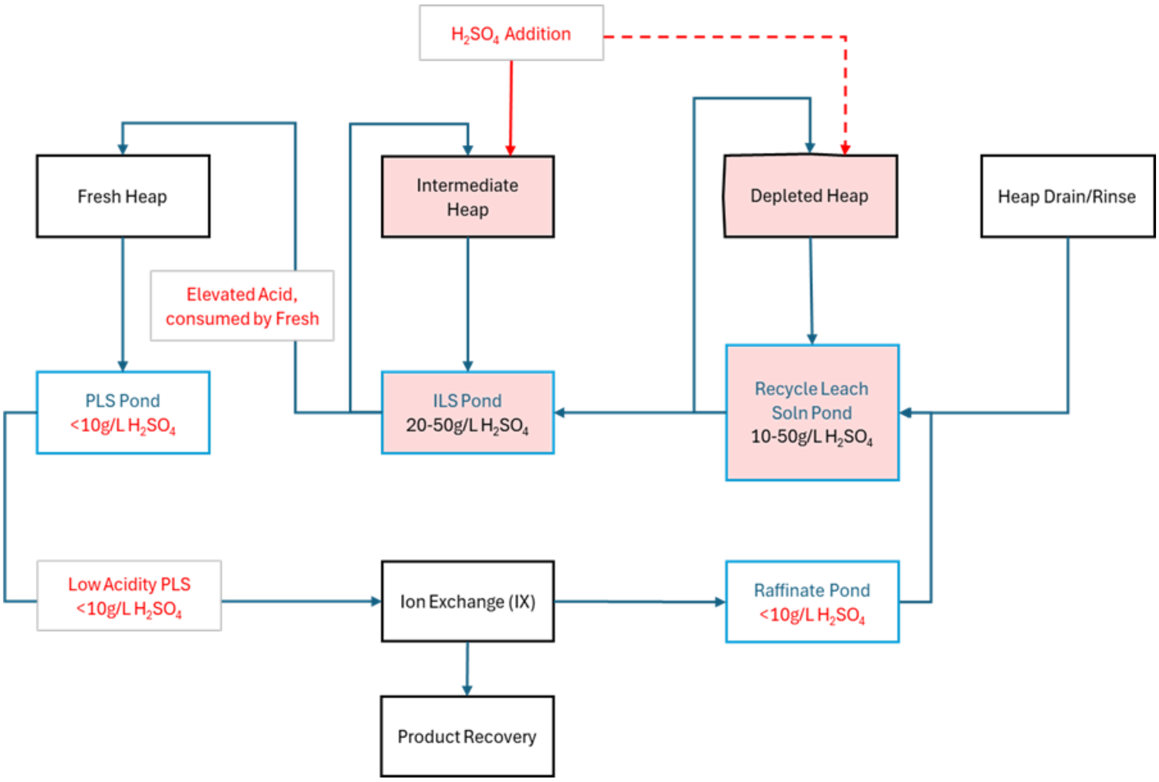

Figure 6: Two-Stage Heap Leach Concept

COMPETENT PERSONS STATEMENT

Information in this report relating to uranium exploration results is based on information compiled by Mr Harry Mustard, a contractor to Lotus Resources Limited and a member of the Australian Institute of Geoscientists (MAIG). Mr Mustard has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person under the 2012 Edition of the Australasian Code for reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Mustard consents to the inclusion of the data in the form and context in which it appears.

This ASX announcement was approved and authorised by the Chief Executive Officer, Greg Bittar.

For more information contact:

GREG BITTAR

CEO
greg.bittar@lotusresources.com.au
T: +61 (08) 9200 3427

GRANT DAVEY

Executive Director
grant.davey@lotusresources.com.au
T: +61 (08) 9200 3427

For more information, visit www.lotusresources.com.au

LOTUS RESOURCES

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 U3O8 and demonstrated that Kayelekera can support a viable operation. The Letlhakane Project hosts a current resource also 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 Mineral 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 and ASX announcement dated 8 October 2024 in relation to the Accelerated Restart Plan.
[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, 9 May 2024 and 9 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. Except for information in the Accelerated Restart Plan announced on the ASX on 8 October 2024, 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.

JORC Code, 2012 Edition – Table 1 report template

SECTION 1 SAMPLING TECHNIQUES AND DATA

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed information.*	• Uranium assays are a mixture of probe and chemical assays. The primary method of grade determination was through gamma logging for equivalent uranium (eU_3O_8) using an Auslog or Geovista natural gamma sonde equipped with a Sodium Iodide crystal. The Auslog sonde used for the data collection was calibrated at the Adelaide Calibration Model pits on a regular basis and calibration factors were obtained using the polynomial method by 3D Exploration (Pty) Ltd. The Geosvista sonde was calibrated at the Pelindaba Nuclear Research Facility in South Africa. Calibrations of the gamma tool and conversion factors were conducted under the guidance of RJ van Rensburg of Geotron Systems Pty Ltd, Republic South Africa. Checks using a gamma source of known activity are performed prior to logging at each hole to determine crystal integrity. Readings were obtained at 1cm or 5cm intervals downhole. • Chemical assays have been used to check for correlation with gamma probe grades; disequilibrium is not considered an issue for the project. Industry standard QAQC measures such as certified reference materials, blanks and repeat assays were used. Chemical assays are, in general, used in preference to probe values where both are available. • Only diamond drill core samples were used for the ANSTO and SGS metallurgical testwork reported in this release. • Leaching tests undertaken by ANSTO described in this release were conducted on drill samples cored between 2007 and 2011. The ore samples were collected from a variety of lithology types and uranium grades. • Metallurgical test work conducted by SGS described in this release was conducted on PQ sized cores drilled in 2023.
Drilling techniques	• *Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	• Diamond drilling was conducted using NQ and PQ diameter core holes. • Drill holes were less than 100m depth and drilled vertical. No orientation of cores was applied.

Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	• Fractures and faults were rarely encountered and host rocks are competent. Hence core recoveries were generally very good (>95%).
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	• Diamond cores were logged geologically with data entered into tablets on site using excel spreadsheets or acQuire database management software. • Geotechnical logs of the diamond cores were prepared as well. • The entire drill holes were logged geologically and using the gamma probe. • The detailed logs recorded are sufficient for this stage of the project and are appropriate for Mineral Resource Estimation, Mine Planning and metallurgical and feasibility studies.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	• Full PQ and HQ sized drill core was used in the ANSTO and SGS testwork. • Samples are appropriate for the style of uranium mineralization. • Duplicate hole logging has been used on occasions to verify gamma data. • Annual calibration was used to ensure the accuracy of the gamma logs for calculating uranium assays.

LOTUS RESOURCES

Criteria	JORC Code explanation	Commentary
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	• Calibration and control hole logging was done on a routine basis for gamma probe grades and a set of re-logging has also been undertaken. • The Auslog and Geovista gamma tools are run up the hole at 2m / minute with readings collected at 1cm or 5cm intervals. • See section on “sampling techniques” above for a description of gamma tool make, reading times and calibration factors, etc. • A QA/QC program, including the use of standards, blanks and field duplicates, has been conducted over the drilling history of the deposit. • Diamond core samples are assayed by XRF to cross check gamma readings and conversions to U_3O_8 equivalent. • Results have shown an acceptable correlation between U3O8 gamma readings and lab assays.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	• Data entry procedures are well established, and data is held in an acQuire database. • Equivalent eU3O8 grades are determined by calculation from the calibration of the probes. Calibration was done at the Pelindaba facility in South Africa or the Adelaide Calibration Model pits in Australia. • The total count gamma logging method used here is a common method used to estimate uranium grade where the radiation contribution from thorium and potassium is small. Historical drill hole XRF analyses when compared with eU3O8 results calculated from down hole gamma data and "closed can" studies have shown that the primary uranium has no significant disequilibrium. Gamma radiation is measured from a volume surrounding the drill hole that has a radius of approximately 35cm. The gamma probe therefore samples a much larger volume than RC or drill core samples recovered from a drill hole of normal diameter and are therefore representative. The results were reported as eU3O8.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	• Collar positions were initially located using a handheld GPS and have been surveyed to cm accuracy by a licensed surveyor after drilling using a differential GPS linked to local base stations.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing, and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	• Within the resource areas, drill spacing is variable ranging from 25m to 400m spacings. • Samples for the metallurgical test work outlined in this release were selected from holes with a broad distribution across the deposit. This was done to ensure any variations in metallurgy, if they exist, would be identified. • No sample compositing has been applied.

Criteria	JORC Code explanation	Commentary
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	• All holes are vertical. The mineralisation is generally flat lying, with 1-3 degree dips to the west most common. • Drill intercepts are perpendicular to the mineralisation and are considered true widths.
Sample security	• *The measures taken to ensure sample security.*	• The bulk of the assay data is produced on-site using a gamma logging probe in a digital form and stored on secure, company computers. • Appropriate measures have been taken to ensure sample security of the chemical samples used for QA/QC purposes. •
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	• Historically, gamma data and data calculations to eU3O8 including deconvolution, were carried out under the guidance of David Wilson from 3D Exploration Pty Ltd. • Since 2023, calibrations of the Geovista gamma tool and conversion factors have been conducted under the guidance of RJ van Rensburg of Geotron Systems Pty Ltd, Republic South Africa.

SECTION 2 REPORTING OF EXPLORATION RESULTS

(Criteria listed in the preceding section also applies to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	• ML 2016/16L was granted to Lotus Marula Botswana in 2016 for a period of 22 years. Prospecting License PL 2482/2023 adjoins the east and north boundary of ML 2016/16L was granted to Lotus Marula Botswana in April 2023 for a period of 3 years.
Exploration done by other parties	• *Acknowledgement and appraisal of exploration done by other parties.*	• The Letlhakane uranium deposit was discovered by A-Cap Resources Limited (**ACB**) in 2006. Exploration by other companies previous to this is not material for the primary deposit.
Geology	• *Deposit type, geological setting and style of mineralisation.*	• Geologically, the Letlhakane uranium mineralisation is hosted within shallow, flat lying sedimentary rocks of the Karoo Super Group. These Permian to Jurassic aged sediments were deposited in a shallow, broad, westerly dipping basin, generated during rifting of the African continent. The source area for the sediments was the extensively weathered, uranium-bearing, metamorphic rocks of the Archaean Zimbabwe Craton which crops out in the eastern portion of the licence area. The sandstone hosted mineralisation has roll front characteristics, where the uranium was precipitated at redox boundaries. Three ore types have been identified; Primary Ore, Secondary Ore and Oxide Ore. The most abundant is the Primary ore.
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	• Drill hole information has been systematically reported to the ASX since the initial drilling of the deposit in 2006. Refer to A-Cap Energy Limited (ASX:ACB) and Lotus Resources Limited's (ASX:LOT) ASX releases for hole details. • The samples used in the metallurgical testwork consisted of 0.5 - 3m intervals of core selected from over 250 holes spread across the breadth of the deposit. These samples were then combined into composite samples to make up sufficient mass for the testwork. Given the multitude of composite samples, the drill hole location is not material and this exclusion does not detract from the understanding of the report.

Criteria	JORC Code explanation	Commentary
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high-grade results and longer lengths of low-grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	• A deconvolution filter designed for the crystal length in the sonde is applied to the downhole gamma data. • Samples for the metallurgical testwork were selected based on lithology and grade. The grade of each sample was calculated using the average of the eU3O8 assay calculated from the gamma logs for the interval sampled.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	• Due to the flat nature of the deposit and vertical orientation of the drill holes, the mineralization intercepts represent true widths.
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	• Samples used for the metallurgical test work described in this release were selected from various drill holes distributed across the entire deposit. • Metallurgical results only reported.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	• The large volume of data makes reporting of all exploration results not practical. Exploration Results have been reported systematically to the ASX.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	• Leaching tests undertaken by ANSTO described in this release were conducted on drill samples cored between 2007 and 2011. The ore samples were collected from a variety of lithology types and uranium grades. • Metallurgical test work conducted by SGS described in this release was conducted on PQ sized cores drilled in 2023.

Criteria	JORC Code explanation	Commentary
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	• Further work will include: preparation of a geometallurgical model to help optimise the mine plan based on acid consumption and uranium mineralogy/extraction, and a preliminary mining study focused on pit optimisation using the updated resource model. • Scoping Study based on the mine planning and beneficiation / metallurgical test results and a selected processing route, identifying a suitable production rate and a defined development pathway.