ASX Announcement

20th May 2021

STRONG INITIAL RESULTS AS ORE SORTING TESTWORK COMMENCES AT KAYELEKERA URANIUM PROJECT

Lotus Resources Limited (**ASX: LOT) (Lotus** or the **Company**) is pleased to announce that ore sorting testwork has commenced on ore from the Kayelekera Project (**Kayelekera** or the **Project**). Ore sorting technology is not essential for the Project to recommence production, however, successful outcomes from this work have the potential to significantly improve the Project's economics.

HIGHLIGHTS

- **Ore sorting testwork has commenced on 500kg of run of mine ore from Kayelekera – testwork is taking place at STEINERT's testing facility in Perth, Australia.**
  - STEINERT is a leader in the magnetic and sensor separation industry and was selected given their experience as an ore sorting specialist
- **Ore sorting technology has evolved over the past decade and was not available when Kayelekera was previously in production. Whilst not essential for the Project to recommence production, positive results could deliver the following benefits:**
  - **Reduction in operation costs** – rejecting high acid consuming gangue minerals
  - **Increase in annual production** – increased feed grade to the plant
  - **Extension of mine life** – low grade stockpile material (<400ppm U_3O_8) previously marginally economic can potentially be processed at the end of the current mine life
- **Initial results are highly encouraging with visual differences easily seen between the product and reject stream (view video by CLICKING HERE).**
- **Testwork will continue over the coming months with results to be incorporated in the Feasibility Study**

Figure 1: Video of Full-scale Ore Sorting facility being used as part of the trial testwork

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Keith Bowes, Managing Director of Lotus, commented:

"When Kayelekera was last in production, ore sorting in the mining industry was in its infancy. Since then, the technology has advanced significantly, with far greater scope and a wider range of applications through improved detectors and faster data processing, which makes the technology more suitable to higher throughput applications seen in the mining industry.

Ore sorting is not essential for the Kayelekera mine to recommence production, but it has the potential to significantly improve the economic returns, by reducing operating costs, increasing annual production and extending the mine life.

Whilst trial work has only recently commenced, we are very encouraged by preliminary results, which show the ore is clearly amendable to the technology. We encourage investors to watch the short video of the ores sorting process by clicking on the image below.

We will continue to provide additional information on this trial work over the coming months."

Figure 2: Low grade ore being rejected from testwork

Ore sorting testwork commences for Kayelekera Project

Ore sorting technology is relatively new to the uranium industry and has evolved significantly over the past decade. Whilst ore sorting is not essential for the Kayelekera Project to recommence production, as demonstrated with 11Mlbs of uranium historically produced at the Project, it has the potential to materially improve the Project by:

1. Upgrading lower grade material that is currently stockpiled on surface, thereby increasing the uranium grades to produce a more economic feedstock.
2. Extending the mine life by upgrading low grade stockpile material (<400ppm U_3O_8) that were previously marginal at the end of the current mine life
3. Reducing costs by rejecting high acid consuming gangue minerals that contain minimal uranium and enabling lower acid.

The Company has sent approximately 500kg of run of mine ore to the Steinert testing facility in Perth. This initial phase of work is a "proof of concept" exercise, the primary objective of which is to confirm that Kayelekera ore is suitable for ore sorting technology and to identify the sensor technologies that produces the best results. With the validation of the "proof of concept" work, further samples, including a range of ore types treated at Kayelekera, as well as a variety of uranium grades for these materials, including the lower grade stockpile material, are being sent from the Project for ore sorting trials.

The ore sorting process focuses on separating waste rock with low concentrations of valuable minerals from the process prior to the material being fed to the mill. A number of sensors are available for the sorting process including; XRT (x-ray transmission), XRF (x-ray fluorescence), laser, NIR (near-infrared), optical and induction detection. The current testwork has focused on using XRT, optical and laser systems. The 'dual energy' XRT is ideally suited for ore sorting because the x-ray radiation can penetrate stones with particle sizes up to 100 mm to detect differences in atomic densities and, when combined with the laser data, the normalised density of each rock can be determined. In the case of uranium minerals, which have very high densities, there is a clear distinction when compared with the lower density waste material (calcite). The system detects the valuable ore rocks with the detectors and uses a compressed air valve bar at the end of conveyor belt to place it in the product stream.

In addition to optimising grade and recoveries, rejection of the high gangue acid consuming waste will also be a focus of further testwork.

Initial results are very encouraging with visual differences easily seen between the product and reject stream. The samples generated from this initial program have been submitted for assay and leaching testwork. This data will be used to determine the upgrade ratios and recoveries for the process which can then be used to further optimise the ore sorting process.

What is ore sorting?

At a high level, ore sorting is a very simple process which is based on determining the attributes of each particle or rock that passes under its detectors and then deciding whether to "accept" the particle or "reject" the particle to waste. The intricacy comes with the detectors, the algorithms for the selection criteria and the computing speed to allow efficient and accurate processing of materials. The process flowsheet requires the material crushed and screened to specified size range (e.g. 20-60mm or 100mm) and then fed to the unit in a consistent and uniform manner for separation. In Figure 3 present the Steinert multi-sensor machine, indicating the sorting belt with various sensors, as well as the valve and splitter bars used to separate ore and waste.

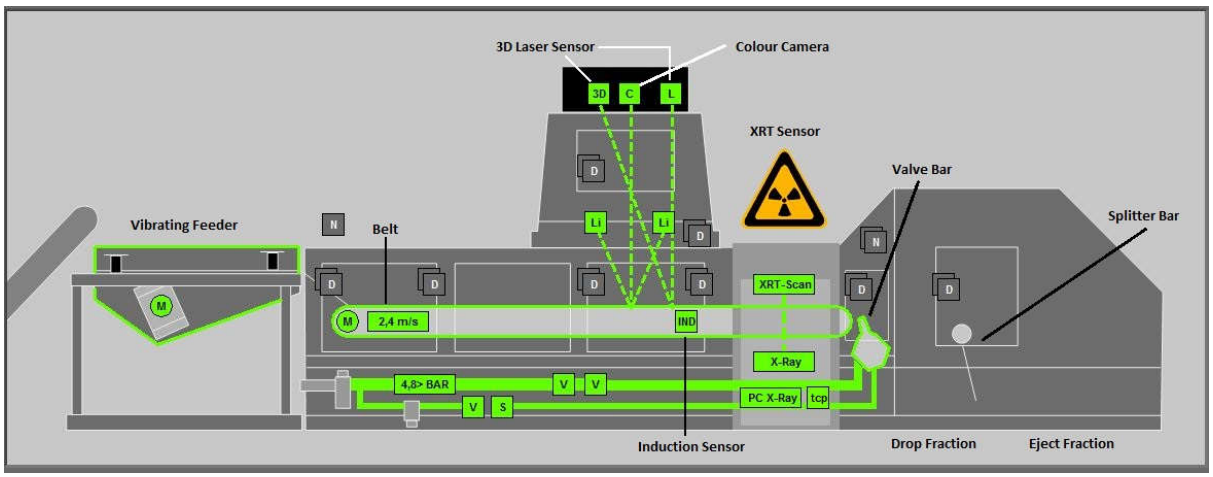

Figure 3 Schematic of the ore sorting stages (multiple detectors will be used for the Kayelekera application).

A number of companies have developed this technology to a point now where it is well established in the recycling industry and is making significant advances in the mining industry with multiple applications installed at various gold and base metal mines.

About STEINERT

STEINERT acquired the operations of the Sturton-Gill company in Australia in 2004 marking an important step towards establishing a worldwide customer network as STEINERT Sturton-Gill Magnetics (SSGM). Continuous research and development of existing products as well as the introduction of new innovative products became the strength of the company and SSGM was the hub for all mining applications within the STEINERT Group.

STEINERT Australia's headquarters on the east coast of Australia, Melbourne-based Bayswater, has the manufacturing facilities for all of the magnetic separation requirements it is known for, as well as supplying the latest in sensor sorting equipment from Germany.

STEINERT Australia also has a Western Australian test centre that provides sensor sorting technologies for the mining regions around Australia, alongside the long-standing magnetic separation capabilities supplied by the east coast operations.

This announcement has been authorised for release by the Company's board of directors.

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ABOUT LOTUS

On completion of the acquisition of Kayelekera Resources Pty Ltd's interest in Lily Resources Pty Ltd (subject to shareholder approval – see ASX announcement dated 25 March 2021), Lotus will own an 85% interest in the Kayelekera Uranium Project in Malawi. The Project hosts a current resource of 37.5M lbs U_3O_8 (see table below), and historically produced ~11Mlb of uranium between 2009 and 2014. The Company completed a positive Restart Study[1] which demonstrated that Kayelekera can support a viable long-term operation and has the potential to be one of the first uranium projects to recommence production in the future.

Kayelekera Mineral Resource Estimate – March 2020[2]

Category	Mt	Grade (U_3O_8 ppm)	U_3O_8 (M kg)	U_3O_8 (M lbs)
Measured	0.7	1,010	0.7	1.5
Measured – RoM Stockpile[3]	1.6	760	1.2	2.6
Indicated	18.7	660	12.3	27.1
Inferred	3.7	590	2.2	4.8
Total	**24.6**	**660**	**16.3**	**36.0**
Inferred – LG Stockpiles[4]	2.4	290	0.7	1.5
Total All Materials	**27.1**	**630**	**17.0**	**37.5**

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

[1] See ASX announcement 20 October 2020. Lotus confirms that all material assumptions underpinning the production target and forecast financial information included in that announcement continue to apply and have not materially changed.
[2] See ASX announcement dated 26 March 2020. Lotus confirms that it is not aware of any new information or data that materially affects the information included in the announcement of 26 March 2020 and that all material assumptions and technical parameters underpinning the Mineral Resource estimate in that announcement continue to apply and have not materially changed.
[3] RoM stockpile has been mined and are located near mill facility.
[4] Medium-grade stockpiles have been mined and placed on the medium-grade stockpile and are considered potentially feasible for blending or beneficiation, with studies planned to further assess this optionality.

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