

**ASX RELEASE**

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## Potential for Significant Cost Reductions Confirmed as Leach Testing Results Exceed Expectations

### Highlights

- Leach testing results exceed expectations and confirm the opportunity for significant reductions in both the capital and operating costs of the hydrometallurgical plant for the Wiluna Uranium Project.
- All Lake Maitland beneficiated concentrates tested exceeded 96% uranium extraction in eight hours.
- The rapid and high leach extractions were achieved on pulp densities over 60% greater than original testing.
- Uranium tenor in post-leach liquors shown to be almost triple that of initial tests as a result of higher pulp densities.
- A significant relaxation of screen size in the beneficiation circuit that produced the successful leach test samples proves that only large, simple and lower cost conventional screening is necessary for the new proposed beneficiation circuit.

Toro Energy Limited (ASX: TOE) (**Toro** or the **Company**) is pleased to announce that the leach test work undertaken to advance the next stage of the **Beneficiation** and **Process Design** studies ('**BPD Studies**') for the Company's 100% owned Wiluna Uranium Project (the **Project**) in Western Australia (refer to **Figure 1**) has been completed. The results have far exceeded expectations with efficiencies, pulp densities and post leach liquor tenors significantly better than those of the initial BPD Studies<sup>1</sup>. These results confirm and further enhance the potential to substantially decrease the size of the leach circuit and decrease the leach residence time required for the treatment of Lake Maitland beneficiated concentrates<sup>1</sup>, and in doing so, to significantly reduce the cost of constructing and operating the Project's proposed hydrometallurgical plant.

<sup>1</sup> Refer to the Company's ASX announcements of 28 September 2016 for initial leach results and 30 January 2018 for sample details and summary of initial BPD Studies.



Figure 1: Location of the Wiluna Uranium Project

The final series of tests followed on from the success of the third leach test on a single beneficiated concentrate (Mets065 – Clay80)<sup>2</sup> where the highest possible pulp density was trialled to achieve increased post-leach liquor tenor without losing extraction efficiencies. The optimum pulp density achieved on this sample was 58% solids, over 60% greater than the original testing at 35% solids. Further still, the uranium tenor of the post-leach liquor had increased by almost three times that of the original test, from 529 mg/L to 1,514 Mg/L as a result of the increased pulp densities.

Given the success of the third leach test on Mets065, all remaining samples, Mets062, Mets082 and Mets089, each from different parts of the Lake Maitland deposit, were also tested at 58% solids pulp density. **Figure 2** shows the results of this leach testing where greater than 96% uranium extraction was achieved within eight hours of leaching on all samples.

<sup>2</sup> Refer to the Company's ASX announcement of 30 June 2018 for results of leach testing on Mets065.

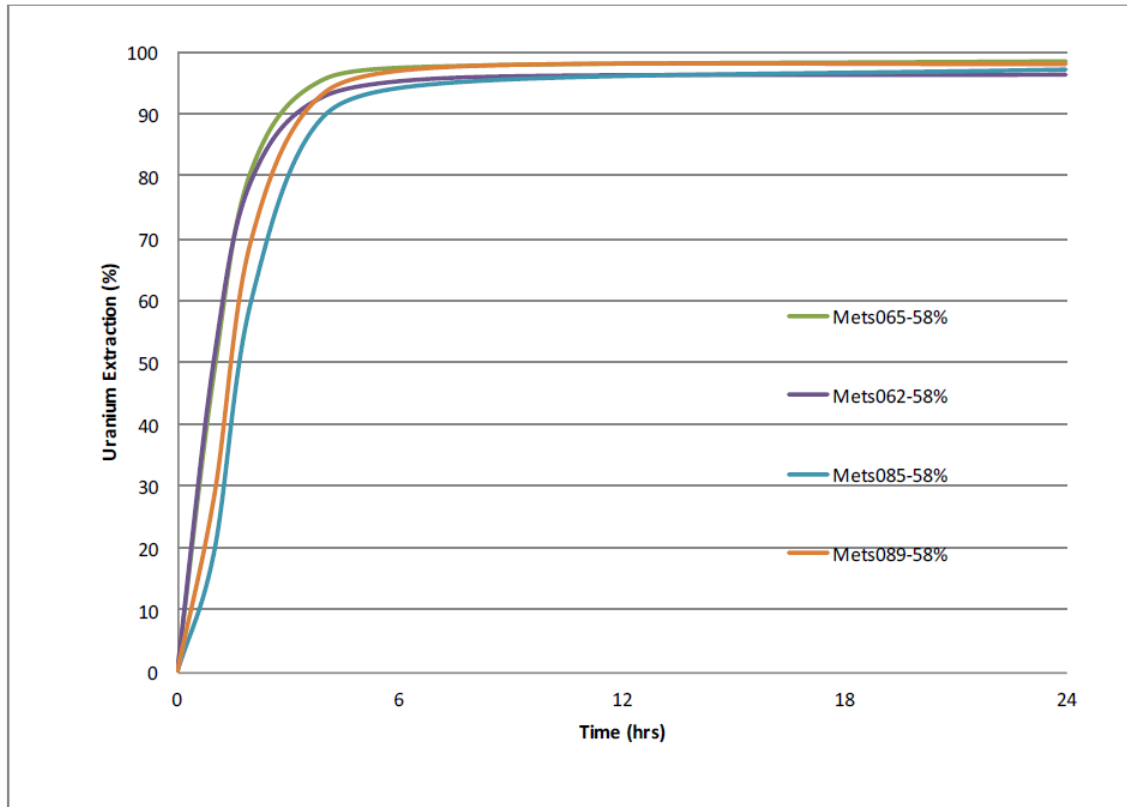


Figure 2: Leach test results of all four Lake Maitland Clay80 ore (bulk) samples.

The potential outcomes of this leach testing will affect the economics of the hydrometallurgy plant treating Lake Maitland ore samples as follows:

- the calculated leach tank capacity required for leaching Clay80 beneficiated concentrates has the potential to be reduced to approximately one third of that of the 2016 BPD Study<sup>3</sup>,
- residence time in the leach circuit may be reduced to one third of the 2016 BPD Study<sup>3</sup>;
- all reaction vessels could be reduced in size;
- the increase in post-leach liquor concentration will reduce equipment size downstream of the leach; and
- there could be a significant decrease in reagent consumption, as well as steam and process water use.

These outcomes will potentially allow further reductions in the capital and operating costs of the hydrometallurgical plant for the Project beyond and in excess of those already highlighted in the Company's previous BPD Studies.

<sup>3</sup> Refer to the Company's ASX announcement of 30 January 2018 for sample details and summary of initial BPD studies.

A cost saving measure was also tested in the beneficiation stage of the samples tested. All leach tests were performed on samples that had been beneficiated using screens with a gauge over six times larger than that used in the original testing. The move from 0.075mm screens to 0.5mm screens without having any effect on leaching demonstrates that only large, simple and lower cost conventional screening is necessary for the new proposed beneficiation circuit.

Ion Exchange test results have been received and will be reported separately.

## Background

The aim of the second stage of the BPD Studies was to further evaluate and optimise conditions in the hydrometallurgical plant developed in the 2016 Scoping Study. This entailed confirmation of the leaching characteristics and ion exchange efficiency on leach liquors. Testing was conducted only on Lake Maitland Clay80 concentrates produced in the Beneficiation Design test work, namely Mets062, Mets065, Mets085 and Mets089. The Clay80 lithology is one of the common lithologies within the Wiluna Uranium Project and the dominant lithology of the Lake Maitland deposit, the largest of the Wiluna Uranium Project deposits. It has been identified as the early feed to the mill<sup>4</sup>.

It is important to note that the particular samples collected for this second stage of testing have assumed a significant proportion of dilution of the Clay80 ore given the practicality of mining and to be conservative. In effect, the samples collected for the second stage testing are a bulk mining sample which have incorporated a number of different other lithologies as a minor proportion due to dilution during mining.

**ENDS**

### FURTHER INFORMATION:

Richard Homsany	Toro Energy	08 9214 2100
Greg Shirtliff	Toro Energy	08 9214 2100

*Toro's flagship asset is the 100% owned Wiluna Uranium Project, located 30 kilometres southwest of Wiluna in Central Western Australia. The Wiluna Uranium Project has received environmental approval from the state and federal governments providing the Project with the opportunity to become Western Australia's first uranium mine. Toro will maximise shareholder returns through responsible mine development and asset growth including evaluating the prospectivity of its asset portfolio for minerals other than uranium and increasing their value.*

[www.toroenergy.com.au](http://www.toroenergy.com.au)

<sup>4</sup> Refer to the Company's ASX announcement of 28 September 2016

## FORWARD LOOKING AND CAUTIONARY STATEMENTS

### Forward Looking Statements

This announcement may contain certain “forward-looking statements” which may not have been based solely on historical facts, but rather may be based on the Company’s current expectations about future events and results. Where the Company expresses or implies an expectation of belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, forward looking statements are subject to risks, uncertainties, assumptions and other factors, which could cause actual results to differ materially from future results expressed, projected or implied by such forward-looking statements. Such risks include, but are not limited to Resource risk, metals price volatility, currency fluctuations, increased production costs and variances in ore grade or recovery rates from those assumed in mining plans, as well as political and operational risks in the Countries and States in which we operate or sell product to, and governmental regulation and judicial outcomes. For a more detailed discussion of such risks and other factors, see the Company’s Annual Reports, as well as the Company’s other filings. Readers should not place undue reliance on forward looking information. The Company does not undertake any obligation to release publically any revisions to any “forward looking statement” to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under applicable securities laws.

### Cautionary Statement

The Studies are based on lower-level technical and economic assessments and are insufficient to provide certainty that the conclusions of the Studies will be realised. Further, the Company cautions that there is no certainty that the forecast financial information contained in the Studies will be realised. All material assumptions underpinning the forecast financial information are set out in this announcement. This forecasted financial information is deduced from an underlying mining production rate deemed possible due to the size of the Mineral Resources at Lake Maitland. Refer ASX announcement dated 1 February 2015 that shows Lake Maitland deposit has sufficient Mineral Resources to support a 2Mt/a mining operation. The estimated mineral resources underpinning the Studies have been prepared by competent persons in accordance with the current JORC Code 2012 Edition and the current ASX Listing Rules. Toro has concluded it has a reasonable basis for providing the forward looking statement included in this announcement. The Company confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcements and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed.