

# ASX Release

ASX: TOE



17 January 2024

## TORO TO REFRESH LAKE MAITLAND URANIUM SCOPING STUDY

### Highlights

- Toro has initiated a refresh and update of its Lake Maitland Scoping Study completed in 2022.
- This will be undertaken by mining engineers at SRK Consulting Australasia (**SRK**). It will run parallel to the Lake Maitland Extension Study to evaluate the incorporation of material from Toro's 100% owned and proximate Lake Way and Centipede-Millipede uranium deposits into a proposed processing operation at Lake Maitland.
- The Scoping Study assumed a price of US\$70/lb  $U_3O_8$  and US\$5.67/lb  $V_2O_5$  with an exchange rate of US\$:A\$0.70 to arrive at an NPV pre-tax of A\$610M over a 17.5 year mine life with annual average production of 1.3Mlbs  $U_3O_8$  and 0.7Mlbs  $V_2O_5$  and a rapid payback of 2.5 years.
- The AISC of US\$28.02/lb  $U_3O_8$  for Lake Maitland is world class.
- The Lake Maitland pit optimisation successfully increased potential production by 8Mlbs  $U_3O_8$  and 11.9Mlbs  $V_2O_5$  based on these assumptions.
- As the current strength of the uranium market shows no obvious signs of slowing down, Toro will refresh the Study to evaluate what the financial outcomes would be using the latest more favourable commodity pricing and exchange rate guidance. The pit optimisation will also be assessed again.
- A standalone Lake Maitland operation is expected to process 7 years of high grade material. The duration of this scenario will also be further considered in our work.
- Toro looks forward to providing updates as work is completed.

#### ASX Listing Rule 5.19.2

The Company confirms that all material assumptions underpinning the production target and the derived forecast financial information disclosed in the Lake Maitland Scoping Study announced by the Company on 24 October 2022 continue to apply and have not materially changed.

**Commenting on initiating the Lake Maitland Scoping Study refresh Toro's Executive Chairman, Richard Homsany, said:**

*"We are pleased to initiate another work stream to maximise the value of the Wiluna Uranium Project. A standalone Lake Maitland uranium vanadium processing operation is potentially quite robust and viable. Preserving the optionality available to Toro moving forward, whether to develop a standalone Lake Maitland deposit or a broader Wiluna Project amongst various production and processing scenarios, is a very valuable aspect of our uranium asset."*

*The refresh of the Scoping Study, completed in 2022 by SRK, will also be undertaken by SRK. Assessing the Project with the latest more favourable commodity pricing and exchange rate guidance will be informative. This refresh will run in parallel to our Extension Study to evaluate the broadening of our Lake Maitland operation to include materials from our nearby 100% owned uranium deposits, Centipede-Millipede and Lake Way."*

*Toro reiterates its commitment to developing the Wiluna Uranium Project to maximise its value when both government policy and uranium markets align."*

*We are confident that our development activities will further reinforce the global significance of the Wiluna Uranium Project."*

Toro Energy Limited (ASX: TOE) ('the **Company**' or '**Toro**') is pleased to advise that it is refreshing and updating its Scoping Study for the proposed Lake Maitland Uranium-Vanadium operation, located approximately 105 km southeast of the Wiluna township in Western Australia and 730 km NE of Perth. This is being undertaken by mining engineers at SRK Consulting Australasia (**SRK**). SRK and metallurgical and processing engineers at Strategic Metallurgy prepared the Scoping Study for Lake Maitland which highlighted the project's potential to deliver robust financial returns.

With the current strength of the uranium market showing no obvious signs of slowing down, Toro will refresh the Study to evaluate what the financial outcomes would be using the latest more favourable commodity pricing and exchange rate guidance. The pit optimisation will also be assessed again.

### **Scoping Study Background**

The potential stand-alone Lake Maitland operation contemplates the possible viability of only mining potential uranium ore from the Lake Maitland Uranium Deposit and processing it in a facility directly on site, next to the mining pit. None of the other uranium deposits owned by Toro in the region would be utilised. The potential stand-alone Lake Maitland operation would contemplate a different processing flow sheet with less capital intensive items and lower reagent volumes, and a simpler more conventional mining method. For further information concerning the results of the Scoping Study please see the Company's announcement of 24 October 2022.

With the current strength of the uranium market showing no obvious signs of slowing down, Toro will refresh the Study to evaluate what the financial outcomes would be using the latest more favourable commodity pricing and exchange rate guidance. The pit optimisation will also be assessed again.

The Lake Maitland Scoping Study also contemplates producing a uranium peroxide product (yellow cake) for sale. This would involve stripping vanadium from the uranium processing flow stream, which is liberated from the uranium ore mineral, a potassium uranium vanadate, along with the uranium during leaching, to produce a low value sodium hexavanadate, as a by-product.

A potential stand-alone Lake Maitland Uranium (with vanadium by-product) operation was scoped for contemplation as a potential viable alternative to the already proposed greater Wiluna Uranium Project that had previously received state and federal environmental approval (refer to ASX announcements of 9 January 2017, 21 June 2017 and 10 July 2017). In that project the Lake Maitland Uranium Deposit is one of three (3) uranium deposits whereby potential uranium ore is planned to be mined from the Lake Maitland Uranium Deposit and trucked some distance north to a processing plant at the Centipede-Millipede Deposit. The potential stand-alone Lake Maitland operation would also differ from the greater Wiluna Uranium Project in that it contemplates a different processing flow sheet with major changes to the processing plant and reagent volumes (see below), and a simpler more conventional mining method.

The Lake Maitland Uranium Deposit and proposed operation is located approximately 730km NE of Perth or 50km directly east of 50km Mt Keith nickel operations. Access to the deposit is via the Goldfields Highway, turning east at Leinster along the access road to the Bronzewing Gold Mine and then north along the Barwidgee Road. An alternative route is along the Barwidgee Road from the north, via the township of Wiluna.

The Scoping Study focusses solely on the Lake Maitland uranium resource which has been estimated to contain 22Mt at 545ppm  $U_3O_8$  for 26.4Mlbs of  $U_3O_8$  at a 200ppm  $U_3O_8$  cut-off. All of the Lake Maitland uranium resource (as  $U_3O_8$ ) is in Indicated status according to JORC 2012. More information on this resource and the JORC Table 1 for this resource can be found in the ASX announcement of 1 February 2016. Also see Table 1 below. Inherent within this resource as part of the uranium 'ore' mineral, is vanadium, which, as would be expected, is extracted along with the uranium in the leaching process and found to be still present in pregnant leach solution downstream in the ion exchange (IX) process. Toro has decided to strip this from the IX resin for a low value, but worthwhile, by-product. Given this, Toro has also estimated the amount of  $V_2O_5$  within the Lake Maitland Uranium Deposit and integrated it into the uranium resource being contemplated in this Scoping Study.

The mining technique proposed to be used at the stand-alone Lake Maitland operation is conventional open cut using truck and shovel but with pre-mine dewatering where necessary. Although not targeted specifically in any detail, the higher grade central parts of the deposit are proposed to be mined first so that the average grade of the potential ore decreases over time.

The new proposed processing plant, developed over the recent years of research, will include a beneficiation plant using conventional coarse screens and desliming, pre and post-leach pressure filtration, alkaline leach, IX, sodium diuranate (**SDU**) precipitation, redissolution and uranium peroxide precipitation (yellow cake). To take advantage of the vanadium inherent in the pregnant leach solution due it being a fundamental part of the uranium ore mineral targeted in the leach, vanadium is proposed to be separated in the IX plant and stripped from the IX resin prior to stripping uranium, before being precipitated as a red cake (sodium hexavanadate - $NaVO$ ) prior to final product preparation as a by-product of the operation.

The date for the substantial commencement condition contained in the State environmental approval for the Wiluna Uranium Project, granted pursuant to Ministerial Statement 1051 (**MS 1051**), has passed. Toro considers, and has sought advice to confirm, that the environmental approval granted by MS 1051 will remain valid notwithstanding that substantial commencement did not occur by the date specified in MS 1051, and that it will be open to the Company to apply under the Environmental Protection Act 1986 (WA) for an extension of time for that condition at a later time during the life of the approval. It is also envisaged that favourable results from the studies detailed in this announcement may also necessitate an amendment to the proposal the subject of each environmental approval received.

All key aspects of the Lake Maitland uranium-vanadium project pertaining to environmental considerations and external relations are captured in the Environmental Protection Authority (EPA)

report 1580, which is publicly available on the EPA's website at [www.epa.wa.gov.au/proposals/extension-wiluna-uranium-project](http://www.epa.wa.gov.au/proposals/extension-wiluna-uranium-project).

### **Lake Maitland Open Pit Optimisation**

Details on the open pit optimisation for the stand-alone Lake Maitland operation being considered in this scoping level study were presented in the ASX announcement of 4 May 2022, and this should be referred to for further information. GEOVIA'S Whittle™ software (Whittle) was used to undertake open pit optimisation for the project. Whittle™ generates nested pit shells with different revenue factors, based on the highest project cashflow.

**– Ends –**

**This announcement was authorised for release to the ASX by the Board of Toro Energy Limited.**

Katherine Garvey  
Legal Counsel and Company Secretary, Toro Energy Limited  
60 Havelock Street, West Perth WA 6005

### **For further information contact**

Richard Homsany  
Greg Shirtliff

+61 8 9214 2100

### **About Toro**

Toro Energy Limited (ASX:TOE) is an ASX listed uranium development and exploration company with projects in Western Australia. Toro's tenure in Western Australia is also prospective for gold and base metals. Toro is committed to building an energy metals business with the flagship Wiluna Uranium Project as the centrepiece. The Wiluna Uranium Project consists of the Centipede, Millipede, Lake Maitland, Lake Way uranium deposits 30km to the south of the town of Wiluna in Western Australia's northern goldfields.

Please visit [www.toroenergy.com.au](http://www.toroenergy.com.au) for further information.

**Table 1 – Wiluna Uranium Project Resources**

**Wiluna Uranium Project Resources Table (JORC 2012)**  
**at 200 ppm cutoffs inside U<sub>3</sub>O<sub>8</sub> resource envelopes for each deposit – Proposed Mine Only**

		Measured		Indicated		Inferred		Total	
		U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>	U <sub>3</sub> O <sub>8</sub>	V <sub>2</sub> O <sub>5</sub>
Centipede/ Millipede	Ore Mt	4.9	-	12.1	-	2.7	53.6	19.7	53.6
	Grade ppm	579	-	582	-	382	327	553	327
	Oxide Mlb	6.2	-	15.5	-	2.3	38.6	24	38.6
Lake Maitland	Ore Mt	-	-	22	-	-	27	22	27
	Grade ppm	-	-	545	-	-	303	545	303
	Oxide Mlb	-	-	26.4	-	-	18	26.4	18
Lake Way	Ore Mt	-	-	10.3	-	-	15.7	10.3	15.7
	Grade ppm	-	-	545	-	-	335	545	335
	Oxide Mlb	-	-	12.3	-	-	11.6	12.3	11.6
Total	Ore Mt	4.9	-	44.3	-	2.7	96.3	52	96.3
	Grade ppm	579	-	555	-	382	322	548	322
	Oxide Mlb	6.2	-	54.2	-	2.3	68.3	62.7	68.3

### Competent Persons' Statement

#### Wiluna Project Mineral Resources – 2012 JORC Code Compliant Resource Estimates – U<sub>3</sub>O<sub>8</sub> and V<sub>2</sub>O<sub>5</sub> for Centipede-Millipede, Lake Way and Lake Maitland.

The information presented here that relates to U<sub>3</sub>O<sub>8</sub> and V<sub>2</sub>O<sub>5</sub> Mineral Resources of the Centipede-Millipede, Lake Way and Lake Maitland deposits is based on information compiled by Dr Greg Shirliff of Toro Energy Limited and Mr Daniel Guibal of Condor Geostats Services Pty Ltd. Mr Guibal takes overall responsibility for the Resource Estimate, and Dr Shirliff takes responsibility for the integrity of the data supplied for the estimation. Dr Shirliff is a Member of the Australasian Institute of Mining and Metallurgy (AusIMM) and Mr Guibal is a Fellow of the AusIMM and they have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code 2012)'. The Competent Persons consent to the inclusion in this release of the matters based on the information in the form and context in which it appears.