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CLEAN ENERGY FOR A GROWING WORLD

## Toro Energy Limited 2016 Annual General Meeting

### Wiluna... First Among Equals

VANESSA GUTHRIE 17 NOVEMBER 2016

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### **STRONG FINANCIAL & INVESTOR BASE**



Shares on issue	2,005M
Share price	\$0.040
Market cap	\$80.3M
Cash (30/9/16)	\$9.3M
Debt (Sentient)	\$6.0M

Directors	
John Cahill	Chair
Vanessa Guthrie	Managing Director
Richard Patricio	NED
Michel Marier	NED
Richard Homsany	NED





## **The Nuclear Markets**

#### NUCLEAR POWER REMAINS IMPORTANT



2,441 kWH

Reactors operating in 31 countries

11.5% world's electricity generation

# 59 reactors

Under construction

- China
- India
- UAE
- Eastern Europe



#### URANIUM DEMAND: ASIA





**2025:** Asia contributes 109GWe to the projected additional nuclear capacity of 110GWe. Additional Asian uranium requirements by 2025 (ignoring inventory build strategies) = 54Mlbs p.a. (@  $\sim$ 2Gwe p.Mlb)

**2030:** Asia contributes 165GWe to the projected additional global nuclear capacity of 186GWe. Additional Asian uranium requirements by 2030 (ignoring inventory build strategies) = 82Mlbs p.a. (@ ~2Gwe p.Mlb)



## **2016 Achievements**

#### **ADVANCING WILUNA**



#### WE CONTINUE TO ADVANCE WILUNA 'TO BE READY FOR MARKET' WITH PRUDENT EXPENDITURE TARGETING HIGH VALUE AREAS



<sup>1</sup> Refer to Resource table on slide 22 and competent persons statement on slide 23.

### **2016 KEY ACHIEVEMENTS**





#### **APPROVALS & AGREEMENTS**

- Mining Agreement signed with Traditional Owners
- PER & Public Review completed for Millipede & Lake Maitland
- EPA recommended approval and Appeals assessment underway
- Anticipate 2016 Ministerial environmental approvals

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### RESOURCE

- 20% increase Centipede & Millipede resources<sup>1</sup>
- Average grade ~1000ppm<sup>2</sup>.
- Continuous mineralisation & high grade mining study
- Critical input to beneficiation studies



#### WORKING CAPITAL

- \$12M MBL debt repaid in full
- Equity placement to corner stone shareholder
- \$6M interest free loan

<sup>1</sup> Refer to ASX release of the 14<sup>th</sup> October 2015 and the resource table of slide 22

 $^2$  Based on a 500 ppm U<sub>3</sub>O<sub>8</sub> cut-off and the grades outlined in the resource table of slide 22.

#### WILUNA EXTENSION APPROVALS



- Supplements the existing approvals for Centipede & Lake Way
- Assessment by EPA through bi-lateral arrangements with State and Federal government (EPBC Act)
- Nine key environmental factors including flora and veg, groundwater, tailings and mine closure, radiation management, human health
- EPA recommendation for approval received September 2016
- Anticipate approval process will take through to 4th quarter 2016



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#### MINING AGREEMENT



- Historic agreement with Native Title Holders, the Wiluna/Tarlpa people
- Toro has committed to:
  - Return lands to their natural state as far as practicable
  - not to commence mining without traditional owner support
  - Protect cultural and heritage values of the Lake Way area
  - Culturally sensitive areas excluded from mining
- Agreement provides for training and employment opportunities and enterprise development
- Employment in environmental monitoring, land rehabilitation already established
- Toro appreciates and thanks Wiluna people for their ongoing support



#### **GEOLOGY REDEFINED**





#### LAKE MAITLAND: THE OPPORTUNITY



The re-interpretation of the geology of Lake Maitland has shown that there is more clay in the resource currently targeted for processing (> 500 ppm  $U_3O_8$ ) than the historical models.



#### OPTIMISATION: UNLOCKING WILUNA VALUE





#### **2016 STUDIES: BENEFICIATION RESULTS**



#### **BENEFICIATION SUCCESS WITH DE-SLIMING**

- Scoping study initiated in May 2016
- Aim was to assess whether a simple and conventional screening, cyclone and de-slime circuit could produce a high grade low mass uranium concentrate for the mill
- Seven samples tested from Centipede, Millipede and Lake Maitland in varying lithologies
- Positive test results across all samples
- Best results in the higher clay ores where carnotite mineral is retained after de-sliming:
  - Concentrates produced at 3.3 x sample head grade
  - 73% of the original mass removed
  - 84% of the original uranium content retained
  - >55% of the 'high grade' mine plan (>500ppm) fits within these samples...including up to 80% of Lake Maitland...



Main lithologies of the Wiluna Project as proportion of high grade ore (>500 ppm  $U_3O_8$ )

### **2016 STUDIES: LEACH RESULTS**



#### LEACH SUCCESS: HIGH RECOVERIES IN SHORT TIME

- Seven concentrates from beneficiation studies tested
- Leach testwork results showed:
  - > 90% recovery from each concentrate...
  - ...within ~10 hours
- Demonstrated that a conventional carbonate leach circuit is amenable to beneficiated concentrates from Wiluna
- Preliminary results of belt filter testwork promising



FIGURE 1: LEACH KINETICS (ALL SAMPLES)

#### 2016 STUDIES: BENEFITS



#### **RESULTS OF FULL SCOPING STUDY EXPECTED BEFORE YEAR END**

Results of studies to date show:

- Significantly less mass reporting to the hydromet plant
- Potential for lower capital costs for the hydromet plant
- Potential for significant operating benefits:
  - Reduced water requirements in hydromet plant potential to use 'cleaner water'
  - Potential to filter tails lower wash water ratio required
  - Higher percent solids in leach feed
  - Higher U/CI ratio = potential to use resins
  - Reduction in reagent consumption
  - Reduction in power draw

Results still underway include:

- Input cost analysis
- Process flow sheet, plant design and configuration



STRATEGIC



## Looking Forward - 2017

### 2017: UNLOCKING MORE VALUE AT WILUNA



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#### **2017: MEETING THE MARKET**



Uranium market conditions are challenging....

- Long-term market fundamentals remain strong
- Demand continues to grow in China and India commitments
- Price will be lower for longer as Japan takes longer to return

But Toro is well positioned to weather these conditions.....

- Solid balance sheet and asset base
- \$9.3M cash at September 2016
- Rationalisation of exploration tenements to core assets
- Restructuring cost base to maintain long-term viability

To capitalise on the low point of the market.....

- Seek out value accretive asset transactions
- Increase leverage to the uranium price correction

And continue to advance Wiluna to be ready for market





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## **GROW WITH US**

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#### RESOURCES – WILUNA URANIUM PROJECT V toro energy JORC 2012

Wiluna Uranium Project Resources Table (JORC 2012)									
		Measured		Indicated		Inferred		Total	
		200ppm	500ppm	200ppm	500ppm	200ppm	500ppm	200ppm	500ppm
Centipede / Millipede	Ore Mt's	4.9	1.9	12.1	4.5	2.7	0.4	19.7	6.8
	Grade ppm	579	972	582	1,045	382	986	553	1,021
	U <sub>3</sub> O <sub>8</sub> Mlb's	6.2	4.2	15.5	10.3	2.3	0.9	24.0	15.3
Lake Maitland	Ore Mt's	-	-	22.0	8.2	-	-	22.0	8.2
	Grade ppm	-	-	545	929	-	-	545	929
	U <sub>3</sub> O <sub>8</sub> Mlb's	-	-	26.4	16.9	-	-	26.4	16.9
Lake Way	Ore Mt's	-	-	10.3	4.2	-	-	10.3	4.2
	Grade ppm	-	-	545	883	-	-	545	883
	U <sub>3</sub> O <sub>8</sub> Mlb's	-	-	12.3	8.2	-	-	12.3	8.2
Sub-total	Ore Mt's	4.9	1.9	44.3	16.9	2.7	0.4	52.0	19.2
	Grade ppm	579	972	555	948	382	986	548	951
	U <sub>3</sub> O <sub>8</sub> Mlb's	6.2	4.2	54.2	35.3	2.3	0.9	62.7	40.4
Dawson Hinkler	Ore Mt's	-	-	8.4	0.9	5.2	0.3	13.6	1.1
	Grade ppm	-	-	336	596	282	628	315	603
	U <sub>3</sub> O <sub>8</sub> Mlb's	-	-	6.2	1.1	3.2	0.4	9.4	1.5
Nowthanna	Ore Mt's	-	-	-	-	13.5	2.6	13.5	2.6
	Grade ppm	-	-	-	-	399	794	399	794
	U <sub>3</sub> O <sub>8</sub> Mlb's	-	-	-	-	11.9	4.6	11.9	4.6
Total	Ore Mt's	4.9	1.9	52.7	17.8	21.4	3.3	79.0	23.0
	Grade ppm	579	972	520	931	368	765	482	916
	U <sub>3</sub> O <sub>8</sub> MIb's	6.2	4.2	60.4	36.4	17.4	5.5	84.0	46.4

Refer to JORC Table 1 presented in ASX Release of February 2<sup>nd</sup> 2016 for details on how these resources are estimated, competent persons statements on the following slide.

#### **Competent Persons' Statement**

### Wiluna Project Mineral Resources – 2012 JORC Code Compliant Resource Estimates – Centipede, Millipede, Lake Way, Lake Maitland, Dawson Hinkler and Nowthanna Deposits

The information presented here that relates to Mineral Resources of the Centipede, Millipede, Lake Way, Lake Maitland, Dawson Hinkler and Nowthanna deposits is based on information compiled by Dr Greg Shirtliff and Mr Sebastian Kneer of Toro Energy Limited and Mr Daniel Guibal of SRK Consulting (Australasia) Pty Ltd. Mr Guibal takes overall responsibility for the Resource Estimate, and Dr Shirtliff takes responsibility for the integrity of the data supplied for the estimation. Dr Shirtliff 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.

