



# ASX ANNOUNCEMENT

ASX: CXO

15<sup>th</sup> February 2017

## CORE SECURES NAPPERBY URANIUM RESOURCE

### HIGHLIGHTS

- 
- Core has secured an ELA over the 2004-JORC compliant Napperby Uranium Resource in the NT
  - The Napperby Uranium Project includes a Inferred Resource of 9.34 Mt at 359 ppm U<sub>3</sub>O<sub>8</sub> for 7.39 Mlbs U<sub>3</sub>O<sub>8</sub>
  - Only half of the historic mineralised area has been converted to a Resource with obvious potential to expand Resources
  - Large tenement at Napperby is highly prospective for further uranium discoveries that could augment the current Resource
  - Scoping Studies and Metallurgical Testwork already completed on Napperby previously are available to Core
  - Core also inherits excellent project data that includes 1,117 sonic core and aircore drillholes, downhole gamma, PFN and assay data, and disequilibrium data
  - Napperby adds to Core's existing uranium portfolio including:
    - Fitton Project in SA where Core's drilling intersected 60m @ 487ppm U<sub>3</sub>O<sub>8</sub> including 4m @ 3,100ppm U<sub>3</sub>O<sub>8</sub>
    - Yambla Project in the NT that has spectacular U<sub>3</sub>O<sub>8</sub> grades at surface
  - Strong positives for project economics in improving uranium sector and updated mining and processing technologies
  - While remaining focused on its flagship lithium projects, Core will continue to refine its uranium strategy to maximise the value of its now substantial uranium portfolio



Core Exploration Ltd (ASX: CXO) (“Core” or the “Company”) is pleased to announce that it has received notification from the Northern Territory Government that Core is the successful applicant for a tenement over the Napperby Uranium Deposit in the NT, which included a 2004-JORC Inferred Resource of 9.34 Mt at 359 ppm U<sub>3</sub>O<sub>8</sub> for 7.39 Mlbs (Table 1 and Figures 1-4).

The Napperby tenement area was the subject of an internationally competitive tender process with Core adjudged to have the best financial and technical resources available to advance the project.

### Overview of Napperby Uranium Project

Only half of the area of the much larger mineralised uranium zone defined earlier at Napperby by Uranerz was drilled and converted to an Inferred Resource by Toro Energy Limited (ASX:TOE). Consequently, there remains obvious potential to substantially expand and increase the size of the Napperby Uranium Deposit (Figures 2 & 3).

Core has gained access to a Napperby Scoping Study prepared by Toro in 2009 which also includes metallurgical testwork studies on bulk representative samples, which examined various conventional mining and processing options available at the time (refer ASX:TOE 09/06/2009).

Core also inherits excellent project data that includes auger, sonic core and aircore drillholes (1,117 by TOE-DYL and 820 by Uranerz), downhole gamma and assay data, PFN (Prompt Fission Neutron) and disequilibrium data, airborne EM (Electro-Magnetics) and high-resolution magnetics/radiometrics, gravity, and environmental monitoring data.

The JORC Resource at Napperby adds substantial size to Core’s existing uranium project portfolio, which also includes:

- **Fitton Project, SA:** Core’s exploration and drilling has led to the discovery of thick high grade intersections of 60m @ 487ppm U<sub>3</sub>O<sub>8</sub> including 4m @ 3,100ppm U<sub>3</sub>O<sub>8</sub>.
- **Yambla Project, NT:** Core’s uranium tenure in the NT includes spectacular uranium grades have been recorded in historic trench sampling and at surface.

Deposit	Category	Cut-off (ppm U <sub>3</sub> O <sub>8</sub> )	Tonnes (M)	U <sub>3</sub> O <sub>8</sub> (ppm)	U <sub>3</sub> O <sub>8</sub> (t)	U <sub>3</sub> O <sub>8</sub> (Mlb)
<b>Napperby Project (Northern Territory) - JORC 2004</b>						
Napperby	Inferred	200	9.3	359	3,351	7.4
<b>Napperby Total</b>			<b>9.3</b>	<b>359</b>	<b>3,351</b>	<b>7.4</b>
<b>TOTAL RESOURCES</b>			<b>9.3</b>	<b>359</b>	<b>3,351</b>	<b>7.4</b>

Table 1. JORC 2004 Resource reported by ASX:DYL 09/09/2016. The JORC 2004 Resource has been sourced entirely from DYL and Core has not undertaken its own independent investigations to verify the Resource.

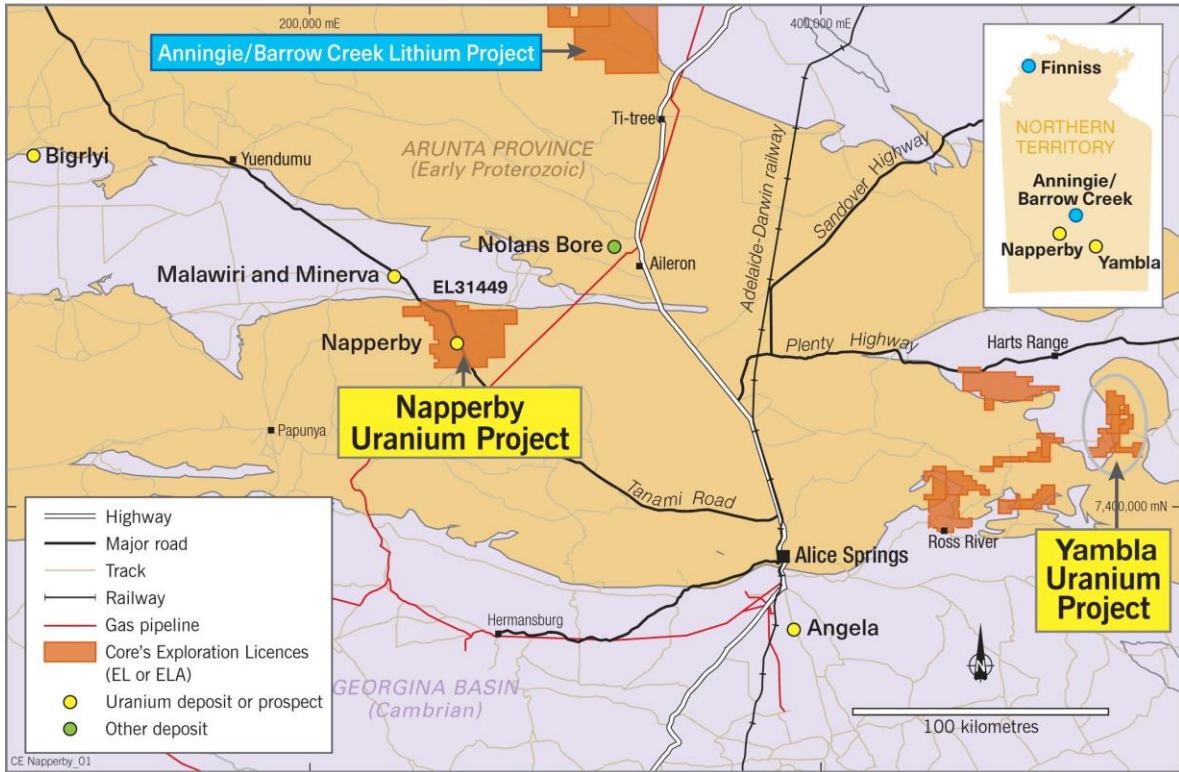


Figure 1. Location of Core's Napperby tenement application in NT.

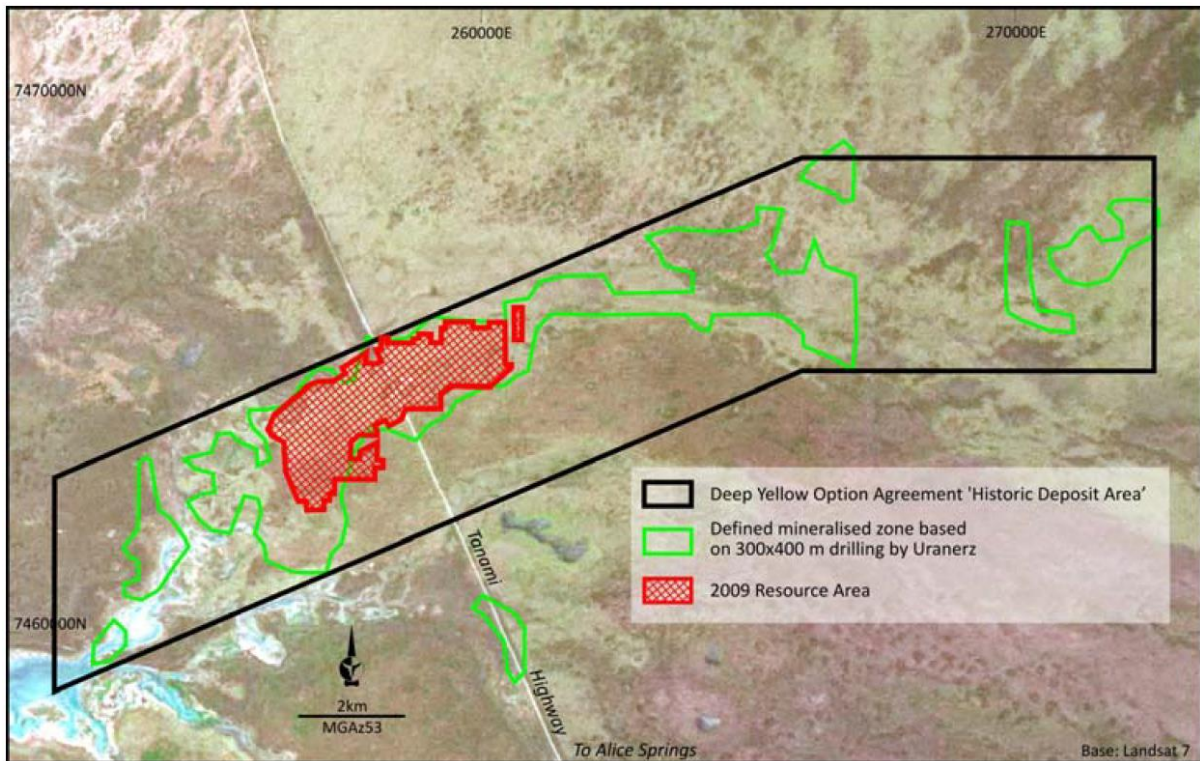


Figure 2. Current resource area (red) compared to known mineralised region (green) (From TOE:ASX 3/3/2009).





**Napperby Uranium Project: Resource**

Delineation work by SRK and Toro on the deposit in 2008 and 2009 resulted in an Inferred Resource under the 2004 Edition of the JORC Code, totalling 9.34 Mt at 359 ppm U<sub>3</sub>O<sub>8</sub> for 7.39 Mlbs U<sub>3</sub>O<sub>8</sub> using a 200 ppm cut-off grade (ASX:DYL 09/09/2016 and Table 1).

The Napperby Resource is based on a 1,117-hole drilling database that included both assays and radiometrically-defined uranium grades. A disequilibrium factor had been defined based on a broad spatial dataset.

Toro’s resource drill-out covered approximately half of the historic mineralised area and correlated well with the results of previous work carried out on this portion of the deposit by Uranerz (Figures 2 and 3).

Toro also stated that additional drilling is required to complete the evaluation of the balance of the historic mineralised area to a JORC standard.

The extensive mineralised zone at Napperby occurs within 3 to 8 metres of the surface. Uranium mineralisation (carnotite) is almost exclusively hosted by unconsolidated sediments along a palaeochannel and is geologically similar to a number of operating and approved uranium projects in Australia and Africa, including Yeelirrie (Cameco), Wiluna (Toro) and Langer Heinrich (Paladin).

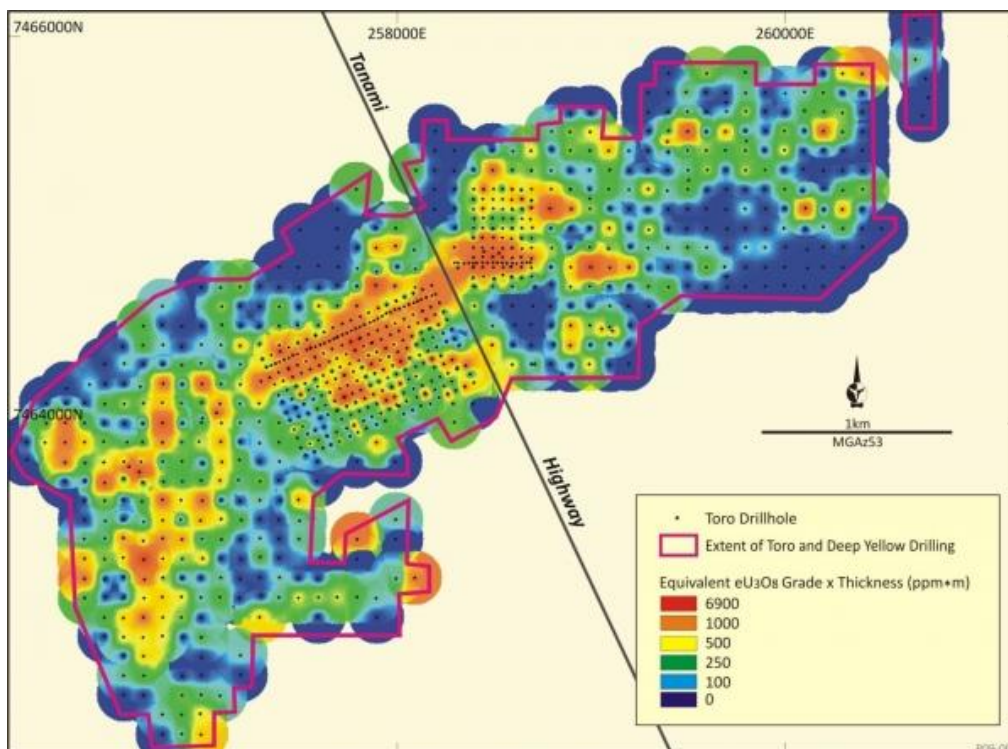


Figure 3. Grade x Thickness (‘GT’) eU<sub>3</sub>O<sub>8</sub> plot for Napperby Resource area (magenta polygon) (from TOE:ASX 3/3/2009).



**Napperby Uranium Project: Scoping, Metallurgical and Concept Studies**

Toro undertook metallurgical testwork from bulk representative samples derived from Napperby in 2008 and 2009, aimed at characterising the ore and gangue, determining how suitable the mineralisation is to beneficiate and the optimal conditions for leaching. Tests included comminution, scrubbing and column leach trials (TOE:ASX 09/06/2009).

Toro proceeded to a Scoping and Concept Study conducted by URS Australia, which examined various conventional mining and processing options available at the time, such as heap leach, agitated leach, direct precipitation and resin-in-pulp.

Alternative mining cut-off grades and the potential for nearby deposits were also considered, as was initial up-front beneficiation. It also undertook a high-level review of infrastructure requirements, environmental management and CAPEX and OPEX scenarios.

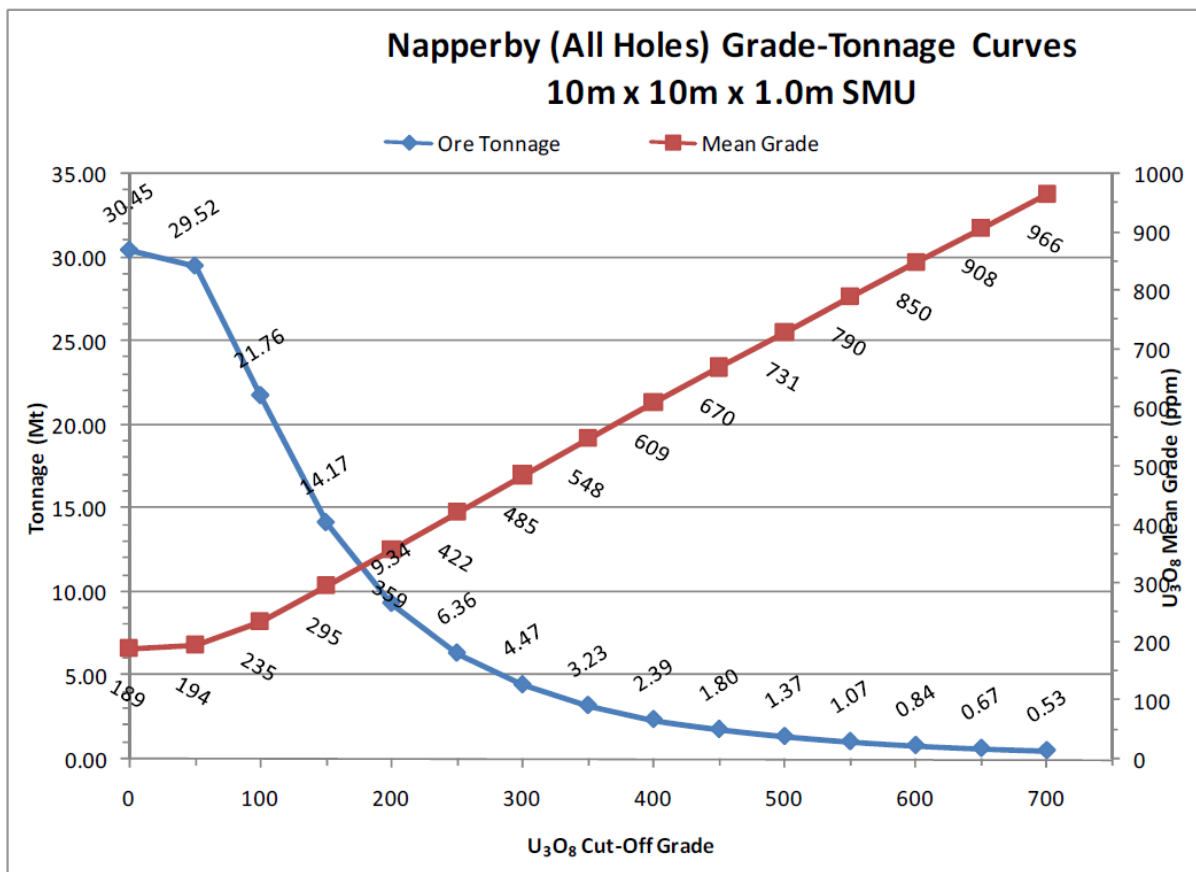


Figure 4. Grade tonnage curve for Napperby resource (from TOE: ASX 3/3/2009).



Core's MD Stephen Biggins commented:

*"While we continue to remain focused on advancing our flagship Finniss Lithium Project toward early development, Core has a number of other exciting opportunities within our portfolio, which now include a Uranium Resource and advanced exploration assets in low-risk uranium production jurisdictions of Northern Territory and South Australia."*

*"As we are always considering options to maximise the value of Core's assets for shareholders, supplementing our existing uranium exploration assets with this advanced uranium deposit is consistent with Core's positive long term view of the uranium sector."*

*"The addition of the Uranium Deposit at Napperby is particularly exciting in the context of increasing uranium prices. Core notes with interest that the spot uranium price has increased close to 40% over recent months."*

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*The information in this report that relates to Exploration Results and Mineral Resources is based on information compiled by Stephen Biggins (BSc(Hons)Geol, MBA) as Managing Director of Core Exploration Ltd who is a member of the Australasian Institute of Mining and Metallurgy and is bound by and follows the Institute's codes and recommended practices. He has sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration and to the activities being undertaken to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr. Biggins consents to the inclusion in the report of the matters based on his information in the form and context in which it appears. The JORC 2004 Resource reported in Table 1 has been sourced entirely from ASX:DYL (09/09/2016). Core has not undertaken its own independent investigations to verify the reported Resource. The report also includes information that was reported in announcements previously released by Core under JORC Code 2004 on 13/05/2012 titled "Thick and High Grade Uranium Intersections, Fitton Project, SA". Core confirms that the Company is not aware of any new information or data that materially affects the information referenced in this announcement.*