

25 May 2017

CAULDRON'S URANIUM DEPOSIT AT BENNET WELL AMENABLE TO MINING BY ISR – CSIRO STUDY

HIGHLIGHTS

- **Cauldron's Bennet Well uranium deposit is favoured for extraction by In-Situ Recovery (ISR) mining method**
- **CSIRO research shows amenability to leach mineralisation by ISR**
- **Laboratory tests will be used to design a field leach trial**

Australian resources company, Cauldron Energy Limited (**ASX: CXU**) (**Cauldron** or the **Company**) engaged the Commonwealth Scientific and Industrial Research Organisation (CSIRO) to complete a two-phase study into the leachability of the Bennet Well Uranium deposit. The first stage of the study is now completed.

The first stage of investigation (Phase 1, shown by the green column of Table 1) used existing sample and project data to aid in designing a field leach trial. The second stage of the study (Phase 2, shown in brown by the four columns of Table 1) is aimed to support the activities of the field leach trial and is yet to be commenced.

The results of Phase 1 show the deposit is favourable for an In-Situ Recovery (ISR) style mining process.

Table 1: The activities of the CSIRO research.

Activity	Laboratory	Field			
	Preparation	Pump Test	Push-Pull Test	Recirculation Test	Recovery Test
Sample characterisation	X	X	X	X	
Leach tests	X	X	X	X	
Downstream processing	X	X	X	X	X
Hydrogeology	X	X	X	X	X
Reactive transport modelling	X	X	X	X	X
Downstream process optimisation			X	X	X
Process flow sheet development			X	X	
Support field test work		X	X	X	X

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329,289,708 shares
20,000,000 unlisted options

Board of Directors

Tony Sage
Executive Chairman

Qiu Derong
Non-executive Director

Judy Li
Non-executive Director

Nicholas Sage
Non-executive Director

Chenchong Zhou
Non-executive Director

Catherine Grant-Edwards
Company Secretary

CSIRO completed ten column leach tests on five mineralised zones sampled by core taken from Bennet Well East and Bennet Well Central. Both acid leach and alkali leach was tested. Oxidant was added to each leachate mid-way through the leaching cycle.

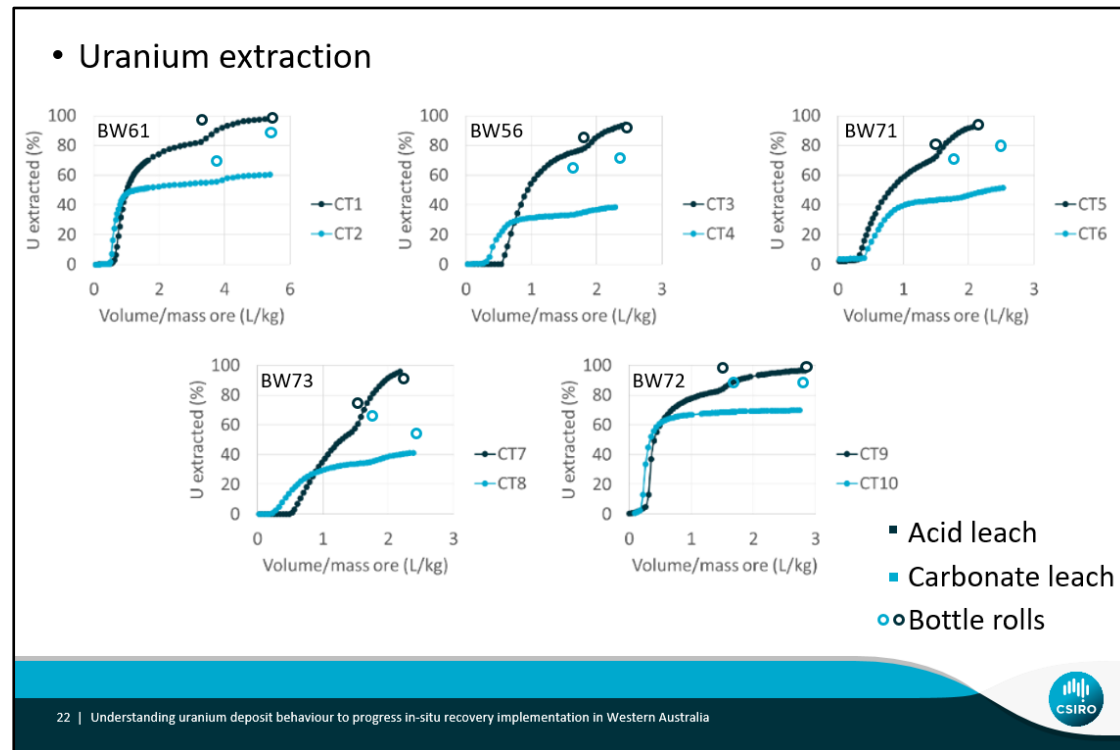


Figure 1: Column leach test recovery curves – mineralised core at Bennet Well

These data show:

- acid leach achieves higher uranium extraction than alkali leach;
- use of oxidant improves uranium extraction in acid leachate;
- oxidant may not be required because very high extraction rates are achieved by acid leaching solutions that do not contain oxidant;
- column test results concur with bottle roll recoveries measured by ANSTO in a previous study completed in 2014.

CSIRO tested nine commercially available ion exchange resin pellets used for stripping uranium from of a pregnant leach solution. The ion exchange screening showed:

- near 100% adsorption of uranium from acid solution is possible from one of the commercially available resins;
- suitable resins are available for alkali leach solutions, although resins generally perform better for acid leach than for alkali leach solutions;
- in the acid leach solution, a resin generally performs better for low oxidant conditions.

Background

The Company has defined a global scale potential ISR resource at Bennet Well (ASX Announcement 17 December 2015), one of Cauldron's extensive tenements in the region which are prospective for similar mineralisation.

Funding for the CSIRO study is jointly provided by Cauldron, the Minerals Research Institute of Western Australia (MRIWA) and Innovations Connection (AusIndustry).

Bennet Well Project Summary

The Bennet Well Deposit is located within the Carnarvon Basin approximately 100 km to the south of Onslow in the north-west region of Western Australia. The town of Exmouth is about 240 km to the northwest. The Yanrey – Bennet Well Project can be accessed from Exmouth via the major North West Coastal highway linking Exmouth and Karratha.

The Yanrey – Bennet Well Project is 100% owned and operated by Cauldron, possessing title in full to a contiguous package of twelve exploration tenements covering 1,280 km² around the Bennet Well deposit.

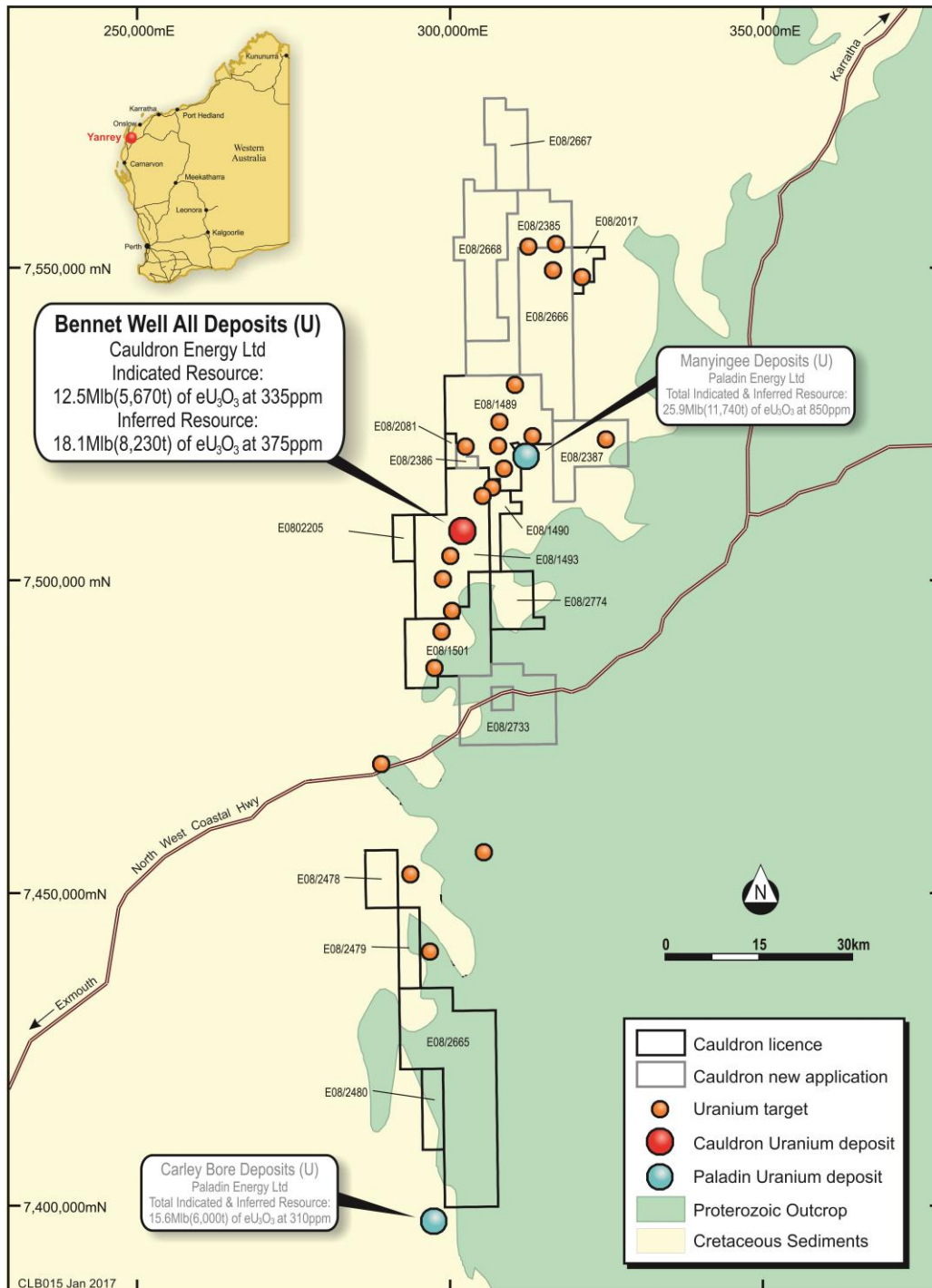


Figure 2: Project location

The mineralisation at Bennet Well is a shallow accumulation of uranium hosted in unconsolidated sands close to surface (less than 100 m downhole depth) in Cretaceous sedimentary units of the Ashburton Embayment.

The Bennet Well deposit is comprised of four spatially separate deposits; namely Bennet Well East, Bennet Well Central, Bennet Well South and Bennet Well Channel, refer to Figure 3.

Ravensgate Mining Industry Consultants completed the December 2015 Mineral Resource (JORC 2012) estimate upgrade for the Bennet Well deposit, as follows:

- Inferred Resource: 16.9 Mt at 335 ppm eU₃O₈ for total contained uranium-oxide of 12.5 Mlb (5,670 t) at 150 ppm cut-off;
- Indicated Resource: 21.9 Mt at 375 ppm eU₃O₈ for total contained uranium-oxide of 18.1 Mlb (8,230 t) at 150 ppm cut-off;
- total combined Mineral Resource: 38.9 Mt at 360 ppm eU₃O₈, for total contained uranium-oxide of 30.9 Mlb (13,990 t) at 150 ppm cut-off.

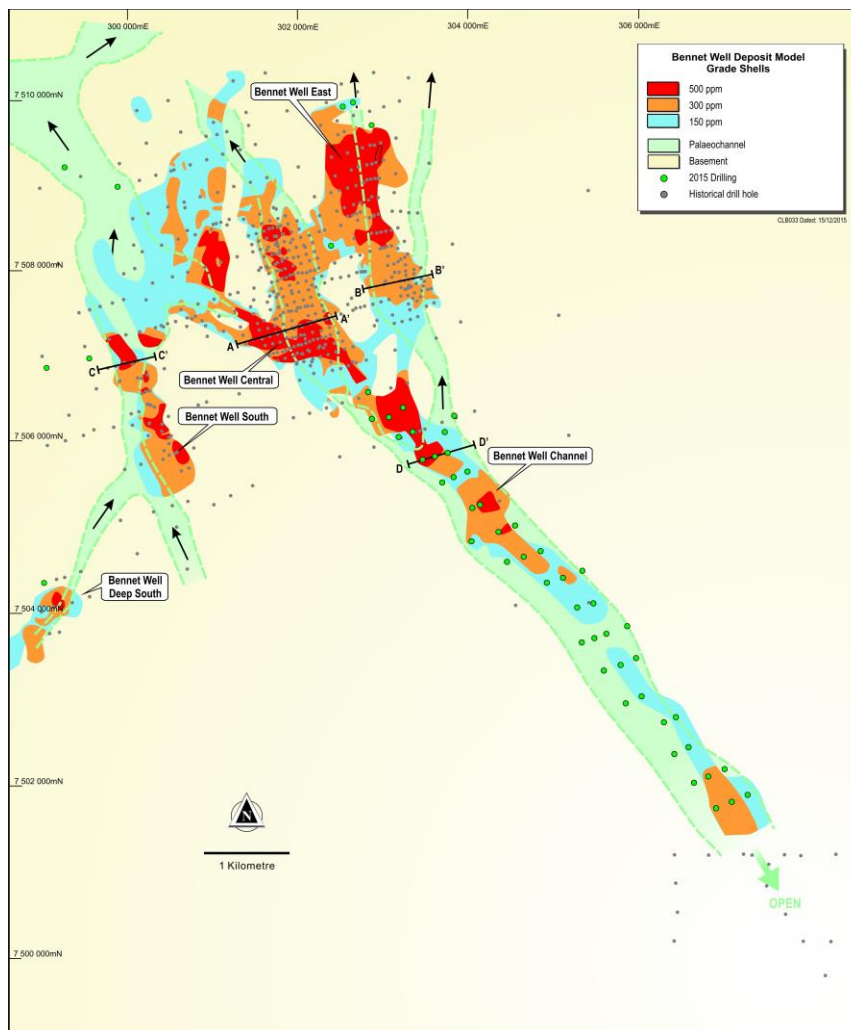


Figure 3: Bennet Well distribution of mineralisation

Commenting on the study, Executive Chairman Mr Tony Sage said “the CSIRO results confirm our view that the Bennett well project is not only viable but will be a low cost producer.”

End

Disclosure Statements

Competent Person Statement

The information in this report that relates to exploration results is based on information compiled by Mr Jess Oram, Exploration Manager of Cauldron Energy. Mr Oram is a Member of the Australasian Institute of Geoscientists who has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration, Results, Mineral Resource and Ore Reserves (JORC Code 2012). Mr Oram consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

The information in this report that relates to the Mineral Resource for the Bennet Well Uranium Deposit is based on information compiled by Mr Jess Oram, Exploration Manager of Cauldron Energy and Mr Stephen Hyland, who is a Principal Consultant of Ravensgate. Mr Oram is a Member of the Australasian Institute of Geoscientists and Mr Hyland is a Fellow of the Australasian Institute of Mining and Metallurgy. Mr Oram has sufficient experience that is relevant to the style of mineralisation, type of deposit under consideration and to the activity being undertaken to qualify as a Competent Person as defined in the 2012 edition of the Australasian Code for Reporting of Exploration, Results, Mineral Resource and Ore Reserves (JORC Code 2012). Mr Oram and Mr Hyland consent to the inclusion in the report of the matters based on this information in the form and context in which it appears.