

Drilling by Cauldron and Korean partners confirms presence of large uranium target in South Australia

Key Points:

- **Wide-spaced reconnaissance drilling identifies sandstone hosted uranium mineralisation over an area of 12 km by 4 km,**
- **Peak uranium result of 245 ppm U₃O₈ with anomalous mineralisation intersected over broad zones of up to 20 metres,**
- **Similar geological setting to the operating Beverley uranium mine, 70 km to the south,**
- **Aggressive fully funded exploration program proposed for 2010, and**
- **Marree Uranium Project is part of the \$6.2 Million Joint Venture between Cauldron, KORES, Daewoo and LG International.**

Australian uranium company, **Cauldron Energy Limited (ASX: CXU)** ("Cauldron" or "the Company"), has, as a result of a recent drilling program, extended and enhanced the uranium discovery made by the Company in October 2008 at its Marree Uranium Project in South Australia.

Due to recently received drilling results the Company has determined the northern side of the Mt Babbage and Mt Painter Inliers as a region favourable for uranium mineralisation, supporting an exploration potential similar to the south-eastern side, which hosts the world class uranium deposits at Beverly and Beverly Four Mile (Figure 1).

Cauldron Chairman, Mr Tony Sage, believes the results of this drilling program have more than justified the Company's enthusiasm for the project.

"Marree is a huge project of almost 3,000 km² and we have always held the belief that it has the potential to become a significant uranium project", said Mr Sage.

"We have completed two small drill programs that have proven why, from all the uranium projects in Australia, our South Korean joint venture partners selected Marree as the one project they wanted to be involved in."

Anomalous uranium mineralisation at the Blanchewater Prospect has been traced for more than 12 km across a width of up to 4 km. The full extent of this anomalism has

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ASX Code CXU
73.0 M ordinary shares
6.8 M unlisted options

Market Cap
A\$36 million (@50c)

Board of Directors

Tony Sage
Executive Chairman

Terry Topping
Chief Executive Officer

Brett Smith
Executive Director

Qiu Derong
Non-executive Director

Kent Hunter
Non-executive Director

Stephen Brockhurst
Company Secretary

yet to be defined, with drilling remaining broad spaced, for the most part tested on a 2 km by 1 km spacing (Figure 2).

The discovery made last year returned a peak intersection of 58 ppm eU_3O_8 over 1.30 metres and identified suitable host rocks and a geochemical environment favourable for uranium deposition. The recent drilling has returned significant results including best interval of 0.60 metres at 180 ppm eU_3O_8 , with a peak individual result of 245 ppm and good widths (up to 20 m) of anomalous uranium in variably reduced and oxidised lignitic sandstones and clays.

Mr Sage stated the Company already had plans for further drilling early next year, and intends to increase the scope of the proposed program. "We are seeing a lot of uranium in the system and are finding multiple areas of deposition. There is a lot more drilling to do and we have yet to focus on where we believe the best areas will be."

Marree Uranium Project Background

The Marree uranium project, located 550km north of Adelaide, comprises five Exploration Licences in the Eromanga Basin adjacent to the uranium-rich Mount Babbage Inlier.

The project area includes the Tertiary Eyre and Namba Formations, host to several sedimentary roll-front uranium occurrences including the Beverley and Honeymoon Well uranium deposits, and the recently discovered high-grade uranium mineralisation at Beverley Four Mile deposit. Interpretation of drainage patterns and the results of the Company's recently completed airborne radiometric survey, indicate uranium is being actively shed into the Marree project area from the adjacent uranium-rich Mount Babbage Inlier and Proterozoic basement. Deposition of uranium is apparent in a number of areas identified by the survey, including a previously un-recognised area in the northwestern part of the project. This area is known to be underlain by the target sediments of the Namba and Eyre Formations and provides an exciting new target area for the Company.

Exploration at Marree is fully funded by a joint venture agreement between the Company and a Korean consortium, comprising of the Korean Government (KORES), Daewoo International Corporation and LG International Corporation. The Korean participants can earn up to an aggregate 50 percent interest in the Marree Project by funding AUD\$6.2M of exploration activities over three years; exploration activities commenced in mid-2009.

Drilling Program

The drilling program comprised 42 holes for 3,121 metres targeting uranium mineralisation in Eyre and Namba Formation sands adjacent to a basement fault structure associated with basement sourcing artesian springs. It is thought these structures may provide an additional pathway for uranium enriched fluids to enter the basin and interact with the target sand units.

The broadly spaced drilling at the Blanchewater Prospect (for the most part on 2 km by 1 km spacings and 400 by 800m spacings in the discovery area) tested and in-filled approximately 15 km strike length of an interpreted palaeochannel system; previous drilling by the Company in this area intersected

significant thicknesses of anomalous uranium, (up to 10x background over four kilometres) within variably reduced and oxidised lignitic mudstone and associated coarse sands.

The recently completed mud rotary program conducted on six east-west oriented lines identified anomalous uranium mineralisation over 12 km across widths up to 4 km, and returned a number of significant results, including 0.60 metres at 180 ppm eU₃O₈, up to a peak of 245 ppm in hole MAMR052, along with significant widths (up to 20 m) of anomalous uranium in variably reduced and oxidised lignitic sandstones and clays.

Drill hole MAMR052, on the eastern end of the northern most drill-line, intersected a broad zone of anomalous uranium mineralisation within reduced lignitic Eyre Formation sands and clays. Down hole gamma probing identified three distinct mineralisation horizons of between 1 to 2 metres in thickness, up to a peak of 245 ppm eU₃O₈ (Figure 3). These horizons occur within a broader 20 metre zone of uranium anomalism, which remains open to the north, south and east.

Marree Drilling Significant Intercepts (100 ppm eU₃O₈ cut-off)

Hole ID	From (metre)	To (metre)	interval (metres)		eU ₃ O ₈ ppm	Max eU ₃ O ₈ ppm
MAMR034	45.80	46.45	0.65	at	137	170
MAMR043	13.80	14.40	0.60	at	112	128
MAMR052	98.15	99.20	1.05	at	117	153
	106.85	107.45	0.60	at	180	245
	108.35	108.80	0.45	at	136	170
	111.25	111.85	0.60	at	142	204
MAMR054	88.85	89.20	0.35	at	119	130
	89.95	90.30	0.35	at	113	130

Figure 1- Marree Project Location, Geology and Target Area

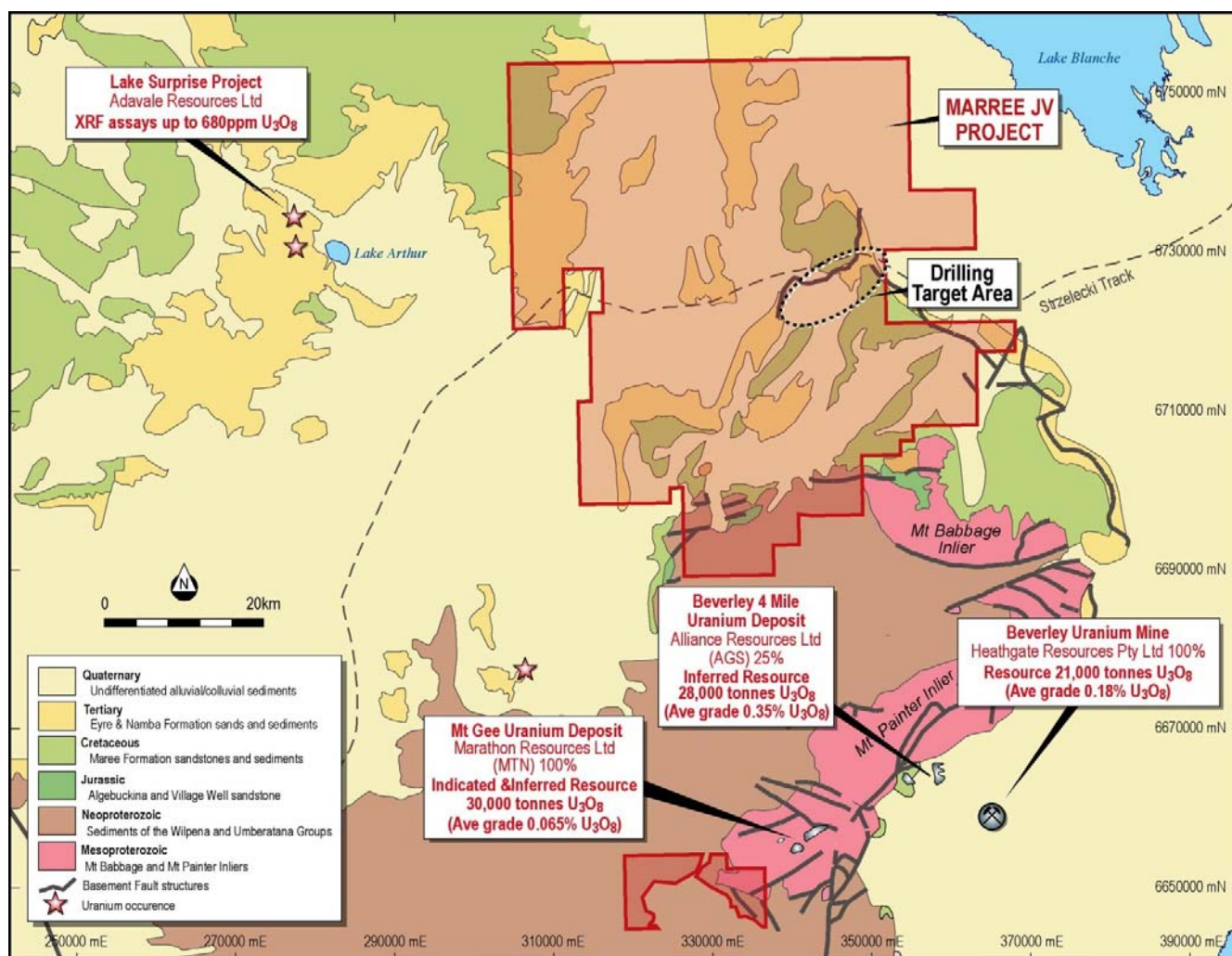


Figure 2 - Blanchewater Prospect Drill Hole Location on Satellite Image.

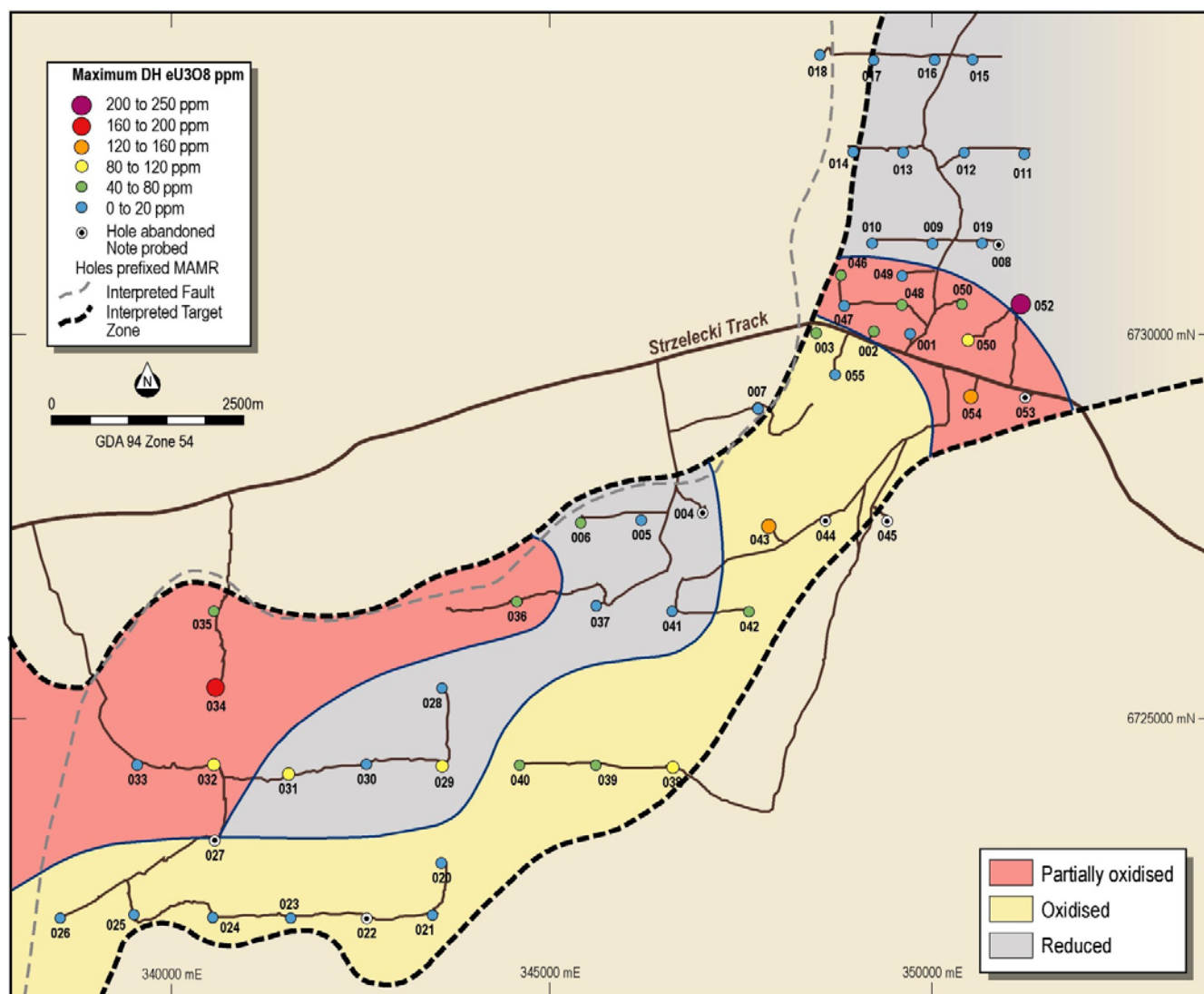
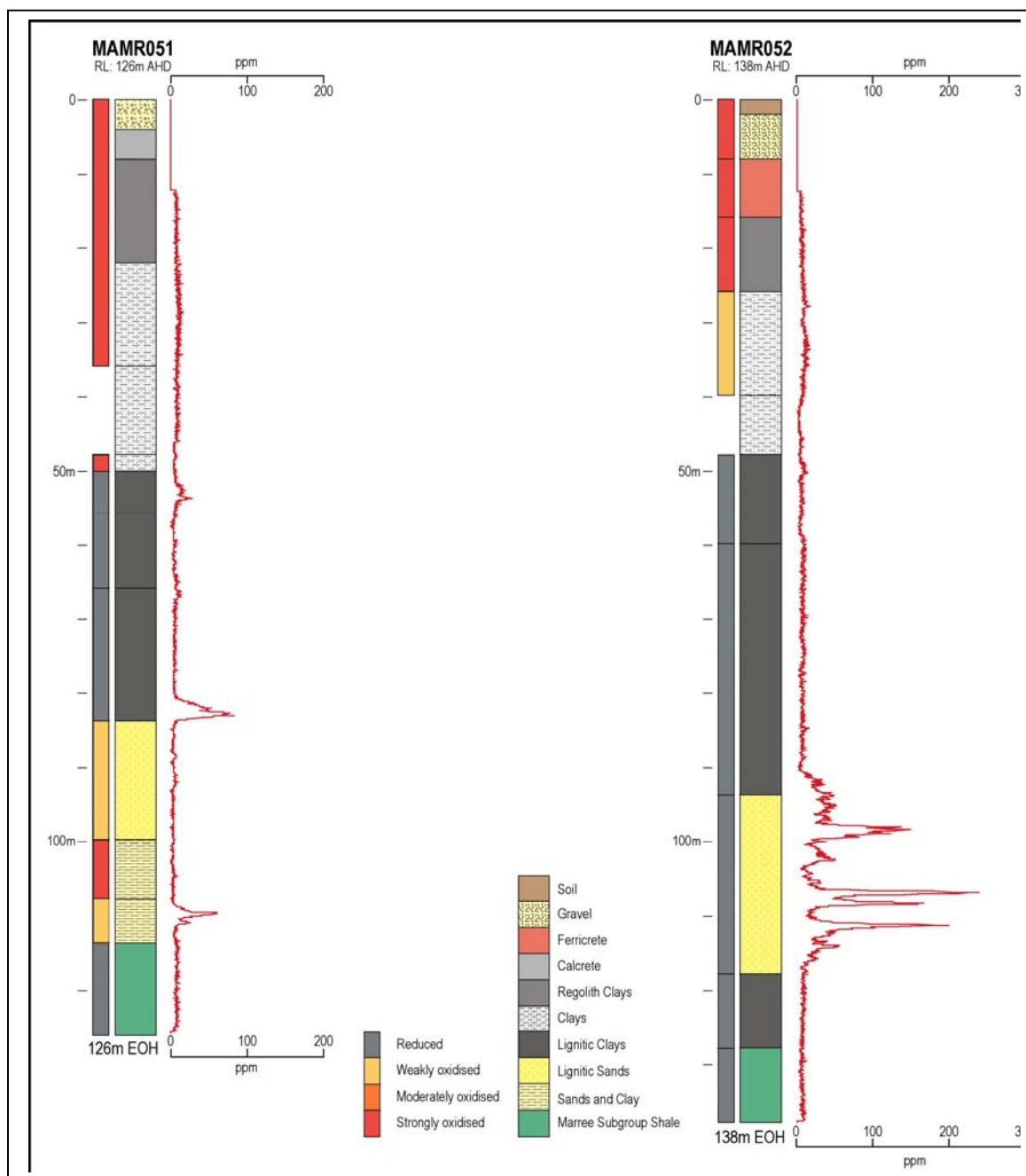


Figure 3 – Cross section for MAMR051 and MAMR052.



The results of the recently completed drilling confirmed the presence of significant thicknesses of uranium mineralisation, up to 245 ppm eU₃O₈, within Eyre and Namba Fm sediments at the Blanchewater Prospect. The drilling has traced this anomalous mineralisation, for more than 12 km across widths up to 4 km. The prospect remains open and unconstrained in a number of directions and establishes a significant uranium target that will be the focus of exploration in 2010 .

Ends

For further information visit www.cauldronenergy.com.au or contact:

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*** Analytical Method**

All holes were gamma logged by Borehole Wireline P/L with an Geovista 38mm total count gamma tool. The gamma tool was calibrated in Adelaide at the Department of Water, Land and Biodiversity Conservation in calibration pits constructed under the supervision of CSIRO. The gamma tool measures the total gamma ray flux in the drill hole. Readings are averaged over 5 centimetre intervals and the reading and depth recorded on a portable computer. The gamma ray readings are converted to equivalent U₃O₈ readings by using the calibration factors derived in the Adelaide calibration pits. These factors also take into account differences in hole size and water content. The grade and calibration was calculated by Duncan Cogswell BSc(hon) MSc MAusIMM from Borehole Wireline based in South Australia. Grade thickness intervals were calculated by David Wilson BSc MSc MAusIMM from 3D Exploration Ltd based in Western Australia.

The gamma radiation used to calculate the equivalent U₃O₈ is predominately from the daughter products in the uranium decay chain. When a deposit is in equilibrium, the measurement of the gamma radiation from the daughter products is representative of the uranium present. It takes approximately 2.4M years for the uranium decay series to reach equilibrium. Thus, it is possible that these daughter products, such as radium, may have moved away from the uranium or not yet have achieved equilibrium if the deposit is younger than 2.4M years. In these cases the measured gamma radiation will over or under estimate the amount of uranium present. Sandstone hosted roll front mineralisation may not be in equilibrium due to one of the above factors.

Competent Person Statement

The information in this report to which this statement is attached that relates to Cauldron Energy Limited's Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Mr Brett Smith and Mr Terry Topping who are Members of the Australasian Institute of Mining and Metallurgy. Mr Smith and Mr Topping are full-time employees of Cauldron Energy Limited. Mr Smith and Mr Topping have sufficient experience which is relevant to the styles of mineralisation and types of deposits under consideration. They are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Both Mr Smith and Mr Topping consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

Cauldron Energy Assets

Argentina

Rio Colorado Uranium-Copper-Silver Project, Argentina - Substantial deposit outcropping for 16km, containing numerous small scale workings completed by the Atomic Energy Commission of Argentina (CNEA) in the 1950's and 1960's. Stage 1 exploration target is designed to satisfy Argentina's current "life-of-reactor" uranium requirements of 7,500t U₃O₈ (16.5 M lbs U₃O₈).

Las Marias Uranium Project, Argentina - 7km unit of outcropping uranium-rich sandstones. This was one of the main exploration projects for the Atomic Energy Commission of Argentina (CNEA) during the 1970's. Historical records for the surface sampling, geophysics and drilling have yet to be located..

Australia

Yanrey Project, Western Australia - Advanced exploration project at the Bennet Well Deposit where an initial inferred JORC compliant resource of 4.8 million pounds of eU₃O₈ has been outlined.

Marree Uranium Project, South Australia - A\$6.2 M farm-in and JV with Korean consortium; five exploration licenses covering 2,974 km² in the Eromanga Basin adjacent to the uranium-rich Mount Babbage Inlier.

Lake Frome Project, South Australia - Nine granted exploration licenses in four project areas; recent drilling identified anomalous uranium mineralisation over 4km.

Amadeus Project, South Australia - Three granted exploration licenses adjacent to the Pamela and Angela uranium deposits; recent drilling identified significant uranium mineralisation across 9km.

Eclipse Project, Northern Territory - Four granted exploration licenses and three license applications covering 7,928 km² of the Ngalia Basin, prospective for sandstone and calcrete hosted uranium mineralisation.