

# Arnhem Land TCC4 Project Drilling Update – 10 October 2018

Alligator Energy Limited (Alligator or the Company) advises that it has completed its exploration drilling program at the TCC4 uranium prospect in the Alligator Rivers Uranium Province (ARUP) in Arnhem Land, Northern Territory. This work is in support of AGE's strategy to discover 100 Mlbs of uranium in the ARUP region.

## Highlights

- Seven holes were completed to depths of between 200 and 400 metres over a strike length of 1600 metres (refer Figure 1).
- This is the first drilling in a very prospective 4 by 2km undercover target area and has been highly encouraging, and will provide valuable information for future targeting.
- The Cahill Formation (host formation for Ranger and Jabiluka) was intersected and drilled as anticipated.
- The unconformity between the overlying sandstone and the basement Cahill Formation was intersected as predicted, with depths varying from 108 metres to 209 metres.
- Significant alteration of host rocks was found in five holes, this is similar alteration to that found at known uranium deposits of the province.
- It is believed this alteration successfully reflects the SAM geophysics conductivity results.
- Alteration is located in both the Cahill and the overlying sandstone.
- While no significant intercepts of uranium were found based on scintillometer readings, selected assays are being sent for analysis and will be reported when complete.

There is now significant work to be undertaken over the coming weeks in finalising core logging and assaying, along with stratigraphic and lithological interpretation. This will then be collated into Alligator's geological database to allow re-interpretation of the geology and targeting based on these results.

Alligator has engaged one of the worlds most experienced uranium geologists to assist our exploration team in this task. The geologist has extensive global uranium experience and has been successful in exploration in both the ARUP, and the Athabasca basin in Canada.

AGE's CEO Greg Hall commented today: "The first drilling at the TCC4 prospect has, we believe, proved many aspects of our geophysics and geochemical targeting, and has provided excellent first in-ground geological information. We will be refining our models based around this for future planned work. While no immediate significant uranium has been identified based on scintillometer readings, we have covered only part of our target area. It must be remembered that even drilling 100m away from the Ranger deposits would have found no anomalous uranium mineralisation.

Alligator Energy Ltd

ABN 79140575604

Suite 3 36 Agnes Street Fortitude Valley, QLD 4006

Ph: (07) 3852 4712 Fax: (07) 3852 5684

ASX Code: AGE

Number of Shares:

987.9 M Ordinary Shares 310.4 M Listed Options 4.2 M Unlisted Options

**Board of Directors:** 

Mr John Main (Chairman)

Mr Paul Dickson (Non Exec. Director)

Mr Peter McIntyre (Non Exec. Director)

Mr Andrew Vigar (Non Exec. Director)

> Mr Greg Hall (CEO & Exec. Director)



# TCC4 uranium prospect drilling summary

Alligator advised on 4 September 2018 the commencement of its Alligator Rivers Uranium Province (ARUP) drilling program, targeting its advanced TCC4 uranium prospect.

Drilling at the TCC4 prospect has been conducted along four target lines across 1,600 metres at the north eastern end of a 4,000 metre long zone of coincident SAM geophysical and radiogenic pathfinder surface anomalies. This represents 40% of the anomalous strike length.

Seven holes for a total of 2138m were completed between 1<sup>st</sup> September and the 10<sup>th</sup> October (refer Table 1). Being the first holes targeting concealed uranium deposits under sandstone cover using Alligator's combined proprietary geochemical sampling and geophysical methods, results have proved highly encouraging.

From the seven holes drilled, five have intersected key target features, including:

- Graphitic schists of the Cahill formation.
- Brecciated basement structures not reflected in sandstone cover.
- Chlorite and haematite alteration in both basement and overlying sandstone cover.
- Garnetiferous schists comparable to Mid-Cahill found proximal to Ranger and Jabiluka.
- Carbonate veins at depth believed to be re-mobilised from deeper Lower Cahill formation.

These key features indicate geophysical and stratigraphic targeting has been successful with Lower Cahill indicated further to the north-west. The drill rig and drilling crew have now commenced demobilisation.

Over the coming weeks, ongoing geological interpretation and modelling will be completed to further refine future targeting methods and the interpreted location of Lower Cahill formation. Drill samples will be assayed for geochemical pathfinders, including radiogenic isotopes. Values will be modelled downhole and in conjunction with existing surface samples to further vector the source(s) of the TCC4 anomaly. Select samples will also be sent to NTGS for Hylogger analysis to identify potential hydrothermal clay alteration halos similar to those observed above the Angularli deposit, also in the ARUP. Once alteration, geochemistry and geology from this drilling have been modelled, it will be utilised to direct follow up drilling where favourable Lower Cahill stratigraphy is interpreted to intersect fertile structures proximal to the unconformity





Figure 1 – ARUP TCC4 drilling program showing drill hole locations on aerial imagery with SAM depth slice overlay.

Hole ID	MGA East	MGA North	RL	Azim	Dip	Depth (m)
TCRD18-001	320924	8612402	253	140	-75	283
TCRD18-002	321048	8612225	251	150	-80	337
TCRD18-003	321009	8612300	246	135	-75	286
TCRD18-004	320922	8612408	253	350	-70	403
TCRD18-005	321288	8612566	233	315	-80	253
TCRD18-006	321743	8612898	216	90	-80	192
TCRD18-007	320379	8611933	261	315	-70	384

Table 1 – ARUP TCC4 drilling program drill hole specifics.

# **Greg Hall**

**Executive Director & CEO** 

# FOR FURTHER INFORMATION, PLEASE CONTACT

Mr Greg Hall	Mr Mike Meintjes		
Executive Director and CEO	Company Secretary		
Alligator Energy Ltd	Alligator Energy Ltd		
Email: gh@alligatorenergy.com.au	Email: mm@alligatorenergy.com.au		



## **Competent Person's Statement**

#### Uranium

Applicable information in this report is based on current and historic Exploration Results compiled by Mr Andrew Peter Moorhouse who is a Member of the Australasian Institute of Geoscientists. Mr Moorhouse is an employee of Alligator Energy Limited, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking 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 Moorhouse consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

### **About Alligator Energy**

Alligator Energy Ltd (Alligator or the Company) is an Australian, ASX-listed, exploration company focused on uranium and energy related minerals, principally cobalt-nickel.

Alligator's Directors have significant experience in the exploration, development and operations of both uranium and nickel projects (both laterites and sulphides)

#### Uranium

The Company's uranium exploration projects are in the world class Alligator Rivers Uranium Province in Arnhem Land, Northern Territory. The Alligator Rivers Uranium Province contains nearly 1 billion pounds of high grade uranium resources, including past production from the Ranger Mine and the undeveloped Jabiluka deposit. The company's Tin Camp Creek and Beatrice tenements form the focus of its exploration but the company also assesses other opportunities as they arise. The exploration target is a deposit containing no less than 100 million pounds of uranium preserved beneath covering sandstone.

The company is researching and developing novel uranium decay isotope geochemical techniques and has modified and is applying airborne geophysical techniques with the objective of detecting such concealed targets. The Company's high priority drill target is TCC4 on the Tin Camp Project. The previously drilled Caramal (6.5Mlb U3O8 at 3100ppm U3O8) and Beatrice deposits represent eroded remnants of once much larger deposits.

The Company also has in excess of 1000km2 of Exploration Licence applications awaiting grant within the Alligator Rivers Uranium Province.

#### Cobalt- Nickel

Alligator signed a binding Heads of Agreement with Chris Reindler and Partners (CRP) in January 2018 to earn up to 70% interest in the Piedmont sulphide cobalt – nickel project in Northern Italy.

The project covers four titles containing ultramafic-hosted cobalt-nickel sulphide deposits that were mined between the 1860's and the end of World War II. Sulphides in pipe-like intrusive bodies and massive sulphide accumulations at the base of large, layered ultramafic intrusions were mined. The cobalt to nickel ratio was high in these deposits. Airborne surveys obtained by CRP have defined a number of conductors potentially indicative of massive sulphides as well as a number of magnetic features which may represent the responses from intrusive bodies hosting disseminated sulphides. These represent very attractive targets in an area with clear cobalt-nickel pedigree untouched by modern exploration techniques.



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## NT Australia – ARUP U:



Northwest Italy – Piedmont Ni-Co:

