

Work Advances at Samphire Uranium Project

Alligator Energy (ASX: AGE, 'Alligator' or 'the Company') is pleased to provide the following update covering progress in preparing for the In-Situ Recovery (ISR) Field Recovery Trial (FRT), the ongoing 2024 Resource extension drilling at the Blackbush Deposit, and other work programs at the Samphire Uranium Project, near Whyalla, South Australia.

Highlights:

- Fabrication of the FRT processing plant in Adelaide essentially complete and modules are undergoing Factory Acceptance Testing prior to being transported to Whyalla ahead of securing the necessary approvals to conduct the trial.
- The Company has recently provided the Department for Energy and Mining (DEM) a formal response to matters that arose from the public and Govt Departmental consultation on the Retention Lease (RL) Proposal for the FRT. The Company anticipates the review period for this response will take six to eight weeks.
- A Program for Environmental Protection and Rehabilitation (PEPR) will be submitted post granting of the RL. Approval of the PEPR is the final step in the regulatory process to commence on-site construction of the FRT infrastructure.
- On-site FRT construction and commissioning plans are under development for initiation once both the RL and supporting PEPR are approved.
- Drilling on a rotation basis to the west, north-east and south of the current Blackbush Mineral Resource envelope continues to identify potential extensions to the uranium roll-front system.
- Ground gravity survey has commenced, designed to delineate the palaeochannel system south of the known Samphire Uranium deposits (Blackbush and Plumbush).

Alligator's CEO Greg Hall stated: "The completion and acceptance testing of the FRT pilot process containerised IX and wellhouse modules is an important step, and along with the Reverse Osmosis plant testing (also completed) ensures the Company will be ready for FRT construction upon granting of the Retention Lease and approval of the PEPR operating plan. Alligator has communicated widely to stakeholders the detail of its field recovery trial plans, the minimal and very localised impact this will have, and the important uranium recovery, environmental, rehabilitation and economic data it will provide.

The resource extension drilling at Blackbush is indicating potential extensions to the current mineralised envelope, and the first-round drilling data, results and interpretation will be released to shareholders and the market in the coming months.

An extension of the ground gravity survey onto EL 6350 to the south of the Plumbush deposit – Alligator's first work on this EL, is targeting anticipated palaeochannel extensions to the south of the current channels. There are existing historical intersections of uranium above cut-off grade within this tenement."

Field Recovery Trial Update

In August 2023, AGE submitted its full Retention Lease Proposal to DEM to conduct a pilot ISR field trial. A public review and consultation period for this proposal concluded late September 2023 with formal feedback received from DEM on 20 December 2023 regarding the public and various SA Government Department's submissions. Alligator is pleased to advise that Company's formal responses to the matters raised from the consultation have been submitted to DEM. We have been advised the review period for this response will take six to eight weeks pending no further clarifications being required. A Program for Environmental Protection and Rehabilitation (PEPR) is currently being drafted and will be submitted post granting of the RL. Approval of the PEPR is the final step in the regulatory process to commence on-site construction of the FRT infrastructure.

Fabrication of the containerised FRT plant by Adelaide Control Engineering is essentially complete with the ion exchange and wellhouse modules commencing Factory Acceptance Testing on 19 March 2024 prior to transport to Whyalla. The scope for on-site assembly is being prepared for requests to quote from Whyalla-based construction contractors/businesses.



Figure 1: IX columns completed installation inside container. Pump skids in the foreground connected in readiness for Factory Acceptance Testing.

Resource Extension Drilling Update

Since 29 January 2024, the Company's rotary mud drilling contractor has been drilling on a rotation basis (2 week on 1 week off). To date 30 holes have been drilled (2,437 metres) with the first-round program scheduled to continue through to the mid-April when a 4 to 6 week break will be taken to facilitate pastoral activities (lambing).

The drilling to date has been focussed on drill testing three areas, including:

- area immediately adjacent to the western limits of the Blackbush West mineralised envelope;
- an area ~300-400m east of Blackbush East, and;
- southern palaeochannel extensions to the mineralised envelope.

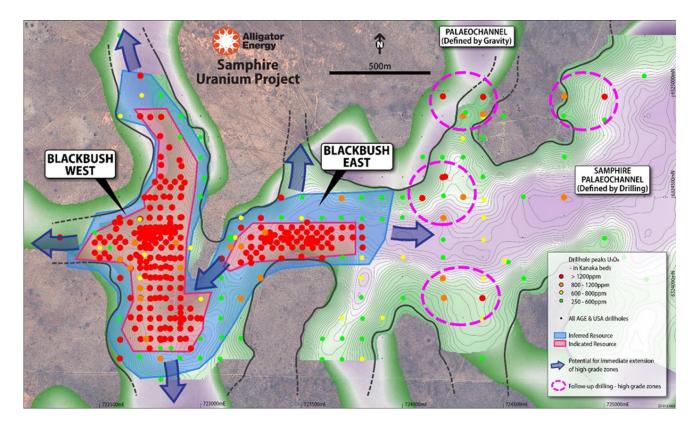


Figure 2: Current Inferred resource area outline (blue) and Indicated Resource area outline (red) of Blackbush minerals resource estimate (Refer to AGE ASX release dated 7 December 2023: "Successful Upgrade of Indicated Minerals Resource – Samphire").

Currently, drilling to the west of Blackbush West appears to be extending the mineralisation by approximately 100 to 200 m from the boundary of the known Mineral Resource envelope. Similarly drilling to the east of Blackbush East has identified the presence of mineralised roll-fronts in the closest of the target areas (indicated by purple circles on the above map).

Drilling will continue in these areas along with the southern palaeochannel extension to approx. mid-April after which a 1-month break will commence to accommodate pastoral activities. During this time Alligator will update the market on the first-round results and data. Drilling will resume

mid-late May and will continue to the end of the year when a full JORC compliant mineral resource update will be undertaken.

Commencement of additional Acquisition of Ground Gravity

The AGE team has assessed the historical regional geophysics to select the optimal geophysical method for mapping the Samphire palaeochannel system (host to the uranium mineralisation at the Blackbush deposit and Plumbush prospect). The Samphire palaeochannel is incised into the Hiltaba Suite Samphire Granite which provides a lithological density contrast at the contact which ground gravity can successfully detect. The historical gravity data collected at 100m x 200m grid spacing shows an excellent correlation between gravity-mapped paleochannels and drilling (Figure 2).

Daishsat Geodetic Surveyors are now on location acquiring ground gravity data south of the Plumbush prospect on Exploration License (EL) 6350 where historical drilling¹ shows the presence of paleochannel-hosted uranium mineralisation. In addition, Daishsat will acquire gravity data north of the Blackbush system on EL5926 to delineate further palaeochannels in areas where channels have not yet been delineated but are believed to exist (Figure 3).

With 64 kms of known palaeochannel strike length, only 10% of the prospective system (Blackbush Deposit and portion of Plumbush Prospect) have been well explored, with a further 32% only partly drill tested on wide drill spacings. The data from the current gravity survey will complete Alligators understanding of extensions to the system adding further potential target areas to its pipeline of future exploration drilling programs.

¹ Refer UraniumSA ASX Release – 8 April 2011 "Maiden Resource Estimate", https://www.asx.com.au/asxpdf/20110408/pdf/41xy4brvxj3d3c.pdf

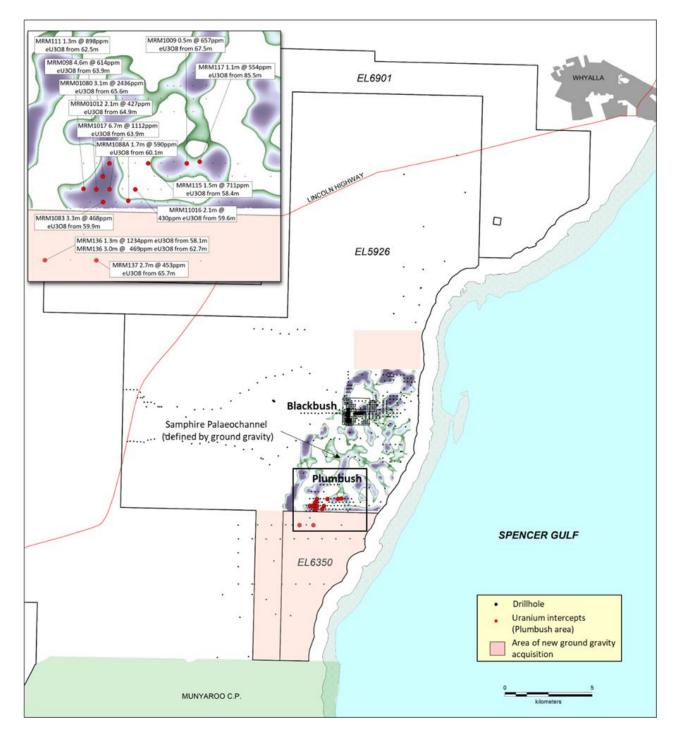


Figure 3: AGE's Samphire project tenement holding showing location of historical and recent (AGE) drillholes, historical ground gravity, the extent of the Samphire palaeochannel system, historical uranium intersections near the Plumbush prospect¹ and location of area acquisition of new ground gravity data.

This announcement was authorised for release by the CEO and Managing Director.

Contacts

For more information, please contact:

Mr Greg Hall CEO & Managing Director gh@alligatorenergy.com.au Mr Mike Meintjes Company Secretary mm@alligatorenergy.com.au

For media enquiries, please contact:

Alex Cowie Media & Investor Relations alexc@nwrcommunications.com.au

Forward Looking Statement

This announcement contains projections and forward-looking information that involve various risks and uncertainties regarding future events. Such forward-looking information can include without limitation statements based on current expectations involving a number of risks and uncertainties and are not guarantees of future performance of the Company. These risks and uncertainties could cause actual results and the Company's plans and objectives to differ materially from those expressed in the forward-looking information. Actual results and future events could differ materially from anticipated in such information. These and all subsequent written and oral forward-looking information are based on estimates and opinions of management on the dates they are made and expressly qualified in their entirety by this notice. The Company assumes no obligation to update forward-looking information should circumstances or management's estimates or opinions change.

Competent Person's Statement

Information in this report is based on current and historic Exploration and Resource Drilling Results compiled by Dr Andrea Marsland-Smith who is a Member of the AusIMM. Dr Marsland-Smith is employed on a full-time basis with Alligator Energy as Chief Operating Officer, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration (including 21 years in ISR uranium mining operations and technical work) and to the activity she 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. Dr Marsland-Smith consents to the inclusion in this release of the matters based on her information in the form and context in which it appears.

About Alligator Energy

Alligator Energy Ltd 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).

Projects NT, AUSTRALIA ITALY **Alligator Rivers** (ARUP) **Piedmont NW** High Grade U Ni-Co-Cu-Au-PGEs SA, AUSTRALIA Big Lake SA, AUSTRALIA (Cooper Basin) ISR style U Samphire ISR style U resources