

## Alligator Energy Projects Update

**Alligator Energy (ASX: AGE, 'Alligator' or 'the Company')** is pleased to provide the following update regarding recent progress on its portfolio of development and exploration projects:

### Highlights:

- **Retention Lease application well progressed for the conduct of a Field Recovery Trial at Samphire in early 2024.**
- **Off-site fabrication of the Field Recovery Trial pilot plant is well underway.**
- **Resource drilling nearing completion, targeting an updated JORC Mineral Resource Estimate and updated Scoping Study for Samphire during November 2023.**
- **Work has commenced on preparing an Exploration Target Range for the Samphire Project covering both the wider Blackbush Deposit and Plumbush Deposit.**
- **A significant IP survey has been completed over a portion of the Nabarlek North tenements in the Alligator Rivers Uranium Province (ARUP).**
- **Over 200 basement sampling air-core holes have been completed at Nabarlek North with samples sent for assay, with all results to feed into an updated geochemical and geological model.**
- **An initial RC drill program may be undertaken late this year testing deeper basement structure and lithologies, dependent on rig availability.**
- **Alligator is awaiting advice on timing for an indigenous field survey for the inaugural Big Lake Uranium drill program.**

### Samphire Project

- During February 2023 AGE submitted a first draft of its Retention Lease (RL) application to the SA Department for Energy and Mining, to conduct a pilot In-Situ Recovery (ISR) Field Trial at its Samphire Uranium Project, 20km south of Whyalla on the Eyre Peninsula. After initial review and feedback from the DEM, and the collation of additional required groundwater and other data, the final RL application document was submitted on 18 August 2023. As part of the formal review and approval process, a public review and consultation period for this application has recently concluded and AGE will now consider and respond to public submissions as next steps toward granting of the RL.
- Resource drilling operations continue at the Blackbush Deposit focussing on increasing the confidence of the Mineral Resource Estimate (MRE) through conversion of the Inferred category to Indicated status (refer Figure 1). AMC Consultants have been engaged to update the MRE, targeting transfer of all additional drill data to them by end of September 2023.

- AGE has commenced work on an initial Exploration Target Range for the broader Samphire project targeting completion in November 2023.
- Adelaide-based Wallbridge Gilbert Aztec consultants have been engaged to update the Samphire Scoping Study (ASX release 14 March 2023) in parallel with the MRE update work, also targeting announcement in November 2023.
- A Heritage Survey with representatives from the Barngarla Determination Aboriginal Corporation (BDAC) was conducted on 29 August 2023 over selected areas at Samphire. This survey was required to undertake drilling targeting extensions to the known Blackbush mineralisation and further step-out drilling in areas outside of the Blackbush mineralisation envelope.
- Installation of up to 18 groundwater investigation wells in the Blackbush area will commence early October to add to the baseline groundwater quality data.
- Fabrication of the containerised pilot plant for the FRT continues, targeting completion December 2023.

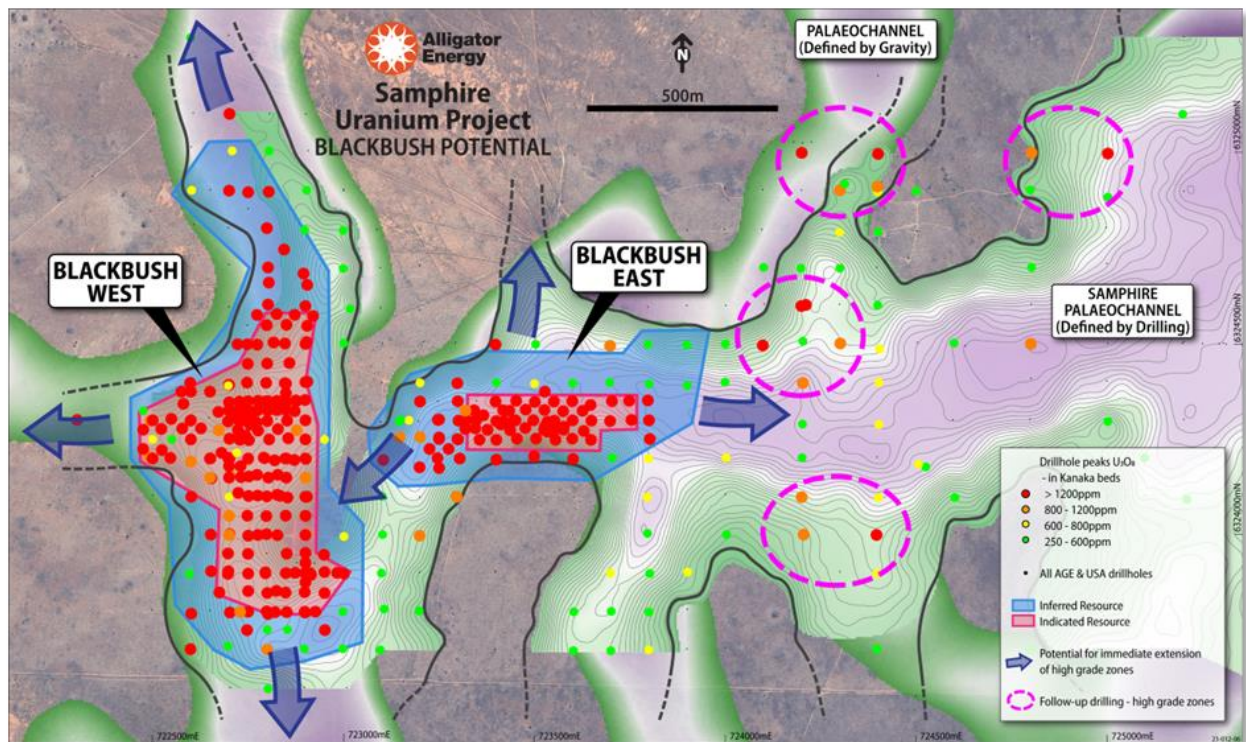


Figure 1: Current Inferred resource area outline (blue) and Indicated Resource area outline (red) showing AGE 2023 drilling focussed within the Inferred Resource envelope.

Further resource extension potential (arrows and pink circles) will be incorporated into an Exploration Target Range being compiled now, with resource drilling in these areas planned for next year.



*Photo 1 and 2: Progress of well house fabrication inside transportable container for Field Recovery Trial pilot plant - off-site fabrication.*

## **Nabarlek North**

- A gradient IP program covering 17 km<sup>2</sup> over the southern portions of the Nabarlek North tenements EL31480 and 28390 has now been completed. Two lines of 25 m station pole-dipole were also added to provide detailed imaging over specific targets identified on southern sections of the tenure, including adjacent to the DevEx (ASX: DEV) U40 prospect.
- As of 20 September 2023, 217 basement sampling air-core holes had been completed for a total of 3,900 m with 1,008 assay samples collected. This program will be on-going until the onset of the wet season in northern Australia.
- Geological mapping and soil and stream sediment sampling remains on-going.
- A small RC drilling program (less than 2000 m over ~ 10 holes) is being considered before the end of the 2023 field season to test a number of geochemical, geophysical and/or structural features identified at depth. The proposal is dependent on rig availability.
- A more detailed update on drilling, geochemistry, IP and geological findings will be provided post end of season after assays received and detailed interpretation work has been completed.

## **Big Lake**

- A reconnaissance visit was undertaken in late June 2023 to gauge access, accommodation alternatives and logistical issues.
- A pre-clearance site visit with the Yandruwandha Yawarrawarrka Traditional Landowners Aboriginal Corporation (YYTLOAC) was then undertaken in late July 2023 to appreciate Traditional Owner heritage concerns and finalise areas for drill hole siting.
- Advice on the timing of a full heritage clearance for drilling by the YYTLOAC is currently awaited and is expected to occur in the last quarter of 2023. We are aware they are engaged with another company on a significant heritage survey.

- An inaugural drilling program at Big Lake is now likely to be deferred to February/March 2024.

## **Piedmont Project**

- A field mapping program in May 2023 acquired 81 samples for geochemical assay. Sampling focussed on the Alpe Laghetto and La Balma mineral occurrences, the former being a historic Ni-Cu-Co working.
- Geochemical assaying covering 52 elements and compositions was accompanied by petrology and petrophysical analyses on 9 and 34 samples respectively. When integrated with 2022 EM survey results, the combined datasets do not provide compelling cases to proceed to a drilling program at this stage.
- However, with limited systematic exploration throughout the district, the tenure still holds considerable untested potential for Ni Co Cu mineralisation on the doorstep to Western Europe.
- AGE in agreement with its Piedmont JV partner will now proceed as follows:
  - Finalise with Regione Piemonte retention of the Alpe Laghetto licence going into 2024.
  - Develop a systematic Project-wide exploration program covering a two-year timeframe and a minimum resource target threshold.
  - Re-initiate a search for a partner with a specific focus on strategic minerals based in or currently operating in the EU.

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

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## Forward Looking Statement

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## 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

