ASX Announcement

9 September 2022

First Step in Pursuing Resource Growth at Samphire

Alligator Energy (ASX: AGE, 'Alligator' or 'the **Company')** is pleased to advise that its high-resolution ground gravity survey across the Blackbush Deposit has commenced. The objective of this survey is to accurately characterise the palaeochannel hosting the Blackbush uranium mineralisation and optimise parameters for a regional gravity survey between the Blackbush and Plumbush Deposits.

Separately, planning for mobilisation of the infill and extension drilling program of approximately 100 holes at the Blackbush Deposit is now underway and on track for commencement in the first week of October 2022.

Highlights

- A high-resolution ground gravity survey has commenced over the entire Blackbush Deposit. Daishsat Geodetic Surveyors is conducting the survey on Alligator's behalf, specifically lifting the resolution of the gravity data over the deposit as the resolution of the historical geophysics is insufficient to delineate, to a high-resolution, the palaeochannel which hosts the uranium mineralisation.

- Results from this survey will inform the design of AGE's next drilling program commencing in the first week of October 2022 and will inform the parameters used in planning the next round of ground gravity capture between Blackbush and Plumbush Deposits; the backbone of AGE's 2023 regional exploration targeting uranium mineralisation outside of the known deposits.

- Alligator continues to investigate innovative geoscience techniques to improve the effectiveness of its exploration efforts. In this regard Fleet Space Technologies have recently completed an Ambient Noise Tomography (ANT) trial at Blackbush to test the effectiveness of using this method to not only map the Samphire palaeochannel but also its internal stratigraphy. It is hypothesised that this technique will facilitate rapid drill targeting during future exploration programs.

Greg Hall, Alligator CEO, said: *"The Samphire Project Team, led by Chief Operating Officer, Andrea Marsland-Smith, has been rapidly progressing our understanding of the detailed stratigraphy and mineralisation within the Blackbush Deposit, leading to our recent enhanced mineral resource estimate. The commencement of this high-resolution gravity survey is the next step to target extensions to the resource at Blackbush, and ultimately to the broader Samphire channel system which extends around and to the south of Blackbush. Alligator continues to use latest innovative technologies to improve and enhance its work, whilst minimising impact on the land."*

Samphire High Resolution Ground Gravity Survey

The Samphire palaeochannel which hosts the Blackbush, and Plumbush Deposits are incised into the Hiltaba Suite Samphire Granite (Figure 1). The density contrast between the granite (high density) and the overlying palaeochannel sediments (low density) can be clearly seen in the historical regional ground gravity data (Figure 2A & B).

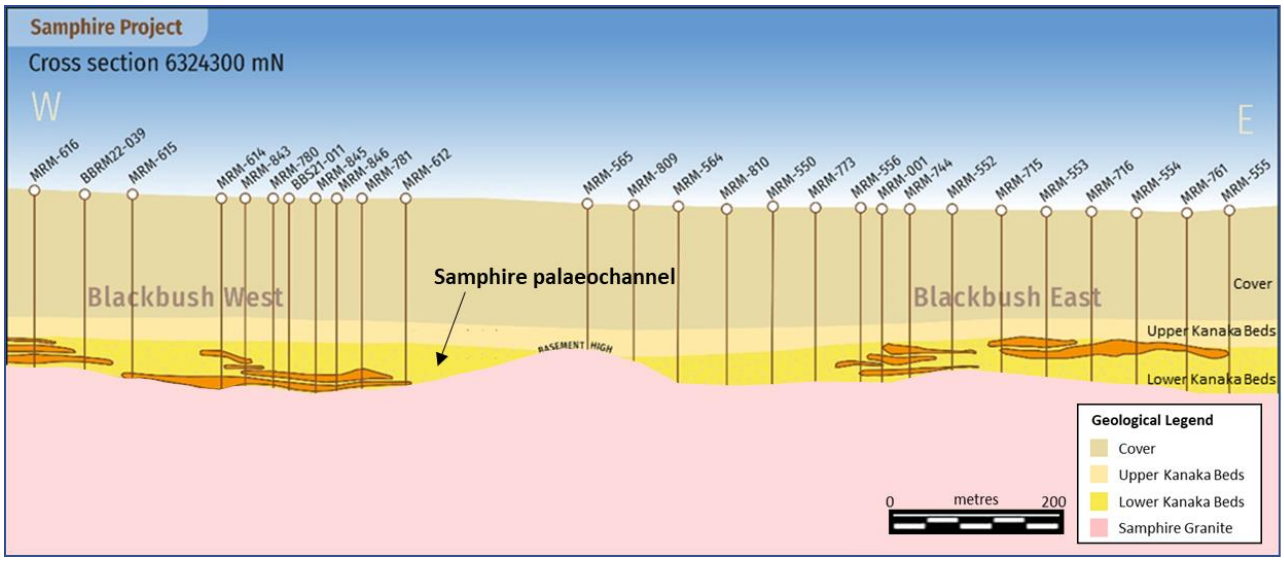

Figure 1: Cross section 6324300 mN through the Blackbush Deposit showing multi-level high-grade zones (>250ppm cut-off) on simplified geology. Note Samphire palaeochannel incised directly into Samphire granitic basement.

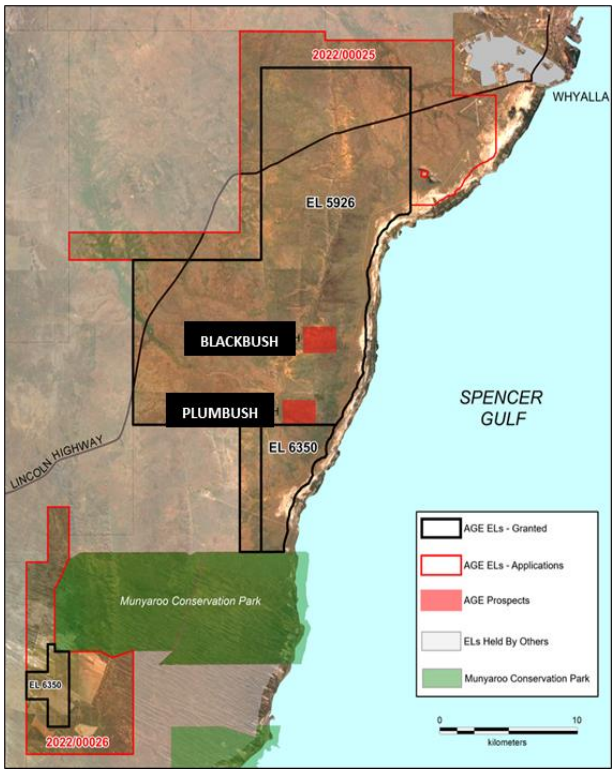

Figure 2A: Location map of Samphire Project showing location of Blackbush and Plumbush Deposits and AGE tenure.

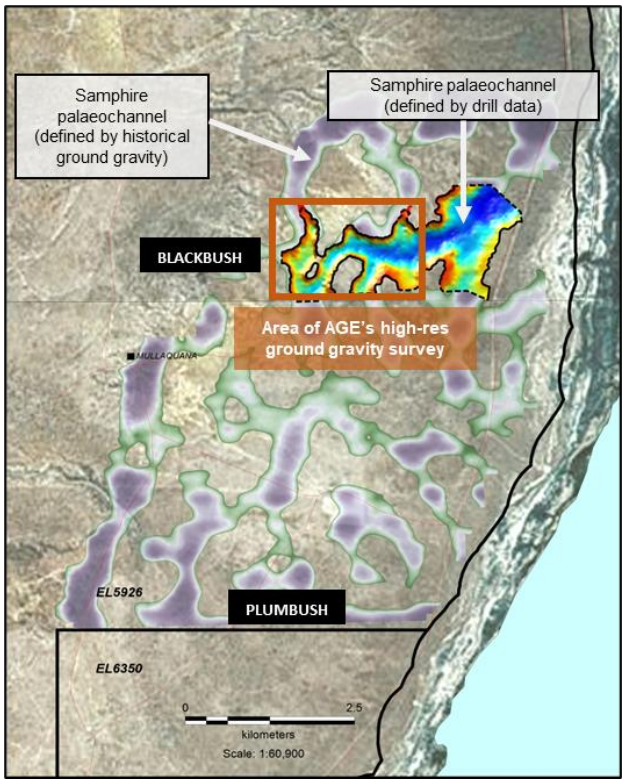

Figure 2B: Enlargement of the area between Blackbush and Plumbush showing the Samphire palaeochannel defined by historical ground gravity and drill data and the extent of AGE's high-resolution gravity survey.

Recent drilling by AGE, in addition to re-logging the geology of historical drillholes, within the Blackbush Deposit has identified that the palaeochannel outline defined by drill data is not a one-to-one match when comparing the palaeochannel defined by historical regional gravity. This is a function of the resolution of the historical survey (Figure 3). Alligators' high resolution gravity survey now underway will lift the resolution of the gravity data from 100m-by-100m to 50m-by-50m station spacing.

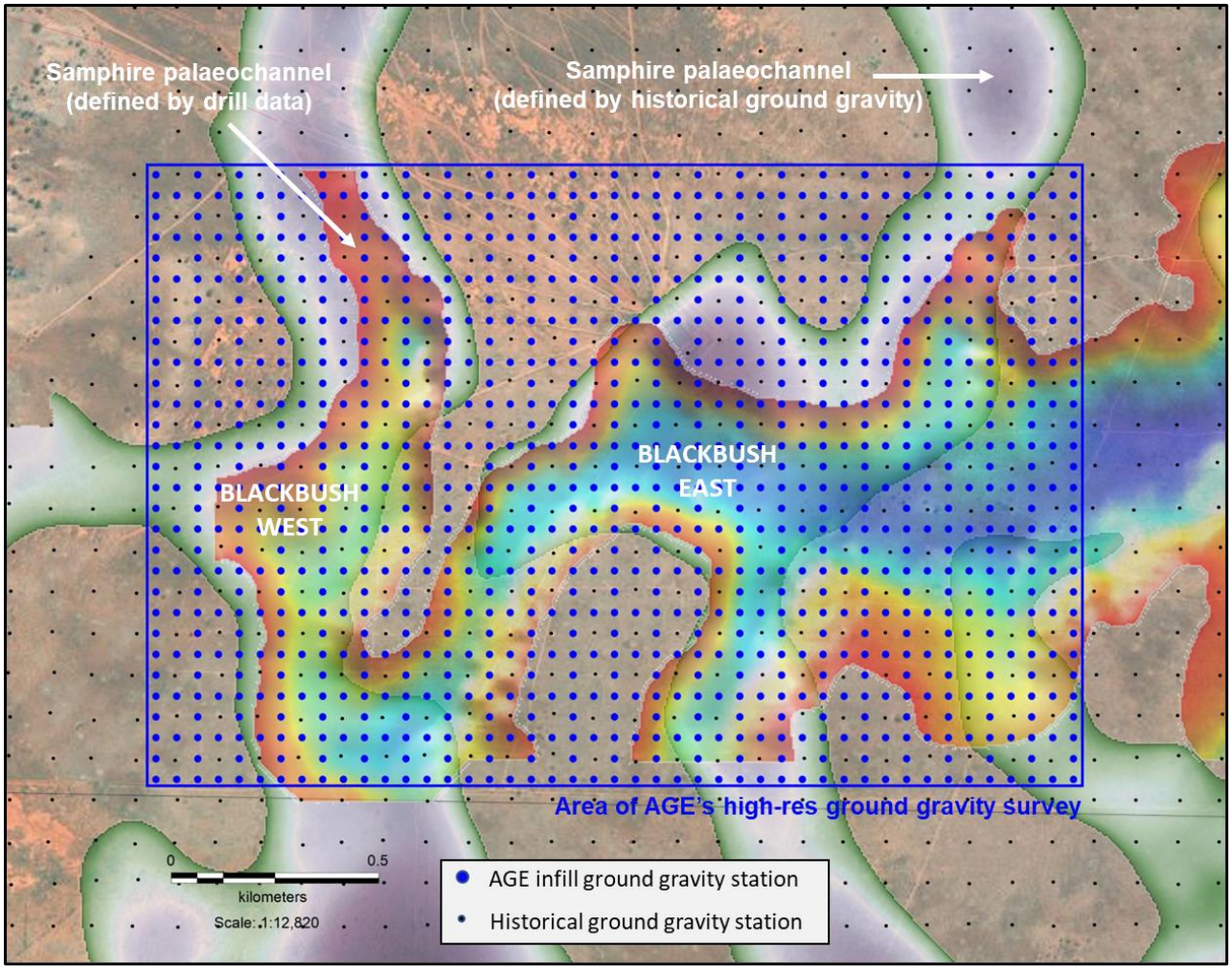

Figure 3: Overlay of the Samphire palaeochannel defined by drill data vs historical ground gravity data showing the offset between the two datasets. AGE's proposed infill ground gravity stations are also shown.

Whilst the correlation between the palaeochannel mapped by historical gravity versus drill data is good, improvement in the definition of the exact morphology of the palaeochannel will be important for:

- Pinpointing drill hole locations for AGE's next drilling program commencing in early October aimed at converting more resource from Inferred to an Indicated category, follow-up extensions of the known high-grade zones where mineralisation is not closed off and test areas where historical data flag potential for additional accumulations of uranium mineralisation (Figure 4), and

- Inform the parameters in planning the next round of ground gravity capture between Blackbush and Plumbush deposits; the backbone of AGE's 2023 regional exploration targeting uranium mineralisation outside of the known deposits.

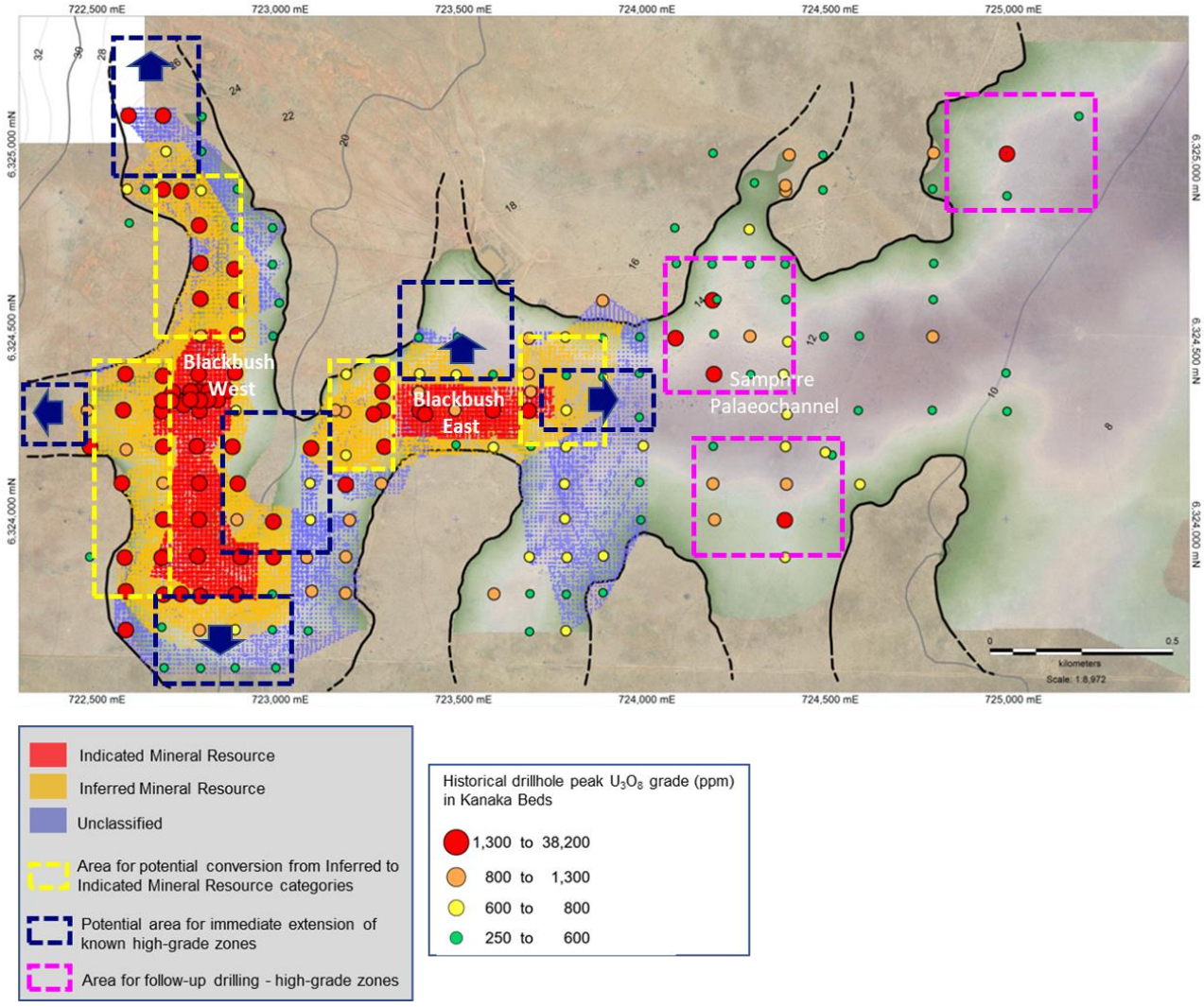

Figure 4: Areas targeted for Mineral Resource upgrade infill drilling and extension at Blackbush. **Note only drillholes that have peak grades above 250ppm U3O8 cut-off within the Kanaka Beds are shown.**

Additional Geophysical Trial - Ambient Noise Tomography

Alligator monitors innovative technology developments or applications that can improve the effectiveness or efficiency of its exploration efforts. In this regard the Company recently commissioned Fleet Space Technologies to undertake a Ambient Noise Tomography (ANT) trial at Blackbush to test the effectiveness of using this technique to not only map the Samphire palaeochannel but also to map its internal stratigraphy. If successful, this technology should augment AGE's regional drilling program in 2023 as ANT data acquisition can be undertaken facilitating rapid drill targeting. Comparison between results from the high-resolution ground gravity and ANT will be undertaken once AGE's gravity survey is complete.

This announcement has been authorised for release by the Alligator Energy CEO.

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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 20 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