Alligator Energy

ASX Announcement

06 May 2025

Increased Mineral Resource Estimate and Upgrade of Indicated Resource for the Blackbush Deposit, Samphire U Project.

Alligator Energy (ASX: AGE, 'Alligator' or 'the **Company')** is pleased to announce an updated Mineral Resource Estimate (MRE) resulting from AGE's 2024 resource drilling campaign at the Blackbush Deposit (Figure 1) within Alligator's Samphire Project, South Australia.

Highlights

- **The Samphire Project 2024 resource drilling has been successful in increasing the quantum and integrity Blackbush MRE:**
  - The Indicated portion of the MRE has further **increased by 10% from the previous Mineral Resource Estimate to 14.2Mlbs** at an average grade of 786ppm U_3O_8 – **a 135% increase since commencement of AGE's resource drilling at Blackbush in 2022.**[1]
  - The Indicated Resource is now of a **size and integrity ready for detailed well field designs and may allow an increase in the production rate upwards from 1.2Mlbs pa (Updated Scoping Study[2]) to be targeted** during the planned Definitive Feasibility Study (to be confirmed in first phase of the Study), as 78% of the metal in the total MRE is now classified as Indicated.
  - The Total MRE has **increased by 3% to 18.0 Mlbs at an average grade of 676ppm U_3O_8**
  - 0.5Mlbs were added to the Total resource, and 1.3Mlbs were converted to Indicated Resource Category.
  - Increases in the Total Resource outside the previous resource envelope were partially offset by decreases within the resource envelope due to refinement / re-interpretation of the mineral resource model ready for well-field design. This has resulted in further conversion of mineral resource into the indicated category and an increase in the average grade reflecting an increased accuracy and integrity of the mineral resource for the Blackbush deposit.
- In summary, at 250ppm cut-off grade the Blackbush MRE now stands at an Indicated Mineral Resource of 14.2Mlbs at 786ppm and an Inferred Mineral Resource of 3.8Mlbs at 443ppm, **totalling 18.0Mlbs at 676ppm U_3O_8** – Refer table page 4.
- Future work Program drilling to now focus on the Plumbush prospect[13], and the Blackbush Extension to the south. This work is subject to successful completion of access arrangements and heritage survey work.

Greg Hall, Alligator CEO, said: *"The detailed resource model refinement and re-interpretation and corresponding increased accuracy and integrity reflects the move from **Scoping Study to planned Definitive Feasibility Study** during and post the upcoming Field Recovery Trial. A higher level of resource integrity and accuracy is required for initial wellfield designs that will be undertaken during the first stage of the Feasibility Study. The team has identified continuing potential resource extensions in south ward heading channels, and the first review of the Plumbush prospect has been undertaken with*

[1] *AGE ASX Release 1 September 2022 02562683.pdf (weblink.com.au)*
[2] *AGE ASX release 14 December 2023 https://wcsecure.weblink.com.au/pdf/AGE/02753924.pdf*

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planned initial drilling to bring this into a future potential resource, subject to access arrangements being finalised."

Blackbush Mineral Resource Estimate (MRE) Update Summary

This MRE was prepared by AMC Consultants (Perth) using historical UraniumSA Ltd (UraniumSA) drilling data and AGE rotary-mud/sonic drilling data[3] acquired in 2021-2024. Uranium grades have been determined by a combination of downhole prompt fission neutron (PFN) and downhole gamma geophysical sonde measurements.

The updated MRE (Table 1) has been reported in accordance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (JORC Code) and reports only that portion which has been assessed by AGE as amenable to ISR within the Kanaka Beds of the Samphire Palaeochannel at Blackbush.

Prior to the addition of the 2024 drilling data, the total Indicated Mineral Resource was 12.9Mlb (now 14.2Mlbs) with the remaining estimate comprising an Inferred Mineral Resource of 4.6Mlb[4] (now 3.8Mlbs). Inclusion of the 2024 data combined with further refinement/re-interpretation in some areas has resulted further conversion of mineral resource into the indicated category and an increase in the average grade reflecting an increased confidence and quality of the mineral resource for the Blackbush Deposit.

Table 1: Blackbush Mineral Resource Estimate reported above a 250ppm U_3O_8 cut-off.

JORC Category	Mt	Grade (U_3O_8 ppm)	U_3O_8 Metal (Mlbs)
Indicated	8.2	786	14.2
Inferred	3.9	443	3.8
Total	12.1	676	18.0

The model is reported unconstrained and above a 250 ppm U3O8 lower cut-off grade for all zones in consideration of potential for recovery by in situ leach processes.

There is no historical depletion by production within the model area.

Estimation of the disequilibrium factored and topcut gamma data (feU3O8c) is by ordinary kriging using dynamic anisotropy for the mineralised zone.

Density is estimated by nearest neighbour estimation within the Kanaka Beds on the basis of logged geology as either 1.79 t/m3 for lignitic material or 1.92 t/m3 for other sediments; other paleochannel stratigraphies had a default of 1.90 t/m3 assigned; saprolite capping the basement granite was assigned a bulk density of 2.16 t/m3 and the primary basement granite was assigned a nominal bulk density of 2.70 t/m3.

The model assumes agglomeration of 12.5mE x 12.5mN x 1mRL parent blocks for definition of well fields for production.

The model does not account for dilution, ore loss, hydrogeology, or recovery issues. These parameters should be considered during the mining study as being dependent on the ISL treatment process.

Classification is according to JORC Code Mineral Resource categories.
Totals may vary due to rounded figures.

[3] *ASX Releases 31 Jan 2022 02480654.pdf (weblink.com.au) 29 March 2022 02503799.pdf (weblink.com.au); 10 May 2022 02520049.pdf (weblink.com.au); 6 July 2022 https://wcsecure.weblink.com.au/pdf/AGE/02539224.pdf; 23 November 2022 02601769.pdf (weblink.com.au); 8 June 2023 02674241.pdf (weblink.com.au); 25 October 2023 02729807.pdf (weblink.com.au).*

[4] *AGE ASX Release 7 December 2023; 02751141.pdf (weblink.com.au). Note information was sourced in this announcement from the "Samphire Mineral Resource Estimate 2 March 2023, AMC Consultants Report. Competent Persons for the MRE was Mr Ingvar Kirchner (AMC) and Dr Andrea Marsland-Smith (AGE) for QAQC and geology aspects related to the project.*

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Background

On 2 May[5] and 21 November[6] 2024 AGE announced its results of infill resource drilling which was focussed on potential extensions and converting additional ISR amenable Inferred Mineral Resource to an Indicated category at the Blackbush deposit (Figure 1).

A total of 140 holes for 11,842m were drilled which successfully added an additional 1.1Mlbs to the Indicated Mineral Resource category which increased from 12.9Mlbs to 14.0Mlbs at an average grade of 786 ppm U_3O_8.This is an 8% increase from the previous indicated MRE[7] with no change in cut-off grade which has remained at 250ppm U_3O_8.The increase is due to expansion of the Indicated mineral resource footprint to the west and south west of AGE's previous MRE (Figure 2) coupled with reprocessing and re-interpretation of results discussed below.

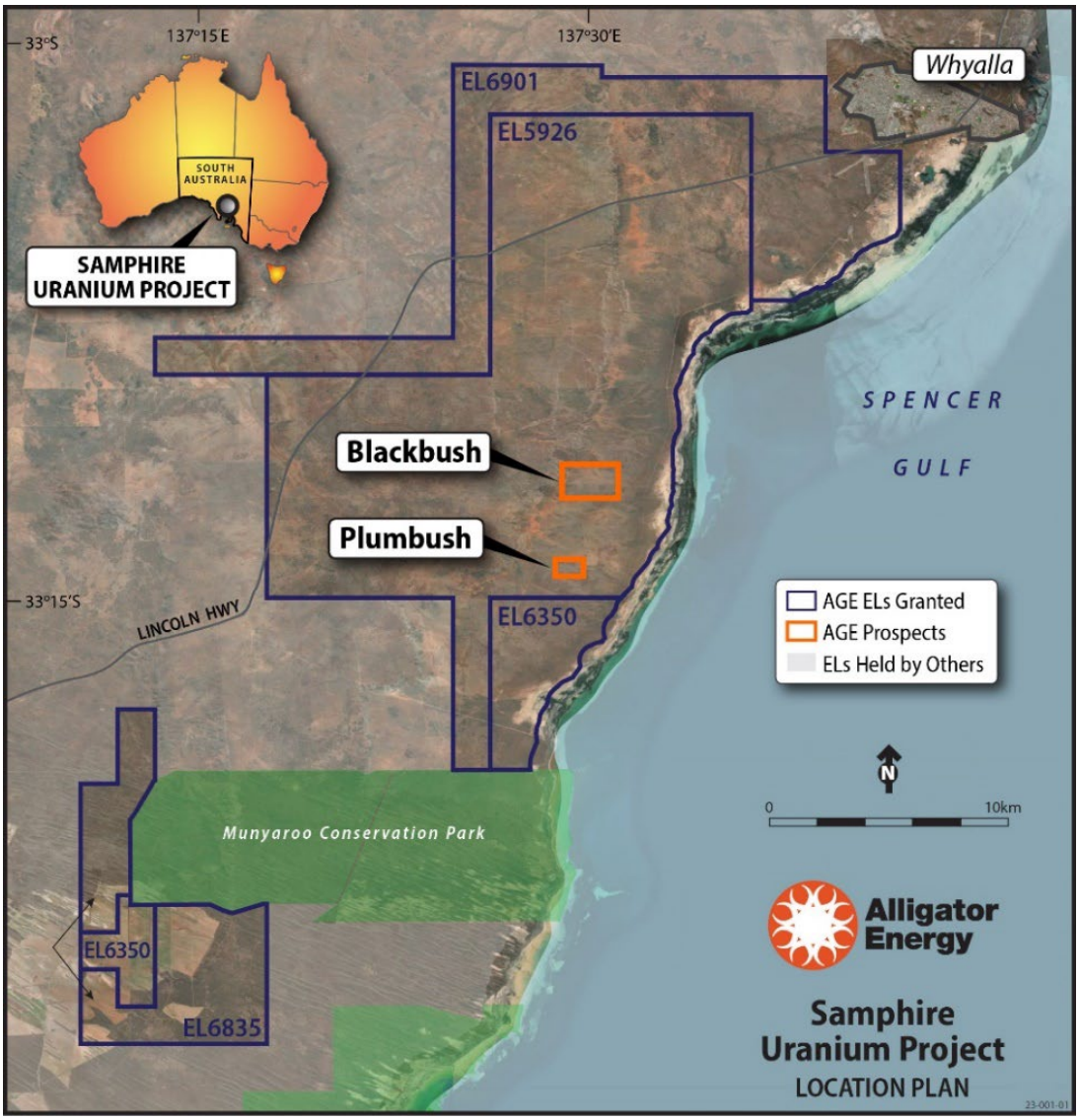

***Figure 1**: Samphire Project Location Map*

[5] *AGE ASX Release 2 May 2024 02802596.pdf (weblink.com.au)*
[6] *AGE ASX Release 21 November 2024 02883594.pdf (weblink.com.au).*
[7] *AGE ASX Release 7 December 2023; 02751141.pdf (weblink.com.au)*

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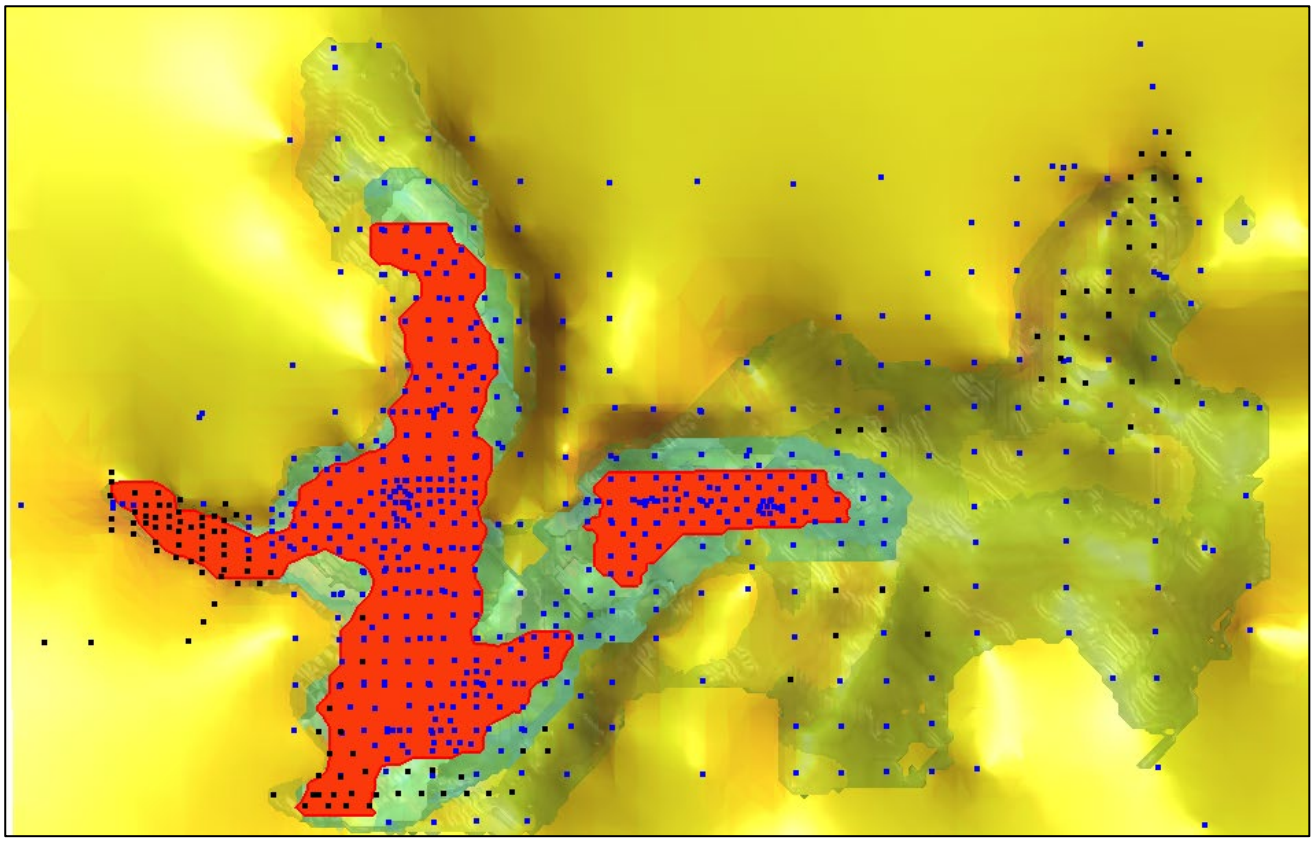

***Figure 2**: Collar locations (pre 2024 blue dots, 2024 in black dots) and current Indicated (red shell), Inferred (green shell) and Unclassified (pale green shell) MRE.*

Extensive reprocessing and reinterpretation of downhole geophysics and geological interpretation has been performed as part of this MRE primarily to increase confidence in the understanding of the following.

a) The dry bulk density variability and distribution within the host formation from newly acquired downhole borehole nuclear magnetic resonance (BMR[8]) data combined with a formation Density sonde[9].

   Density has a direct impact on the tenor of pounds when estimating a mineral resource. In previous Blackbush MRE's a single average density value was applied to calculate the MRE. With the new BMR data obtained, a more robust density model has been used to calculate MRE where 5 different density values have now been used based on re-logged geology overall lifting the precision of the estimate.

b) The reliability of grade estimates from the downhole Prompt Fission Neutron (PFN) sonde[10] below 500ppm U_3O_8.

   It has been identified that PFN data, previously treated as having an effective noise floor of 200ppm should more appropriately be treated as unreliable below 500ppm due to the low count-rates of the tool below this grade level caused in part, by ageing tool hardware. Additionally,

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[8] *https://www.orica.com/Products-Services/Digital-Solutions/wirebmr*

[9] *https://borehole-wireline.com.au/formation-density-logging-overview/#:~:text=Openhole%20formation%20density%20logging%20probes%20are%20designed%20to,measuring%20strip%20against%20the%20side%20of%20the%20borehole.*

[10] *PFN sondes emit pulsed epithermal neutron into the host formation via a neutron generator which interact directly with the uranium isotope ^{235}U (a small and relatively stable fraction of ^{238}U) via a fission reaction which generate thermal neutrons which is proportional to the amount of uranium present. Uranium grade is thus derived from the ratio of epithermal and thermal neutrons and borehole size.*

stacking and consideration of vertical data continuity is now required to remove statistical noise to better reflect true formation conditions. To maintain confidence at the 250ppm U_3O_8 grade cutoff it is technically prudent to re-examine the modelling technique for this and future MRE's to maintain and incrementally increase the integrity of the resource, especially in areas of grade in the 250ppm-500ppm U_3O_8 range, as the Company focusses on developing the asset toward definitive feasibility and Mining Lease application.

Using only reliable PFN data (pU_3O_8) paired with downhole gamma data from the gamma sonde[11] (eU_3O_8), a disequilibrium factor[12] (DEF) model shown in Figure 3 was created to factor the measured downhole eU_3O_8 into a more accurate estimate for actual U_3O_8. This factored eU_3O_8 was used to create the final grade model. Consequently, Indicated and Inferred resource classifications are driven by proximity to quality paired PFN and gamma data in addition to regular classification criteria.

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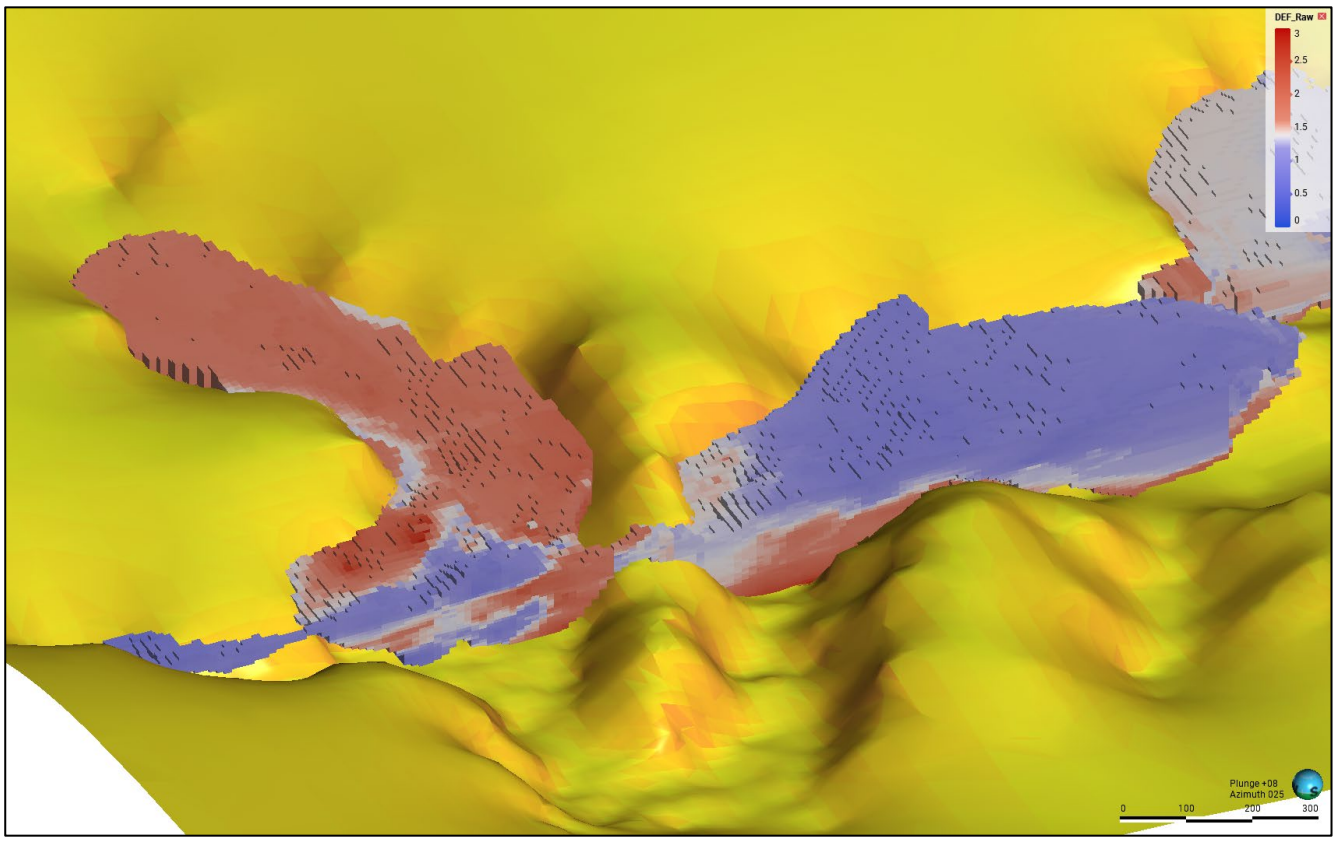

***Figure 3**: DEF Model (mean of 1.4 with higher DEF in red and lower than 1.4 DEF in blue) overlain on the 3D channel model (yellow) for the Blackbush Paleochannel showing general trend of DEF > 1. 5 5x vertically exaggerated.*

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[11] *Downhole gamma sondes measure the daughter isotopes in the radioactive decay series, thus is not a direct reading of uranium in the host formation if the gamma-emitting daughter isotopes are not in secular equilibrium with the parent ^{238}Uranium. If the parent ^{238}Uranium is in secular equilibrium with the daughter isotopes the response of the natural gamma is directly proportional to the amount of uranium in the host formation. Note: Typically for this style of uranium mineralisation, secular disequilibrium is the common situation where the uranium and various decay daughter products move around significantly and variably over time with changes in water table, oxidation states and water chemistry.*

[12] *DEF = pU3O8/eU3O8 if DEF>1 parent ^{238}Uranium is enriched relative to decay chain daughter isotopes, DEF <1 parent ^{238}Uranium is depleted relative to decay chain daughter isotopes. The basis for this process is that the gamma sonde measures gamma ray intensity from the decay chain daughter isotopes, whereas the PFN sonde directly measures the ^{235}U with a pulsed neutron source where the ^{235}U represents a small but relatively stable proportion of the ^{238}U mineralisation*

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Future Work Program

Targeting mineral resource extension from the limits of the Inferred Mineral Resource envelope will be the next focus for AGE' forthcoming drilling campaigns (Figure 2) among other targets identified in AGE's Exploration Target Range[13] for the Samphire Project (subject to receipt of regulatory approvals). Currently 64km of strike length of host palaeochannel has been mapped with only 10% densely drilled (Blackbush Deposit and small portions of the historical Plumbush Prospect[14]).

This includes:

a) A program has been planned to examine potential southern extensions to the Blackbush uranium mineralisation (Figure 4) delineated by AGE's 2024 drilling[15]. In particular, the program is planned to follow up key intercepts observed in BBRM24-338 (2.4m@1,948ppm pU_3O_8 from 56.7m), BBRM24-326 (1.0m@1,004ppm pU_3O_8 from 64.09m) and BBRM24-314 (0.6m@1,743 pU_3O_8 from 59.14m). This area immediately south of Blackbush forms part of the Blackbush Extensions 1 Area of the Exploration Target Range.

b) A program to examine the Plumbush Prospect[11] (Figure 4) where historical drillhole density is currently 200-400m spacing. The initial drilling program aims to:

   - Validate some of the encouraging historical drilling results with the PFN tool, to quality assurance and quality control the equivalent uranium intercepts, much the same AGE has done with the Blackbush deposit over the last three years. The interpreted strike length of the Plumbush channel is 4.85 km with several highly encouraging gamma intercepts including drillholes MRM1033 (3.5m@1050ppm eU_3O_8 from 62.37m and 1.18m@1988ppm eU_3O_8 from 67.19m) MRM1080 (2.89m@2,600ppm eU_3O_8 from 65.66m) and MRM1004 (3.48m@800ppm eU_3O_8 from 61.13m),[16]

   - Infill the current drill spacing to 100m centres around priority areas and test the limits of the known mineralisation.

Following the initial programs at Blackbush Extension 1 and Plumbush, step out drilling to test areas in the Central Channel where very little to no drilling has taken place in an areas interpreted to host palaeochannels. The above programs are subject to completion of additional access arrangements, additional heritage surveys and exploration program approvals.

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[13] *AGE ASX Release 7 December 2023. 02751141.pdf (weblink.com.au)*

[14] *UraniumSA ASX release 8 April 2011 "Maiden Resource Estimate Plumbush Deposit". https://announcements.asx.com.au/asxpdf/20110408/pdf/41xy4brvxj3d3c.pdf*

[15] *AGE ASX release 21 November 2024. 02883594.pdf*

[16] *Note: The reprocessing and geological reinterpretation of downhole geophysics that has been applied to drillhole data as part of this Blackbush MRE has also been applied to Plumbush drillhole data.*

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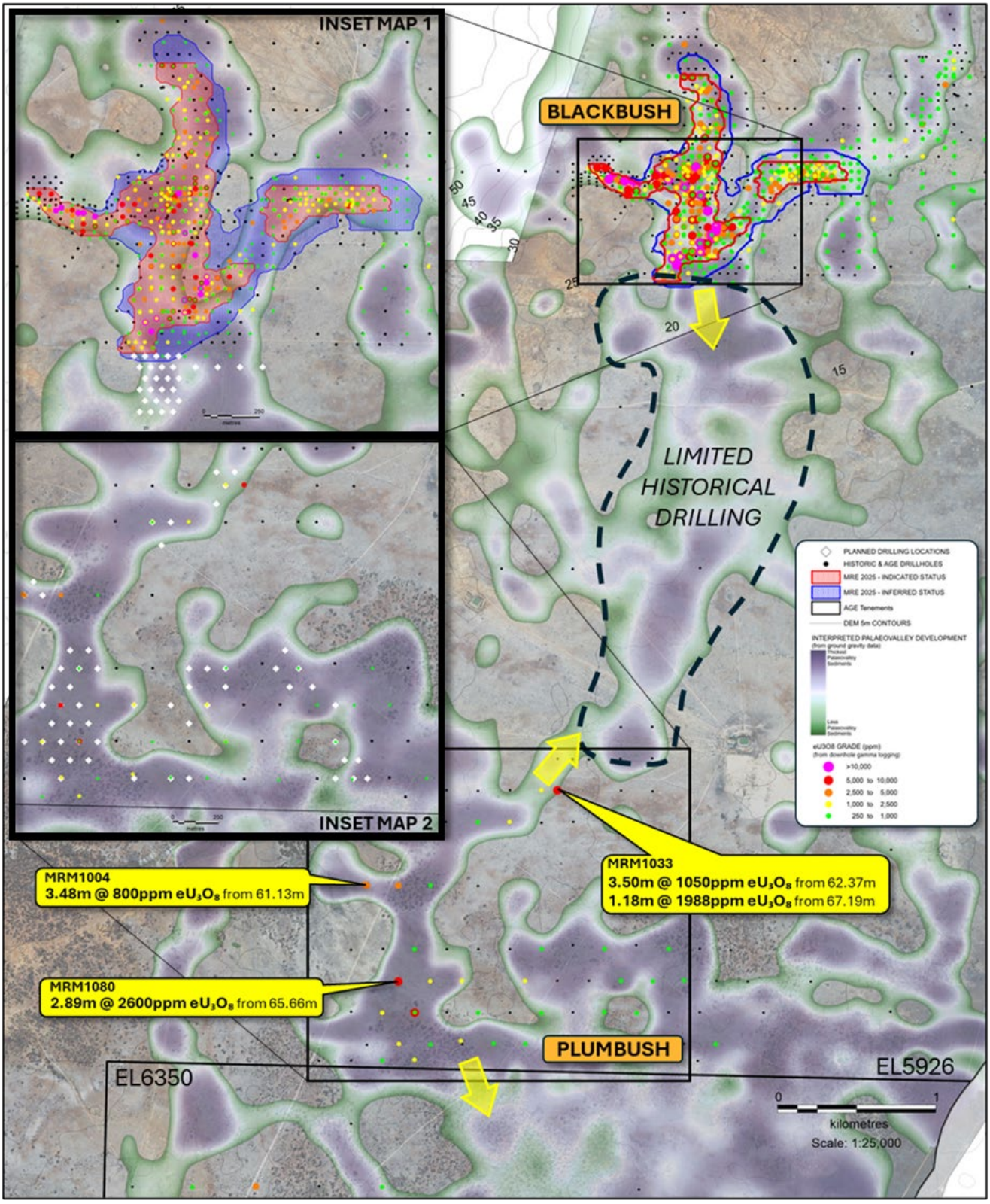

***Figure 4**: Map of existing and planned drilling - Blackbush Extensions 1 Area & Plumbush Prospect.*

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ASX Additional MRE Technical Information

The following is a summary of the material information used to estimate the Mineral Resources as required by Listing Rule 5.8.1 and JORC Code Reporting Guidelines.

Geology and Mineralisation

The Blackbush Deposit (Blackbush) is located within Exploration License (EL) 5926 (Figure 1). The geological setting for mineralisation has been interpreted by AGE and AMC based on the historical UraniumSA drilling and the infill rotary-mud and sonic core drilling programs completed by AGE through to Q4 2024.

The uranium mineralisation at Blackbush occurs in horizontal tabular lenses (60-85m depth) in sand-dominated basal sediments (Eocene Kanaka Beds) within a Tertiary paleochannel system. The paleochannel is incised into a Proterozoic granite (Samphire Granite) which has a variably weathered saprolite surface at its contact with the Kanaka Beds. The Kanaka Beds comprise cyclic fluvial quartz dominated sands and gravels intercalated with silts and clays with fine grained carbonaceous material towards the top of the sequence. The Kanaka Beds are overlain by the laterally continuous Miocene Melton Limestone (marl and limestone), the clay dominated Pliocene Gibbon Beds and a cover of Quaternary sediments (Figure 3).

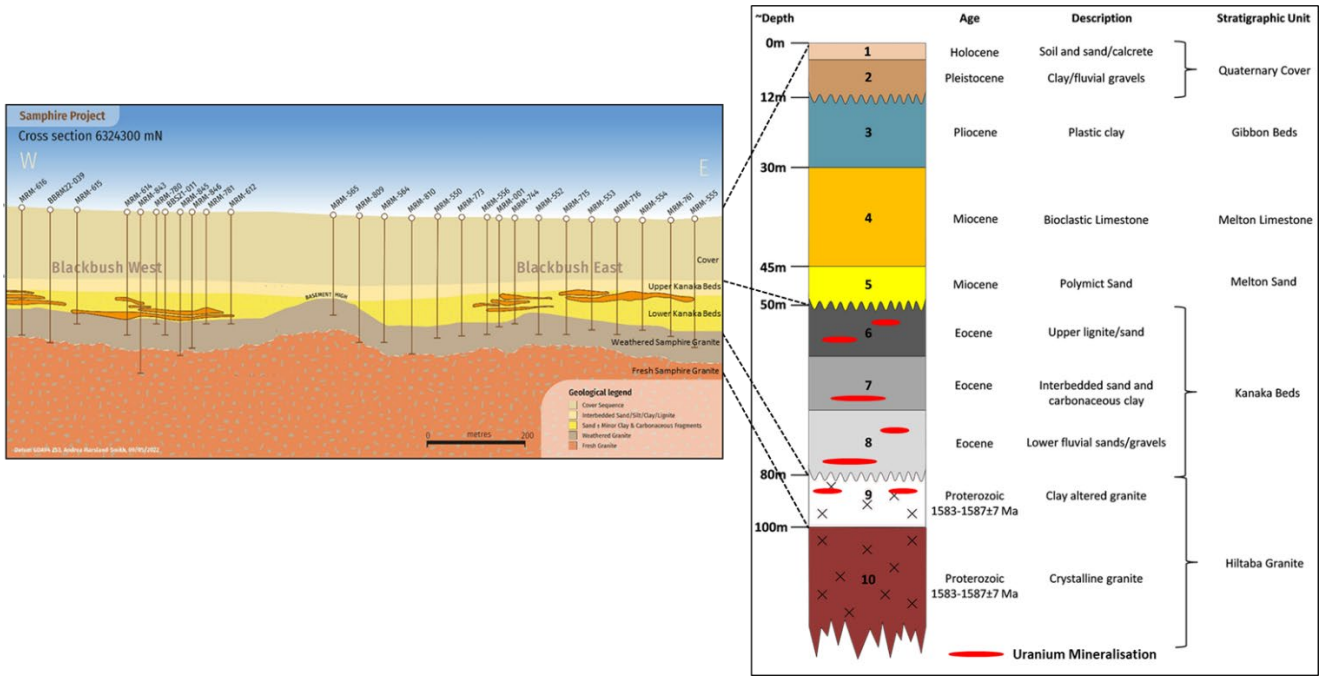

***Figure 5**: Stylised Cross section 6324300 mN through the Blackbush Deposit (15x vertical exaggeration, depth in RL metres) showing multi-level zones on simplified geology. Cross section constructed from pU3O8 intersections from AGE sonic core hole BBRM22-034[17] and historic drilling eU_3O_8 intersections[18]. Detailed **s**tratigraphic section (modified after USA Internal Report, 2012).*

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[17] *Drilling details including JORC Table 1 previously reported by Alligator Energy Ltd (ASX:AGE) in ASX release "Exceptional High-grade uranium results from Samphire Uranium Project, SA" 29 March 2022. 02503799.pdf (weblink.com.au)*

[18] *Historic drilling details including JORC Table 1 previously reported by Uranium SA (ASX:USA) in ASX release "Samphire Project Update" 27 September 2013, https://www.asx.com.au/asxpdf/20130927/pdf/42jnqgsn2cqcgg.pdf*

The Blackbush uranium deposit follows the complex paleochannel system from north to south through an oxbow-type bend to then run west to east. The cumulative strike length of the deposit is approximately 2.7 km. Width of mineralisation measured across strike averages 300 m but widens in some apparent tributary areas to widths up to 450 m. Mineralisation remains open in some areas along the paleochannel. Figure 6 shows the extent of the known uranium mineralisation in the Blackbush area[19].

The MRE for Blackbush has been classified as a combination of Indicated and Inferred material in accordance with JORC Code guidelines and is based on the confidence levels of the key criteria. This includes confidence in the geology, interpretations, revised data quality, data types, disequilibrium factored gamma data, distribution of available 10 cm raw data pairs of eU_3O_8 and pU_3O_8, drilling density, apparent grade and spatial continuity of the mineralisation, estimation quality, and stratigraphic position.

Only material within the Kanaka Beds is eligible for resource classification, with some poorly estimated portions left as unclassified. The resource classification assumes potential exploitation by ISR mining methods.

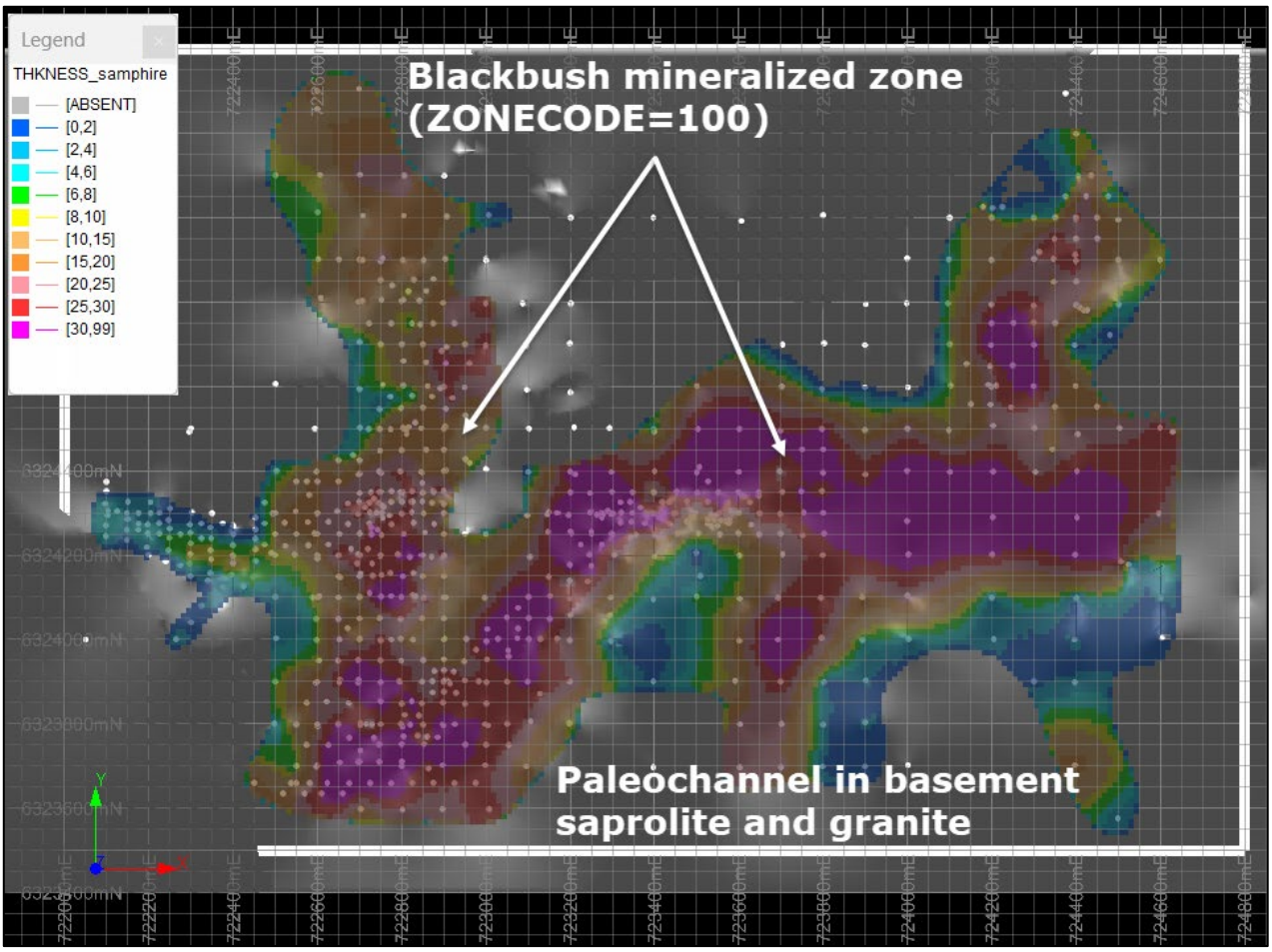

Figure 6: Samphire Blackbush uranium mineralisation general thickness and extent relative to paleochannel (*image courtesy AMC Consultants).*

[19] *Note: the mineralisation is labeled as "zonecode=100" by AMC Consultants as shown in Figure 6.*

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Drilling Techniques

As used directly in the MRE, the database for the Blackbush deposit area contains a total of 759 vertical drillholes (totalling 59.4 km of drilling) completed by UraniumSA from 2007 to 2012, and then AGE from 2021 to 2024 (Figure 5). All drillholes used in the MRE were vertical and comprise a combination of rotary-mud (726), sonic core holes (14) and diamond core (5) and other hole types (14) for a total of 759 holes (62,045m).

Drill spacings are variable throughout the MRE area reflecting the different generations of drilling but generally conform to drill spacing ranging from 25m, 50m, 100m and 200m. The data set for the mineralised zones consists of intervals analysed by gamma data (99%), PFN data (50%) with some overlap of both gamma data and PFN data where the PFN data exists. Chemical assay data has been omitted for this MRE due to the relatively small data set from the mineralised zone.

Sampling and Sample Analysis

The principal sampling method to estimate uranium grade in all rotary-mud drillholes was downhole geophysical logging using standard industry procedures to estimate eU_3O_8 from gamma sondes[10] and pU_3O_8 from the Prompt Fission Neutron (PFN) sondes[9]. Gamma data was collected at variable sample intervals between 0.01m and 0.1m, whereas PFN logging data was collected at 0.01m sample intervals. All sondes were calibrated using industry standard procedures at the Australian Mineral Development Laboratories (AMDEL) calibration facility (Adelaide). There is some overlap of both gamma data and PFN data where the PFN data exists.

Data composites for both eU_3O_8 and pU_3O_8 were generated using median sliding window filters (0.1m for eU_3O_8 and 0.2 for pU_3O_8). Additional confidence constraints were placed on the pU_3O_8 before filtering requiring data to be above 500ppm for at least 20cm to be considered above the tool detection limit (LDL). LDL values are assigned 0ppm during filtering and composited values that are LDL are assigned null for the purpose of disequilibrium calculation.

Dry Bulk Density (DBD) was calculated using outputs from downhole geophysical tools (Formation Density sonde and Borehole Magnetic Resonance sonde). The Total Porosity and the Bed Resolution Density (most appropriate density to use to avoid signal contamination through mineralisation) were used to calculate the DBD in the Kanaka Beds in all drillholes where both sondes were used[20]. Within the Kanaka beds there are two DBD populations broadly described as *sandy* and *sandy with fine grained organics*. These were assigned 1.92 t/m^3 and 1.79 t/m^3 respectively.

Resource Estimation and Methodology

Mineralised zone wireframes were based on the reinterpretation of all available historical and AGE acquired geological and downhole geophysical data. An alternative approach to model design was used for this MRE whereby 3D solid wireframes were created in Leapfrog™ 3D geological software by constraining broader individual mineralisation lenses (zones) using primarily gamma data (eU_3O_8) at a very nominal lower cut-off value of 100-150 ppm eU_3O_8 while also considering pU_3O_8 greater than 500 ppm.

Due to the curved nature of the paleochannel, uranium mineralisation, zonal interpretations orientations were assigned to the block model for mineralised zones using a nearest neighbour estimation process and a single pass, isotropic search radius of 150 m. A dynamic anisotropy approach was used to

[20] $DBD = BD - TPOR * FLUID_DENSITY$ *where fluid density = 1, BD is the bed resolution density, and TPOR is the total porosity.*

constrain the variogram model orientations (where relevant) for all subsequent block estimates defined below.

Local disequilibrium factors for the gamma data were modelled for the mineralised zones using a reduced data set totalling 8,034 10 cm intervals from portions of 338 drillholes containing pairs of gamma data grades and PFN data grades where the PFN data indicated U_3O_8 mineralisation grades of greater than LDL (500ppm) and gamma data indicated grades of greater than 50 ppm. This has the net effect of more positive disequilibrium factors for areas where the pU_3O_8 data confirm the existence of U but provides less robust estimated disequilibrium factors for areas outside of those areas, including some material that might be within the 250 ppm cut-off grade and the 500 ppm LDL for pU_3O_8 data.

The pU_3O_8 and eU_3O_8 data pairs were modelled using an inverse distance interpolation method and power of 1 into 12.5mE by 12.5mN by 1mRL panels for each of the individual mineralised zone. These panels were then assigned a calculated disequilibrium factor (DEF=pU_3O_8/eU_3O_8). This modelled DEF was assigned to the raw data intervals and used to calculate the U_3O_8 value for final modelling of "correcting eU_3O_8 for DEF". Disequilibrium factors tended to be variable throughout the mineralised zones with a lateral consistency in the main channel, neutral to low (negative) factors near the top of the Kanaka Beds and a general increasing trend with depth.

Following assignment of the DEF to the eU_3O_8 data, the 10 cm interval "corrected eU_3O_8 for DEF" data was composited again to larger 1 m composite using a residual retention process in preparation for the estimation process. A three-dimensional directional experimental variogram was generated for the U_3O_8 (corrected eU_3O_8) with high-grade topcuts applied to the mineralised zone across the entire deposit. The variogram was well structured with a low to moderate nugget variance of 30% and a major axis range of 150 m.

The mineralised zones are predominantly constrained within the Kanaka Beds with some minor peripheral overlap with Melton Sands above and saprolite/granite contact below. The block model used the interpreted mineralised wireframe as a hard boundary in all cases. Uranium (U_3O_8) grade estimation was subsequently completed using ordinary kriging (OK) using a slightly restricted search neighbourhood and limited vertical smoothing. The MRE used the same panel size as used for the disequilibrium modelling (i.e. 12.5 mE x 12.5 mN x 1 mRL) considering a typical production wellfield drillhole spacing approaching 25 m x 25 m.

As part of AGE's interpretation, the bulk density was also examined. Density is now estimated by nearest neighbour estimation within the Kanaka Beds on the basis of logged geology as either 1.79 t/m^3 for carbonaceous ("lignitic") material or 1.92 t/m^3 for other sediments. Other immaterial paleochannel stratigraphic units have a default of 1.90 t/m^3 assigned. Saprolite capping the basement granite was assigned a bulk density of 2.16 t/m^3 and the immaterial primary basement granite was assigned a nominal bulk density of 2.70 t/m^3.

Classification of the resource (Figure 7 and Figure 8) was performed using manually defined wireframes applied exclusively to the Kanaka beds. Indicated classifications required geostatistically proximate drillholes as well as measured disequilibrium data within 100m, while inferred classification required a minimum number of proximate drillhole composites. The remaining volume of the mineralisation wireframe was unclassified.

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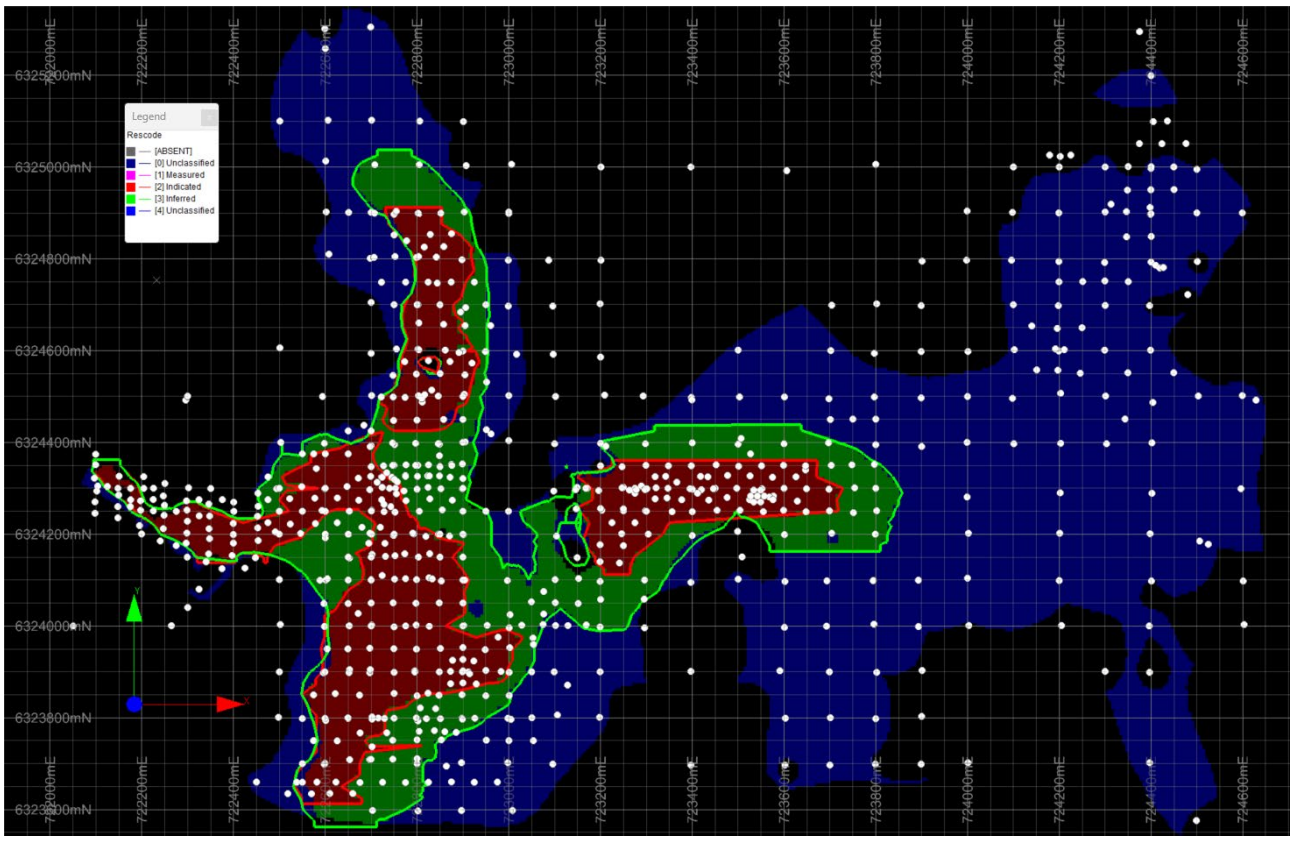

***Figure 7**: Mineral Resource classification at plan view -40 mRL (image courtesy of AMC Consultants)*

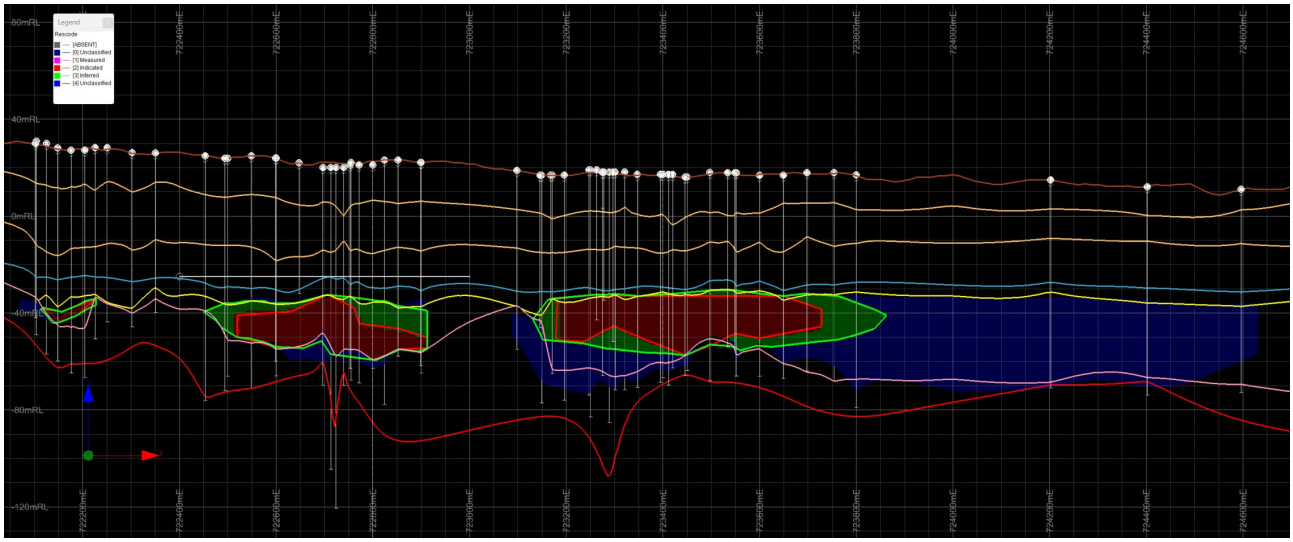

Figure 8: Mineral Resource classification, Blackbush west to east section 6,324,300mN (view looking north). Vertical exaggeration x5, depth in RL metres *(image courtesy of AMC Consultants).*

Relative Changes in Mineral Resource Estimates (November 2023 vs December 2024)

Relative changes in tonnage, grade and metal between this Mineral Resource Estimate and the previous Mineral Resource Estimate[14] relate to:

- Ongoing extensional and infill drilling completed by AGE during 2024 resulting in identification of additional mineralisation and modified interpretations for all mineralised zones and the deposit stratigraphy.

- Revision of PFN data in respect to its reliability of grade estimates 500ppm U_3O_8. This has resulted in substantial changes to how the gamma and PFN data is prioritised, interpreted in the grade model and the resource model has been classified.

- Disequilibrium factors for gamma data changed with a substantial decrease in the amount of useable gamma (eU_3O_8)/PFN (pU_3O_8) data pairs. The increased lower detection limit for pU_3O_8 of 500 ppm increases confidence in the final data model for grades greater than 500ppm U_3O_8, while requiring the modified resource estimation technique and modified classification to manage grades between the grade cutoff (250ppm U_3O_8) and 500ppm U_3O_8.

- The dynamic anisotropy orientations have been modified slightly throughout the model area to reflect the new drillhole data results and mineralisation trends.

- Assigned bulk density values for the Kanaka Bed-hosted mineralisation are now variable (1.78 $g.cc^{-1}$ to 1.92 $t.m^3$) but marginally lower than the value used in the November 2023 Mineral Resource (2.05 $t.m^3$).

- Mineral Resource classification as Indicated and Inferred Mineral Resource is now completed by manually defined cross-section strings and three-dimensional wireframes.

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

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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

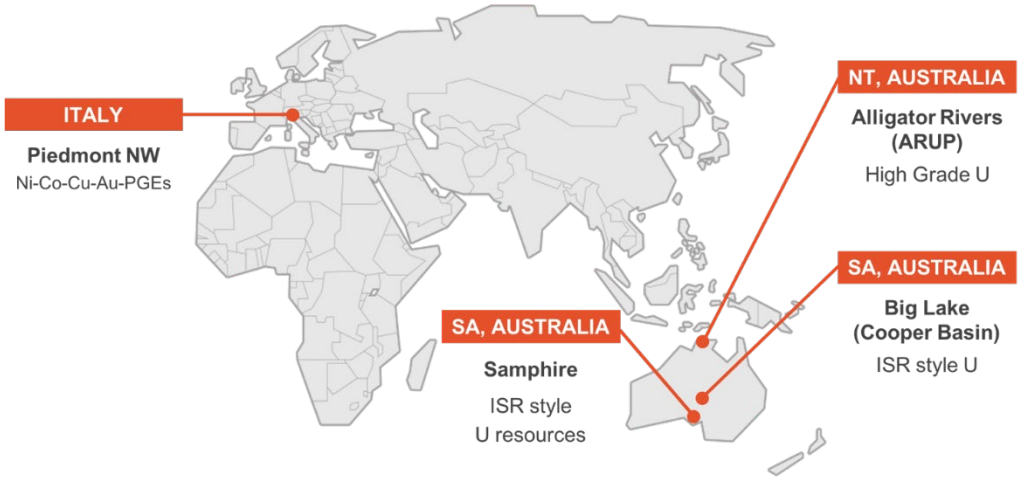
The information in this announcement that relates to the Blackbush Mineral Resource estimate (uranium) is based on and fairly represents information compiled by and generated by Mr Ingvar Kirchner, AMC Geology Manager (Perth) and a full-time employee of AMC Consultants. Mr Kirchner is a Fellow of the Australasian Institute of Mining and Metallurgy (the AusIMM) and a Member of the Australian Institute of Geoscientists (the AIG). Mr Kirchner has reviewed this Report and consents to the inclusion, form and context relevant information herein as derived from the AMC Consultants Samphire Mineral Resource estimate. Mr Kirchner has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which is being undertaken to qualify as a Competent Person as defined by the 2012 Edition of the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (the JORC Code).

The information in this announcement that relates drillhole data, QAQC and geology aspects related to the project is based on and fairly represents information provided 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



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JORC Code, 2012 Edition – Table 1 Sections 1, 2 & 3

Section1 – Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	**AGE Sampling Techniques** **Rotary Mud Drilling** Rotary mud drilling was used to obtain 2m samples in the non-target area and 1m mud /chip samples within the target area. Downhole wireline logging using a Prompt Fission Neutron (PFN) tool was used to calculate pU_3O_8 from the ratio of epithermal and thermal neutrons. Rotary mud samples are not suitable for assay for the determination of grade. The PFN used in this program was calibrated using industry standard procedures at the Australian Mineral Development Laboratories (AMDEL) calibration facility (Adelaide). **Sonic Core Drilling** Drill core was extracted direct from the drill rod and placed into a 1-metre-long plastic sleave to contain the core. The sleaved core was then sealed and placed in 1 metre intervals in core trays. Due to the nature of the sonic drilling technique some redistribution of unconsolidated material can take place. Adjustment of core downhole depths and sampling intervals was undertaken by reconciliation with downhole geophysical data. Following collection and prior to sampling trays of core were transported to a coldroom for storage at 1.5 ^{o}C. **UraniumSA Data Sampling Techniques** The work is based on rotary mud drilling and all grade determinations are from down hole geophysical logging. Sondes were appropriately calibrated.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	**AGE Drilling Techniques** **Rotary Mud Drilling** All holes were drilled by Watson Drilling with typical hole diameter being 6" (152.4mm). All holes were vertical. **Sonic Core Drilling** All holes were drilled by Star Drilling using sonic drilling. Hole diameter was 100cm within 150cm steel cased. Core was not oriented (vertical). **UraniumSA Drilling Techniques** Holes used were drilled using the rotary mud drilling technique. Mud was based on saline formation waters and very successfully facilitated hole stability and minimised collapse and wash out – all vertical

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Criteria	JORC Code explanation	Commentary
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	**Rotary Mud Drilling** Downhole wireline logging using a downhole PFN or natural gamma sonde was used to calculate grade for all holes as rotary mud samples are not suitable for assay for the determination of grade. A borehole correction factor has been applied to all PFN results. Factors were calculated as part of the industry standard procedures at the Australian Mineral Development Laboratories (AMDEL) calibration facility (Adelaide). **Sonic Core (AGE)** AGE used the Sonic coring method. All intervals measured for length during sonic core logging and sampling. - Sample lost in the sample cutting process was collected and weighed for each metre. This was minimal in relation to the core interval. - No analysis conducted on sample recovery and grade.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the relevant intersections logged.*	**Rotary Mud Drilling (AGE)** Chip/mud samples were collected 2m in non-target areas and then 1m in the zones of interest (i.e. the target Kanaka Beds). All samples are geologically logged compliant with industry standards which included lithology, mineralogy, grain size/rounding/sorting, colour, redox. All samples were photographed using a high-resolution camera. **Sonic Core Drilling (AGE)** All (100%) drill core has been geologically logged and core photographs taken. Logging is qualitative with description of colour, weathering status, major and minor rock types, texture, sedimentary features grain size, regolith zone, presence of organic material and comments added where further observation is made.
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling*	**Rotary Mud Drilling (AGE)** The depth of investigation of the PFN tool approximately 25-40 cm radius around the borehole to allow for accurate measurement of the ratio of epithermal/thermal neutrons for pU_3O_8 calculations. QA/QC of pU_3O_8 data included repeatability checks by regularly logging a fibreglass-cased calibration hole onsite (MRC001,723420E, 6324297N (GDA94), depth 84.5m). MRC001 has sufficient historical PFN data to act as a validation run for any tool calibration.

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Criteria	JORC Code explanation	Commentary
	is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling. • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	compare/calibrate PFN data. **Sonic Core Drilling (AGE)** Core was halved, photographed and geologically logged. One half core component was subsequently halved to create quarter core increments for chemical assay samples. Sample intervals were determined by geological boundaries with a maximum sample length of 0.5 metres and a minimum interval of 0.1 metres. Full quarter core sample increments were selected directly from the core tray using a modified scoop or plaster knife. Samples were placed directly in uniquely numbered calico sample bags with a waxed paper sample ticket showing the same sample number placed inside the bag with the sample. Each individual sample was weighed following collection. Duplicate quarter core samples were analysed at a frequency of 1:20 primary samples. Contamination was minimised in the cutting and sampling process by regular washing of cutting equipment in fresh water. Sampling areas were routinely vacuum cleaned and wiped down to remove loose dust and fragments and checked with handheld scintillometer, to check for and eliminate potential radiation contamination in the cutting and sampling process.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	**Rotary Mud Drilling (AGE)** Three geophysical tools were used in calculating uranium grade: • Prompt Fission Neutron Tool (PFN) serial number 22 manufactured by Geoinstruments Inc, Nacogdoches, Texas. Neutron generator 78-80kV, logging at 0.5m/minute. • GeoVista Natural Gamma Ray Sonde • GeoVista 3-arm caliper,measures the bore-hole size in millimetres for the length of the bore hole. Two geophysical tools were used in calculating formation dry bulk density: • Geovista Formation Density tool for measure total formation density. • Orica Borehole Magnetic resonance sonde (BMR) to calculate total water content **PFN Data Quality** • More stringent quality control measures than traditionally used were implemented on all existing PFN data due to identification of poor correlation between gamma and PFN responses at low grades, and general low signal return from the

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Criteria	JORC Code explanation	Commentary

		formation.
		• To account for high statistical noise present in the PFN signal the calculated grade was corrected:
		  ○ A 0.2m median moving window filter was applied.
		  ○ The lower detection limit was increased from 250ppm to 500ppm.
		  ○ Valid intervals restricted to a minimum length of 0.2m.
		
		Rotary Mud Drilling (UraniumSA)
		
		• All drill holes used in the estimation were logged with calibrated a natural gamma sonde with raw data collected and field checked using industry standard WellCad software and verified material captured to database.
		• 30% of drill holes were logged with PFN and density tools by independent contractors. QA/QC control has been applied by the contractor and UraniumSA; calibration certificates are retained for all tools.
		• Individual tool identifications were recorded at the time of use and cross checked by UraniumSA to ensure the currency of calibration certificates.
		
		Sonic Core Drilling (AGE)
		
		• Laboratory techniques are industry standard
		• Analysis is considered total for all elements
		• Commercial analytical standards inserted in sample submission at a rate of a minimum of 1: 20 primary samples.
		• Analytical blank samples submitted at a rate of 1:20 primary samples and following suspected high-grade samples.
		• Duplicate ¼ core samples submitted at a rate of 1:20 primary samples.
		• QAQC results indicate no bias in analysis.

Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	AGE have Standard Operating Procedures to safeguard data integrity in relation to all data capture, QAQC of geology from logging vs downhole geophysical logs, assay from commercial laboratories database import and data storage. **Rotary Mud Drilling (AGE)** ~20% of rotary mud holes drilled by AGE have twinned historical and/or sonic core holes which have been used as a calibration check on the pU_3O_8 grades being acquired in this program. Natural gamma (on the caliper tool) was used for depth matching the PFN. No wireline stretch was observed during the program. **Sonic Core Drilling (AGE)** No independent verification of significant

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Criteria	JORC Code explanation	Commentary
		intersections undertaken. No twinning of holes Assay data was received in digital format from the laboratory and merged with sampling data into an Excel spreadsheet format for QAQC analysis and review against field data. Data validation of assay data and sampling data have been conducted to ensure data entry is correct. All assay data is received from the laboratory in element form is unadjusted for data entry. Elemental uranium has been converted to U_3O_8 by applying a conversion factor of: U ppm x 1.179243 = U_3O_8 ppm Percentage (%) U_3O_8 = U_3O_8 ppm/10,000 **UraniumSA sample and assay verification** All holes used were logged by UraniumSA calibrated natural gamma tools. Duplicate runs were used to qualitatively investigate response variation with time. No material variation was identified. Approximately 37% of the holes were logged under contract by Geoscience Associates Australia. The duplication of natural gamma logging by UraniumSA was the basis for QA/QC of gamma equivalent grade and depth. Natural gamma profiles were evaluated in the field by the Site Geologist, intersections to standard assumptions calculated using certified algorithms and an in-house developed intercept calculator, then plotted against geology from cutting logging. Raw data, field estimations and plots were electronically interrogated and checked by a Senior Geologist, corrected if necessary in consultation and captured in a database.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.* • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	**AGE Drill Collars** Drillholes sited using a Garmin handheld GPS Drilled holes surveyed post drilling with a Leica iCON GPS 60 which uses the 4G network to obtain corrections from SmartNet base stations (Continuously Operating Reference Stations (CORS)) located around Whyalla. The SmartNet corrections result in RTK RMS accuracy of 10-20mm in XY and 20-30mm in Z. Grid system GDA94 Projection 53H Downhole directional survey in sonic holes measured by magnetic deviation tool by Borehole Wireline. **UraniumSA Drill Collars** Handheld GPS was used for drill collar location. Precision is sufficient for the present estimation. Grid system AMG94 Zone 53.

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Criteria	JORC Code explanation	Commentary
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Drill spacing (all drillholes used in the Mineral Resource estimation) varies from 50x100m, 200x200m, 50 x 25m, 25 x 25m and 200 x 200m centres. The data spacing is consistent with the degree of geological & grade continuity for this Mineral Resource estimate and the classifications applied for various drill spacings. No sample compositing was utilized for data collection.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	The Blackbush mineralisation is interpreted to be contained in horizontal to sub-horizontal sequence of sediments and underlying weathered granite. This interpretation is derived from the significant historic drilling and geological interpretation of the area. All drillholes are vertical which is appropriate for the orientation of the mineralisation.
Sample security	• *The measures taken to ensure sample security.*	UraniumSA's and AGE rotary mud chip samples are stored at AGE's Adelaide warehouse. Sonic core is stored in a containerised lockable freezer at AGEs secure Whyalla office/yard All samples are transported by road by an Alligator Energy staff member to the Adelaide laboratory when required.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	All drilling data used in this MRE was validated by AGE prior to providing it the AMC consultants for use in the resource estimate. Any errors within the data were investigated and corrected or omitted if discrepancies could not be resolved.

Section 2 – Reporting of Exploration Results

(Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• *Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* • *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Blackbush deposit references historical drilling and geophysics covering the SUP which are now located on Exploration Licence EL5926 originally granted 20th November 2016 for a term expiring 2018. A renewal was granted by SA Department of Energy and Mining on 28 April 2023. AGE has submitted an application for a Retention Lease over the area that contains the Blackbush deposit to progress with a Field Recovery Trial at Blackbush, approval of the lease is pending. EL5926 is 100% held by S Uranium Pty Ltd a wholly owned subsidiary of Alligator Energy Ltd. The land covering the licence area is Crown

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Criteria	JORC Code explanation	Commentary
		Lease; consisting of several leases over 2 pastoral stations.
Exploration done by other parties	• *Acknowledgment and appraisal of exploration by other parties.*	Samphire Uranium Limited (SUL), previously UraniumSA (ASX: USA) historically conducted almost all previous exploration within EL5926 defining the Plumbush (JORC2004) and Blackbush (JORC2012) resources and all relevant drilling, geophysics except ground magnetics which was conducted by AGE in 2021. UraniumSA conducted preliminary In-Situ Recovery (ISR) hydrogeological and metallurgical testwork on the Blackbush deposit with pump testing and hydrogeological modelling.
Geology	• *Deposit type, geological setting and style of mineralisation.*	Mineralisation is dominantly sediment hosted roll-front uranium style within the Eocene Kanaka Beds (sands). Minor amounts of mineralisation are present in the overlying Miocene Melton sands (informal name) and underlying Samphire granite (informal name).
Drill hole Information	• *A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *easting and northing of the drill hole collar* ○ *elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar* ○ *dip and azimuth of the hole* ○ *down hole length and interception depth* ○ *hole length.* • *If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.*	The topography in the region of the Samphire Uranium Project is predominantly flat. All holes were drilled vertically with an average hole depth of approximately 80 m. Additional images, tables and relevant cross-sections have been included in the body and appendices of this report.
Data aggregation methods	• *In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* • *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* • *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	Mineralised intervals were chosen based upon a nominal 250 ppm U_3O_8 cut-off, minimum 0.5 m interval thickness, and no fixed internal dilution. Consideration was given to mineralisation defined by a combination of PFN-derived (pU_3O_8) data, natural gamma (eU_3O_8) data, and chemical assay (cU_3O_8) data for uranium grades.
Relationship between mineralisation widths and intercept lengths	• *These relationships are particularly important in the reporting of Exploration Results.* • *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* • *If it is not known and only the down hole lengths*	Mineralised widths are considered true widths or close to true widths due to the generally flat lying orientation of the mineralisation and use of perpendicular vertical drilling.

Criteria	JORC Code explanation	Commentary
	are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').	
Diagrams	• *Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	Results are reported in appropriate diagrams and tables within this release.
Balanced reporting	• *Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	This announcement is for reporting of a Mineral Resource. All drill results from AGE drilling used in the Mineral Resource Estimate have been reported as part of AGE public announcements. All other historic drilling data used in the Mineral Resource estimate have previously been released to market.
Other substantive exploration data	• *Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	Ground gravity data has been reprocessed by AGE over the Samphire Uranium Project including Blackbush area to provide guidance on the profile of the paleochannel. However, these surveys have not been used directly in the 2022 update (as drilling density is sufficient to override resolution of information provided by the gravity data deemed irrelevant for the purpose of this report.
Further work	• *The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling).* • *Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	The program for 2025 includes: 1) Extensional drilling program from the margin of the inferred resource 2) Exploration drilling following up other areas within the palaeochannel that have intersected uranium grade of note. A 3-month Field Recovery Trial at Blackbush.

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Section 3 – Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	AGE undertook a QA/QC study of all historical drilling data prior to being used in this MRE which included: • Hole collar coordinate projection inconsistencies/changes throughout the course of historical data acquisition and correction of input field errors in the UraniumSA historical database. • Review of all lithology/stratigraphy logged by UraniumSA geologists by visual inspection of the rotary-mud chips and chemical analysis using a handheld XRF. Reconciliation of UraniumSA lithology and stratigraphic codes with those used by AGE was also undertaken to ensure consistent coding with historical and current geological logs. • Depth matching of geological logs (+/- 2m accuracy due to rotary-mud samples) with downhole geophysical logs (2cm accuracy). Lithology, stratigraphy, PFN and gamma grade was then exported and provided to AMC consultants for the MRE. • AMC comments that in 2025, AGE has redefined what the lower detection limit (LDL) is for all of its PFN data at Samphire. They have raised the LDL from the previous 250 ppm pU_3O_8 to 500 ppm on the base 2 cm interval data. This materially impacts intervals with intervals with grades below the level of detection (BDL) considering that the reporting cut-off grade for the Mineral Resource remains at 250 ppm U_3O_8. AMC concurs with the reasoning behind the change, as low-level precision of the PFN tool was notably poor as twin holes and other close-spaced drilling were becoming available. However, it also has required a substantial modification in the way the various data types were used and prioritized for estimation of the April 2025 Mineral Resource.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	Dr Andrea Marsland-Smith, COO of AGE and Competent Person for the geology and data of the project, has visited and worked on site during the 2021-2024 drilling programmes. Ingvar Kirchner, of AMC Consultants and Competent Person for the Mineral Resource has not been able to visit site. This is not considered to be a material issue as the mineralisation does not outcrop nor can issues with the drilling using downhole sondes be determined in the field.

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Criteria	JORC Code explanation	Commentary
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	Paleochannel hosted, oxidation-controlled (roll-fronts) uranium mineralisation is interpreted from the available data. The density of the drilling is sufficient for interpretation and constraining the channel-hosted lenses of uranium mineralisation. The geological setting for mineralisation within the SUP Blackbush deposit has been reinterpreted based on a review of historical drilling and AGE's 2021, 2022, 2023, and 2024 infill and twin hole drilling campaign. The 2025 geological model of the mineralisation consists of a broad, tabular-shaped, elongate lense of present and past uranium mineralisation (defined by gamma data and stratigraphic logging) within a paleovalley-type, sandstone-hosted deposit. The potential uranium mineralisation is hosted primarily within the Kanaka Beds – an Eocene-aged formation comprised of interbedded sands, interbedded silts, and discontinuous lenses of fine-grained organic-rich sedimentary layers in the upper sections of the Kanaka Beds. Locally, uranium grades within the interpreted mineralised zone are noted to be highly variable but generally subhorizontal in distribution. Updated wireframes were based on the reinterpretation of all available geological data and gamma assay data. The wireframes were created by constraining the upper and lower contacts of a general zone of uranium mineralisation using a nominal lower cut-off value of 150 ppm eU_3O_8 (gamma data) on AGE supplied 10 cm composited data. PFN data (pU_3O_8) was monitored but not used directly for interpretation. Chemical assay data (cU_3O_8) was not used. A nominal minimum interval thickness of 0.4 m to 1 m was used with variable internal dilution allowed due to the uncertainty related to the use of gamma data (which does not directly measure uranium grades) and apparent complex, possibly overlapping internal roll-front geometries and time-variable complex redox profile in the paleochannel hosted groundwater. One general sub-horizontal mineralised zone has been defined using the gamma data which defines where the uranium mineralisation exists (or has existed) at some stage. The mineralised zone is mostly constrained within the Kanaka Beds with some minor overlap with Melton Sands at the top and saprolite capping granite at the base—some of which may be partially due to inaccuracies in logging or assignment of stratigraphy. Within the Kanaka Beds, the definition of the mineralised zones is not visually distinct, and is defined by changes in oxidation, gamma and PFN data, grade breaks between the layers, and occasional

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Criteria	JORC Code explanation	Commentary
		proximity to silty sand layers or lithological contacts. Lateral variations in thickness, grade and geological continuity are noted within the mineralised zones influenced by the complex paleovalley and subsequent meandering paleochannels.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The Blackbush uranium deposit follows the complex paleochannel system from north to south through an oxbow-type bend to then run west to east. The cumulative strike length of the deposit is approximately 2.7 km. Width of mineralisation measured across strike averages 300 m but widens in some tributary areas to widths up to 450 m. Mineralisation remains open in some areas along the paleochannel. Mineralisation generally occurs approximately 60 to 80 m below surface.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used.* • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using the grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation of data if available.*	An updated Mineral Resource for the SUP Blackbush deposit has been generated as of April 2025. The estimations used the interpreted mineralised zone as a hard boundary with economic mineralisation defined by disequilibrium factored gamma data (faceU3O8). Modelling of the disequilibrium factor for application to the gamma data using permissible 10 cm data pairs (eU_3O_8>50 and pU_3O_8>0 based on the 500 ppm LDL for the 2 cm PFN data) from common drillholes. Modelling of the disequilibrium factor is now notably the most critical part of the entire grade estimation process. Local disequilibrium factors for the gamma data were modelled for the mineralised zone (ZONECODE=100) using a reduced data set totalling 8,034 10 cm intervals from portions of 338 drillholes. These were studied for residual disequilibrium variability. This study noted the potential for variance within pairs related to depth matching and calibration of the different tools that measure different aspects of the uranium mineralisation. The data was trimmed to eliminate pairs with PFN grades of less than 500 ppm pU_3O_8 and less than 50 ppm eU_3O_8 considering the AGE revised lower detection limits of the PFN and gamma tools respectively. The gamma tool measures gamma radiation from decay daughter products of uranium such as 214Pb and 214Bi whereas the PFN tool measures 235U, a small relatively but stable fraction of 238U. While being indicative of mineralisation, it is possible for high eU_3O_8 values to occur in uranium-poor areas, for low eU_3O_8 values to occur in uranium-rich areas, or for the eU_3O_8 and pU_3O_8 to be relatively similar, depending on how the uranium and decay daughter products have been mobilized and reworked laterally and vertically through the paleochannels through

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		both spatial and redox fluctuations of the water table. Regions of both positive and negative disequilibrium were noted through the mineralised zone both along the paleochannel, across the paleochannel and vertically through the mineralised zone. Further adjustment to the gamma data was required to account for the secular disequilibrium. Essentially, the gamma data needs to be factored where possible and within limits to statistically behave like the available PFN data. Just using the selected 10 cm interval data pairs of eU_3O_8 and pU_3O_8, the data was modelled using an inverse distance interpolation method and power of 1 (ID1) into the model panels (12.5 mE by 12.5 mN by 1 mRL) for the mineralised zone. Dynamic anisotropy was used during estimation to accommodate the variable and complex orientations of the palaeovalley and paleochannels at the different stratigraphic levels. The block disequilibrium factor was calculated from the estimated values (DISEQFAC=pU_3O_8pr/eU_3O_8pr). The block model confirmed the observed trends in the mineralised data pairs (where the pairs existed and incorporated adequate data (up to 160 10 cm interval pairs assumed to represent approximate 12 to 16 m of data with a limit of 4 m data in the vertical extent from any single drillhole) to smooth erratic data pairs generated by issues such as depth matching, calibration of tools on individual holes, and natural short-scale variability. The local estimated disequilibrium factors (DISEQFAC) were assigned to all 10 cm interval gamma data occurring within a block volume for the mineralised zone and then the factored gamma data is calculated (faceU_3O_8=DISEQFAC*eU_3O_8). The mineralised zone at Blackbush exhibits internally variable disequilibrium factors based on the available data with an apparent minor increase in factors with increasing depth and towards some margins of the palechannel. High factors were arbitrarily capped at a maximum of three to prevent over-correction of the eU3O8 data based on other regression analysis of the data. Statistics for high-grade cuts were generated for the mineralised zone. A light high-grade cap of 15,000 ppm was applied to the faceU_3O_8 data after compositing to 1 m intervals, generating the feU_3O_8c variable. Three dimensional directional experimental variograms were generated for the feU_3O_8c variable in the mineralised zone. The experimental variograms were well-structured with a moderate nugget variance of 30% and a major axis range of 150 m. Compared to variograms for previous

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		models, the data appears to be statistically better behaved, but the 2025 mineralised zone now contains significantly more data and a material component of both internal dilution and poorly factored gamma data where gamma and PFN data pairs for the disequilibrium modelling were not available or distal to portions of the mineralised zone. The variogram model is appropriate for the feU$_3$O$_8$c data in the mineralised zone. Given the variable spatial location, continuity, and grades within the mineralised zone, and mining by in situ recovery (ISR) methods, U$_3$O$_8$ grade estimation was completed using an ordinary kriging (OK) estimation process with a limited search neighbourhood. A maximum of 12 1 m composites were used for any block estimate with the composites limited to a maximum of 3 1 m composites from any single drillhole (thus limiting vertical exaggeration of the variable but sometimes narrow mineralisation). Again, dynamic anisotropy was used during estimation to accommodate the variable and complex orientations of the palaeovalley and paleochannels at the different stratigraphic levels. Sample search parameters were defined based on the estimation method, variography and the data spacing. A two-pass search strategy with hard boundaries was used. Block estimates were visually and statistically compared to the input composite samples with satisfactory results where the disequilibrium factor data was not overly distal from the block estimate. Hence that parameter materially contributes during consideration of the Mineral Resource classification. No mining has occurred at the SUP Blackbush project. No by-products are considered or modelled for the project. The 12.5 mE by 12.5 mN by 1 mRL panel dimension considers the typical production wellfield drillhole spacing approaching 20 to 25 m and stated vertical selectivity within production bores at the scale of the interpreted mineralised zones. Mining will be by ISR. Details are currently the subject of early-stage mining studies. The April 2025 SUP Blackbush Mineral Resource has changed from the previous November 2023 Mineral Resource primarily due to the following items: • Ongoing extensional and infill drilling programme completed by AGE during 2024 has identified additional mineralisation and modified interpretations. • AGE revision of its PFN data and how it is used has resulted in substantial

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		changes to priorities for the various data types, interpretations of mineralisation, the estimation process, and criteria affecting Mineral Resource classification. • The coverage for acceptable PFN data (pU_3O_8>500 ppm LDL on 10 cm intervals) now has more restricted coverage throughout the Kanaka Bed mineralisation than previous protocols allowed for in the November 2023 model (where the pU_3O_8 LDL was considered to be 250 ppm on 10 cm intervals). • Mineral Resource classification as Indicated and Inferred Mineral Resource is now completed by manually defined cross-section strings and three-dimensional wireframes. Local variations in classification from previous to current models are too complex to summarize. • Disequilibrium factors for the gamma data changed with a substantial decrease in the amount of data pairs. The pU_3O_8 of 500 ppm LDL is now defined on 1 to 2 cm intervals, then AGE composited to 10 cm intervals which were supplied to AMC. The parameters used for the selection of the data pairs continued to be restricted as for the previous model using selection criteria of ZONECODE=100 and pU_3O_8>0 and eU_3O_8>50ppm. The disequilibrium factors are appropriate for mineralisation where PFN data exists and pU3O8 is approximately greater than 500 ppm, but is possibly inaccurate for any marginal areas where pU_3O_8 is below the LDL but above the Mineral Resource lower cut-off grade of 250 ppm. This is now considered in the Mineral Resource classification. • The dynamic anisotropy orientations have been modified slightly throughout the model area to reflect the new drillhole data results and mineralisation trends. • Assigned bulk density values are variable but marginally lower than those used in the November 2023 Mineral Resource.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Tonnages and metal are reported on a dry basis.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	The nominal 250 ppm U3O8 lower cut-off used to interpret the mineralisation domains was chosen as it represents a natural break in the data which probably correlates with a limitation of the various tools used to generate the data. A block cut-off grade of 250 ppm U3O8 is currently applied for reporting of the Mineral Resource as it assumes ISR as a mining method and limited selectivity via extraction wellfield design and operation.

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		A Scoping Study on a potential mining operation at Blackbush was announced by AGE in March 2023.
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	Uranium mineralisation at the SUP Blackbush deposit appears to be amenable for exploitation using ISR technologies. Mineralisation is located within the aquifer where it is hosted by permeable sands, silty sands, and basal gravels. Lateral extents and continuity of both silty layers and fine grained carbonaceous material are not well defined within the Kanaka Beds on the scale of currently available drilling, but are not currently considered by AGE to be problematic for mining by ISR. A moderate depth of mineralisation, and good spatial continuity coupled with variable but generally tabular shapes of the mineralisation within the interpreted mineralisation envelope are favourable characteristics for exploitation using ISR technologies. Field leach recovery tests have not been conducted, but is planned for 2025.
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	Testwork undertaken by ANSTO late 2022 have shown the following: • Mineralogical analysis (QEMSCAN) of samples used in the leaching testwork show uranium is present primarily as coffinite, with minor amounts of uraninite and uranophane. The only other minerals present in significant quantities were quartz, comprising 96.3% and pyrite (1.1%) • The highly saline groundwater at Samphire does not impact uranium leaching into solution, with diagnostic leach results of ≥ 98.6% extraction in all tests, showing a high level of leachable uranium present. • The leaching performance of the uranium ore in an In Situ Recovery (ISR) scenario was simulated in two horizontal column leaching tests over 33 days, using Samphire ground water from the mineralised zone adjusted to a pH of 1.5. High uranium extraction into solution was again confirmed with extractions between 92.9% and 96.3%. • IX testwork undertaken at various salinity (chloride) levels showed that uranium resin loading occurred in all scenarios, but as anticipated loading efficiency of uranium is negatively impacted by higher ground water salinity. AGE is proposing that wellfield ground water pre-conditioning be utilised to lower chloride (Cl) levels from ~30g/L Cl to ~10 g/L Cl using reverse osmosis (RO) treatment of groundwater prior to ISR extraction and will be tested in the 2024 field recovery trial. This pre-conditioning is a similar

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		technique which is permitted at the Honeymoon mine to reduce calcium and chloride in groundwater prior to ISR mining.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project, may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.*	The project is at an early stage. No mining licenses have been applied for or granted yet. AGE is in the process of applying for a Retention Lease over the Blackbush area in order to conduct the field recovery trial. AGE advise that there are no known environmental, social, or legal issues that currently pose limitations on reasonable prospects for eventual economic extraction. The commodity is uranium which has been subjected to Australian government controls and limits on mining in the past.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Bulk densities have been revised by AGE based on assessment of downhole tool density log data. A range of dry bulk density values have been assigned to material outside of the Kanaka Beds, as follows: • 1.90 $g.cc^{-1}$ for all paleochannel stratigraphic units other than the Kanaka Beds. Uranium mineralisation is minimal or non-existent, and it is not classified as a Mineral Resource. • Saprolite capping the basement granite below the Kanaka Beds was assigned a density of 2.16 $g.cc^{-1}$. Uranium mineralisation is erratic or non-existent, disequilibrium factor data is minimal or non-existent, and it is not classified as a Mineral Resource. • Basement granite was given a nominal bulk density value of 2.70 $g.cc^{-1}$ for sake of completeness in the model. Uranium mineralisation is minimal or non-existent, it is not viable for ISR production of mineralisation, and it is not classified as a Mineral Resource. The Kanaka beds had dry bulk densities assigned by nearest neighbour assignment according to logged geology: • Minor and erratic portions of the Kanaka beds tagged in lithological logging as having variable amounts of fine grained carbonaceous (“lignitic”) material have been assigned a density of 1.79 $g.cc^{-1}$. • The remainder of the Kanaka Bed sediments have been assigned a density of 1.92 $g.cc^{-1}$.

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		The bulk density revisions are considered appropriate by the Competent Person but remain substantiated by limited physical samples.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The April 2025 Mineral Resource for the SUP has been classified as a combination of Indicated and Inferred Mineral Resource in accordance with JORC Code based on the confidence levels of the key criteria considered during the resource estimation. This includes confidence in the geology, interpretations, revised data quality, data types, disequilibrium factored gamma data and distribution of available eU_3O_8 and pU_3O_8 10 cm raw data pairs, drilling density, apparent grade and spatial continuity of the mineralisation, estimation quality, and stratigraphic position. Only material within the Kanaka Beds is eligible for resource classification, with some poorly estimated portions left as unclassified. The resource classification assumes potential exploitation by ISR mining methods. The classification reflects the Competent Persons' view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	No audits or technical reviews have been completed for this most recent Mineral Resource beyond AMC's own internal peer review process.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The resource classification represents the relative confidence in the resource estimate as determined by the Competent Person. Issues contributing to or detracting from that confidence are discussed above. No quantitative approach has been conducted to determine the relative accuracy of the resource estimate. The OK estimation method model is considered to reflect potential recovery on a typical wellfield selectivity maintaining some internal vertical variability where appropriate within the interpreted mineralised zone. The estimate is considered to be a global estimate. The Mineral Resource model cannot anticipate wellfield design, continuity issues (either grade or geological) that might impact on the wellfield design, or variable recoveries related to the ISR mining process (including geochemical and/or permeability constraints). Accurate ISR scenarios are yet to be determined by a mining study, including the extent to which marginal grade mineralised zones might be targeted and recovered. Determination of actual wellfield recoveries via an ISR mining method is currently uncertain for the project. Metallurgical assumptions are discussed above.

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		Field hydrogeological pump testing show the targeted Kanaka Beds are hydrologically isolated from the surficial environments. The local accuracy of the Mineral Resource model is considered fit-for-purpose for the expected use of the model in early-stage mining studies. Due to the nature of the paleochannel-hosted uranium mineralisation, the degree of radiochemical disequilibrium is likely to significantly vary laterally between drillholes and vertically within each drillhole. In 2025, AGE revision of what it considers to be the lower detection limit of its PFN tool and subsequent adjustments to its PFN data "below level of detection" value have resulted in less valid data pairs being available for estimation of local disequilibrium factors. Disequilibrium factoring applied for the April 2025 resource estimate is considered to have resulted in satisfactory results for areas that have informing gamma and PFN data pairs. Estimation results that are distal to informing distal to gamma and PFN data pairs are likely to be potentially high biased and spurious. AMC has addressed this in the Mineral Resource classification. Quality control and calibration of all downhole tools should be continually monitored including regular check runs in a maintained drillhole on-site. Additional drilling by AGE has expanded areas of known mineralisation. Further infill drilling, investigation into dry bulk density determination, radioactive disequilibrium (both vertical and lateral), metallurgical characteristics, and hydrogeological testing to understand potential recoveries from the ISR mining process will be required to improve the level of resource classification.

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