



# Alligator Energy Ltd Investor update

25 May 2021 – Greg Hall, CEO

# Disclaimer & Competent Person's Statements

## Disclaimer

This presentation 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.

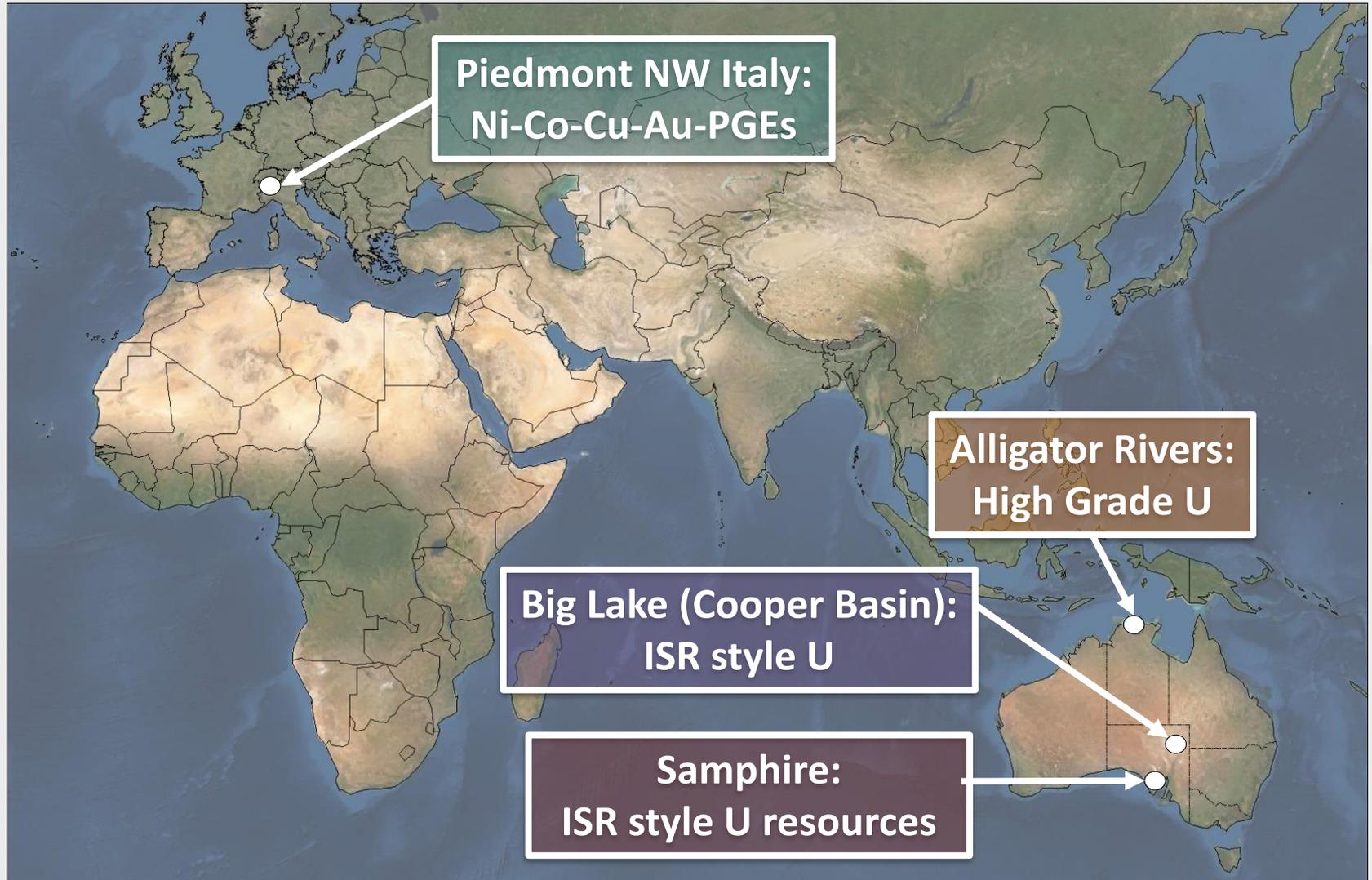
## Competent Person's Statement – Nickel Cobalt

Information in this report is based on current and historic Exploration Results compiled by Mr Andrew Vigar who is a Fellow of the Australasian Institute of Mining and Metallurgy and the Australian Institute of Geoscientists. Mr Vigar is a non executive director of Alligator Energy Limited, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Vigar consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

## Competent Person's Statement – Uranium

Information in this report is based on current and historic Exploration Results compiled by Mr Andrew Peter Moorhouse who is a Member of the Australasian Institute of Geoscientists. Mr Moorhouse is an employee of Alligator Energy Limited, and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Moorhouse consents to the inclusion in this release of the matters based on his information in the form and context in which it appears.

# AGE Project Locations



# Alligator Corporate and Strategy

Alligator is a **uranium focussed project development and exploration group**, targeting multi-jurisdictional resource and exploration projects with **clear pathways for approval and development**.

The Company's strategic aims include:

- Advance the **Samphire Uranium project through resource expansion, evaluation, approvals** and pre-development into production
- Evaluate and target **acquisition of further advanced uranium assets** in its chosen target regions
- Identify and test **highly prospective exploration targets in its ARUP, Big Lake** and other future uranium exploration regions
- **Value add** to its Ni Co Cu Au **Piedmont Project** in northern Italy through **strategic partnership investment** in line with the increasing European focus on energy related minerals.

Alligator has formed a strategic relationship with **Traxys North America**, the U.S. arm of global commodities trading group Traxys. Traxys uranium team will provide uranium marketing services for future uranium production, long term offtake contracting, project development financing and assist in uranium project acquisition opportunities.<sup>1</sup>

Combined now with Traxys, Alligator has one of the most experienced uranium Management, Advisory and Board teams on the ASX.

# Summary of projects and status

The Sapphire Uranium Project in South Australia contains **47Mlb inferred uranium resources** in two deposits. The JORC2012 compliant **Blackbush resource** is 64.5 million tonnes at a grade of 230ppm eU3O8 containing **32.7Mlb eU3O8** at a 100ppm cut-off grade, with a higher-grade core amenable to ISR extraction. The JORC2004 **Plumbush resource** is 21.8 million tonnes at grade of 292ppm eU3O8, containing **13.9Mlb eU3O8** of mineralisation at a 100ppm cut-off grade. <sup>2\*</sup>

The Project has significant upside through potential resource upgrade, continuation of mineralisation, further discoveries and improved modern extraction and recovery techniques. <sup>3</sup>

The Alligator Rivers Uranium Province (ARUP) area in the Northern Territory contains **multiple uranium targets** in a well-defined **high grade regional uranium bearing zone**, which includes the Caramal uranium resource. The prospective Nabarlek North tenements have recently been granted giving Alligator in **excess of 1150km<sup>2</sup> of active tenure** in Australia's premier Uranium district. <sup>4</sup>

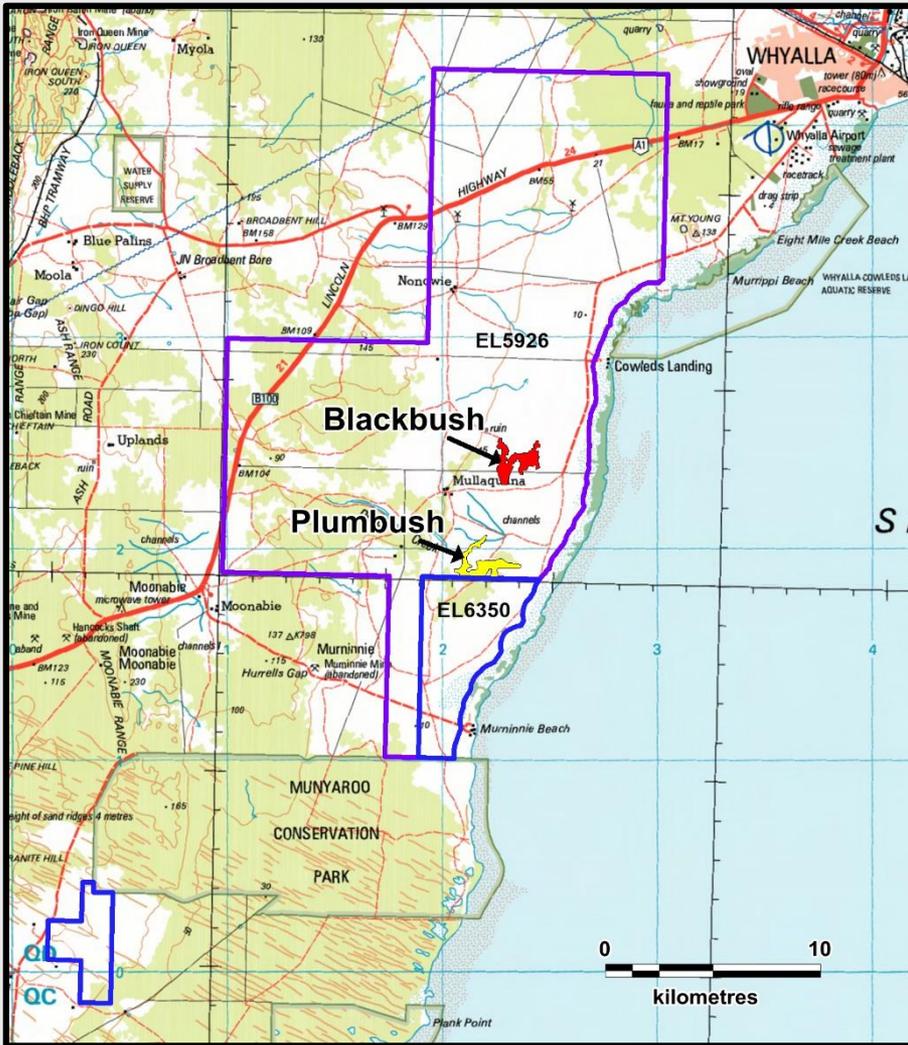
Alligator has recently conducted a first EM survey over the Big Lake Uranium prospect in South Australia, **targeting potential paleochannels for new low cost ISR style deposits** in the Cooper Basin. Based on results, initial drilling will be planned for H2 2021. <sup>5</sup>

The Piedmont project in northern Italy contains multiple **historic Ni Co Cu mines**. Ground truthing and sampling has **confirmed the high-grade Ni tenor of the region**, with 17 occurrences of nickel > 0.5% in a region of interest extending some **30kms in length, by 2 to 3kms wide**. <sup>6</sup>

\*Refer ASX release 11 June 2020 - <https://www.asx.com.au/asxpdf/20200611/pdf/44jk4s3r8rgc10.pdf> including the Cautionary Statement in relation to the 2004 JORC compliant Resource

Refer to numbered references on slide at end of presentation (Slide 21)

# Samphire Uranium Project - Status



Alligator completed acquisition of the Samphire project in Oct 2020.

A Desktop Study was immediately undertaken to review potential development routes and plan future work, with results announced Dec 2020

After an initial successful trial, geophysics have been undertaken using modern ground magnetics and passive seismic, with results currently being evaluated.

Based on resource advice with input from geophysics, planning of a drilling program is underway for resource infill drilling, resource extension, and new core samples for metallurgical and recovery testing.

**Alligator's aim this year is to upgrade the Blackbush resource, undertake updated ANSTO testing for uranium recovery, and incorporate these into an economic Scoping Study to be completed and announced by the end of 2021.**

We have announced the acquisition of an additional tenement from Stellar Resources Ltd (subject to completion) to the south of the Plumbush deposit which contains historic drilling and uranium intercepts. <sup>7</sup>



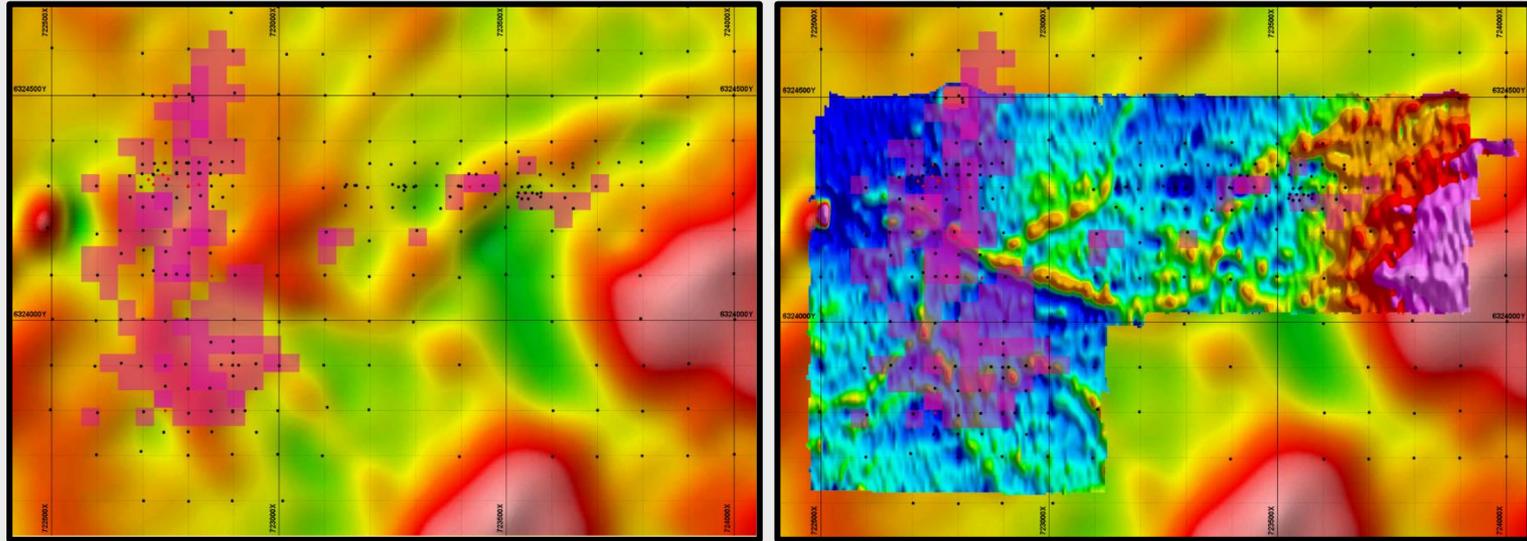
# Samphire Desktop Study

Alligator engaged the experienced uranium ISR consulting group - Inception Consulting Engineers – to undertake a Processing Review and Opportunities for the Samphire Uranium Project. This has highlighted the following positive findings:

- Previous testwork and modern advances in resins **indicate the project is highly amenable to In-Situ Recovery (ISR) production**, with updated ANSTO recovery testwork planned.
- **An intermediate product could be produced** for toll processing offsite reducing capital costs in any future development.
- An updated and improved flowsheet for uranium extraction / processing was established based on the consistent higher-grade portion of the Blackbush resource.
- An alternate open pit operation could be feasible but not the preferred option.
- Initial OPEX and CAPEX cost estimates were established that **were competitive with similar ISR operations** – these will be confirmed and disclosed as part of the planned 2021 resource and Scoping Study work
- Due to the Blackbush resource being currently 100% inferred, ASX guidelines do not allow the publication of forward-looking financial figures / statements at this stage.



# Initial geophysics trial at Samphire



**(Left) Blackbush 1000ppm block model and historic drillholes on existing TMI Magnetics and (right) with new higher resolution ground TMI Magnetics overlaid.**

High-resolution ground magnetics trial over part of the Blackbush resource completed during February 2021. Results show a marked improvement on existing magnetic data resolution and has provided additional insight and clarity into basement geological features and structural controls of the Blackbush resource. Following the successful trial the expansion of this data over the broader Blackbush deposit was undertaken during April 2021 with results currently being evaluated.

Additionally previous work at Samphire indicated passive seismic was a beneficial survey technique to refine the target Kanaka bed palaeochannels which host mineralisation. Additional passive seismic lines have now been undertaken with results also currently being evaluated.

These improved geophysics surveys are now forming part of ongoing drill planning.

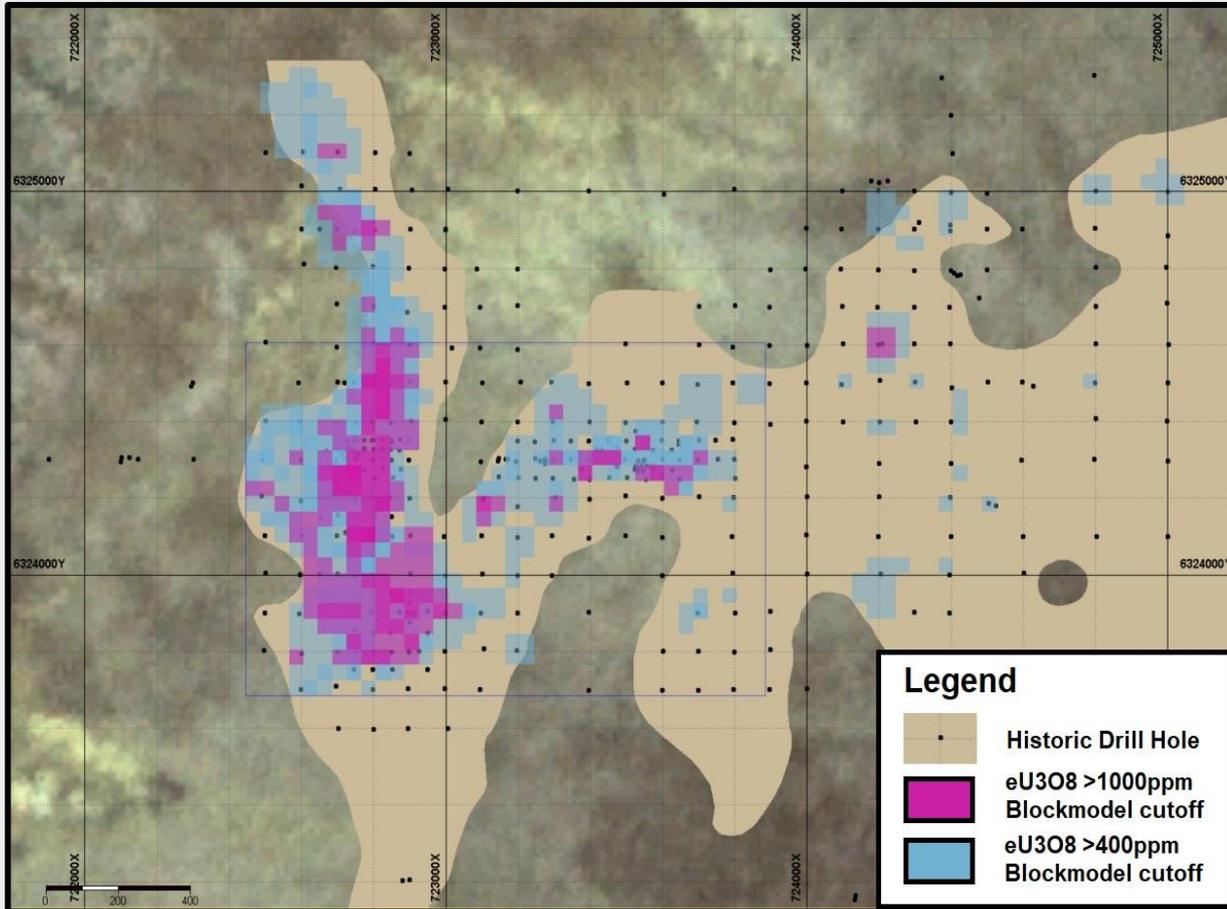
# Samphire Exploration – Drilling plan

Extensive review of previous exploration has confirmed the high quality of existing work with over 790 historic drill holes totalling over 58,000m, primarily focused on the Blackbush and Plumbush resources. Previous drilling in the Blackbush higher grade zones has shown impressive results, including *hole MRM881 which intercepted 15.9 metres at 0.3% eU3O8 (3,000 ppm) including 4.5 metres at 1.02% eU3O8 (10,200 ppm).*<sup>3</sup>

Upon interpretation of the geophysics data, a draft Exploration Program for Environment Protection and Rehabilitation (E-PEPR) will be revised and submitted to allow for planned drilling works to commence in Q3 2021. The drilling is targeting three distinct opportunities and will be structured as follows:

- Up to 20 rotary mud holes to approximately 100m to test resource upgrade opportunities within the existing Blackbush deposit
- Up to 20 rotary mud holes to approximately 100m to test extensional distal targets from the Blackbush deposit
- At least six sonic drill holes, up to 100m each at the Blackbush deposit to obtain suitable samples for updated test work by ANSTO on uranium recovery using modern high chloride tolerant resins and detailed ion exchange evaluation.

# Blackbush High Grade Core



Following review of the existing Blackbush resource, potential remains to:

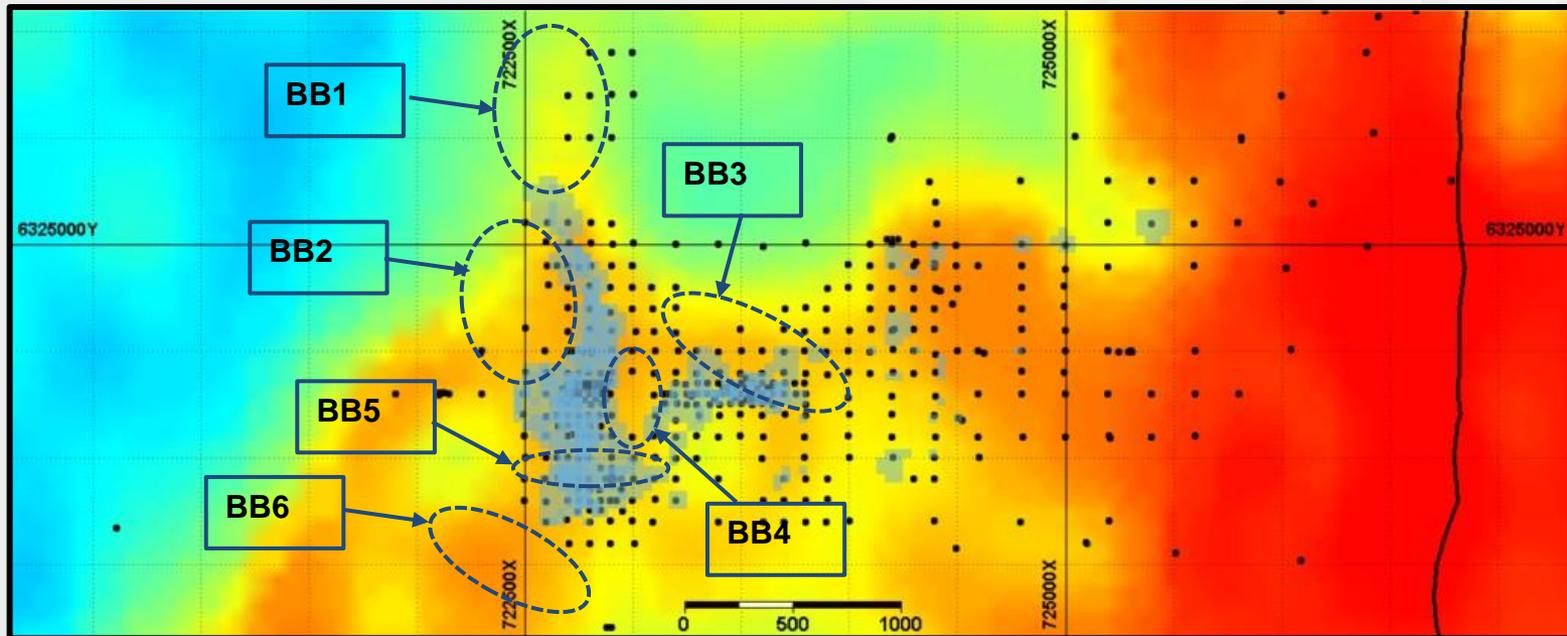
- Infill historic drilling in the high grade core and upgrade the existing resource
- Target identification of further high grade mineralisation within the know resource over potential basement source structures

Blackbush mineralisation distribution at 400ppm (blue) cut-off and 1000ppm (red) cut-off 40m blocks, Kanaka Beds basal unconformity shaded in behind the blocks.

# Blackbush Targets

Within or proximal to the Blackbush deposit, 6 primary targets have been identified listed here with their targeting rationale:

- 1) **BB1:** Targeting gamma anomalies within a previously identified palaeochannel with potential continuation to the north
- 2) **BB2:** Targeting westerly extensions to the Blackbush system
- 3) **BB3:** Targeting resource margin upgrade
- 4) **BB4:** Targeting resource infill and potential upgrade between mineralised zones
- 5) **BB5:** Targeting resource upgrade potential around southern high-grade zone
- 6) **BB6:** Targeting kanaka AEM channel infill and south-southwest trending palaeochannel extensions



Blackbush 400ppm block model over AEM depth slice (40m below surface) with historic drilling and initial targets.

# Alligator Rivers Uranium Province (ARUP) – NT

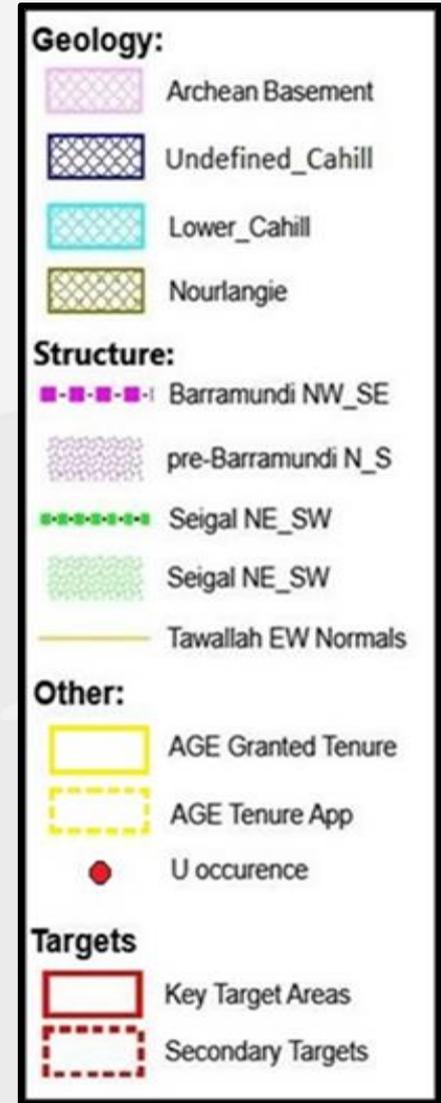
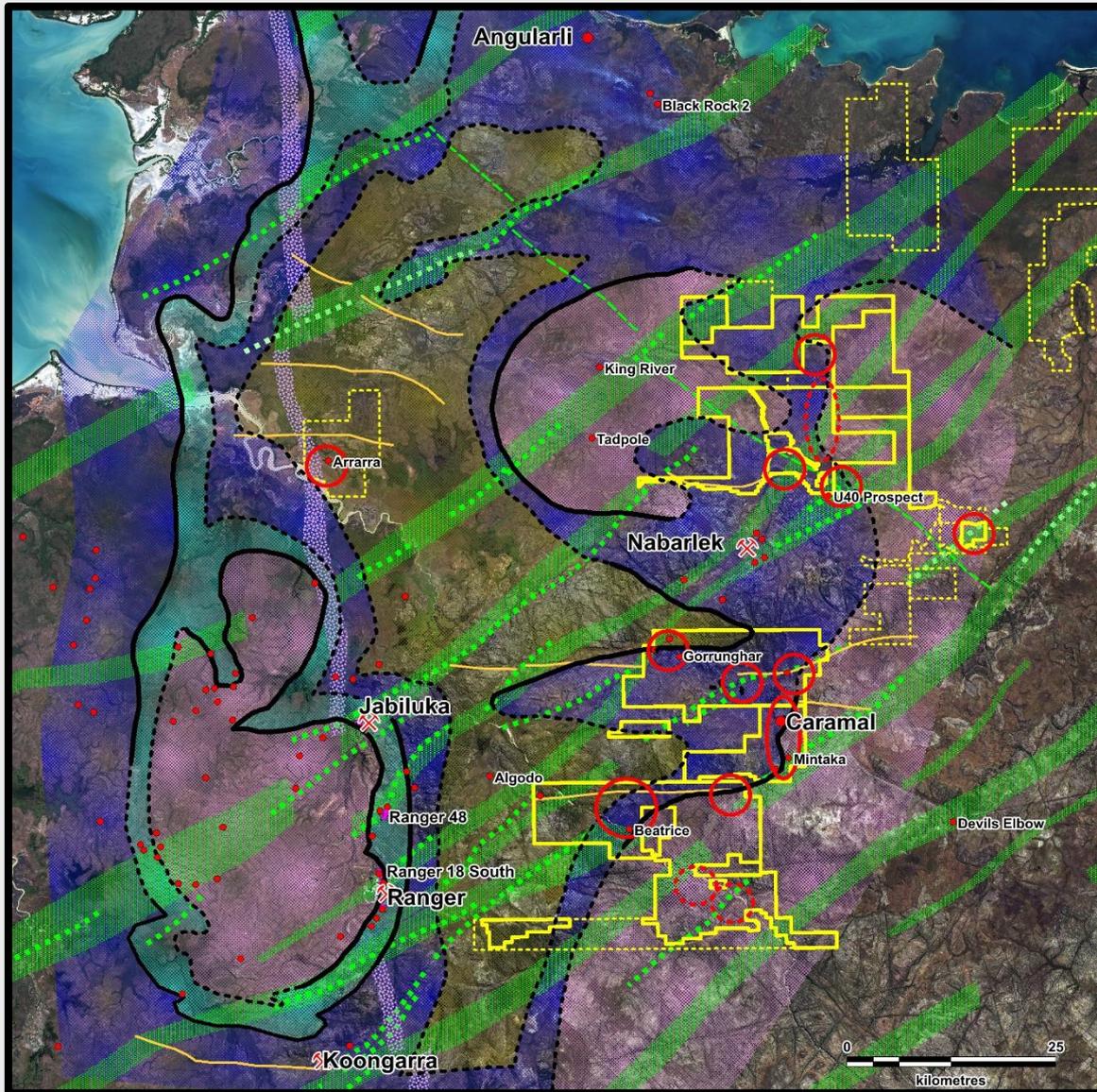
The ARUP region in West Arnhem Land contains **multiple uranium targets** in a well-defined **regional uranium bearing zone**, which includes the Caramal resource (6.5 mill lbs U<sub>3</sub>O<sub>8</sub> @ 0.31% (3,100ppm) – <sup>4</sup> refer ASX release 19 Apr 2012 - <https://www.asx.com.au/asxpdf/20120419/pdf/425pwnq4grbc7v.pdf>

After significant work, Alligator and its specialist consultants have conducted a comprehensive re-evaluation of the regional and local geology for West Arnhem Land. From this work, AGE enhanced its understanding of the stratigraphic and structural relationships that we believe are the proven key to mineralisation of large uranium deposits within the ARUP. This in turn allows better more focussed targeting.

This study highlighted a broad prospective zone running from the western Beatrice project, through the eastern portion of the Tin Camp Creek project and into the recently granted Nabarlek North project area as high priority for further work. Along this trend, 8 areas for immediate assessment were highlighted combined with 6 additional target areas within the Alligator licences.

Alligator has completed an agreement with Traditional Owners and the NLC over the highly prospective Nabarlek North tenement package. This package of eight tenements increases AGE's exploration footprint by 80% and lies 11 km to the north of the historic Nabarlek uranium mine (24 Mlbs @ 1.84% U<sub>3</sub>O<sub>8</sub>), and **200 metres from the high grade U<sub>40</sub> prospect (includes 6.3m at 7.23% U<sub>3</sub>O<sub>8</sub>)** <sup>8</sup>

# Alligator Rivers Uranium Province



ARUP – underlying geology – actual and interpreted

# Big Lake Uranium – ISR Uranium concept target – SA

In Oct 2019 Alligator agreed farm-in terms to **acquire 100% interest** in the Big Lake Uranium (BLU) opportunity in the Copper Basin, South Australia **exploring for ISR uranium**.

SA has existing uranium production, strong Government and public familiarity, excellent regulator experience and uranium concentrate and export logistics. Shallow sandstone hosted ISR deposit style is amenable to rapid and low-cost exploration and exploitation. The BLU region demonstrates geological analogies to existing world class ISR fields including;

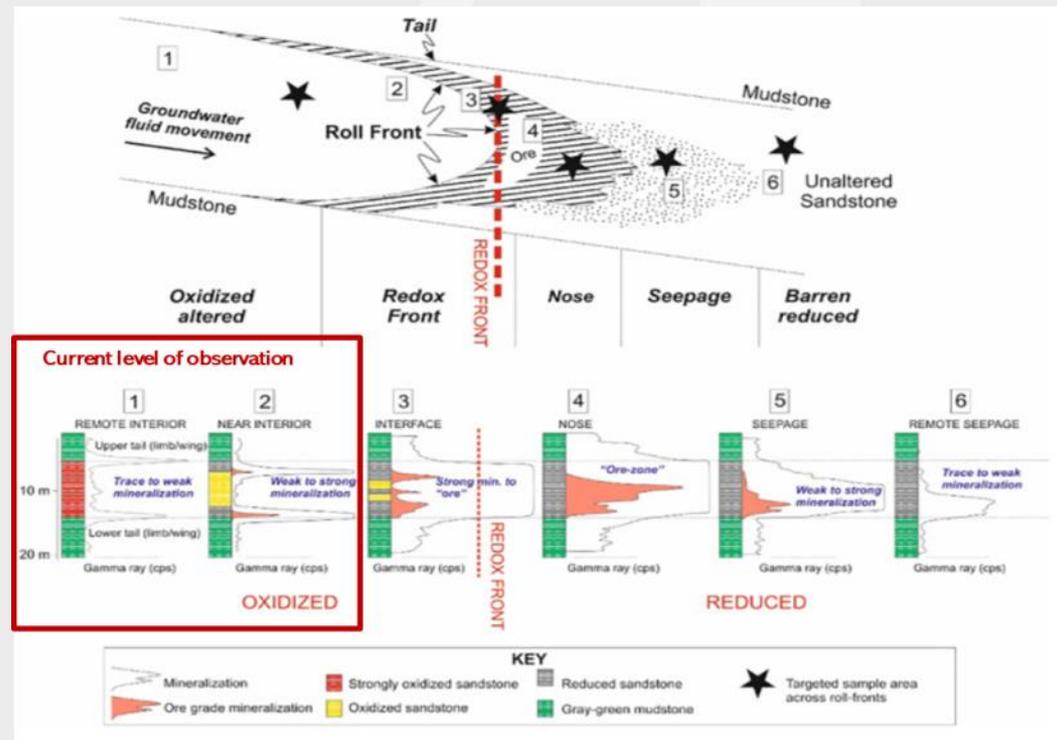
*Uranium Source:* Uranium rich basement rocks

*Transport:* Fluids from uranium bearing basement rocks into sandstone basins

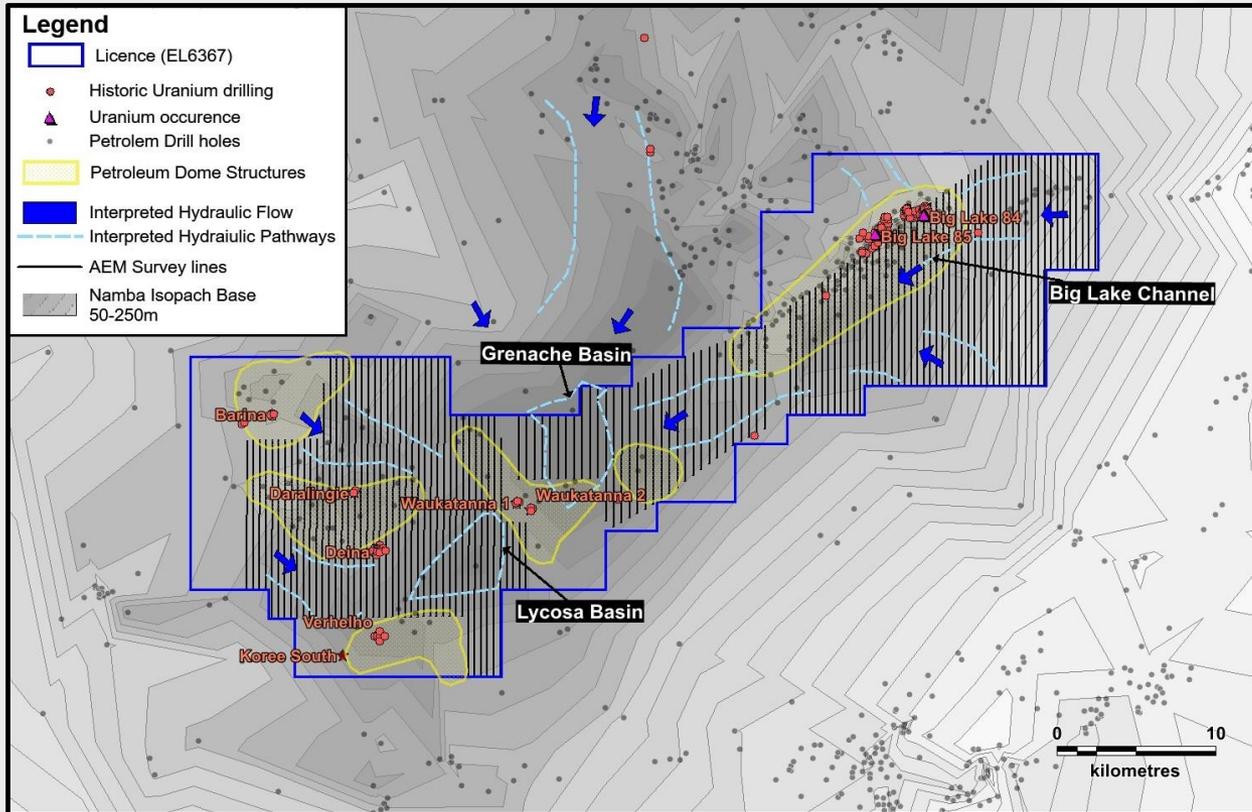
*Trap:* **Hydrocarbons** (gas) providing reductant for uranium deposition.

**Similarities with the Kazakhstan, Texas and Wyoming** uranium fields which are all related to hydrocarbon fields.

Uranium has been recorded proximal to the target area with oil and gas well gamma logging, along with **confirmation from limited previous uranium drilling (proof of metal in the system)**.



# Big Lake Uranium – Airborne EM survey



Exploration work has now commenced with an airborne EM survey completed during early May 2021.

The results from this are now being evaluated with a view to interpreting any paleochannel systems which may have accumulated uranium in sediments.

Subject to this evaluation, an initial drilling program is planned for 2H 2021.

**Base of Namba formation Isopach with proposed AEM survey lines over interpreted Hydraulic pathways, Petroleum Dome structures and Historic drilling**

# Piedmont Ni Co Cu Au project in northern Italy

Alligators Piedmont project setting is a major gabbroic mafic complex, with sub-volcanic layered intrusive structures leading down to depth. The region of interest extends some **30kms in length, by 2 to 3kms** wide, and contains multiple **historic Ni Co Cu mines**.

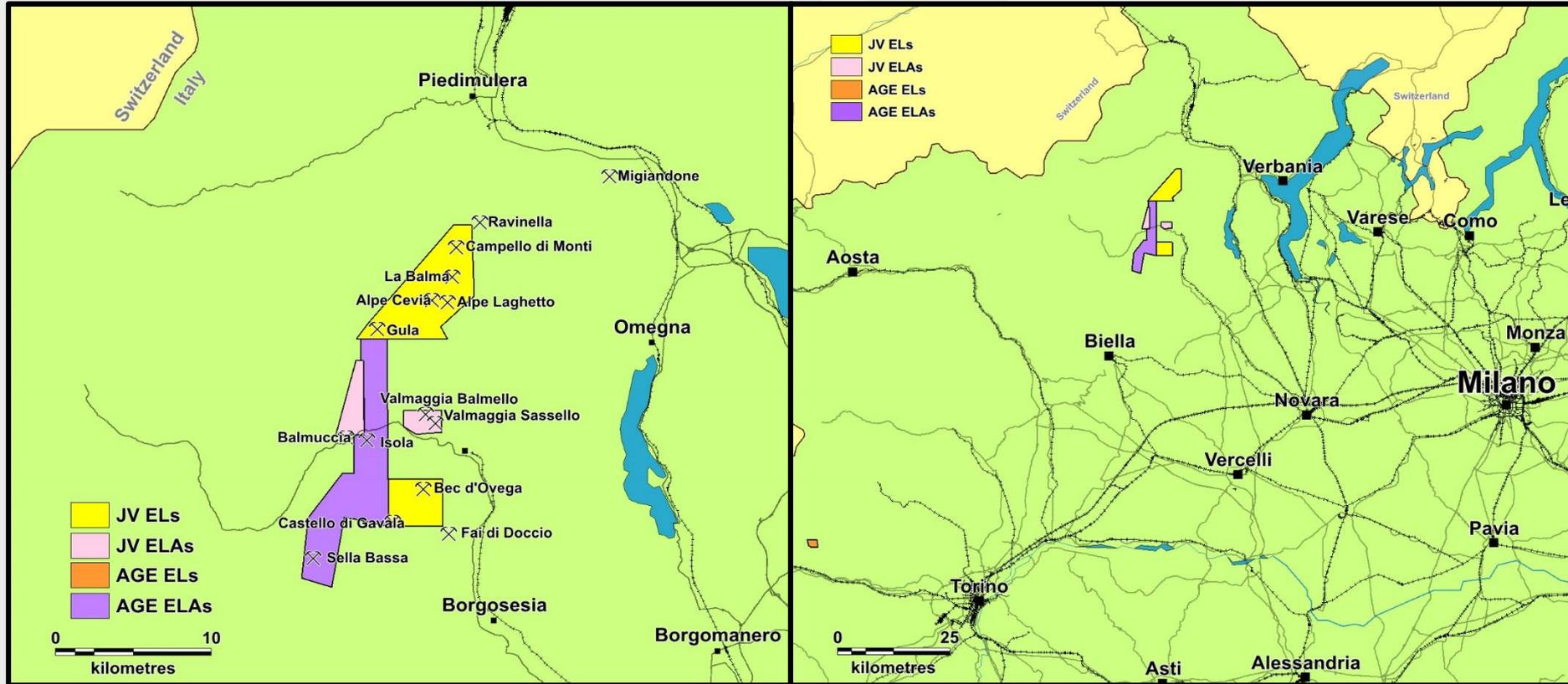
Alligator's ground truthing and sampling has **confirmed the high-grade Ni Co tenor of the region**, and the company is currently in active discussions with potential strategic partners to advance next exploration steps.

Assay results from two-stage 2018 work include: Initial results: range of significant metal grades ranging **0.19 to 2.48% Ni, 0.02 to 0.17% Co and 0.07 to 0.98% Cu**; <sup>6</sup> (or [Refer ASX release 26 July 2018](#)) ; Second results release: range of significant metal grades **0.49 to 2.24% Ni, 0.02 to 0.19% Co, 0.12 to 6.38% Cu and 0.6 to 60.8g/t Au**; <sup>6</sup> (or [Refer ASX release 14 Sept 2018](#))

Notice has previously been received from the Turin based mining authority of approval for drilling permits lodged within the Alpe Laghetto licence and renewal for a further 2 years paving the way to progress the project at the right time.

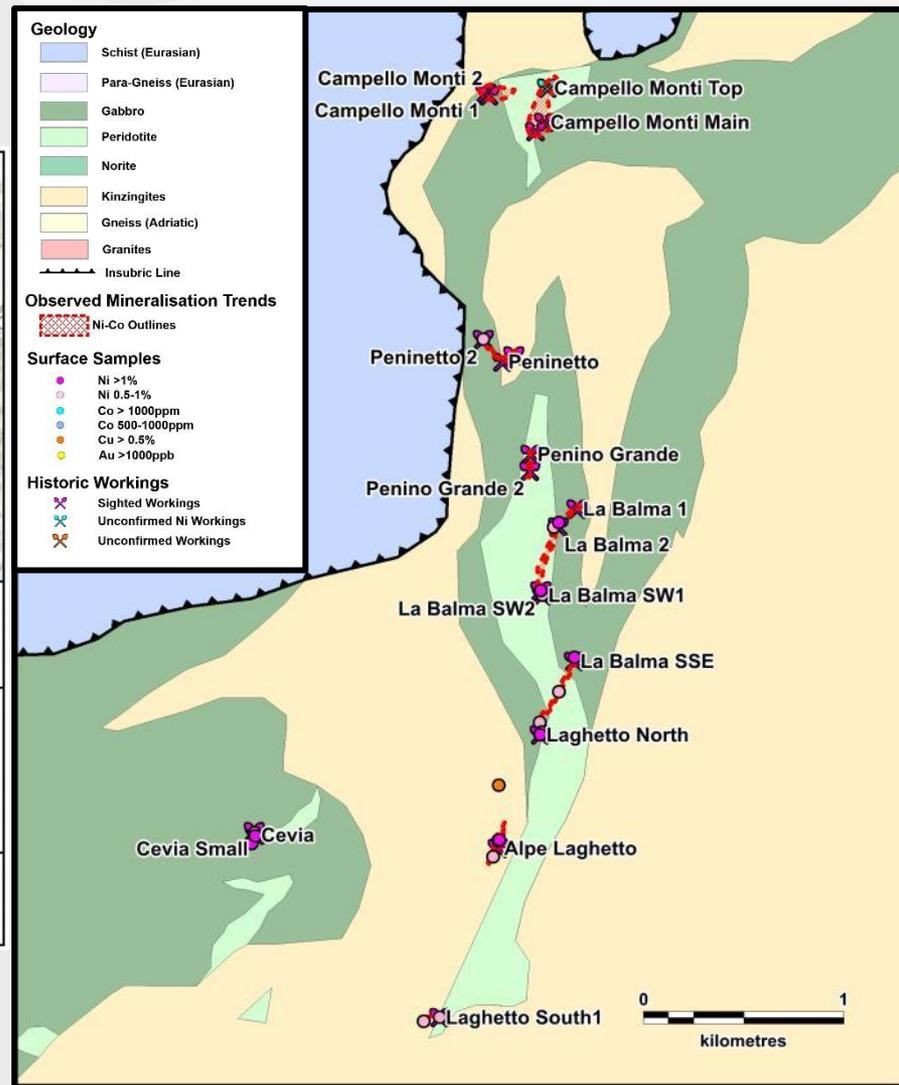
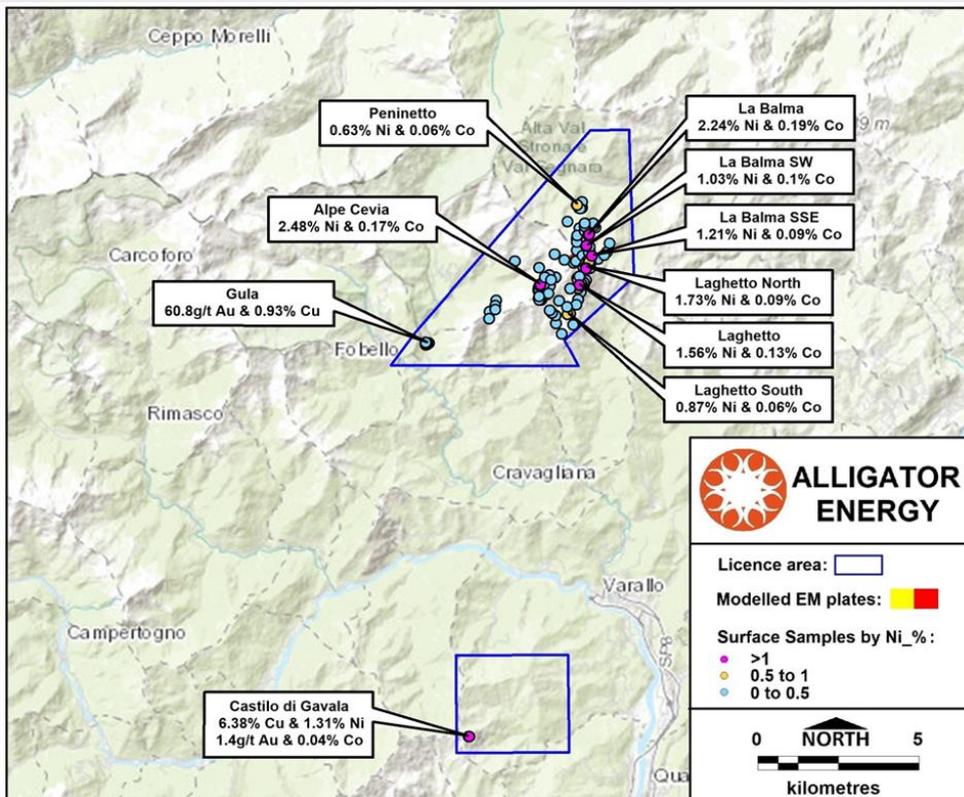
A detailed technical review by a world renown nickel / cobalt geologist with extensive experience in this style of mineralisation has confirmed the potential for large scale Ni and Co occurrences.

# Piedmont Ni Co Cu Au project in northern Italy



Project locations

# Piedmont Project – Northern Italy (Co, Ni, Cu, Au)



Sampling and observed mineralisation trends

# Piedmont Project – Northern Italy (Co, Ni, Cu, Au)

Sample ID	Prospect	Co_ppm	Ni_%	Cu_%	Au_ppm	Ag_ppm	Zn_ppm
P18-S003	Cevia	1720	2.48	0.137	0.009	-0.5	11
P18-S080	Cevia	1070	1.57	0.0714	0.013	-0.5	55
P18-S176	Gavala	442	1.31	0.874	0.183	2.7	51
P18-S177	Gavala	247	0.747	6.38	1.385	18.4	67
P18-S159	Gula	158	0.0485	0.0987	41.5	10.9	366
P18-S160	Gula	8	0.005	0.927	0.103	18.6	3790
P18-S170	Gula	73	0.0422	0.38	60.8	38.8	2650
P18-S026	La Balma	251	0.294	0.723	0.898	1	87
P18-S131	La Balma	1860	2.24	0.0921	0.007	0	30
P18-S015	Laghetto	208	0.194	0.979	0.051	2.5	90
P18-S053	Laghetto	1270	1.555	0.104	0.006	-0.5	62
P18-S059	Laghetto	1300	1.36	0.0855	0.004	-0.5	106
P18-S102	Laghetto	899	1.73	0.433	0.029	0.8	114
P18-S033	Sella Bassa	1890	2.42	0.102	0.037	-0.5	18
P18-S034	Sella Bassa	1720	2.28	0.251	0.018	-0.5	22
P18-S109	Vallar	11	0.0017	0.0014	10.45	35.1	9

2018 sampling result highlights

# Uranium and Nuclear Market

From Dec 2020 major policy initiatives were announced in the US supportive of nuclear and the uranium market, including:

- the establishment of a US strategic reserve for the purchase of US origin and produced uranium;
- an updated Russian Suspension Agreement further restricting the quantity of Russian sourced nuclear fuel that can be supplied to US utilities; and
- clear acknowledgement from the Biden Administration of the future role of modern nuclear power in reduced carbon emissions energy generation.

This has resulted in a significant increase in interest and equity value of uranium producers, developers and explorers around the world. Combined with continued shutdowns of uranium production capacity, and producer, funds and developer buying, this has resulted in a firming of the spot uranium price.

The policy positions above, in particular the support for new nuclear power technologies, will, we believe, have an ongoing positive effect on the uranium market. This continues to support Alligator Energy's progression of its development and exploration projects, as well as ongoing evaluation of additional future uranium project opportunities.

A key leading indicator for the health of the uranium market is the number of Requests for Proposals (RFP's) by global nuclear utilities for future long term multi-year uranium supply contracts being initiated. The industry is watching to determine the level of these RFP's coming into the market.

Market commentators believe that utilities are getting closer to re-entering the market for new long term contracts. While there may be still some excess inventories held, these are diminishing, and the removal of the market uncertainties may reduce this hesitancy to re-start / replace long term contracts. The level of uncovered demand for many utilities (again particularly in the US – 50% uncovered by 2024) is increasing in near term years and will ultimately result in increased uranium supply contracting with producers.

# ASX references and Statements

1. Refer ASX release 10 May 2021 – Alligator Partners with Global Uranium Group Traxys - [2924-02372956-2A1297261 \(markitdigital.com\)](#)
2. Refer ASX release 11 June 2020 – Alligator to Acquire 47 Mlbs uranium resource – [2924-02243486-2A1230115 \(markitdigital.com\)](#) - including the Cautionary Statement in relation to the 2004 JORC complaint Resource
3. Refer ASX release 16 December 2020 – Samphire Uranium Project – Desk Top Study findings - [2924-02322873-2A1270492 \(markitdigital.com\)](#)
4. Refer ASX release 19 Apr 2012 – <https://www.asx.com.au/asxpdf/20120419/pdf/425pwnq4grbc7v.pdf>
5. Refer ASX release 7 May 2021 – Alligator commences airborne EM at Big Lake - [2924-02372482-2A1297000 \(markitdigital.com\)](#)
6. Refer ASX release 9 July 2019 – Rediscovered Ni Co province in Italy - [2019 07 09 Market Update - Re-discovered Ni Co Cu province \(markitdigital.com\)](#)
7. Refer ASX release 18 May 2021 – Alligator Acquires exploration licence adjacent to Samphire - [2924-02375584-2A1298615 \(markitdigital.com\)](#)
8. Refer ASX release 26 February 2020 – Nabarlek North tenements to proceed to grant - [2924-02206728-2A1208851 \(markitdigital.com\)](#)

## Plumbush Inferred Mineral Resource - Cautionary Statement

In relation to the Plumbush Inferred Mineral Resource Estimate (stated in compliance with JORC 2004) of 21.8 million tonnes at grade of 292ppm  $eU_3O_8$ , containing 6,300t (13.9Mlbs) of mineralisation at a 100ppm  $eU_3O_8$  cut-off grade the following cautionary statement is made:

- the Exploration Results have not been reported in accordance with the JORC Code 2012;
- a Competent Person has not done sufficient work to disclose the Exploration Results in accordance with the JORC Code 2012;
- it is possible that following further evaluation and/or exploration work that the confidence in the prior reported Exploration Results may be reduced when reported under the JORC Code 2012;
- nothing has come to the attention of the acquirer that causes it to question the accuracy or reliability of the former owner's Exploration Results; but
- the acquirer has not independently validated the former owner's Exploration Results and therefore is not to be regarded as reporting, adopting or endorsing those results.

The Plumbush Inferred Mineral Resource is JORC 2004 compliant and therefore may not conform to the requirements in the JORC Code 2012. The Inferred Mineral Resource was previously announced by Uranium SA (ASX:USA) on the 8<sup>th</sup> April, 2011. All work to establish this Inferred Mineral Resource was completed by the vendor of the Samphire Project. It is the acquirer's view that the reliability of the Exploration Results are of a good standard. The drilling methods, drilling density, sampling, and downhole geophysical surveys are documented and appear to be of reasonable quality. Additionally, the geological setting and mineralisation style correlate with what is reported at the neighboring Blackbush deposit (JORC 2012 compliant).

The Inferred Mineral Resource was based on drilling data from 43 rotary mud holes, on roughly 200metre centers. All holes were gamma probed using a suitably calibrated tool. No studies were completed on mineralogy or bulk density, with assumptions being made from the geologically similar neighboring JORC 2012 compliant Blackbush resource.

No further recent Exploration Results or data has been identified that would be relevant to understanding the Exploration Results.

An initial assessment suggests that to restate the Plumbush Inferred Mineral Resource as 2012 JORC compliant, landholder access agreements would need to be established, a small core drill hole program would likely be required which would include some geochemical, mineralogical and density sampling. The acquirer has not established a timeframe or budget for further work at Plumbush and it should be noted that this is expected to have a lower priority than the Blackbush deposit. Any short-term funding requirements will occur using internal financial resources.

The Competent Person's Statement for this presentation covers this Cautionary Statement.

# Contact Us

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