



Target Drilling Commences at Nabarlek North Project, ARUP, Northern Territory

Alligator Energy Limited **ASX: AGE (Alligator or the Company)** is pleased to advise that its 2024 target drill program for the Nabarlek North Project (Nabarlek North) in the Alligator Rivers Uranium Province (ARUP) in the Northern Territory is now underway.

Highlights

- Alligator's Nabarlek North Project is targeting unconformity-style uranium deposits in the Lower Cahill Formation, a mineralisation model played out throughout the district including nearby deposits such as Ranger, Jabiluka and Nabarlek (10 km to the southwest of the project area).
- This year's drilling program represents the culmination of two years of systematic geochemical testing, initial targeted RC drilling, reconnaissance mapping and a high resolution airborne magnetic and radiometric survey.
- A reverse circulation (RC) drilling program has been planned for a total of 3,000 - 5,000 m at up to 10 targeted locations.
- Topdrill of Western Australia has been awarded the contract and has significant experience operating in the ARUP..
- All approvals including cultural clearances have been completed and the program is being complemented by NT Government co-funded stratigraphic drilling to the value of \$100k.
- Subject to the quantum of final drilling metres, laboratory assays and analysis of results are expected to be finalised by November 2024.

Alligator's CEO Greg Hall stated: *"We are very pleased to commence this year's drilling program across an extended area within our Nabarlek North tenure package. This year's program brings together new geophysical datasets, two years of intensive geochemical sampling and reconnaissance mapping - including within areas that have seen little if any 'boots on the ground' activity. Along with step-out drilling to follow up on our encouraging 2023 results north of the U40 prospect, we are making some bold but strategic tests of features sharing similarities to some of the known deposits within the Alligator Rivers Uranium Province.*

It should be a very exciting couple of months, and we are again very grateful for the continued support from the Traditional Custodians of the land, the Northern Land Council, and to the NT Government through their co-funded exploration initiative program."

Project Background and Exploration Strategy

The Nabarlek North Project represents a highly prospective under-explored region within the Alligator Rivers Uranium Province (ARUP). It is typified by the presence of an exhumed Proterozoic unconformity with thin but sufficient cover sediments that masks bedrock radiometric signatures and historically, has discouraged exploration.

The project is located less than 7km north of the historic Nabarlek uranium mine which produced 24Mlb of U_3O_8 at an average grade of 1.84% (Figure 1). The U40 Prospect, located 200m south of Alligator's southern tenement boundary, has historically reported grades of up to 6.3m @ 7.23% U_3O_8 ¹ demonstrating high-grade occurrences proximal to the Nabarlek North Project.

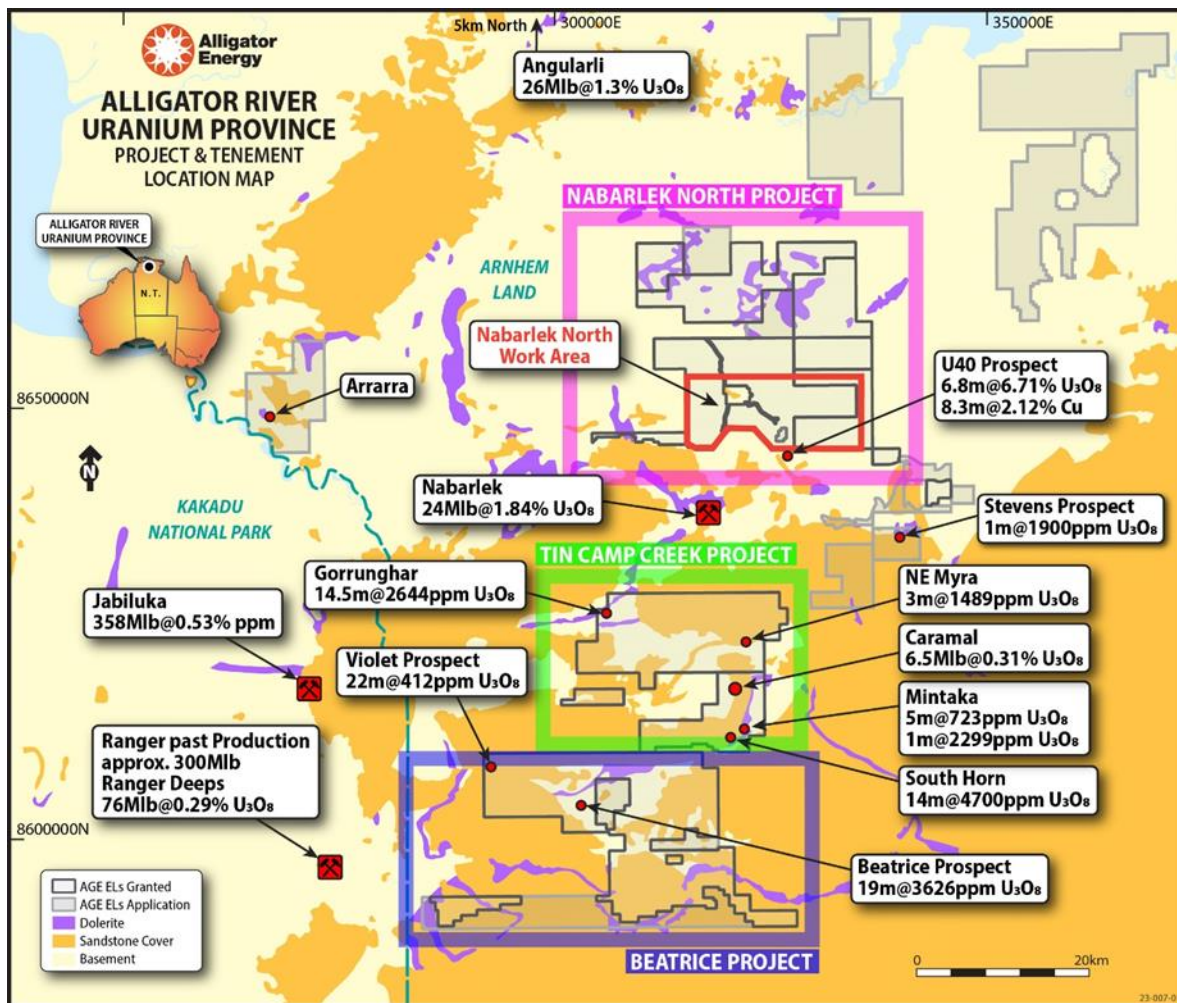


Figure 1: Location of the expanded Nabarlek North work area and Alligators ARUP Project tenure in the NT

Work through 2022 to 2023 focussed on the southernmost portion of the Nabarlek North tenement package, north of the U40 prospect. This included systematic shallow aircore drilling and geochemical sampling below the base of cover. While locally proficient in testing for suitable host and uranium mineralisation, this approach is considered unlikely to deliver effective vectoring for drill targets across the *entire* tenement holding within a practical timeframe, particularly in areas with thicker regolith cover.

¹ Uranium Equities Limited (now DevEx Resources Limited) ASX Announcement, 4 October 2017. [43mxw3hmf60plq.pdf \(asx.com.au\)](https://www.asx.com.au/asx/pdf/201710/43mxw3hmf60plq.pdf)

As such, the exploration methodology was changed in 2024 to a more regional and whole of tenure approach including:

- A high resolution airborne magnetic and radiometric survey² at 50 to 100 m line spacing across the entire tenure package. While interpretation of this data is at an early stage, it has already provided superior structural mapping and lithology identification.
- Regional geological mapping north of the Maningrida highway, where there has been limited historical drilling or outcrop identification.
- An RC drilling program (detailed below) targeting specific structural complexities and lithology 'markers' with similarities to known uranium mineralisation systems within the region.

Specific target areas (Figure 2) for the 2024 drilling program include:

- Follow up and step-out RC drilling to the north of the U40 prospect. With a minimum of six holes, this includes follow up of subtle gamma radiometric anomalies in historic Uranium Exploration Australia (UXA) drillholes and drilling surrounding AGE's intercept last year³ where there remains prospective host rock not yet tested. Some deeper RC drilling will also be undertaken following indications of the possibility of more fertile, thicker sections below current nominal drilling depths of ~ 150 m (Area 1).
- A series of RC holes to test a more northerly portion of the north-south structure that partially controls U40 mineralisation (Area 2).
- A fence of holes over an elevated (50 ppm) uranium anomaly identified from 2023 aircore drilling out to the east. The new geophysical data suggests key structural elements are present here with the possibility that previous drilling only intersected the edge (Area 3).
- Drill testing features throughout the tenure that demonstrate similar structural controls, radiometric and magnetic signatures seen in some of the nearby deposits. This includes an untested section of potentially prospective stratigraphy where Alligator's new geophysical data and geological mapping suggests that Lower Cahill may be present, wrapped around the King River Archean (gneissic) Dome (Area 4). Also of high priority for drill testing in 2024, is a discrete magnetic high cross-cut by a series of deep-seated structures (Area 5).

The drilling program commenced late last week and is anticipated to take 4 - 6 weeks to complete. Any indication of uranium, associated elements or strong chlorite or hematite alteration within the right host, will be considered for immediate follow-up (*subject to available time this dry season*).

The results of the 2024 drilling program will be integrated into the Nabarlek North 'geological model' leading into further drilling options. Alligator acknowledges that our current targeting refinement process has been greatly aided by the stratigraphic drilling program co-funded under the Northern Territory's Government 'Resourcing the Territory' Exploration Grants program, Round 17 (refer <https://resourcingtheterritory.nt.gov.au/exploration-grants/current-round-successful-projects>).

² AGE ASX announcement, 26 June 2024. High Resolution Airborne Magnetic and Radiometric Survey to commence at Alligator's Nabarlek North. [02821062.pdf \(weblink.com.au\)](#)

³ AGE ASX announcement 19 December 2023 Uranium mineralisation intersected at Alligator's Nabarlek North Project in maiden RC drilling program. [02755611.pdf \(weblink.com.au\)](#)

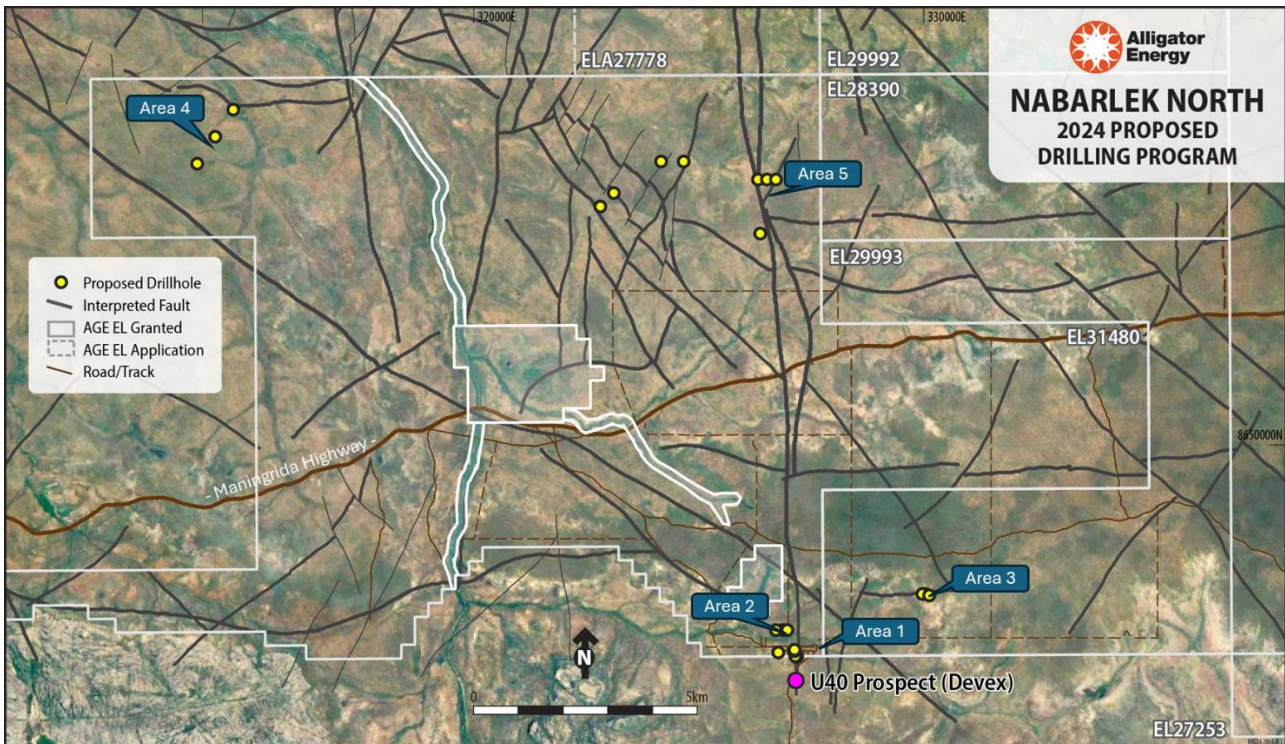


Figure 2: 2024 Nabarlek North preliminary drillhole proposals. Areas referred to in the text.

This released was authorised by Greg Hall, CEO and Managing Director.

Contacts

For more information, please contact:

Mr Greg Hall
CEO & Director

gh@alligatorenergy.com.au

Mr Mike Meintjes

CFO & Company Secretary

mm@alligatorenergy.com.au

For media enquiries, please contact:

Alex Cowie

Media & Investor Relations

alexc@nwrcommunications.com.au

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Competent Person's Statement

The information in this report that relates to Exploration Results is based on information compiled by Alligator Energy Limited and reviewed 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 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

