

## 13 October 2023

# Tivan progressing exploration activity at multiple NT projects following comprehensive technical assessment

- Detailed technical assessment of Northern Territory exploration project portfolio completed by Tivan's Chief Geologist.
- Updated exploration strategy developed and activity being executed across multiple projects.
- Ongoing field testing of AI generated targets at the Sandover Project has resulted in identification of new pegmatites; pegmatites are the typical host rock for lithium mineralisation.
- Surface sampling geochemistry assays pending for Sandover in support of exploration hypotheses and planning for initial diamond drilling anticipated in Q2 2024 following the wet season.
- Commercial expressions of interest process being undertaken for the Arrakis Mineral Sands Deposit at the Kulgera Project with dataroom established for interested parties.
- Update on vanadium prospectivity of the Moonlight Project, with desktop studies progressing and subsequent field based exploration activity being planned.
- The Board of Tivan reaffirms commitment to inclusive and participatory principles in respect of Traditional Owners.



Figure 1: Location of Tivan's projects in the NT

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The Board of Tivan Limited (ASX: TVN) ("Tivan" or the "Company") is pleased to provide an update on its portfolio of exploration projects in the Northern Territory.

In March 2023, Tivan announced it had affirmed its strategic focus as a critical minerals company with a commitment to progressing exploration projects where strategic synergies exist, where the Company had earned a social licence to operate and on terms that are value accretive to shareholders (refer to ASX announcement of 7 March 2023). In support the Board prioritised its exploration focus on the Northern Territory and the north-east of Western Australia.

In July 2023, Tivan announced the appointment of Mr Stephen Walsh in the newly created position of Chief Geologist (refer to ASX announcement of 19 July 2023). Since his appointment, Mr Walsh has completed a thorough technical assessment of the Northern Territory based projects held by Tivan and has been working closely with EARTH AI at Sandover (see further details below).

Following this review, an updated exploration strategy has been developed in line with the Company's strategic focus as a critical minerals company, cognisant of Tivan's core mission which is to develop the Speewah Vanadium-Titanium-Iron Project ("Speewah") in Western Australia. The updated exploration strategy, and current and planned exploration activities, for each project are detailed below.

## Sandover Project

The Sandover Project is located 50km south-east of the Company's Mount Peake Project and approximately 100km north of Alice Springs in the Northern Territory. The Sandover Project covers an area of approximately 8,000km<sup>2</sup> across two contiguous blocks of Exploration Licences in the Northern Arunta Pegmatite Province (five granted, eight under application) (refer to Figure 2 below). The Company is actively progressing the grant process on the remaining eight applications.

The Sandover Project is considered prospective to host lithium-bearing pegmatites, as seen elsewhere in the Northern Arunta Pegmatite Province, and also sediment-hosted copper and Iron Oxide Copper Gold ("IOCG") deposits, following recent work by the Northern Territory Geological Survey.

As previously announced, Tivan entered into an Exploration Alliance Agreement ("Agreement") with EARTH AI to advance exploration activities at the Sandover Project under a success-based model providing access to innovative artificial intelligence ("AI") capability for targeting and testing (refer to ASX announcement of 7 March 2023).

Under the Agreement, EARTH AI is operating as the Exploration Manager at the Sandover Project on a cost recovery basis, overseen by a technical committee comprised of both parties. Upon a qualifying grade drill intersection of any mineral being discovered, EARTH AI will be entitled to a 2% net smelter return royalty for the discovery area. Tivan retains rights in respect of advancing the Project, including through the exploration and drilling phases, negotiating the royalty within preset parameters, and control over the pathway to development.

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Figure 2: Location map for the Sandover Project showing areas of active exploration

EARTH AI is currently in the field at Sandover, testing their proprietary AI-generated targets and mapping the prospective areas. This is the third field trip conducted at the Sandover Project this year.

During its fieldtrips, EARTH AI has identified multiple previously unknown and unmapped sites of outcropping Arunta Group pegmatites within Sandover tenement EL33106 (refer to Figure 3 below). Pegmatite is one of the primary geological formations where substantial lithium deposits are commonly found, making it a critical target for exploration work at Sandover.

The pegmatites identified vary in composition comprising tourmaline, muscovite, potassium feldspar and quartz. The pegmatites are hosted by metasedimentary rocks, predominately muscovite schists. The pegmatites are typically 1 to 2m in width and up to 200m in strike length. The current third fieldtrip is focused on testing the areas surrounding the newly identified pegmatites for the presence of potential pegmatite zonation<sup>\*</sup>.

To date, EARTH AI has conducted 496 pXRF scans, measured 130 structural orientations and submitted 353 surface samples for geochemistry assay for Sandover. The geochemistry assays are being finalised with batched results expected to be received shortly.

\* Per recent ASX guidance: Tivan notes that the presence of pegmatites does not confirm the presence of lithium or rare earth elements, and that the presence of any mineralisation can only be confirmed with assaying

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Figure 3: Digitised map showing areas of outcropping pegmatites and areas targeted for follow-up at EL33106 at the Sandover Project: Source, EARTH AI

Following completion of the current field trip and during the upcoming wet season, office-based data analysis and assessment of results will continue, including review of geochemistry assays and ongoing ingestion of field data into EARTH AI's algorithmic systems. This phase of hypothesis formation is the precursor to the development of a diamond drilling program, which is anticipated for Q2 2024, following conclusion of the wet season. Drilling approvals will be progressed in parallel in the coming months.

Tivan intends to apply for funding for drilling at the Sandover Project under the competitive exploration grants program run by the NT Government that co-funds projects which address geoscientific knowledge gaps, advance exploration activity, deploy innovative targeting techniques and support the discovery and development of resources in the Northern Territory. Applications for Round 17 of the program open on 24 February 2024.

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## **Kulgera Project**

The Kulgera Project is comprised of two adjacent Exploration Licences (EL32369 and EL32370) and is located in the southernmost part of the Northern Territory 150km south-west of the Kulgera Roadhouse. The tenements cover 1,231km<sup>2</sup> of sand plain immediately on the northern boundary of the ranges of the Musgrave Province. Kulgera is a heavy mineral sands project and hosts the Arrakis Mineral Sands Deposit.



Figure 4: Location map for the Kulgera Project

A Mineral Resource estimate for the Arrakis Prospect at Kulgera was prepared in 2013 by CSA Global (refer to ASX announcement of 8 July 2020). The estimate was classified at the time in accordance with the JORC Code and is classified as Indicated and Inferred:

Classification	Tonnes (MT)	HM %	Slimes %	Over Size %
Measured	-	-	-	
Indicated	210.7	6.5	10.4	8.8
Sub-total	210.7	6.5	10.4	8.8
Inferred	135.2	6.0	11.6	10.6
Total	346.0	6.3	10.9	9.5

Cut-off grade 4.0% Heavy Mineral content

Tonnages and grades have been rounded to reflect the relative uncertainty of the estimate

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Refer to ASX announcement dated 8 July 2020 titled "TNG expands tenure with existing resource". The Company confirms it is not aware of any new information or data that materially affects the information included in that announcement, and that all material assumptions and technical parameters underpinning the estimates in the announcement continue to apply and have not materially changed.

The mineralisation is hosted within NNE-SSW aligned Quaternary sand dunes. The dunes in each of these domains are approximately 8m to 12m high, 300m to 400m wide and extend over distances of between 10km to 15km. The bulk of the heavy mineralisation is present in this domain. The raw ore belongs to an Eluvial Placer deposit.

The main valuable elements are titanium, vanadium and iron. Zircon is also present, albeit at a lower grade. The sands are composed of ilmenite, hematite and magnetite. Grain sizes mainly range from 100-300u. The dunes are compacted with vegetation cover and are not free running as is typical of wind-blown dune systems in parts of Australia and elsewhere in the world. This implies the Mineral Resource will not appreciably shift due to wind within the foreseeable future.

The Kulgera Project is considered a prospective and commercially valuable asset for the Company given the scale and grade of the resource. Tivan has been approached by several parties (including major ASX listed companies) interested in exploring potential options for the future commercialisation of the Kulgera Project. To facilitate, the Company has established a data room comprising all technical data for perusal by interested parties (on a confidential basis).

Tivan notes that while there is interest in the project from several parties, there is no guarantee or certainty that a commercial agreement will eventuate. Tivan retains the ability to progress the project in its own right.

#### **Moonlight Project**

The Moonlight Project is comprised of two adjacent Exploration Licences (EL32433 and EL32434) located approximately 70km west of Daly Waters in the Northern Territory (refer to Figure 5 below). The licences were granted in April 2021 for an initial six-year period. Tivan acquired the licences under previous management as part of the corporate strategy of building a portfolio of prospective vanadium projects in the NT.

Preliminary works were completed under previous management. Following the current technical assessment, Tivan has confirmed retention of the Moonlight Project tenements and continuation of exploration at the Moonlight Project. The Moonlight Project is considered highly prospective for lateritic vanadium. Future exploration works will test the assumption that the Moonlight Project contains lateritic vanadium on an economic scale.

High resolution aerial imagery has been acquired for the Moonlight Project area, which will be used for desktop studies and subsequent planning and execution of field based exploration activities. Exploration field trips are scheduled for November 2023 to complete a number of activities including field mapping and rock chip sampling.

The Moonlight Project is viewed as offering potential strategic synergies for Tivan given its vanadium prospectivity and its geographical location. Advancing further exploration is a priority for Tivan. The Company may seek an exploration grant from the NT Government next year for the Moonlight Project.

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Figure 5: Location map for the Moonlight Project

#### **Mount Peake Project**

The Mount Peake Vanadium-Titanium-Iron Project ("Mount Peake"), located 230km north of Alice Springs, remains a key strategic asset for the Company. As previously announced, given the Company's priority focus is on the Speewah Project in Western Australia, the Board made the decision to significantly reduce annual holding costs for Mount Peake by relinquishing the ancillary mineral leases ML29855, ML29856 and ML30686, and the two access authorities AA31105 and AA32037, previously granted to support the Mount Peake development (see ASX announcement of 30 June 2023).

The Company retained the key tenure at Mount Peake, being the main Mineral Lease over the Mount Peake deposit (ML28341) and the underlying granted Exploration Licences which allow for ongoing exploration and evaluation activity. Mount Peake is expected to play a refocused facilitation role in the commercialisation of Speewah and the TIVAN<sup>®</sup> mineral processing technology.

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Figure 6: Location map for the Mount Peake Project

Tivan is undertaking a detailed review of all exploration activity undertaken and data generated at Mount Peake since the initial discovery of the vanadiferous titanomagnetite deposit for a dual purpose: (1) in support of the facilitation role as noted above; and (2) to evaluate general prospectivity across the Mount Peake tenements for other types of mineralisation.

Tivan notes that a number of other resources companies are active in the Mount Peake region, including for the purpose of lithium exploration.

Tivan remains in regular dialogue with key stakeholders in respect of Mount Peake, including the NT Government and pastoral lease owners, Stirling Station. With the support of the Central Land Council, Tivan's Executive Chairman, Mr Grant Wilson, is scheduled to meet the Traditional Owners of Mount Peake on country during the summer months.

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#### **Blue Mud Bay Project**

Tivan also inherited six Exploration Licence applications made by previous management in July 2020 for an exploration project located in Eastern Arnhem Land, referred to as the Blue Mud Bay Project.

Following review, a decision was made to formally withdraw all six of these applications on the basis of the sensitivity of the location, the cost of carrying the licences and the nature of exploration that would be required to be undertaken. This decision affirms Tivan's disciplined approach to exploration in the Territory, advancing projects that are viewed as consistent with the Company's strategic focus and broader ethos.

## **Comment from Tivan Executive Chairman**

Mr Grant Wilson commented:

"Commencing with the renegotiation of the Sandover Project in January, Tivan has been systematically building out exploration capabilities across the Northern Territory, most notably with EARTH AI. This commitment reflects the Board's long-standing optimistic view of the critical minerals sector, as well as an assessment that the Territory is relatively underexplored within an Australian context.

Importantly, Tivan has achieved good standing with key stakeholders throughout the Territory this year. This is critical in ensuring that our exploration activities can continue to rapidly advance, and in positioning Tivan so that it may pursue mineral discoveries through project development phases in the years ahead. Such pathways will be pursued consistent with Tivan's firmwide principles of genuine inclusion and participation of Traditional Owners.

As part of its commitment to best-in-class transparency, the Board looks forward to providing shareholders with further updates in this portfolio in a timely and forthright manner".

This announcement has been approved by the Board of the Company.

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#### **Competent Person's Statement**

Tivan's exploration activities in the Northern Territory are being overseen by Stephen Walsh (BSc). Mr Walsh is the Chief Geologist and an employee of Tivan, and a member of the Australasian Institute of Mining and Metallurgy (AusIMM). Mr Walsh has sufficient experience of relevance to the styles of mineralisation and the types of deposits under consideration, and to the activities undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results.

#### Forward looking statement

This announcement contains certain "forward-looking statements" and comments about future matters. Forward-looking statements can generally be identified by the use of forward-looking words such as, "expect", "anticipate", "likely", "intend", "should", "estimate", "target", "outlook", and other similar expressions and include, but are not limited to, the timing, outcome and effects of the future studies, project development and other work. Indications of, and guidance or outlook on, future earnings or financial position or performance are also forward-looking statements. You are cautioned not to place undue reliance on forward-looking statements. Any such statements, opinions and estimates in this announcement speak only as of the date hereof, are preliminary views and are based on assumptions and contingencies subject to change without notice. Forward-looking statements are provided as a general guide only. There can be no assurance that actual outcomes will not differ materially from these forward-looking statements. Any such forward looking statement also inherently involves known and unknown risks, uncertainties and other factors and may involve significant elements of subjective judgement and assumptions that may cause actual results, performance and achievements to differ. Except as required by law the Company undertakes no obligation to finalise, check, supplement, revise or update forward-looking statements in the future, regardless of whether new information, future events or results or other factors affect the information contained in this announcement.

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