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africa

## Discovery Africa Limited

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## Field Activities Commence at the Nachingwea Graphite Project

### Highlights:

- **Mapping and trenching of graphite mineralisation has commenced at the 100% owned Nachingwea graphite properties in Tanzania**
- **Initial metallurgical testwork to be undertaken on at least three styles of graphite mineralisation**
- **Previous mapping has identified extensive outcropping zones of medium to coarse flake graphite mineralisation with strike lengths ranging from 500m to over 2000m in length with variable surface thicknesses between 50 and 100m wide**
- **Previously reported rockchip sampling by Discovery Africa has reported a range of grades from 6% to 49.9% total graphitic carbon (TGC) – some of the highest grade graphite rockchip samples reported from Tanzania**
- **Dominant tenement position at Nachingwea located between graphite projects held by Syrah and Uranex Resources**
- **Excellent infrastructure with access locally to electricity, water, sealed roads and within 180km of Mtwara's containerised port facility**

Field work at Discovery Africa's (DAF) 100% owned Nachingwea Graphite projects in south east Tanzania has now commenced. Earlier field programs have identified significant widths and strike lengths of outcropping medium to coarse flake graphite mineralisation over multiple target areas. The Company will progress the advancement of these projects in 2014 with the commencement of trenching and sampling programs across prospective areas. The Nachingwea project is well placed with access to existing infrastructure associated with the developing gas industry at Mtwara some 180km along sealed roads to the east (Figure 1).

Initial field work will focus on completing trenches at variable spacing across the outcropping graphite mineralisation. The samples will be submitted for analysis to determine the grade range of the graphite mineralization. In addition a number of larger samples will be gathered from at least three styles of mineralization already identified from within the project area and submitted for benchtop metallurgical flotation testwork and sizing analysis.

After the results have been received and analysed the Company is confident it will have generated sufficient quality zones of graphite mineralisation that will justify drill testing in the current dry season.



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Figure 1. Locality map showing Nachingwea and Mtwara port facility and DAF licenses in relation to Uranex (green) and Syrah (blue). Inset location within Tanzania.

### Nachingwea Project Description

The Nachingwea region is underlain primarily by high grade metamorphic rocks of the Proterozoic Mozambique Mobile Belt that wrap around the eastern margin of the Archaean Lake Victoria Granite-Greenstone terrain in Tanzania. The mobile belt is host to a number of large graphite deposits that include several of those around Nachingwea and other occurrences at Mahenge and Arusha in Tanzania. The southern extension of the mobile zone hosts Syrah's flagship Balama Project and Triton's Nicanda Hill project both in Mozambique.

The basement rock-types comprise various inter-bedded units of fine to medium grained granitic gneiss with variable bands of biotite, garnet and hornblende gneiss with crystalline limestone (marble) and abundant outcropping quartzite and meta-sediments.

At Nachingwea graphitic mineralization is found in 3 main forms (Figure 2)

1. Medium to coarse grained flake graphite – quartz schist collectively named graphitic quartzite. These tend to form topographic highs and are reasonably well exposed (Figure 2a).



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2. Medium to very coarse grained flake graphite – granitic/gneiss. These are the most coarse grained and are often difficult to locate because they are prone to deeper weathering and are poorly exposed (Figure 2b).
3. Massive to semi-massive zones of flake to crystalline graphite (Figure 2c)



**Figure 2. Three main varieties of graphite mineralisation at Nachingwea. A - graphite-quartzite, B - graphite-gneiss and C - semi massive graphite schist**

The graphite crystals are typically well formed and evenly distributed amongst the quartzite dominated bands but can form coherent clusters/clots within the gneissic/granitic with sizes ranging up to 15mm.

Based on field work and sampling carried out to date, three priority targets have been identified for trenching. These targets are located on three of the tenements.

### **Injaa Hill**

Target 1 comprises wide intervals of graphitic schist have been mapped in the southeast of PL6753/2012 around Injaa Hill (Figure 3). A zone of 500m by 80 m of graphitic schist and partially buried graphitic gneiss has been identified from outcrops and artisanal workings. The graphitic gneiss has coarse to very coarse flake size with individual flakes ranging from 1 to 5mm in size. Five rockchip samples taken over 500m of strike returned an average grade of 9.8% C.

### **Mkowe Area**

Four graphite bearing units have been identified across the PL7211/2012 of which two have been targeted for trenching (Figure 3). These units show good continuity with up to 6km of collective strike across the four graphitic zones, within the tenement. Thirteen previously taken rockchip samples from within the tenement have shown an average grade of 9% C. Areas within the tenement show coarse grain graphite flakes ranging from 1 to 3mm.



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### Mandarawe

Reconnaissance mapping has identified high grade seams of semi-massive to massive graphite with rockchip samples ranging from 31.1 to 49.9% C in the high grade zones. In addition the Tanzanian Geological Survey has identified wider zones of graphitic schist in the south west of the tenement which is yet to be evaluated.

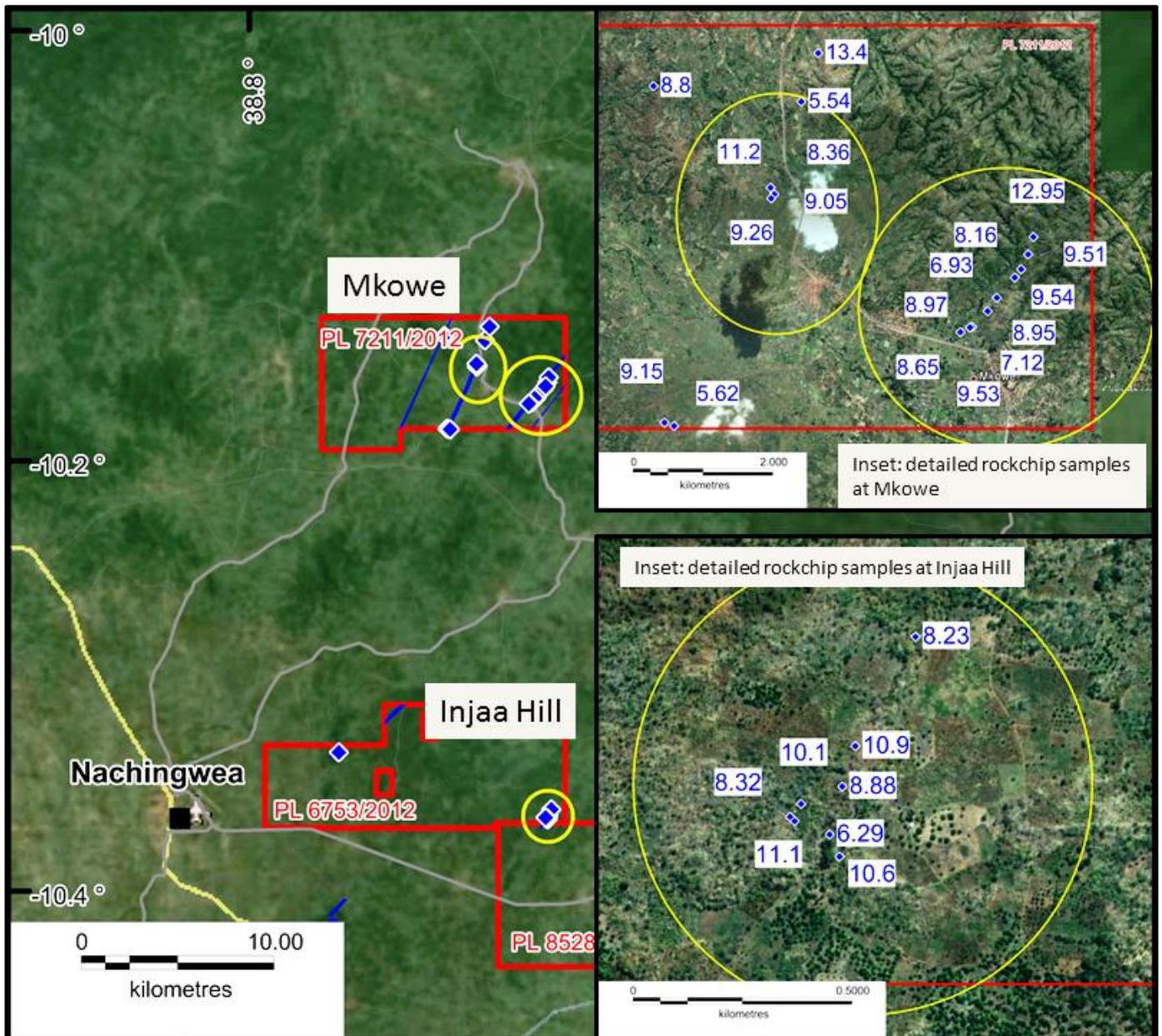


Figure 3. Graphite rockchip samples from Mkowe and Injaa Hill



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The Chairman Frank Knezovic commented "The Board of Discovery Africa is extremely pleased to commence on ground activities and continue to build the knowledge of this graphite opportunity in the mining friendly jurisdiction of Tanzania. We are confident as the field activities progress and the assays are received DAF will be in a strong position to rapidly progress these high potential graphite prospects at Nachingwea."

### For further information:

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

*The details contained in the document that pertains to exploration results, ore and mineralisation is based upon information compiled by Mr Brendan Cummins. Mr Cummins is a Member of the Australian Institute of Geoscientists (MAIG) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which 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" (JORC Code). Mr Cummins is a consultant to Discovery Africa Limited and has consented to the inclusion in the report of the matters based on the information in the form and context in which it appears.*

### **JORC Code, 2012 Edition, Table 1 Report**

*The Table 1 Report detailing "Sampling Techniques and Data" and "Reporting of Exploration Results" in accordance with 2012 edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves" (JORC Code) was released to the ASX by Discovery Africa Limited on 28 February 2014.*