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Operator	Minemakers Australia Pty Ltd
Tenements	EL26588 (Tennant Creek East)
Project name	Partial Relinquishment Report for period ending 11 March, 2011
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100,000 mapsheet	Barkly
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ABSTRACT

EL26588 is located 44km NE Tennant Creek and 40km east of Three Ways immediately south of the Barkly Highway on the TENNANT CREEK 1: 250,000 and BARKLY 1:100,000 map sheets in the Northern Territory. The tenement occurs on the western margin of the Georgina Basin where flat-lying Cambrian sediments have been deposited. The basal part of this sequence, the Gum Ridge Formation, is considered prospective for phosphate mineralization overlying either carbonates or basalts of the Middle Cambrian.

Field reconnaissance was carried out to determine the type and extent of outcrop and its pertinence to phosphate mineralization. Geochemical sampling was undertaken for multielement assaying and this work involved the collection of 6 maglag samples. No significant phosphate was encountered and so the tenement was partially relinquished.



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1. INTRODUCTION

This report describes exploration activities on the relinquished part of EL26588, Tennant Creek East prospect which is part of Minemakers Australia Pty Ltd (MAP) Barkly Project. MAP is a wholly owned subsidiary of Minemakers Limited which listed on the ASX on 10 October 2006. Exploration is aimed at the discovery of economic phosphate deposits proximal to the Alice Springs-Darwin railway and associated with shallow marginal sediments at the western edge of the Georgina Basin, similar to MAP's Wonarah deposits located approximately 200km to the east-southeast.

2. LOCATION

EL 26588 is located 44km northeast of Tennant Creek in the Northern Territory (*Figure 1*). The tenement lies on the 1:250,000 TENNANT CREEK SE53-11 and the 1:100,000 BARKLY 5859 map sheets. The centroid of the tenement is located close to 134°40'E and 19°25'S. The tenement covers generally flat to undulating pastoral land falling within NT Portion 1075 being Tennant Creek Perpetual Lease 1142 owned by KG, JS, GJ, & G Ford of Hughenden, Queensland.

3. TENURE

EL26588 covering 71 blocks (183.5 km²) was granted on 11 August 2008 to Minemakers Australia Pty Ltd for a period of six years. The licence will expire on 10 August 2014 with a minimum of \$30,000 to be expended in the first year. Actual expenditure for Year One was \$7,055 and Year 2 approximately \$17,700.



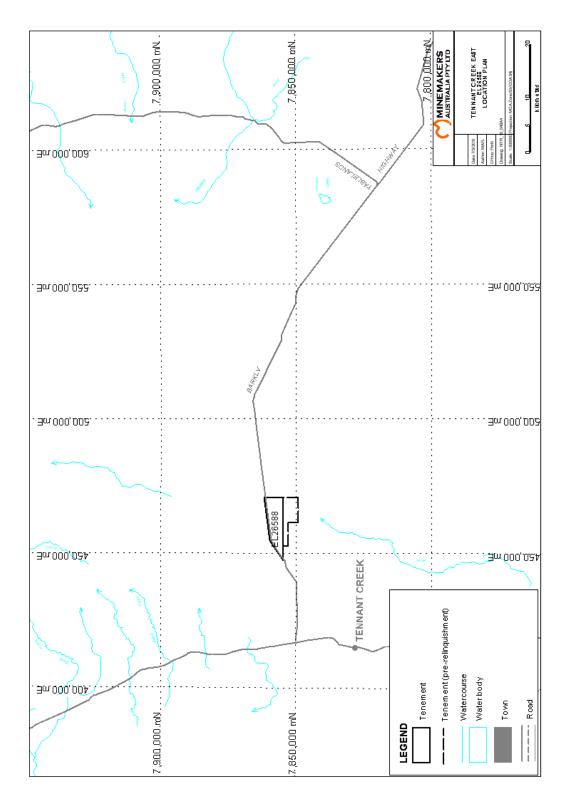


Figure 1: Location of EL26588.



4. GEOLOGY

The Tennant Creek East prospect is located on the eastern edge of the Palaeoproterozoic Tennant Creek Inlier and undeformed Middle Cambrian sedimentary rocks of the Gum Ridge Formation on the western edge of the Georgina Basin (*Figure 2* and *Figure 3*). Geological mapping (Donnellan et al., 1999) indicates the oldest rocks lie to the north and are included in the Warramunga Formation of Palaeoproterozoic age (1859-1872Ma). These rocks consist of tuffaceous turbiditic sedimentary rocks which have undergone polydeformation and low grade greenschist facies metamorphism.

Early Cambrian deposition is represented by the Helen Springs Volcanics that consist of amygdaloidal tholeiitic basalt and a basal sandstone unit. These rocks unconformably overlie folded Warramunga Formation. The contact with the overlying Gum Ridge Formation appears to be transitional. The Gum Ridge Formation was deposited in shallow shelf epicontinental seas subject to episodic peritidal influence. Lithologies consist predominantly of tabular chertified rocks, derived from the silicification of bedded impure calcareous mudstone or marl. Occasional trilobites, brachiopods and sponge spicules occur in this formation.

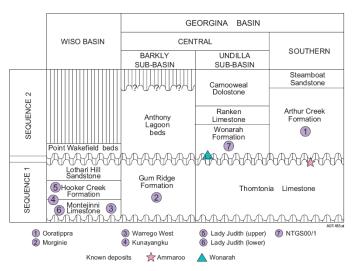


Figure 2: Stratigraphy & Phosphate Occurrences of the Georgina Basin (After Khan et al, 2007)



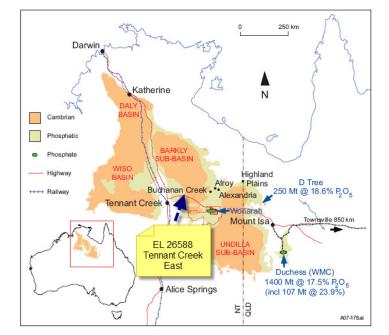


Figure 3: Location of EL26588 in the Barkly Sub-Basin of the Georgina Basin (After Khan et al, 2007)

EL26588 is located on the BARKLY 1:100,000 map sheet. The NT Geological Survey has interpreted the underlying basement geology from gravity and aeromagnetic survey data. Stronger magnetic units that may contain volcanic units and low magnetic units are grouped within the Ooradidgee Formation a correlative of the Flynn Subgroup (Donnellen, 1995). Lithologies in this sequence consist of volcanic and volcaniclastic rocks comprising felsic lava ignimbrite, tuff and chert, sublithic and lithic arenite, wacke, siltstone, shale and mudstone. These rocks have been intruded by granite of the Tennant Creek Supersuite (1840-1850Ma). Donnellan et al. (1995) has interpreted the underlying Palaeoproterozoic rocks in the tenement area to be part of the Flynn Subgroup.

There is little or no outcrop within the tenement and lateritization is extensive. However, the Gum Ridge Formation has been mapped in the immediate region (Donnellan et al., 1998) and is known to underlie Quaternary surficial deposits from geological mapping and water bore drilling in the region.

5. WORK COMPLETED

Preliminary research involved identifying water bores in the immediate area and ascertaining whether these had been tested for phosphate in Khan et al. (2007) study. This study identified two strongly anomalous water bores (RN10258 & RN16928) within an area where geological mapping had identified key lithologies in the Helen Springs Volcanics and Gum Ridge Formation (*Figure 4*). Furthermore, there are extensive areas of alluvium and colluvium that possess elevated phosphate prospectivity. It was considered that any near-surface phosphorite would have a geochemical signature that could be identified by soil or maglag sampling.



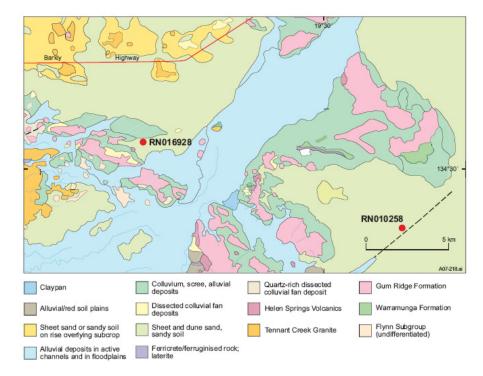


Figure 4: Location of RN010258 and RN0116928 proximal to EL26588 (Source: Khan et al., 2007)

5.1 Geochemical survey

A geochemical survey was conducted over station tracks within the tenement during late January 2010 by the writer and two field assistants (*Figure 5*). A total of 6 maglag geochemical samples were collected and sample weights were in the range 15-30g. Samples were submitted to Genalysis Laboratories Pty Ltd, Perth in early November 2010. For samples $\leq 25g$ there was no preparation and samples $\geq 25g$ were pulverised. An aqua regia digest was used and the following elements were assayed: ICP-OES for P (10ppm), Fe (100ppm), Mn (1ppm); ICP-MS for As (0.5ppm), Cd (0.01ppm), Ce (0.01ppm), La (0.01ppm), Pb (0.5ppm), U (0.01ppm) and Th (0.01ppm).

In addition, magnetic susceptibility and scintillometer readings were recorded at each sampling site (apart from 94010) using an SM-30 magnetic susceptibility meter and a RadEye PRD scintillometer.



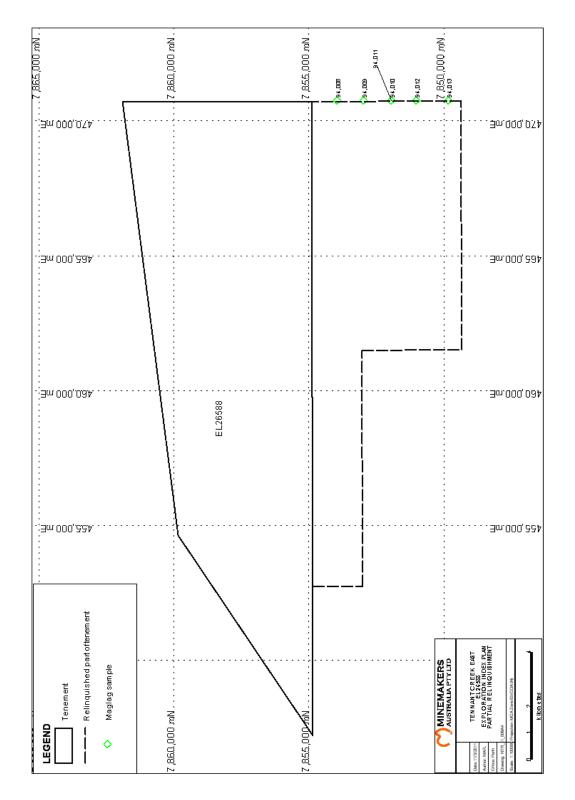


Figure 5: Exploration Index Plan



5.2 Results

No significant assay results were received and a maximum of 582 ppm P was encountered.

6. CONCLUSIONS

Due to the fact that no significant phosphate was encountered, it was recommended that this part of the tenement be relinquished.

7. **RECOMMENDATIONS**

On the basis of the conclusions above, the southern part of the tenement was relinquished.

8. **REFERENCES**

Donnellan N, Hussey KJ & Morrison RS (1995) <u>FLYNN 5759, TENNANT CREEK 5758</u> <u>1:100,000 Geological Map Series Explanatory Notes.</u> Department of Mines and Energy, Northern Territory Geological Survey, Darwin, 1999.

Donnellan N, Morrison RS & Hussey KJ (1998) <u>TENNANT CREEK Sheet SE53-14</u> <u>Geological Map Series.</u> Department of Mines and Energy, Northern Territory Geological Survey, Second Edition, 1998.

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