

TALBOT NORTH PROJECT

EL 27806

Annual Technical Report

For the Period 14/07/2015 to 13/07/2016

Tenure Holder:	Tychean Resources Limited		
Submitted by:	Ramelius Resources Limited		
Author:	Erik van Noort		
Contact:	erikvannoort@rameliusresources.com.au		
Date:	7/09/2016		
Mapsheets:	1:250,000	SE52-15	Tanami
	1:100,000	4958	Buck
		4959	Wilson Creek

Distribution: NT Department of Mines and Energy
Tychean Resources Ltd
Ramelius Resources Ltd

ACKNOWLEDGEMENT AND WARRANTY

1. Subject to 2, the tenure holder acknowledges that this Report, including the material, information and data incorporated in it, has been made under the direction or control of the State of Queensland (the State) within the meaning of section 176 of the Copyright Act 1968 (Cwth).

2. To the extent that copyright in any material included in this Report is not owned by the State, the tenure holder warrants that it has the full legal right and authority to grant, and does hereby grant, to the State, subject to any confidentiality obligation undertaken by the State, the right to do (including to authorise any other person to do) any act in the copyright, including to:
 - use;
 - reproduce;
 - publish; and
 - communicate in electronic form to the public, such material, including any data and information included in the material.

3. Without limiting the scope of 1 and 2 above, the tenure holder warrants that all relevant authorisations and consents have been obtained for all acts referred to in 1 and 2 above, to ensure that the doing of any of the acts is not unauthorised within the meaning of section 29(6) of the Copyright Act (Cwth).

Contents

1. INTRODUCTION	2
1.1 Location and Access	2
1.2 Tenure and Land Status	2
2. GEOLOGICAL SETTING	4
2.1 Regional Geology and Mineralisation	4
3. PREVIOUS EXPLORATION	4
3.1 Exploration prior to 2010	4
3.2 Exploration 2010-2013 (Tychean Resources)	4
3.3 Exploration 2013-2015 (Ramelius Resources)	6
4. EXPLORATION COMPLETED 2015 - 2016	6
5. EXPLORATION PROPOSAL	8
6. REFERENCES.....	8

List of Figures

Figure 1: Locality plan showing tenement EL27806	3
Figure 2: EL27806 Regional Geology.....	5
Figure 3: EL27806 Talbot North project. Geology overlying greyscale TMI aeromagnetics	7

List of Tables

<i>Table 1: Tenement details for EL27806.....</i>	<i>2</i>
---	----------

Summary

This report discusses exploration activities on EL27806, located c. 610km north-west of Alice Springs, Northern Territory, for the sixth year of tenure, covering the period 14th July 2015 to 13th July 2016.

During 2014, Ramelius Resources Ltd entered into a Farm-in Agreement with Tychean Resources Limited, comprising the Tanami Joint Venture, which includes EL27806. Ramelius are operators of the project and can earn an 85% Joint Venture Interest in the tenement package by sole funding \$500,000 over 3 years.

An initial field assessment was made of the project. Work comprised reconnaissance and rock-chip sampling over several areas of interest defined from open-file data, as well as pXRF soil sampling over the main structural target. A total of 6 rock-chip samples were collected and 42 soil samples analysed.

A concealed jog feature in the DBF stratigraphy in the central part of the license, corresponding with weak Au and As surface anomalism is worthy of follow-up. A limited vacuum or RAB drilling programme, to assess the structure under colluvial cover, is planned during the next reporting period.

1. INTRODUCTION

EL27806 is currently held by Tychean Resources Ltd, and operated under joint venture by Ramelius Resources Ltd. This report summarises the exploration activities carried out for the sixth year of tenure, covering the period 14th July 2015 to 13th July 2016.

An initial field assessment was made of the project. Work comprised reconnaissance and rock-chip sampling over several areas of interest defined from open-file data, as well as pXRF soil sampling over the main structural target. A total of 6 rock-chip samples were collected and 42 soil samples analysed.

1.1 Location and Access

Exploration License EL27806 is located approximately 610km north-west of Alice Springs, Northern Territory. The license covers 12 sub-blocks for a total area of 38 square kilometres. Vehicle access from Alice Springs is by way of the Tanami Highway to the Lajamanu turn-off, thence northwards approximately 70km to Suplejack Station, thence by station tracks to the tenement. Figure 1 shows the location of EL 27806.

1.2 Tenure and Land Status

Exploration License EL27806 was granted to Tychean Resources Ltd (Tychean; formerly ERO Mining Ltd) on 14th July 2010 for a period of 6 years. The license originally comprised 24 sub-blocks, which was subsequently reduced to 12 blocks at the end of the second year of tenure (2012). Prior to the end of the 4th year of tenure (2014), Tychean applied for a waiver of reduction of a further 6 sub-blocks from the tenement, to allow retention of all 12 blocks.

During 2014, the license became part of a Joint Venture Agreement with Western Australian based gold producer Ramelius Resources Limited, who will be responsible for the management of the exploration programs on this tenement.

EL27806 lies wholly within the Suplejack Downs Pastoral Lease (PPL1108).

Table 1: Tenement details for EL27806

Tenement	Holder	Operator	Grant Date	Expiry Date	Sub-Blocks	Exp. Comm 2015-16
EL27806	Tychean Resources Ltd	Ramelius Resources Ltd	14/07/10	13/07/16	12	\$25,000

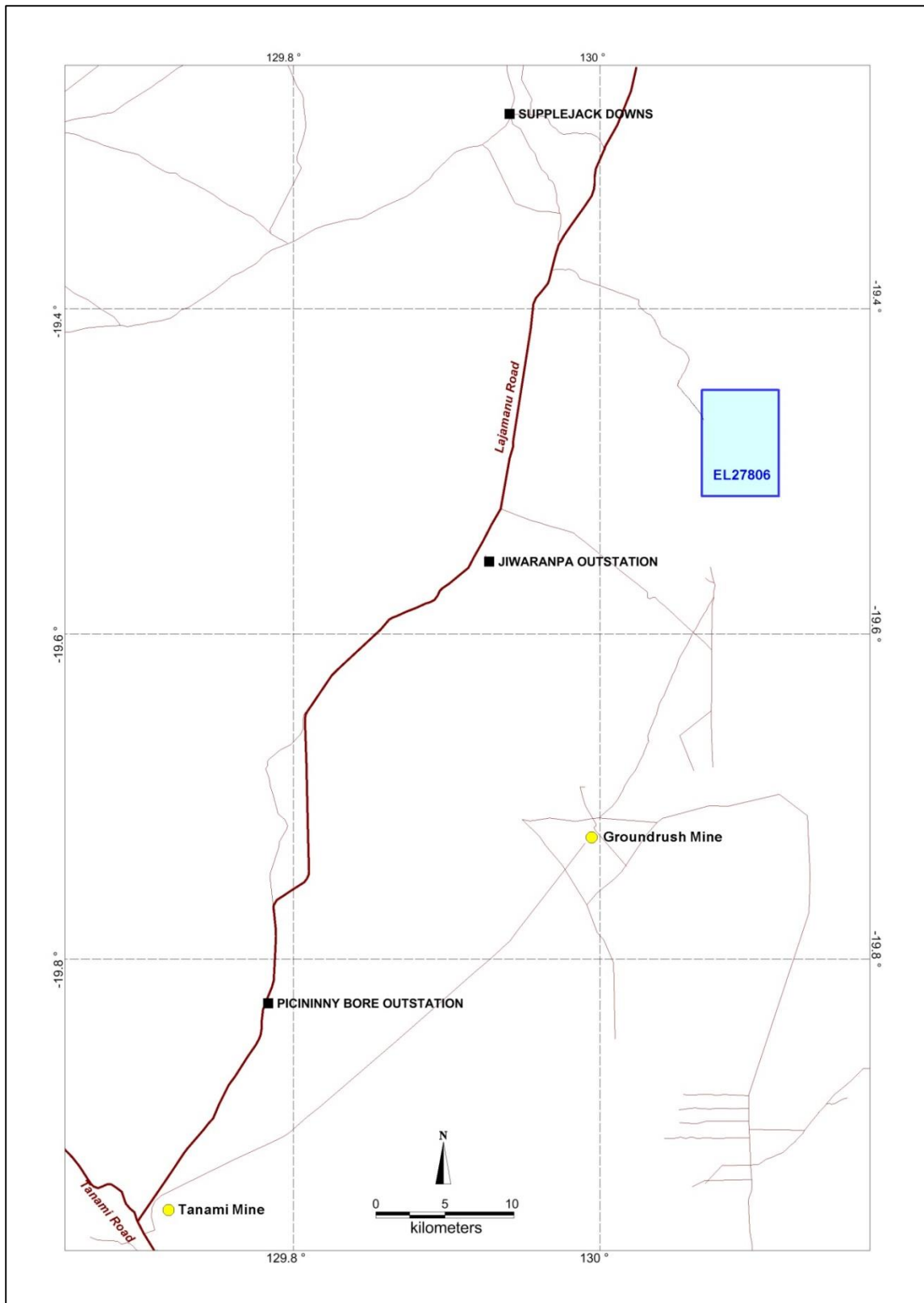


Figure 1: Locality plan showing tenement EL27806

2. GEOLOGICAL SETTING

2.1 Regional Geology and Mineralisation

The Palaeoproterozoic Tanami Region forms part of the North Australian Craton and comprises a succession of fine grained siliclastic sedimentary rocks, turbidite, BIF, mafic sills, basalt and minor Volcaniclastics. The region was subject to multi-phase deformation, regionally metamorphosed to greenschist to mid-amphibolite facies and subsequently intruded by 1825-1790Ma granites (Wygralak *et al.*, 2005)

Within the Talbot North EL 27806, the basement Proterozoic “Tanami Group” geology comprises Dead Bullock Formation (DBF) units as north to NW-trending, moderately magnetic sequence, comprising siltstone, metapelite, and chert, conformably overlain to the east by the Killi Killi Formation, which comprises turbiditic sandstones (Figure 2). The western part of the project area includes intrusive granodiorite of the Palaeoproterozoic Coomarie Suite.

Proterozoic Gardiner Sandstone and Cambrian basalt flows unconformably overlie and conceal much of the Tanami Group Basement, and Tertiary colluvial sheetwash and aeolian sands overlie much of the project area.

Styles of gold mineralisation in the Tanami Region are predominantly Orogenic lode gold deposits, predominantly within mafic volcanic and sedimentary lithologies of the Dead Bullock Formation (e.g. DBS and Granites Goldfields). Several gold deposits located south of the Talbot North EL include the Hyperion Project (200,000oz Au; quartz-carbonate vein-hosted deposits within granitic, doleritic and metasedimentary rocks) and the Groundrush Deposit (460,000oz; hosted in foliated dolerite sill within metagreywacke of the Killi Killi Formation.

3. PREVIOUS EXPLORATION

3.1 Exploration prior to 2010

The area covering EL27806 was explored by Zapopan Ltd from 1990 to 1995, as part of historic license EL5412. Work carried out included geological mapping, rock-chip sampling, soil sampling and laterite geochemistry. From 1997 to 2009, the area was explored by Otter Gold and Newmont Ltd as part of historic EL9602. Work conducted included aeromagnetic interpretations, regolith mapping, soil and lag geochemistry and RAB drilling (10 holes).

3.2 Exploration 2010-2013 (Tychean Resources)

Since acquiring the license, exploration by Tychean Resources has mainly comprised desktop studies, including historical data acquisition and compilation, interpretation of regional aeromagnetics, and geological targeting.

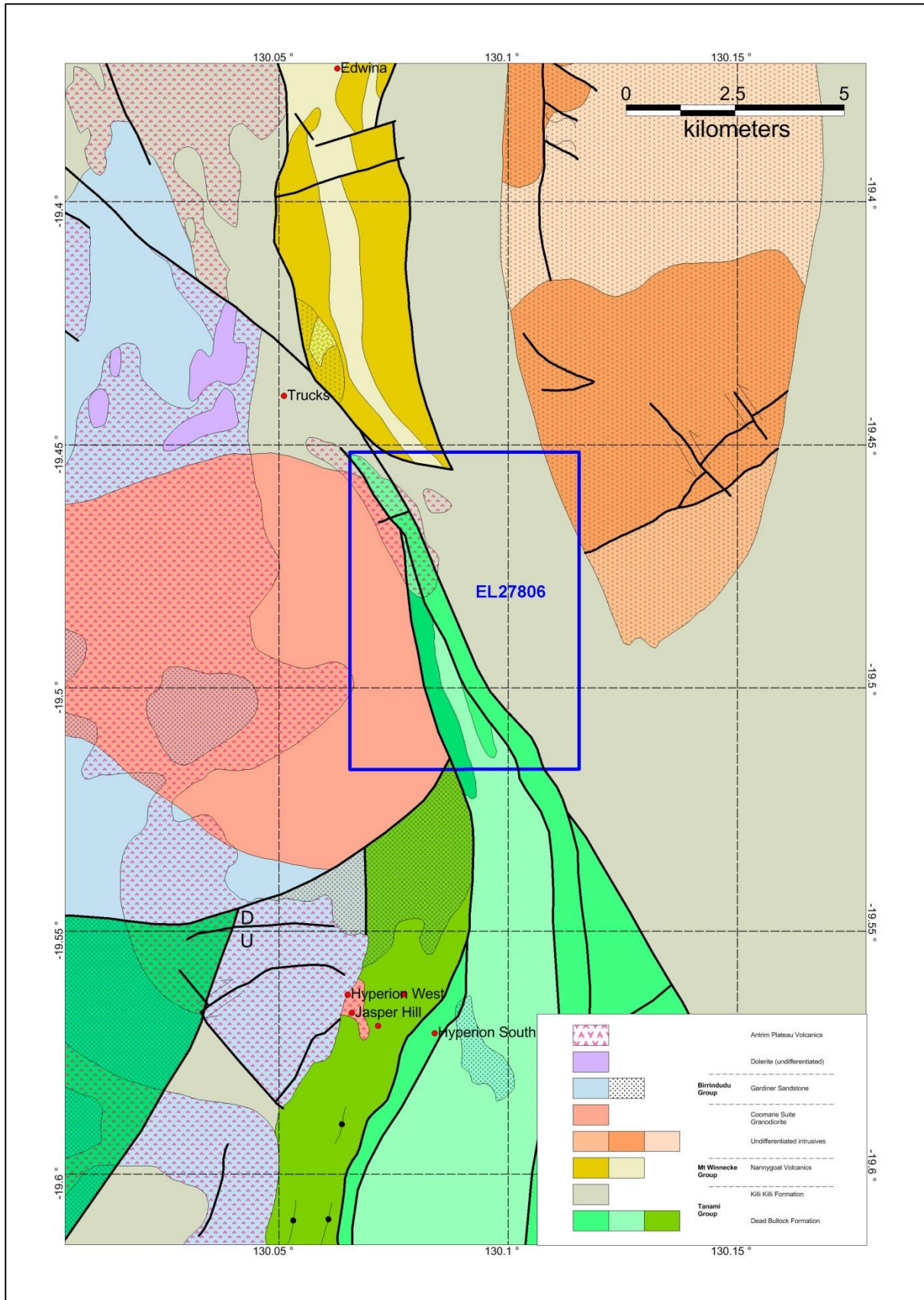


Figure 2: EL27806 Regional Geology

3.3 Exploration 2013-2015 (Ramelius Resources)

During 2014, Ramelius Resources Ltd entered into a Farm-in Agreement with Tychean Resources Limited, comprising the Tanami Joint Venture, which includes EL27806. Ramelius are operators of the project and can earn an 85% Joint Venture Interest in the tenement package by sole funding \$500,000 over 3 years. Work completed by Ramelius Resources during 2013-2015 included compilation and interpretation of all historical exploration and open file government data, resulting in a geological interpretation and targeting strategy for the project.

4. EXPLORATION COMPLETED 2015 - 2016

Field reconnaissance was undertaken at Talbot North during September, 2015. Work comprised reconnaissance and rock-chip sampling over several areas of interest defined from open-file data, as well as pXRF soil sampling over the main structural target. A total of 6 rock-chip samples were collected and 42 soil samples analysed.

Exposure of Tanami Group basement lithologies within EL 27806 is limited, with extensive cover of Gardiner Sandstone, Cambrian basalts and Tertiary colluvium. Interpreted basement comprises a NW-trending, moderately magnetic sequence of Dead Bullock Formation (DBF) units, comprising siltstone, metapelite, and chert, overlain and fault-bound to the east by turbiditic sandstones of the Killi Killi Formation, and intruded to the west by Palaeoproterozoic, Coomarie Suite granitoid.

The main target area on the license is the NW-trending DBF stratigraphy and associated structures. An area of prominent quartz veining along this trend, exposed over several hundred meters and unsampled by previous explorers, was assessed, with 3 rock-chips collected (Figure 3). The main vein is 5-10m wide, weakly (hematite-) banded with some cherty/chalcedonic textures and patchy brecciation. Results returned anomalous Au up to 158ppb and weakly anomalous As, up to 28ppm. No other pathfinder elements were elevated.

Exposures of previously un-sampled, WNW-trending quartz veins within Gardiner Sandstone lithologies in the SW part of the license area were assessed. A vein system typical of the occurrences along this trend, comprising quartz vein breccias and limited stockwork over 5-10m width, was sampled, with two rock-chips collected. No anomalous Au (<1ppb) or pathfinder elements were returned, although both samples contained elevated Li, up to 43ppm, considered highly anomalous for this area.

The NW-trending DBF stratigraphy has been a focus of previous exploration, and largely assessed by rock-chip and soil sampling with little anomalism defined to date. Within the central part of the license area, the stratigraphy shows a slight jog in orientation from NW to NNW. Whilst the sequence is concealed by colluvium within this area, previous lag sampling by Otter Exploration has returned anomalous Au up to 1.9ppb. As part of initial reconnaissance, two lines of pXRF soils, 2km long and 400m apart, were completed over this part of the structure. Whilst results in most Au pathfinders were subdued to below detection, As was weakly elevated (max 7.3ppm) in an area adjacent to the historic Au in lag anomaly (Figure 3).

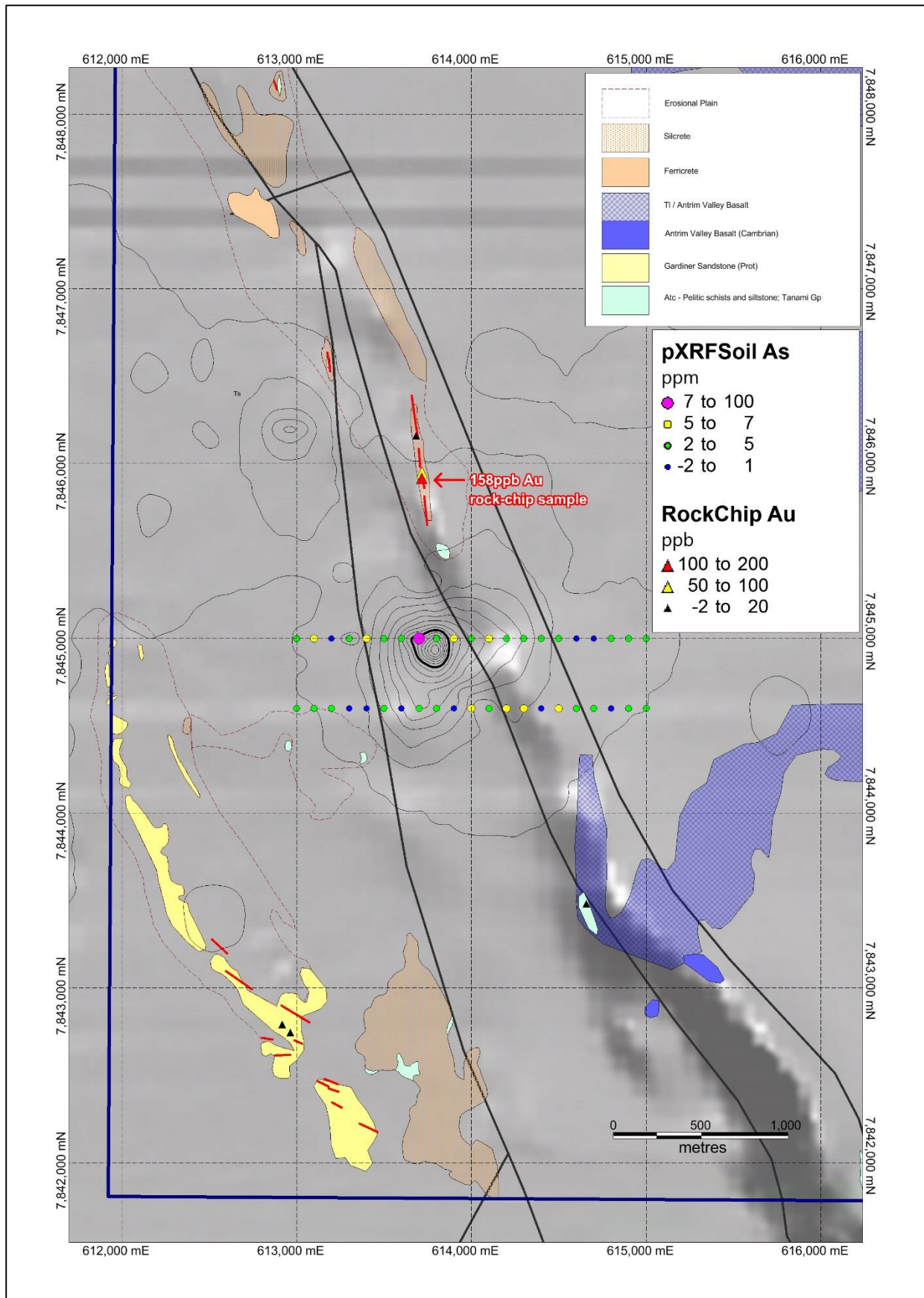


Figure 3: EL27806 Talbot North project. Otter Gold geology overlying greyscale TMI aeromagnetics (contours show Otter Au in lag geochem in 0.1ppb increments, bold contour = 1ppb). RMS rock-chip Au and pXRF soil As shown.

5. EXPLORATION PROPOSAL

The concealed jog feature in the DBF stratigraphy in the central part of the license, corresponding with weak Au and As surface anomalism is worthy of follow-up. A limited vacuum or RAB drilling programme, to assess the structure under colluvial cover, is planned.

6. REFERENCES

- Blake, D., Hodgson, I.M., and Muhling, P.C.**, 1979. Geology of The Granites-Tanami Region, Northern Territory and Western Australia, *Bur. Miner. Resour. Geol. Geophys. Aust. Bull.* 197.
- Crockford, J.A.**, 2002. The origin and formation temperature of mineralised hydrothermal veins at the Groundrush gold deposit, Northern Territory, Australia. *Honours thesis, Department of Geology and Geophysics, Adelaide University.*
- Davidson, A.A.** 1905. Journal of Explorations in Central Australia, by the Central Australian Exploration Syndicate, Limited, *South Australia Parliamentary Paper* 27.
- Ding, P.**, 1997. Palaeoproterozoic Geological Events and Gold Mineralisation in the Halls Creek – Granites – Tanami Orogenic Domain, Northern Australia. *AGSO Record* 1997/44.
- Hossfeld, P.S.** 1940b. The Gold Deposits of The Granites-Tanami District, Central Australia. *Aer. Geol. Geophys. Surv. N.Aust., Northern Territory Report* 43.
- Hogan, S and Parker, F.** 2011. Tanami Project, EL 27806 annual technical report for the period 14 July 2010 to 13 July 2011
- Hogan, S and Parker, F.** 2012. Tanami Project, EL 27806 annual technical report for the period 14 July 2011 to 13 July 2012
- Mayer, T.E.** 1990. The Granites Gold Field, in Geology of the Mineral Deposits of Australia and Papua New Guinea (Ed F.E. Hughes) pp 719-724 (The Australasian Institute of Mining and Metallurgy: Melbourne).
- Parker, F.** 2013. Tanami Project, EL 27806 annual technical report for the period 14 July 2012 to 13 July 2013.
- Plumb, K.A.** 1990. Halls Creek Province and The Granites-Tanami Inlier - regional geology and mineralisation, in Geology of the Mineral Deposits of Australia and Papua New Guinea (Ed F.E. Hughes) pp 681-695 (The Australasian Institute of Mining and Metallurgy: Melbourne).
- Wygralak, A.S., Mernagh, T.P., Huston, D.L. and Ahmad, M.**, 2005. Gold Mineral Systems of the Tanami Region. Northern Territory Geological Survey, Report 18.