

TODD RIVER RESOURCES LODGES SUPPLEMENTARY PROSPECTUS

Australian strategic metals company TNG Limited (ASX: TNG) advises that Todd River Resources Limited (**Todd River Resources**) has lodged a supplementary prospectus with the Australian Securities and Investments Commission dated 10 February 2017 (**Supplementary Prospectus**) to be read together with Todd River Resources' prospectus dated 31 January 2017 (**Original Prospectus**). The Supplementary Prospectus contains an amended Independent Geologist's Report which replaces the Independent Geologist's Report contained in the Original Prospectus in its entirety.

A copy of the Original Prospectus and the Supplementary Prospectus can be obtained at www.trrltd.com.au or via TNG's website at www.tngltd.com.au.

The Offer will now open on Wednesday 15 February 2017. Applications for new shares in Todd River Resources can be made from that date. TNG shareholders or other investors wishing to apply for securities in Todd River Resources will need to complete an application form in accordance with the directions set out in the Prospectus and Supplementary Prospectus.

TNG shareholders will receive a priority in applying for new shares under the IPO, subject at all times to the final allocation of securities remaining at the sole discretion of the Todd River Resources board of directors to ensure the company has an appropriate shareholder base on admission to the Official List of the ASX.

TNG Shareholders will also receive an in-specie distribution of shares in Todd River Resources through the demerger process, subject to certain conditions being satisfied.

The demerger will create a base metal-focused exploration company with a specific focus on the highly prospective Northern Territory. The new company will hold a total of 12 exploration projects including the large Manbarrum Zinc Project, the Mount Hardy Copper-Zinc Project, the Stokes Yard Zinc Project and the McArthur Copper-Zinc project, as well as a number of other exploration projects covering base metals and other commodities including but not limited to gold, lithium, tantalum, tin and bauxite.

The indicative timetable for the IPO offer is provided below:

Lodgement of Prospectus with the ASIC	31 January 2017
TNG Offer Record Date	5.00pm (WST) on 1 February 2017
TNG Offer Opening Date	15 February 2017
General Offer Opening Date	15 February 2017
TNG Offer Closing Date	5.00pm (WST) on 24 February 2017
General Offer Closing Date	5.00pm (WST) on 3 March 2017
Record Date for the In-specie Distribution	8 March 2017
Issue of Securities under the IPO	10 March 2017
Completion of the In-specie Distribution	13 March 2017
Despatch of holding statements	15 March 2017
Expected date for quotation on ASX	24 March 2017

** The above dates are indicative only and may change without notice subject to the Corporations Act, ASX Listing Rules and other applicable laws.*

Investors should consider the Prospectus and Supplementary Prospectus carefully before deciding to apply for shares in Todd River Resources.

A copy of the Supplementary Prospectus is attached.

Paul E Burton
Managing Director

13 February 2017

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TODD RIVER RESOURCES LIMITED
ACN 600 308 398
SUPPLEMENTARY PROSPECTUS

IMPORTANT INFORMATION

This is a supplementary prospectus (**Supplementary Prospectus**) which supplements the prospectus dated 31 January 2017 (**Prospectus**) issued by Todd River Resources Limited (ACN 600 308 398) (**Company**). This Supplementary Prospectus is dated 10 February 2017 and was lodged with the ASIC on that date. The ASIC and its officers take no responsibility for the contents of this Supplementary Prospectus. This Supplementary Prospectus should be read together with the Prospectus.

Other than as set out below, all details in relation to the Prospectus remain unchanged. Terms and abbreviations defined in the Prospectus have the same meaning in this Supplementary Prospectus.

This Supplementary Prospectus will be issued with the Prospectus as an electronic prospectus, copies of which can be downloaded from the website of the Company at www.trrltd.com.au.

This is an important document and should be read in its entirety. If you do not understand it you should consult your professional advisers without delay.

1. REASONS FOR SUPPLEMENTARY PROSPECTUS

Following its review of the Prospectus, the ASIC raised queries in respect of particular disclosures in the Independent Geologist's Report (contained in Section 9 of the Prospectus) (**Original Report**) relating to mineral resource estimates and exploration results and compliance with the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (**JORC Code**).

To address ASIC's queries, the Company instructed the Independent Geologist to prepare an amended Independent Geologist's Report (**Amended Report**) to replace the Original Report. All references to the historic resource previously estimated under the 2004 edition of the JORC Code in respect of the Djibitgun prospect at the Manbarrum project have now been removed from the Amended Report. The Directors are of the opinion that, on its own, the Djibitgun prospect is not considered material in the Company's overall portfolio of assets.

Certain additional information has also been added to the Amended Report to ensure disclosure is made to a standard compliant with the 2012 edition of the JORC Code.

This Supplementary Prospectus has been prepared to:

- (a) provide investors with the Amended Report which replaces the Original Report in its entirety; and
- (b) amend certain sections of the Prospectus as set out in Section 2.

2. AMENDMENTS TO THE PROSPECTUS

The Prospectus is amended as follows:

2.1 Use of Funds

Section 6.6 of the Prospectus is amended by deleting the reference to "Prefeasibility" and replacing it with "Technical Studies".

2.2 Manbarrum

Section 7.2.1 of the Prospectus is amended by deleting the sixth paragraph and replacing it with:

"The Sandy Creek deposit warrants further drill testing, to both step-out/grow and infill/upgrade the Sandy Creek estimated Mineral Resource, metallurgical testwork and economic valuation."

2.3 Proposed Exploration Program and Development Plan

Section 7.4 of the Prospectus is amended by deleting the references to "Prefeasibility" in Table 2 and Table 4 and replacing them with "Technical Studies".

2.4 Independent Geologist's Report

The Original Report contained in Section 9 of the Prospectus is deleted and replaced in its entirety with the Amended Report attached to this Supplementary Prospectus.

2.5 Consent

Snowden Group has given its written consent to being named as Independent Geologist in this Supplementary Prospectus and the inclusion of the Amended Report in this Supplementary Prospectus in the form and context in which the report is included. Snowden Group has not withdrawn its consent prior to lodgement of this Supplementary Prospectus with the ASIC.

3. DIRECTORS' AUTHORISATION

This Supplementary Prospectus is issued by the Company and its issue has been authorised by a resolution of the Directors.

In accordance with Section 720 of the Corporations Act, each Director has consented to the lodgement of this Supplementary Prospectus with the ASIC.



Paul Burton
Non-Executive Technical Director
For and on behalf of
TODD RIVER RESOURCES LIMITED

Todd River Resources Limited
Todd River Resources Competent Person's
Report

Project Number AU9782

February 2017

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This report has been prepared by Snowden Mining Industry Consultants Pty Ltd (Snowden) for exclusive use by Todd River Resources Limited pursuant to the Scope of Services contemplated and agreed between Snowden and Todd River Resources Limited.

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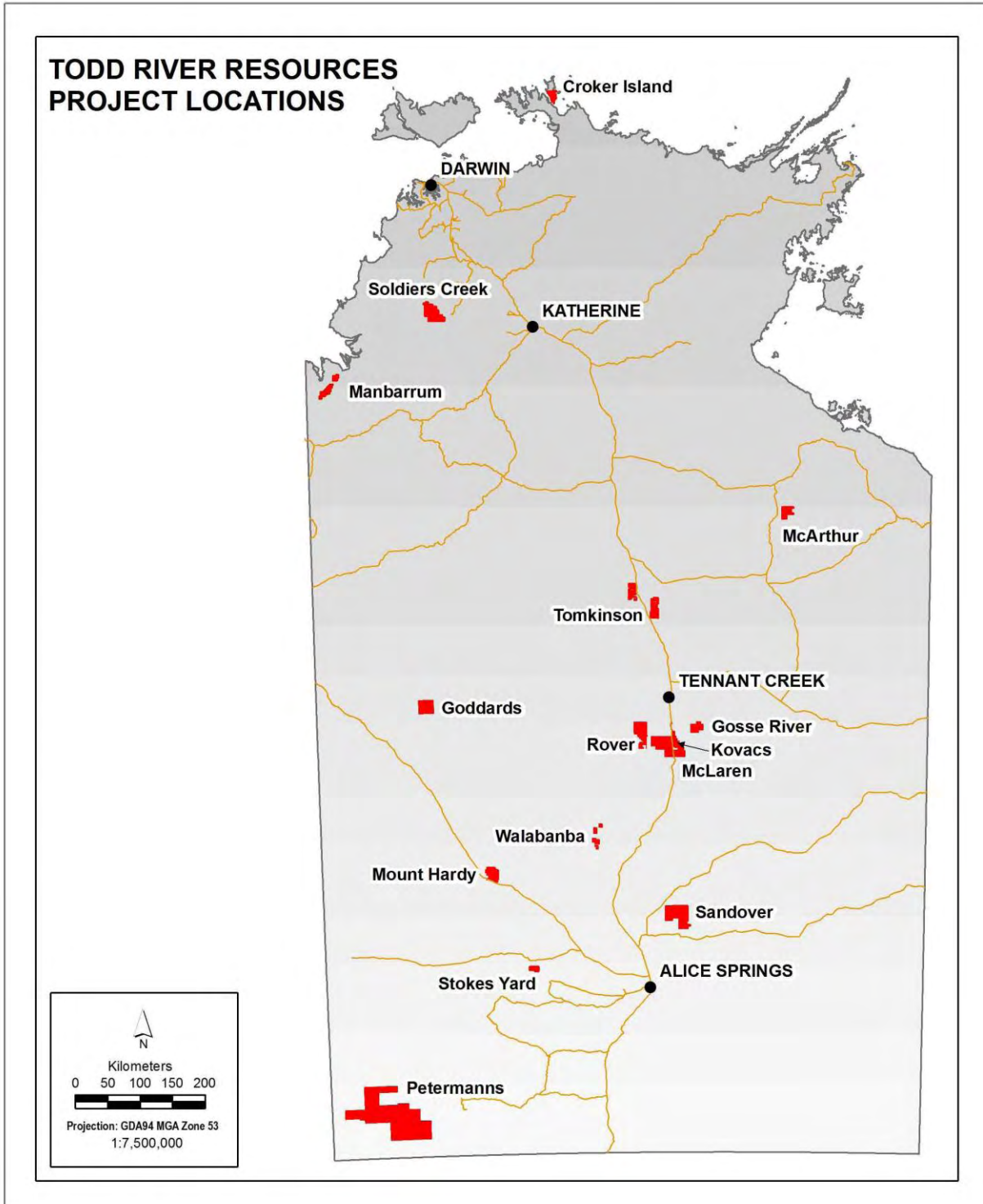
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1 EXECUTIVE SUMMARY

Snowden Mining Industry Consultants (Snowden) was requested by Todd River Resources (TRT) to prepare a Competent Person's Report (CPR) on selected Mineral Assets in the Northern Territory (Figure 1.1).

Figure 1.1 TRT assets schematic location



Source: TRT

Snowden understands that this CPR is to be included in a supplementary prospectus to be issued by Todd River Resources (TRT) to be read with TRT's prospectus dated 31 January 2017 for an initial public offer of shares to raise up to \$6,000,000 to facilitate a listing on the Australian Stock Exchange (ASX).

Snowden understands that the Mineral Assets be owned by TRT's wholly owned subsidiary company Todd River Metals Pty Ltd (TRM). The Mineral Assets will be referred to as being the assets of TRT in this report.

Snowden has sighted evidence, in the form of Northern Territory Government Stamp Duty receipts, that ownership of the Mineral Assets has been transferred to TRM's ownership from TNG and its wholly owned subsidiaries, Enigma Mining Limited and Tennant Creek Gold (NT) Pty Ltd.

This report has an Effective Date of 8 February 2017 and Snowden is unaware of any material change since this date.

The TRT Mineral Assets being described are all located within the Northern Territory (Table 1.1). This document is prepared in accordance with the 2012 guidelines of the Australian Joint Ore Reserves Committee (the JORC Code) and the 2015 Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets (the "VALMIN Code").

Table 1.1 TRT exploration assets

Project	Commodity	Region	Geology	Status
Manbarrum	Pb, Zn, Ag	East Kimberley	Mississippi Valley Type	Active exploration
McArthur River	Cu, Zn, Pb, Ag	Gulf of Carpentaria	Sedimentary-exhalative Zn-Pb and red bed Cu	Active exploration
Walabanba	Cu, Ni, Ti, V, Pb, Zn, Li, Sn, Ta	Arunta	Mafic intrusive	Active exploration
Mount Hardy	Cu, Pb, Zn, Ag, Au	Arunta/Tanami	Syngenetic/volcanogenic massive sulphide base metals and Au	Active exploration
Sandover	Multi-commodity	Arunta	High grade metamorphic	Exploration concept
Stokes Yard	Cu, Pb, Zn, Ag	Arunta	High grade metamorphic	Exploration concept
Soldiers Creek	Li, Sn, Ta	Pine Creek	Granite	Exploration concept
Tomkinson	Zn, Pb, Cu, Ag	Tomkinson Basin	Sedimentary-exhalative Zn-Pb	Exploration concept
Crocker Island	Bauxite	Arafura Sea	Laterite	Application, exploration concept
Joint venture projects				
Goddards	Au, Cu	Tennant Creek	Replacement	WDRJV
Petermanns	Multi-commodity	Musgraves	High grade metamorphic	WDRJV
Rover	Au, Cu, Bi	Tennant Creek	Tennant Creek style	WDRJV
Gosse River				
McLaren	Analogous to the Rover project. Kovacs is excluded from the WDRJV, but included in Rover			
Kovacs				

1.1 Summary of Mineral Resources and Ore Reserves

The Mineral Assets do not contain any current Ore Reserve estimates.

Snowden has updated its 2010 Mineral Resource estimate for the Sandy Creek deposit at Manbarrum for the purpose of this CPR and a current JORC Code Table 1 is included in this CPR (Table 1.2).

Table 1.2 Manbarrum Mineral Resource estimate (1.0% Zn cut-off)

Prospect	Tonnes (Mt)	Zn (%)	Pb (%)	Ag (g/t)
Sandy Creek ¹	22.5	1.81	0.44	4.56

1.2 Summary of Exploration Targets and Exploration Results

Snowden does not report any Exploration Targets or Exploration Results in this CPR

Snowden does describe the findings of exploration historically performed by parties other than TRT at each project area and has referenced the publicly available source of these descriptions.

1.3 Summary of geology and mineralisation

TRT's assets cover a wide variety of geological styles and regions within the Northern Territory. The mineralisation associated with each is varied, as are the individual exploration concepts and stages of development.

1.3.1 Wholly owned projects

TRT operates a number of projects in its own right and is responsible for target generation, tenement management, exploration and expenditure on these projects.

Manbarrum

Manbarrum covers part of the eastern Bonaparte Basin. Carboniferous Upper Burt Range Formation dolomites host numerous occurrences of classic Mississippi Valley Type (MVT) base metal mineralisation. Mineralisation is both structurally controlled and strata-bound, hosted by northerly-trending fault breccias and sedimentary breccias host lower grade, strata-bound mineralisation. Mineralisation is believed to be controlled by extensional splay faults from the regional Halls Creek fault system.

McArthur River

The Palaeoproterozoic Wollgorang Formation of the Tawallah Group underlies the McArthur Group lithology which hosts the world-class, Proterozoic, sedimentary-exhalative McArthur River Mine, some 60 kilometres (km) to the north. TRT has identified geophysical and base metal geochemical targets on its tenements. The Wollgorang Formation wraps around the Mallapunyah Dome and is exposed over some 25 km of strike extent, being bound to the west by regional fault structures seen as being similar to the Emu Fault, which forms the eastern boundary. The Emu Fault at the McArthur River mine is considered to provide the conduit for base metals.

Walabanba

The Walabanba project lies within the Arunta region and basement is comprised of Aileron Province Palaeoproterozoic to Mesoproterozoic metasedimentary and granitic rocks, including the Reynolds Range Group. The Reynolds Range granites and orthogneisses are highly-radiogenic and host veins and pegmatites anomalous in uranium and thorium. Locally the Aileron Province rocks are overlain by Tertiary to recent clastic sequences, derived from erosion of the radiogenic granites in the Reynolds Range. The Mount Peake gabbro Ti-V-Fe orebody lies to the east. The project area is considered to be prospective for base metals and tin-tantalum-lithium.

¹ Snowden, 2017, 1.0% Zn cut off

Mount Hardy

Copper was discovered at Mount Hardy in 1935 in the Palaeoproterozoic Aileron Province Lander Group Formation (of which Walabanba is a member), which is the dominant host rock for copper and gold mineralisation in the area. The Lander Group is interpreted to be stratigraphically equivalent to the Tanami Group, which hosts the significant gold discoveries at The Granites, Dead Bullock Soak and Callie. Previous near surface gold exploration has identified base metal mineralisation, with only limited drilling to shallow depths.

Stokes Yard

The Stokes Yard tenement is within the central-eastern portion of Warumpi Province of the Arunta Block. Basement is medium to high grade metavolcanics and metasediments, including calcsilicates and schists of the Palaeoproterozoic Iwapatoka Metamorphic Complex and Ikuntji Metamorphics. Historical rock chip samples have returned results of up to 26% Zn, 7.5% Cu, 7.5% Pb and 130 ppm Ag.

Tomkinson

The Mesoproterozoic to Palaeoproterozoic Tomkinson Province forms part of the Tennant Region and contains unmetamorphosed and weakly deformed, predominantly shallow marine sedimentary rocks and is continuous with the McArthur and Birrindudu Basins. In addition to hosting substantial manganese deposits, north-northwest trending growth faults in the area potentially host stratiform sediment hosted Pb-Zn mineralisation. The Namerinni Group has been correlated with the McArthur Group, which hosts the McArthur River mine, and the recent Teena discovery by Rox Resources and Teck.

Sandover

The Sandover project is underlain by the Palaeoproterozoic Aileron Province and Neoproterozoic Irindina Province of the Arunta Block and is considered to be prospective for base metal, gold and rare earth deposits.

Soldiers Creek

The Soldiers Creek exploration licence covers the Soldiers Creek Pegmatite Field in the Pine Creek Pegmatite Province, both within and surrounding the highly differentiated S-type Soldiers Creek Granite. There are a number of tin and tantalum prospects within the area that have both alluvial and colluvial/eluvial placer workings and hard rock pegmatite-hosted cassiterite and tantalite content. The area is considered prospective for significant economic concentrations of tin and tantalum, as well as other pegmatite-hosted elements including lithium and greissen related elements and minerals.

Croker Island

This project has potential for lateritic pisolite bauxite deposits within the extensive deeply-weathered Cretaceous sediments of the Bathurst Island Formation. Previous work by Rio Tinto and Reynolds Metals Company has indicated bauxite potential elsewhere on the island.

1.3.2 Joint venture projects

TRT has joint ventures in place, including:

- Rover (including Gosse River and McLaren), Goddards and Petermanns with Western Desert Resources (WDR), Liquidators Appointed.
- Snowden is advised that negotiations with the Liquidators are continuing regarding reassignment of these projects to TRT.

- Another tenement, Kovacs, is contained within the Rover holding, but is not subject to the Joint Venture.

Rover and Kovacs (includes Gosse River and McLaren)

Rover is considered to be prospective for Tennant Creek-style Au-Cu mineralisation. The Kovacs mining lease is enclosed by the Rover holding, but remains wholly owned and is not subject to the Joint Venture.

Goddards

Copper mineralisation is associated with veins hosted in a dolomite unit discovered in the mid-1970s by Peko Mines Limited through aerial geophysical surveys, rock chip sampling and general geological reconnaissance.

Petermanns

The Proterozoic Petermann Orogeny has exposed the deep crustal roots of the previous Musgrave Orogen and parts of several poorly exposed Proterozoic orogenic belts and igneous provinces. This area is underexplored but is considered to be highly prospective by the Australian mining industry. The remote location has historically deterred exploration, but mineralisation identified to date includes undeveloped Ni-Cu-PGE (Nebo-Babel, BHP Billiton), laterite Ni (Wingelina, Westgold) and historically mined shear hosted Cu (the Warburton mineral field).

1.4 Summary of exploration strategy

Snowden considers TRT's projects to vary from a basic level of exploration but with attractive geology (such as Petermanns) to advanced greenfields projects (such as Manbarrum, Mount Hardy or McArthur River). The most advanced of these, Manbarrum and McArthur, enjoy relative ease of access and the regional presence of significant infrastructure, when compared to other Australian greenfields projects.

TRT has prioritised its exploration such that the initial focus will be those projects considered to have the greatest potential to yield economic mineralisation in the short term and those proximal to established infrastructure.

This includes Manbarrum, McArthur River and Mount Hardy, where the geology indicates high potential for substantial economic mineralisation. Snowden considers this to be sound strategy and comments that in its view, the understanding of the geology of these projects is more valuable than exploration results returned to date. This is particularly the case with Manbarrum and McArthur River, where technically sound geological thinking is directing efforts toward areas overlooked by other explorers.

Snowden has been advised that TRT has budgeted approximately A\$2.5 million, in the case of the IPO minimum subscription being raised (Table 1.3) and A\$3.5 million, for full subscription (Table 1.4), for exploration expenditure on its tenements over two years and considers this to be appropriate to support the strategy described.

Table 1.3 Summary of proposed exploration expenditure, minimum subscription case

Project area	Year 1 (A\$M)	Year 2 (A\$M)	Total (A\$M)
Manbarrum	0.21	0.27	0.49
McArthur River	0.29	0.29	0.57
Walabanba	0.14	0.17	0.32
Mount Hardy	0.25	0.29	0.54
Stokes Yard	0.05	0.12	0.17
Sandover	0.07	0.12	0.19
Soldiers Creek	0.03	0.05	0.08
Tomkinson	0.05	0.06	0.11
Croker Island	0.02	0.02	0.04
Total	1.11	1.38	2.50

Table 1.4 Summary of proposed exploration expenditure, full subscription case

Project area	Year 1 (A\$M)	Year 2 (A\$M)	Total (A\$M)
Manbarrum	\$0.30	\$0.38	\$0.68
McArthur River	\$0.40	\$0.40	\$0.80
Walabanba	\$0.20	\$0.24	\$0.44
Mount Hardy	\$0.35	\$0.40	\$0.75
Stokes Yard	\$0.08	\$0.16	\$0.24
Sandover	\$0.10	\$0.16	\$0.26
Soldiers Creek	\$0.05	\$0.06	\$0.11
Tomkinson	\$0.07	\$0.09	\$0.16
Croker Island	\$0.02	\$0.03	\$0.05
Total	\$1.56	\$1.94	\$3.50

Snowden considers that TRT staff are suitably qualified and experienced to successfully implement the proposed program.

1.5 Conclusions and recommendations

Snowden concludes that TRT holds tenure over some highly prospective mineral tenements in the Northern Territory and recommends that it proceed to implement its exploration strategy on listing of TRT.

1.5.1 Conclusions

Snowden concludes that several of TRT's projects are at an advanced stage of exploration and could conceivably result in estimation of Ore Reserves within the two-year budget timeframe presently contemplated.

TRT will benefit from a long period of well executed exploration performed by TNG that has resulted in an excellent geological database, which represents considerable value.

TRT has collaborated with government and academic institutions to reinterpret historical results and ideas and Snowden considers that this approach will yield results. Snowden considers that this is particularly the case at Manbarrum, McArthur River and Tomkinson.

Snowden has examined the proposed exploration budget of A\$2.5 million and A\$3.5 million, dependent on subscription and the proposed work program for the first two years after TRT's listing (refer Section 5). Snowden concludes that these are reasonable and achievable.

1.5.2 Recommendations

Snowden recommends that any exploration activities undertaken by TRT be carried out in accordance with the guidelines of the JORC Code.

Snowden observes a wide geological and geographical range for TRT's interests and strongly recommends basic reconnaissance be undertaken on the less developed projects, with a view to early divestment or farming out to other parties, allowing concentration of resources on the more advanced projects with demonstrated potential.

2 INTRODUCTION

Snowden was requested by TRT to prepare a CPR on selected Mineral Assets in the Northern Territory. Snowden understands that this CPR is to be included in a supplementary prospectus to be issued by TRT to be read with TRT's prospectus dated 31 January 2017 for an initial public offer of shares to raise up to \$6,000,000 to facilitate a listing on the Australian Securities Exchange (ASX).

Snowden understands that the Mineral Assets are owned by TRT's wholly owned subsidiary company Todd River Metals Pty Ltd (TRM). The Mineral Assets will be referred to as being the assets of TRT in this report.

Snowden has sighted evidence, in the form of Northern Territory Government Stamp Duty receipts, that ownership of the Mineral Assets has been transferred to TRM's ownership from TNG Limited (TNG) and its wholly owned subsidiaries, Enigma Mining Limited and Tennant Creek Gold (NT) Pty Ltd.

The previous operator of these tenements, TNG, is a public company listed on the ASX, originally incorporated in 1970 as Lightning Ridge Mining NL. The company changed its name to Hallmark Consolidated Ltd in the early 2000s. In 2004, the company changed its name to Tennant Creek Gold Ltd and then listed on the Frankfurt Stock Exchange. In 2005, the company again changed its name to TNG Limited².

The TRT Mineral Assets are all located within the Northern Territory and comprise:

- Manbarrum
- McArthur River
- Walabanba
- Mount Hardy
- Sandover
- Stokes Yard
- Tomkinson
- Soldiers Creek
- Croker Island
- A Joint Venture with Western Desert Resources (Liquidators appointed) including the Goddards, Petermanns and Rover projects. Rover incorporates Gosse River and McLaren projects and also the Kovacs mining lease, which is not subject to the Joint Venture.

This document is prepared in accordance with the 2012 guidelines of the Australian Joint Ore Reserves Committee (the "JORC Code") and the 2015 Australasian Code for Public Reporting of technical assessments and valuations of mineral assets (the "VALMIN Code").

2.1 Effective date and no material change

The effective date of this report is 8 February 2017, this being the date at which no further information was supplied to the author by TRT or TNG, and the author is not aware of any material change in the status of the projects in the period between receipt of data and completion of the report.

² RIU; Register of Australian Mining, 2011/2012

Unless otherwise stated, information and data contained in this report or used in its preparation has been provided by TRT or TNG or has been gathered from public sources.

2.2 Mineral Assets

The Mineral Assets that are the subject of this CPR are for the most part granted tenements or Applications under mandatory statutory moratorium or consideration under Northern Territory mining legislation³.

Snowden has sighted evidence, in the form of Northern Territory Government Stamp Duty receipts that ownership of the Mineral Assets have been transferred to TRM's ownership from TNG and its wholly owned subsidiaries, Enigma Mining Limited and Tennant Creek Gold (NT) Pty Ltd.

Table 2.1 TRT tenements

Project	Tenement	Status	Blocks	Grant date	Expiry date
Manbarrum	EL24395	Granted	45	16/08/2005	15/08/2017
	A24518	Granted	6	25/08/2005	24/08/2017
	A26581	Granted	6	01/08/2008	31/07/2018
	EL25646	Granted	19	23/08/2007	22/08/2017
	MLA27357	Application	204 ha ⁴		
McArthur River	EL27711	Granted	52	09/07/2010	08/07/2018
	EL30085	Granted	16	11/04/2014	10/04/2020
	ELA28509	Moratorium	9	Veto date 31/05/12	
Walabanba	EL26848	Granted	45	04/03/2009	03/03/2017
	EL27115	Granted	9	18/09/2009	17/09/2017
Mount Hardy	EL27892	Granted	32	04/08/2010	03/08/2018
	EL29219	Granted	34	17/09/2012	16/09/2018
	EL28694	Granted	32	01/03/2012	28/02/2018
Stokes Yard	EL30131	Granted	16	11/08/2014	10/08/2020
Tomkinson	EL30348	Granted	50	20/01/2015	19/01/2021
	EL30359	Granted	71	20/01/2015	19/01/2021
	EL31265	Granted	51	5/12/2016	4/12/2022
Sandover	ELA29252	Application	212		
	ELA29253	Application	71		
Soldiers Creek	EL31209	Granted	181	5/12/2016	4/12/2022
Croker Island	ELA29164	Application	62		
Joint Venture Projects					
Rover ⁵	EL25581	Granted	187	12/05/2009	11/05/2017

³ For a detailed explanation of Northern Territory legislation, refer to:
https://minerals.nt.gov.au/__data/assets/pdf_file/0008/256715/NTMineralTitlesRegulation_ClaytonUtz.pdf

⁴ Mining Leases may be irregular in shape and areas are expressed in hectares

Project	Tenement	Status	Blocks	Grant date	Expiry date
Gosse River ⁵	ELA25587	Application	82		
McLaren ⁵	ELA25582	Application	401		
Kovacs ⁶	MLC647	Granted	8Ha ⁴	09/09/1970	31/12/2020
Goddards ⁵	ELA24260	Application	143		
Petermanns ⁷	ELA25562	Application	305	Veto date 10/12/14	
	ELA25564	Application	500		
	ELA26382	Application	131		
	ELA26383	Application	420		
	ELA26384	Moratorium	293		

2.3 Sources of information and site visit

The Competent Person for preparation of the report is Mr Jeremy Peters, FAusIMM CP (Mining, Geology), who visited the Manbarrum, McArthur, and Stokes Yard project sites and the Tennant Creek area in August 2016. Mr Peters visited the geology of the Walabanba project in March 2015, in the course of working on the Mount Peake Project. Mr Peters has extensive professional experience with the geology of and has worked extensively in the Northern Territory.

TRT's projects are at various stages of exploration and in Mr Peters' opinion, not all warrant a site visit at this stage, particularly those at a conceptual stage of exploration, with no physical evidence of current exploration efforts. Mr Peters consequently considers that there is no material value in physically examining these sites and accepts representations made by TRT and bases his inferences on his own experience and observations.

In preparing this report, Mr Peters has extensively relied on information collated by other parties, as described in Section 2.8 below. Mr Peters has critically examined this information, made his own enquiries and applied his general geological competence to conclude that the information presented in this CPR complies with the definitions and guidelines of the JORC Code.

The responsibility of the author is provided in Table 2.2.

Table 2.2 Responsibilities of the author

Author	Responsible for sections
Jeremy Peters, FAusIMM CP (Min, Geo)	1, 2, 3, 4, 5, 6, 7

Unless otherwise stated, all currencies are expressed in Australian dollars (A\$) and units of measurement are metric. Historic units have been converted to metric units.

Snowden is responsible for this report as part of TRT's listing documentation and declares that it has taken all reasonable care to ensure that the information contained in this report is, to the best of its knowledge, in accordance with the facts and contains no material omissions.

⁵ Subject to Rover Joint Venture agreement, signed with WDR. Licences currently 80% WDR, 20% Tennant Creek Gold. Negotiations taking place with Liquidators in order to transfer back to 100% TCG.

⁶ Snowden is informed by TRT that the Kovacs mining lease is considered to be part of the overall Rover exploration project, but remains 100% owned by TRT and is not subject to the Joint Venture arrangements.

⁷ Subject to Heads of Agreement (HOA) with WDR. WDR is to negotiate through to grant then can earn into licences. Negotiations taking place with Liquidators to negate HOA.

2.4 Mineral Resources and Ore Reserves

The projects do not contain any Ore Reserves, as defined by the JORC Code and Snowden has updated its February 2010 Sandy Creek (Manbarrum Project) Mineral Resource estimate to comply with the guidelines of the 2012 JORC Code. Snowden appends Table 1 of the JORC Code for this update to this CPR.

2.4.1 Mineral Resources

The Manbarrum project includes a Mineral Resource estimate of 22.50 Mt at 1.81% zinc plus 0.44% lead at Sandy Creek.

2.4.2 Ore Reserves

The work completed to date by TNG on the projects has not included the completion of a Prefeasibility Study or Feasibility Study, as defined by the JORC Code. Consequently, Ore Reserves, as defined by the JORC Code, have not been estimated. Given this, and for the avoidance of doubt, this report does not refer to Ore Reserves.

2.5 Limitations

TNG has agreed to indemnify Snowden for any liability arising as a result of or in connection with the information provided by or on behalf of TNG being incomplete, incorrect or misleading in any material respect. TNG has confirmed in writing to Snowden that, to its knowledge, the information provided by it (when provided) was complete and not incorrect or misleading in any material respect. Snowden has no reason to believe that any material facts have been withheld and TNG has confirmed in writing to Snowden that it believes it has provided all material information available to it.

2.6 Reliance on information

Snowden believes that its opinion must be considered as a whole and that selection of portions of the analysis or factors considered by it, without considering all factors and analyses together, could create a misleading view of the process underlying the opinions presented in this CPR. The preparation of a CPR is a complex process and does not lend itself to partial analysis or summary.

2.7 Declaration

Snowden will receive a fee for the preparation of this report in accordance with normal professional consulting practice. This fee is not contingent on the outcome of the CPR and Snowden will receive no other benefit for the preparation of this report. Snowden does not have any pecuniary or other interests that could reasonably be regarded as capable of affecting its ability to provide an unbiased opinion in relation to the assets and the projections and assumptions included in the various technical studies completed by TNG, opined upon by Snowden and reported herein.

Neither Snowden, the Competent Person, Mr Peters, who is responsible for authoring this CPR, nor any Directors of Snowden have at the date of this report, nor have had within the previous two years, any shareholding in TNG or any of its advisors or related parties. Consequently, Snowden, Mr Peters and the Directors of Snowden consider themselves to be independent of TNG and its related parties.

2.7.1 Copyright

Copyright of all text and other matter in this document, including the manner of presentation, is the exclusive property of Snowden.

It is an offence to publish this document or any part of the document under a different cover, or to reproduce and/or use, without written consent, any proprietary technical procedure and/or technique contained in this document. The intellectual property reflected in the contents resides with Snowden and shall not be used for any activity that does not involve Snowden, without the written consent of Snowden.

2.8 Reliance on other experts

In preparing this report, Snowden has been reliant on information provided by TNG and publicly available information regarding geology and operations in the relevant project area.

The principal source of information regarding TNG's assets is private and statutory reports that have been prepared by TNG staff and submitted to the Department of Mines and Energy (DME) of the Northern Territory Government.

3 PROJECT DESCRIPTION

TRT's projects are all located within the Northern Territory of Australia and are directed toward the discovery of economic deposits of base and precious metals. These metals are internationally traded and backed by international exchanges.

This CPR does not value TRT's projects, an exercise that has been undertaken separately.

Snowden considers TRT's assets to comprise three projects that it considers to be at an advanced exploration stage: The Manbarrum lead-zinc-silver project; the McArthur River base metals project and the Mount Hardy copper project. The Manbarrum project has a current Mineral Resource estimate. The McArthur River and Mount Hardy projects have identified drill targets.

Of the remaining projects, the Walabanba base metals project has drill targets and significant exploration completed to date. The Tomkinson and Sandover base metals project, Soldiers Creek tin and lithium project, Croker Island bauxite project and Stoke's Yard project are all at a lesser stage of exploration, but with what Snowden considers to be attractive geology. This is particularly the case with Sandover.

Snowden advises that these drill targets are based on the findings of previous exploration and Snowden has referenced the publicly available sources of this information, as appropriate.

The failure of TNG's former joint venture partner is expected to result in transfer of its interest in a number of gold projects in the vicinity of Tennant Creek and significantly, a large application in the Petermann Ranges, considered by Snowden to be the most geologically attractive.

3.1 Manbarrum

The Manbarrum zinc-lead-silver project covers a 50 km strike length of the south-east margin of the Bonaparte Basin, which is considered prospective for MVT zinc-lead-silver mineralisation. The project was managed as part of a joint venture agreement with Kimberley Metals Ltd, later to become KBL Mining Limited (KBL) in the period February 2011 to May 2013. KBL subsequently relinquished its interest in the project on 21 May 2013.

3.1.1 Location and access

The Manbarrum project is located in the north-western part of the Northern Territory, on Legune station, approximately 70 km northeast of the regional centre of Kununurra, Western Australia (WA) and at approximate latitude $-15^{\circ}24'21''$, longitude $129^{\circ}11'48''$ on the Auvergne 1:250,000 map sheet (Figure 3.1).

Access is via sealed road, and thereafter on well-maintained but unsealed station tracks, which can only be accessed during the dry season. Travel time by road from Kununurra is approximately one hour.

3.1.2 Tenements

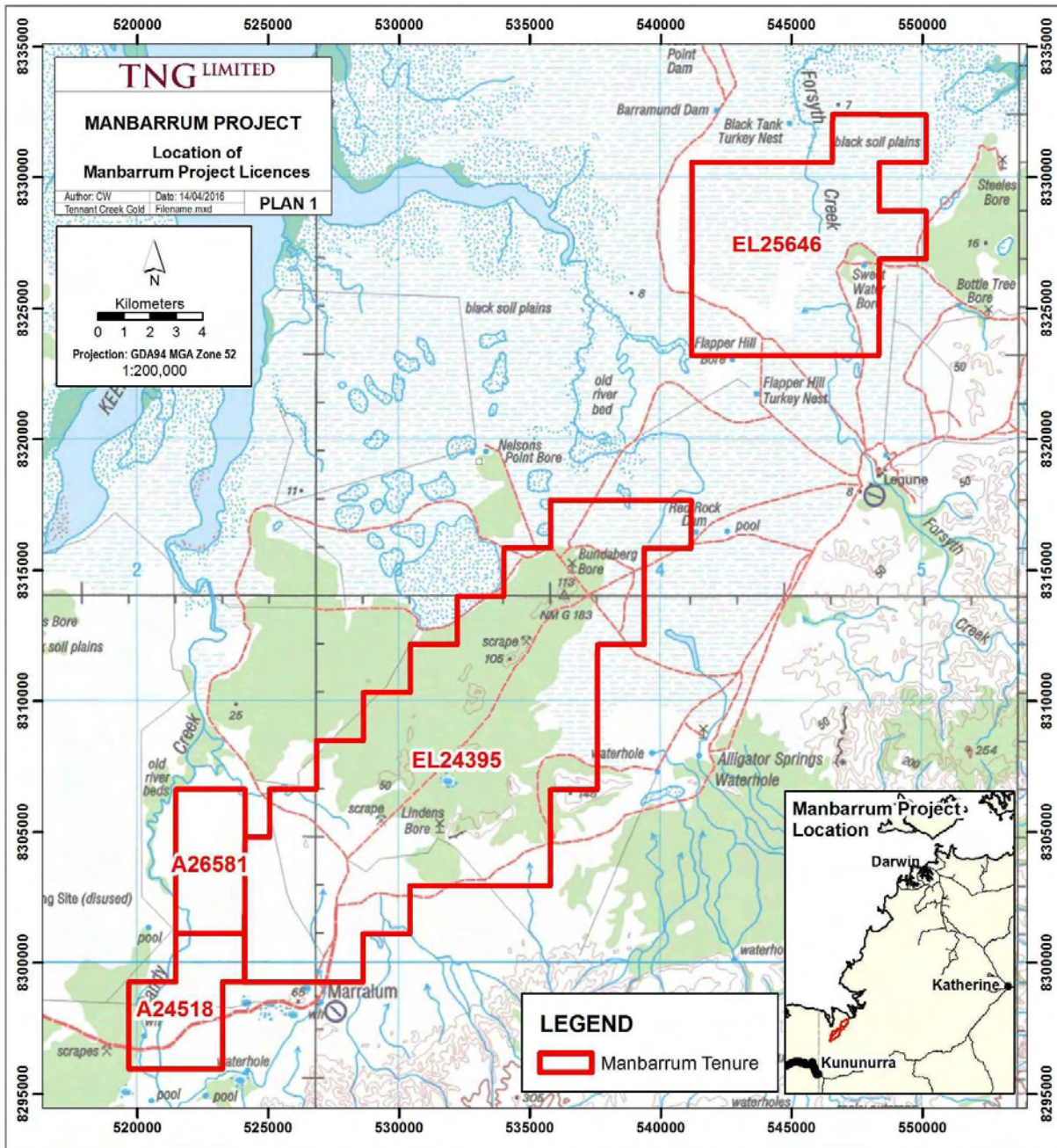
The Manbarrum project comprises four granted tenements (Table 3.1) and one application (Figure 3.2) and is owned and operated by TRT, having been transferred to TRM from TNG in January 2017.

Table 3.1 Manbarrum project tenements

Title	Title holder	Area (blocks)	Area (ha)	Status	Expiry date
EL 24395	TRT – 100%	45	204	Granted	15/08/2017
A 24518		6		Granted	24/08/2017
A 26581		6		Granted	31/07/2018
EL 25646		19		Granted	22/08/2017
MLA 27357		Application		Application	

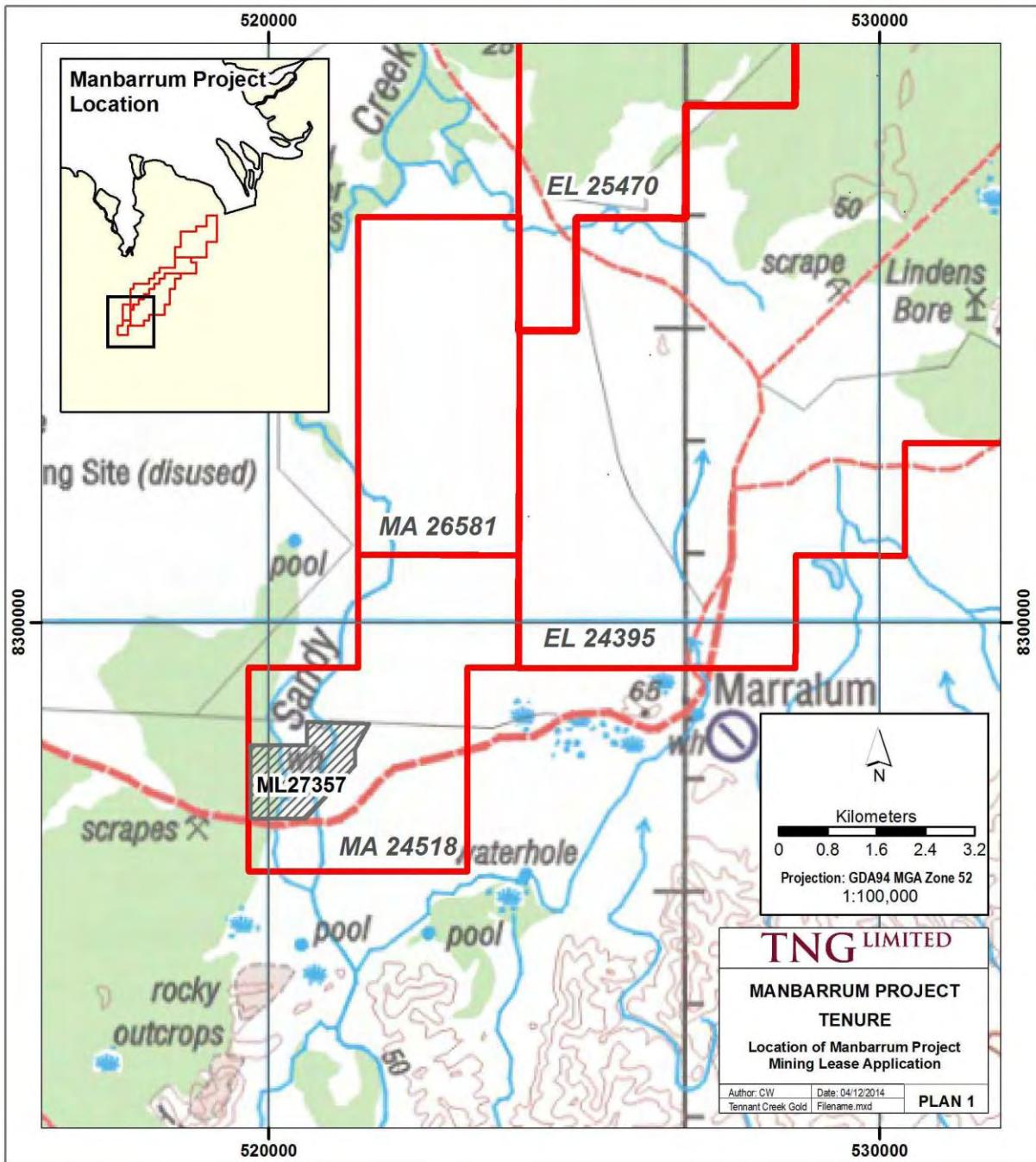
MLA 27357 has been applied for as a Mining Lease to provide security of tenure over the Sandy Creek project.

Figure 3.1 Manbarrum project tenements map



Source: TRT

Figure 3.2 Location of MLA 27357 within MA 24518



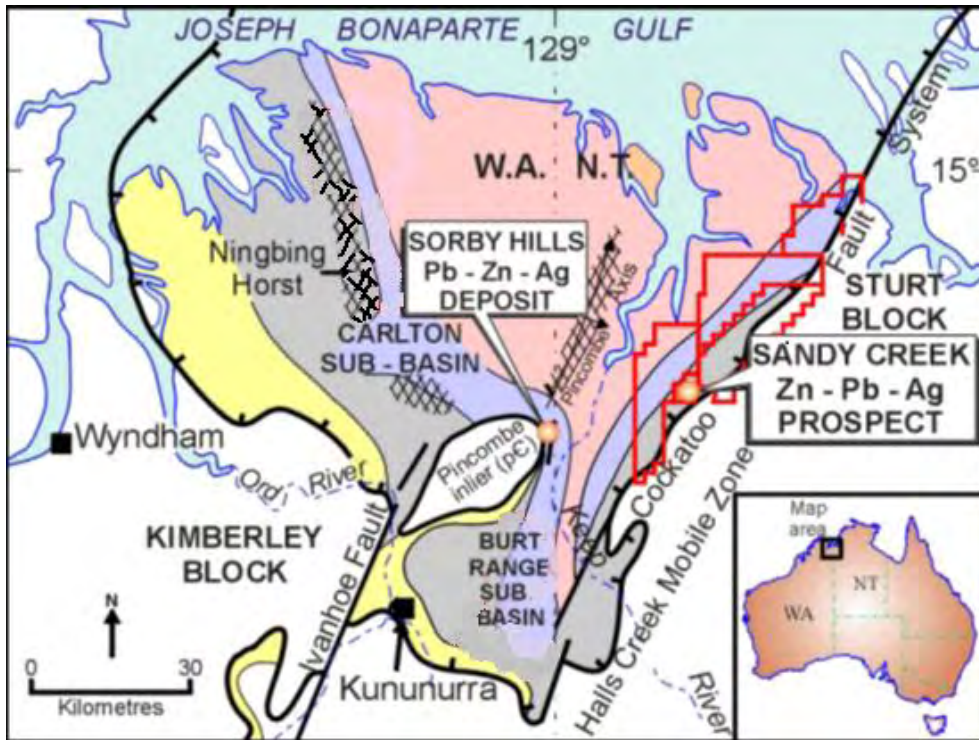
Source: TRT

3.1.3 Geology and mineralisation

The Manbarrum project tenements are located in the Bonaparte Basin, a north opening sedimentary basin, Cambrian to Tertiary in age with a maximum thickness of 5 km. About 10% of the basin is above sea level, with the remaining portion being submerged below the Timor Sea. These rocks were deposited in an evolving continental rift system during the Late Devonian followed by thermal sagging and widespread subsidence in the Early and Middle Carboniferous.

The onshore portion of the basin is dominated by carbonate and clastic sediments. The oldest exposed strata are the Antrim Plateau Basalt, a sequence of tholeiitic flood basalts which unconformably overlies the Palaeoproterozoic basement of the Halls Creek orogen. The basin is dominantly controlled by faulting, particularly in the southeast where extensions of the Halls Creek Mobile Zone fault systems are present (Figure 3.3).

Figure 3.3 Manbarrum regional geology



Source: TRT

Sandy Creek

The Sandy Creek deposit, located on licence MA 24518, is in the eastern portion of the basin and hosted within a sequence of Devonian-to-Carboniferous shelf carbonate sediments (the Burt Range Formation). The association of base metal mineralisation with carbonate host rocks and epigenetic characteristic of the deposit are typical of MVT mineral deposits. This and other known base metal occurrences such as Sorby Hills occur along two major northeast trends which run parallel to the eastern basin margin and basement controlled fault structures related to the Halls Creek Mobile Zone.

The mineralisation at Sandy Creek consists of a primary sphalerite-galena-pyrite/marcasite sulphide deposit hosted within a 100 m to 120 m thick sandy carbonate/dolomite unit. Ore formation is related to increased fracturing and porosity within favourable stratigraphies. Higher grade breccia-hosted mineralisation has been identified adjacent to major faults.

Djibitgun

The Djibitgun prospect is hosted by Lower Carboniferous carbonate rocks, located 16 km northeast of the Sandy Creek deposit. The stratigraphy consists of Upper Devonian sandstones of the Cockatoo Formation overlain by the Lower Carboniferous Burt Range Formation of which the upper unit, a dolomitic sandstone, hosts the Zn-Pb-Ag mineralisation.

The host rocks are weathered to a depth of more than 100 m and dip at a shallow angle to the east. Weathered sandy and silty dolomite and limestone occur as partly indurated friable and ferruginous aggregates of quartz grains and silt. The mineralisation occurs predominantly in the supergene zone of the regolith profile, usually as secondary minerals but with some sulphides. It is contained within two sub-horizontal, north trending strata-bound lenses. The deposit is covered by a layer of unconsolidated sand, silt and clay and in the weathered zone, zinc mineralogy consists of franklinite and zincite oxides.

3.1.4 Exploration potential

The Manbarrum project is considered to have potential for base metals, particularly zinc, silver and lead. The Sandy Creek base metal deposit has a Mineral Resource estimate of 22.5 million tonnes at 1.81% zinc plus 0.44% lead, at a cut-off grade of 1% zinc. The Djibitgun prospect contains silver, zinc and lead.

Snowden considers that there is also potential for a modest resource of a niche iron ore product at the Legune prospect.

Historical exploration

The basin has been subject to petroleum exploration since the 1960s and a number of gas fields have been discovered. Exploration for base metals started in 1971 by Aquitaine⁸ and its joint venture partners using induced polarisation (IP) surveys, seismic surveys, soil and rock sampling and drilling. By the mid-1980's, a number of diamond and reverse circulation (RC) holes had been drilled into the Sandy Creek deposit⁹. Aquitaine spent some time exploring the Legune Hill/Ochre Mine area undertaking geophysics surveys, RC and diamond drilling campaigns¹⁰.

In 1989, BHP (now BHP Billiton), as part of a large scale joint venture exploration program with Triako Resources, carried out an IP survey over the deposit and later completed a fence of diamond drillholes 800 m north of the Sandy Creek deposit¹¹. During the 1990s additional geophysical surveys, RC and diamond drilling was undertaken in the region by Wilga Mines.

Recent exploration (2008 to 2016)

TNG has identified a number of prospects within the Manbarrum project (Figure 3.4), together with anomalous rock chip and soil sample results from preliminary work aimed at identifying mineralised structures within the basin. In 2014, TNG drilled three holes aimed at testing iron mineralisation at Legune Hill.

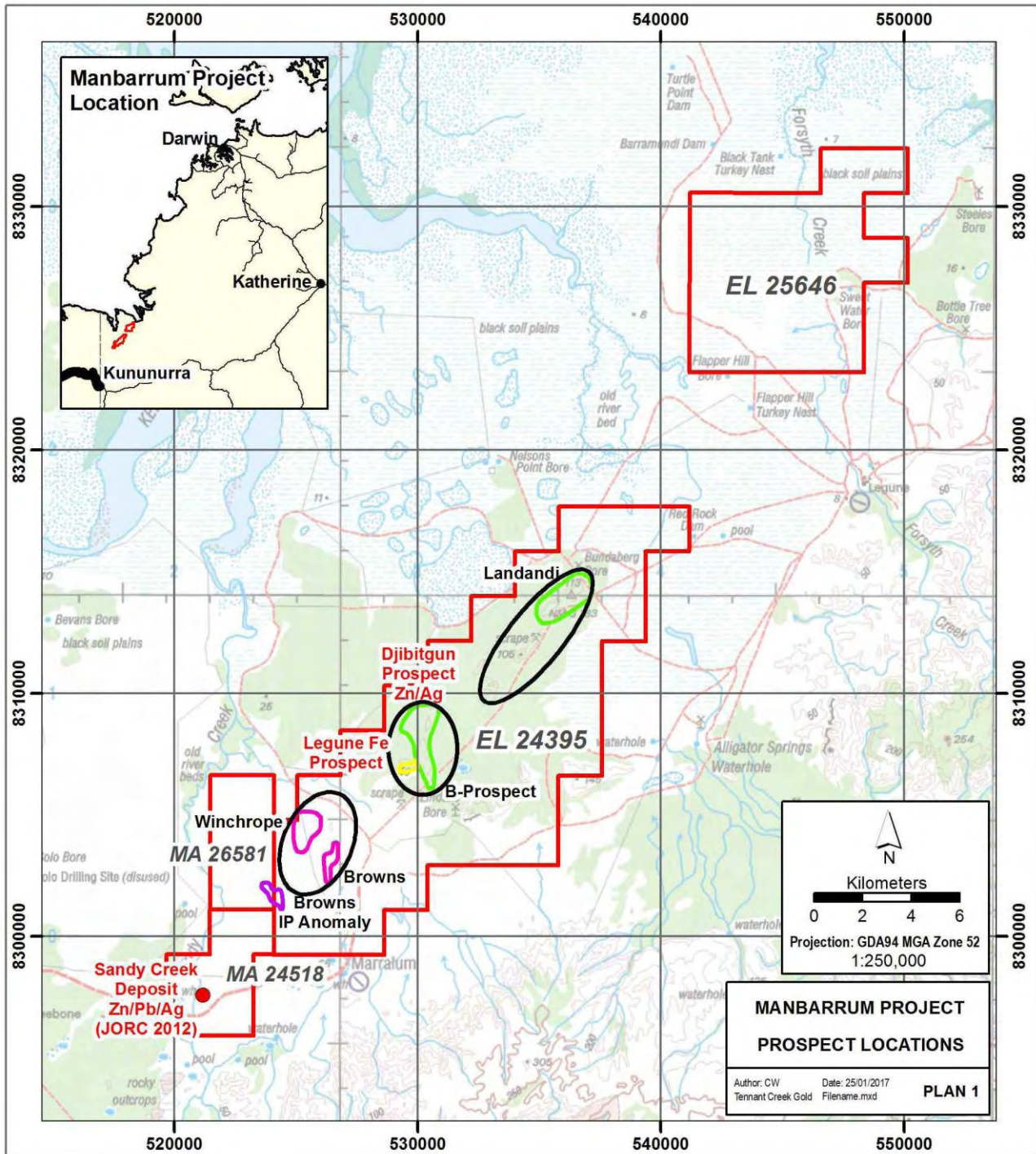
⁸ NTGS Open File items CR19720008 and CR19780014

⁹ NTGS Open File item CR19840264

¹⁰ NTGS Open File item CR19770129

¹¹ NTGS Open File items CR19900026, CR19950811 and CR19980111

Figure 3.4 Manbarrum project prospect location



Source: TRT

3.1.5 Sandy Creek

Drilling

One diamond drillhole (MD055) was drilled to 198.6 m at the Sandy Creek prospect in 2009¹² to test the continuity of mineralisation through the previously defined “high-grade zinc pipe” zone. Five zinc-lead mineralisation styles were identified in the drillhole, namely:

- Medium-grained galena with yellow sphalerite on vein margins
- Fine-grained yellow sphalerite-medium grained galena sedimentary breccia fill
- Botryoidal pyrite-marcasite-sphalerite and zinc-oxide on fracture surfaces
- Coarse-grained massive pyrite-marcasite±galena veins
- Medium-grained botryoidal pyrite-brown sphalerite needles and zinc-oxide as veins or on fracture surfaces.

TNG has undertaken several campaigns of drilling in the years 2006 to 2007. During this time, Snowden reports that 120 RC and 54 diamond holes were completed.

Mineral Resource

A Mineral Resource for the Sandy Creek deposit was estimated in April 2008 and reported at a cut-off grade of 1% zinc¹³. An updated Mineral Resource estimate prepared in 2010¹⁴ by Snowden resulted in an increase of 54% to 24.4 million tonnes at 2.26% zinc plus lead, at a cut-off grade of 1% zinc.

Snowden considered the revised geological interpretation provided by TNG, which incorporates geological data from drilling carried out in 2009, and modelled the deposit within which the resource is contained. This has primarily been defined on lithological and fault controls on the distribution of the zinc-dominated mineralisation.

Snowden has subsequently updated the 2010 estimate to comply with the guidelines of the 2012 edition of the JORC Code and presents an updated Table 1 of the JORC Code for this estimate (Appendix A). For the 2017 Mineral Resource estimate, Snowden revised its specific gravity estimate from 3.0 to 2.7, resulting in a reduction in tonnage from 24.4 Mt to 22.5 Mt.

Snowden's 2017 Sandy Creek Zinc Mineral Resource estimate is reported at a cut-off grade of 1% zinc (Table 3.2).

Table 3.2 Sandy Creek Mineral Resource (1.0 % zinc cut-off)

Classification	Material	Tonnes (millions)	Zn %	Pb %	Ag g/t
Indicated	Oxide	0.6	1.45	0.43	5.14
	Primary	4.5	2.00	0.88	5.91

¹² TNG ASX release 18 November 2009

¹³ TNG ASX release 5 March 2008

¹⁴ TNG ASX release 18 November 2010

Total Indicated		5.1	1.94	0.82	5.82
Inferred	Oxide	0.9	1.26	0.28	3.24
	Primary	16.5	1.80	0.33	4.24
Total Inferred		17.4	1.77	0.33	4.19
Grand total		22.5	1.81	0.44	4.56

Snowden refers to the JORC Code and advises that there is a low level of geological confidence associated with an Inferred Mineral Resource and that there is no certainty that further exploration work will result in the estimation of Indicated Mineral Resources.

Metallurgical work

TNG contracted METS to develop a preliminary testwork program for an initial evaluation of the oxide material from the Sandy Creek zinc-silver deposit. A composite ore sample was prepared from available drill samples including diamond core and RC rock chips for the initial test program, which was conducted by Australian Metallurgical and Mineral Testing Consultants (AMMTC).

Mineralogical tests on the ore identified the main zinc-bearing minerals as franklinite (Zn, Fe, Mn) (Fe, Mn)₂O₄ and zincite ZnO with smaller quantities of sphalerite (Zn, Fe)S. Pyrite and quartz are the dominant gangue minerals present, and the carbonate minerals present, which can affect ore extraction are siderite FeCO₃ and dolomite Ca, Mg(CO₃)₂. The following testwork was carried out:

- Acid and alkaline leaching
- Cyanidation
- Gravity concentration (Falcon Concentrator)
- Heavy liquid separation
- Flotation (sulphidising and reverse flotation)
- Magnetic separation.

Acid and alkaline leaching methods were tested for the extraction of zinc from the ore. Acidic leaching at ambient conditions achieved low recoveries, being restricted by the slow leaching of franklinite and sphalerite. Zincite is a fast leaching component of the ore and accounts for 40% of the zinc. Elevated temperatures resulted in the majority of leaching being completed immediately. High carbonate levels in the composite led to high acid consumptions for each test. The second set of test conditions were not practical in a commercial process due to excessive acid cost and high energy input. However, they proved that franklinite and sphalerite can be leached to near completion given the appropriate conditions. Extraction from the alkaline leaching was low, and the leached portion was attributable to zincite. The testwork suggests that franklinite or sphalerite would not be recoverable using this technique.

Cyanidation was tested as a means of silver recovery. Residue from the ambient acid leach test was used and the total silver recovery was 61%, with an additional 12% of zinc also recovered. The recovery of zinc is unusual under these conditions, and depends on the specific mineralogy of the composite. Low silver extraction is attributed to the silver being locked within other minerals, and cyanidation will therefore not be a cost effective method of silver extraction.

To reduce acid consumption in the leach tests, the amenability of the ore to beneficiation was assessed, to separate the carbonates from the zinc oxide minerals.

Aside from gold recovery, the results of gravity concentration tests were very poor. This is probably due to the fact that the majority of the zinc is found in the -45 micron fraction, which has poor settling properties.

Heavy liquid separation proved successful in rejecting carbonate minerals. The majority of carbonate was rejected to the float fraction, while zinc and iron upgraded in the sinks fraction.

Neither the sulphidising nor reverse flotation techniques were successful in separating the carbonates from the zinc minerals.

Iron and silver were the only elements to upgrade in the magnetic concentrates. The total concentrates recovered 46% of the zinc (franklinite), but not the zincite or sphalerite.

The presence of carbonates in the ore indicates that the ore will need to be beneficiated prior to any extraction process, or else acid consumption will be prohibitive. The only beneficiation test that successfully rejected the gangue carbonate was the heavy liquid separation. More testwork is required to determine the ideal conditions for heavy media separation and its effectiveness at finer sizes.

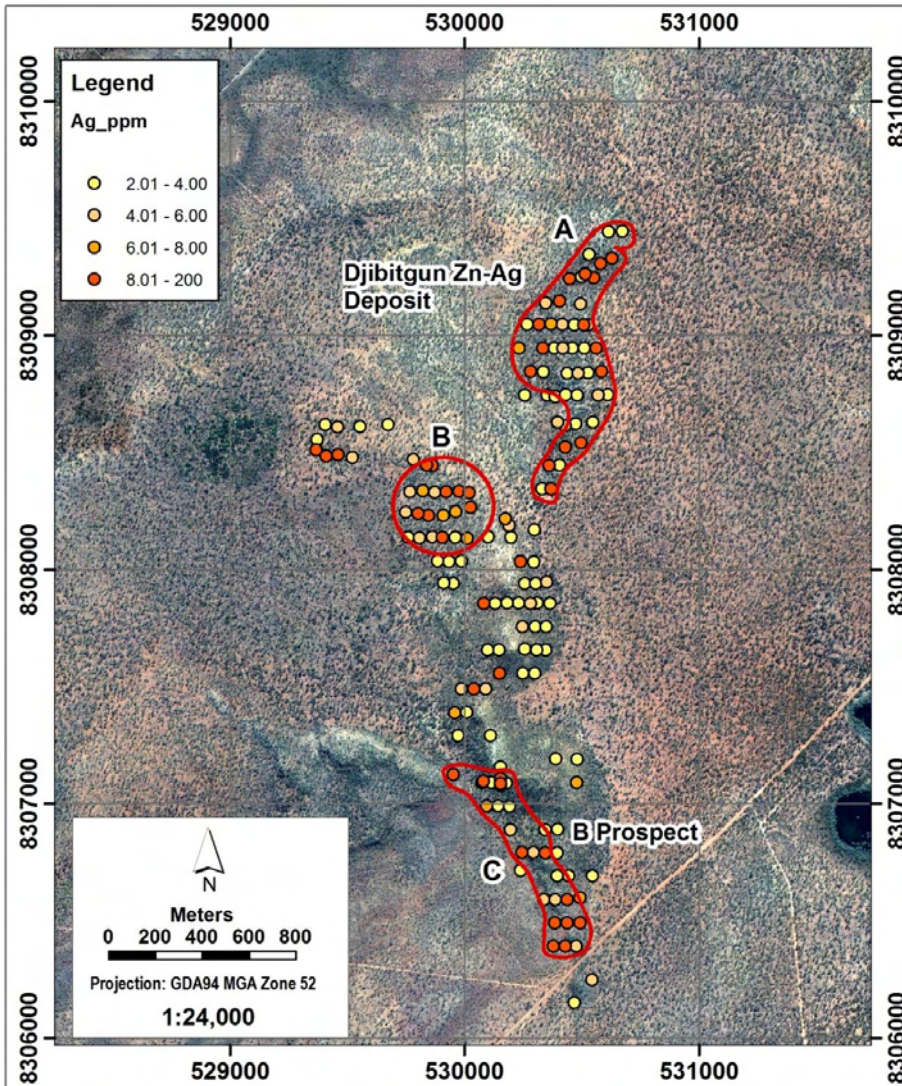
3.1.6 Djibitgun

The Djibitgun area contains the Djibitgun zinc-silver prospect, and the B Prospect (Figure 3.5). It is located approximately 17 km to the northeast of the Sandy Creek deposit. High rock chip silver assays are reported to the east (Area A), southwest (Area B) and south (Area C) of the Djibitgun prospect. The area southwest of Djibitgun has not been drilled and has returned rock chip assay results up to 72.8 g/t silver¹⁵ and several above 10 g/t silver. The western ridge to the south of the Djibitgun area (Area C) has fewer, but high grade (184 ppm silver) samples, which may indicate some economic potential.

Geophysical surveys and a total of 52 RC holes and five diamond drillholes were completed by TNG to undertake an initial evaluation of the Djibitgun area in the years 2007 to 2008.

¹⁵ TNG ASX Release 28 January 2012

Figure 3.5 Djibitgun area



Source: TRT

Winchrope

Rock chip sampling conducted during 2008 returned highest assays of 59.8% Fe, 48.2 g/t Ag, 2.94% Zn, 8.54% Pb and 220 ppm Cu. This sample is considered to indicate the potential for iron, silver, zinc, lead and possibly copper deposits. Fieldwork in 2012 concluded that extensive cover material outside the sampled area would render further geochemical sampling ineffective.

Landandi

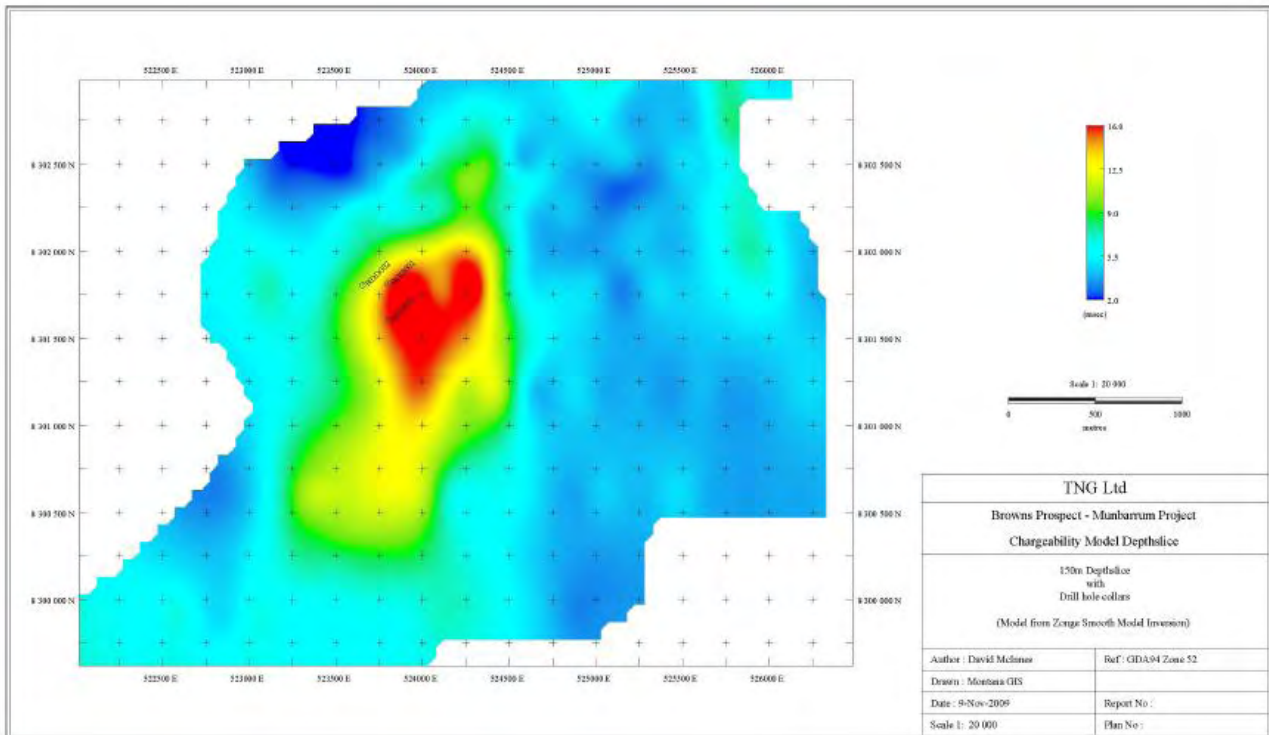
This prospect was identified in 2008 by rock chip sampling. While some of the samples returned anomalous Pb, Zn and Cu values, the results did not identify any coherent geochemical trends¹⁶.

¹⁶ KBL Mining Limited, 2012

3.1.7 Browns prospect

Three diamond drillholes, BDD001 to BDD003, were completed in September 2009, targeting the western edge of a large IP anomaly that forms the Browns prospect (Figure 3.6). The Browns prospect is defined by a chargeability anomaly of similar amplitude to the chargeability anomaly associated with the Sandy Creek deposit¹⁷.

Figure 3.6 Browns prospect – drillholes on IP



Source: TRT

This drilling program was aimed primarily at testing if the prospect contained MVT-style mineralisation seen at the other discoveries in the area. The drilling successfully intersected zinc-lead mineralisation similar to that encountered at Sandy Creek. Four main styles of mineralisation were recognised:

- Medium to coarse-grained galena veins surrounded by a fine-grained yellow sphalerite cloud/halo; occasional silica association
- Botryoidal pyrite-marcasite-sphalerite on fracture surfaces
- Fine-grained pyrite, commonly forms stalactites on fracture surfaces
- Fine-grained yellow sphalerite breccia fill or fine to medium-grained pyrite-marcasite breccia fill.

The different mineralisation styles at Browns were intersected in similar stratigraphic positions in all three drillholes:

- Discrete 2 m to 3 m wide zones of galena-sphalerite veins in the top 25 m to 30 m of the sandy dolomite

¹⁷ TNG ASX Release 10 November 2009

- Zones of fracture-hosted botryoidal pyrite-marcasite-sphalerite, pyrite, or pyrite marcasite mineralisation within the sandy dolomite
- Sphalerite-pyrite-marcasite sedimentary breccia fill proximal to the sandy dolomite/silty dolomite contact
- Rare fracture hosted pyrite, or pyrite-marcasite mineralisation within the silty dolomite.

The mineralised zones at the Browns and Sandy Creek prospects were sampled in 1 m intervals as whole core. The whole core sampling aimed to limit any potential loss of fine grained zinc and lead sulphides ± oxides on fracture surfaces from core cutting and hence ensure that the analysis of the sample would be a true representation of contained metal.

High-grade intercepts are interpreted to correspond to isolated zones of fine-grained yellow sphalerite veinlets, commonly associated with medium-grained disseminated galena and variable alteration in the host rock, the sandy dolomite. These zones are similar in style to those seen at the nearby Sandy Creek deposit.

The assay results suggest that the fracture-hosted zones within the sandy dolomite have sphalerite associated with them and are a controlling feature of the mineralisation, which also occurs at the Sandy Creek deposit.

The analytical results of the drilling are of generally low level. However, almost 50% of the assay results returned values >0.1% Zn as zinc sulphide (sphalerite) and significant widths of mineralisation above 0.5% Zn.

While the assay results are generally of low tenor, the drilling was successful in confirming the presence of MVT-style mineralisation at the Browns prospect. The mineralisation is consistent between all holes and the grades are similar to those encountered at the edge of the Sandy Creek mineralised envelope. The Browns IP anomaly is large, extending for some 2 km x 1 km (as shown in Figure 3.6), and there is potential for additional mineralisation to be located. A program of RC drilling is required to target the western edge of the IP anomaly and favourable gravity targets.

3.1.8 Legune Hill

The Legune Hill iron ore prospect is located within EL 24395, just south of the Djibitgun zinc-silver prospect (Figure 3.9).

Ochre was mined in the late 1960s at Legune Hill, an area defined by small hills of outcropping high-grade haematite mineralisation which is covered by silcrete capping in places.

Figure 3.7 Historic ochre mining, Legune Hill

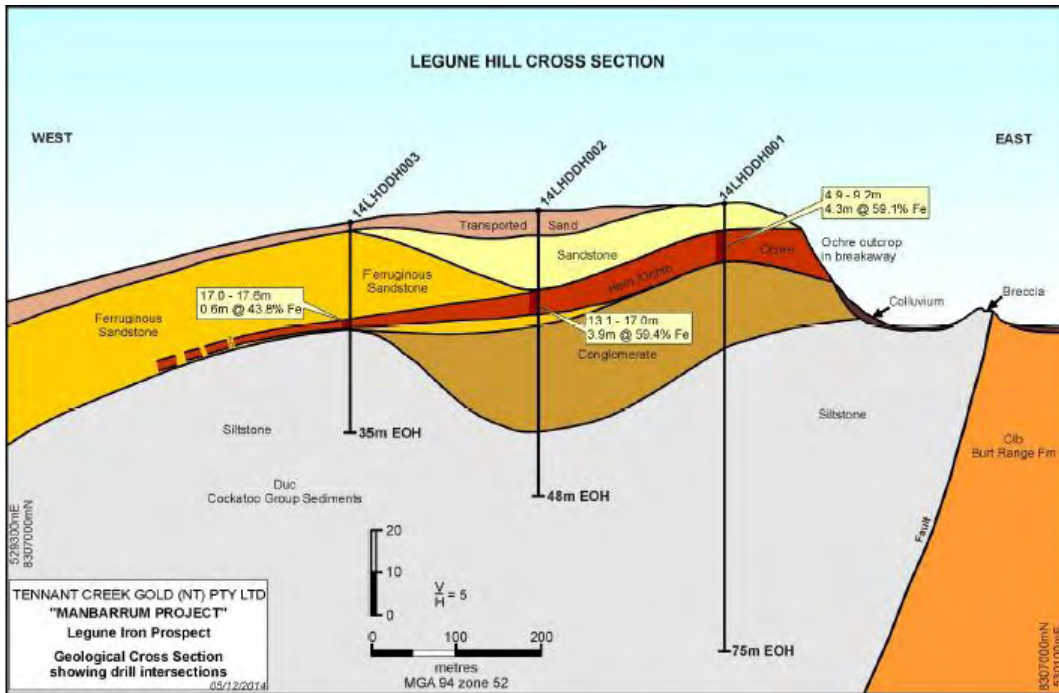


Source: Snowden (samples of ochreous material collected for consignment and analysis by potential customers)

In October 2014, TNG drilled three HQ-sized diamond drillholes for 158 m (Figure 3.8)¹⁸. The aim of the program was to determine the thickness of the haematite, the stratigraphy underlying the hematite, whether the hematite represents the Cockatoo Formation within the Bonaparte Basin succession, the type of iron mineralisation, and where the mineralisation fits in the history of the Bonaparte Basin development.

¹⁸ TNG ASX Releases 2 October and 18 December 2014

Figure 3.8 Legune Hill drilling (2014)



Source: TRT

A total of 34 samples of half core were submitted for analysis (Table 3.3)¹⁹, returning iron ore grades and structural information that indicate potential for a modest resource if a niche market can be identified for a particular product.

Table 3.3 Legune Hill drilling results

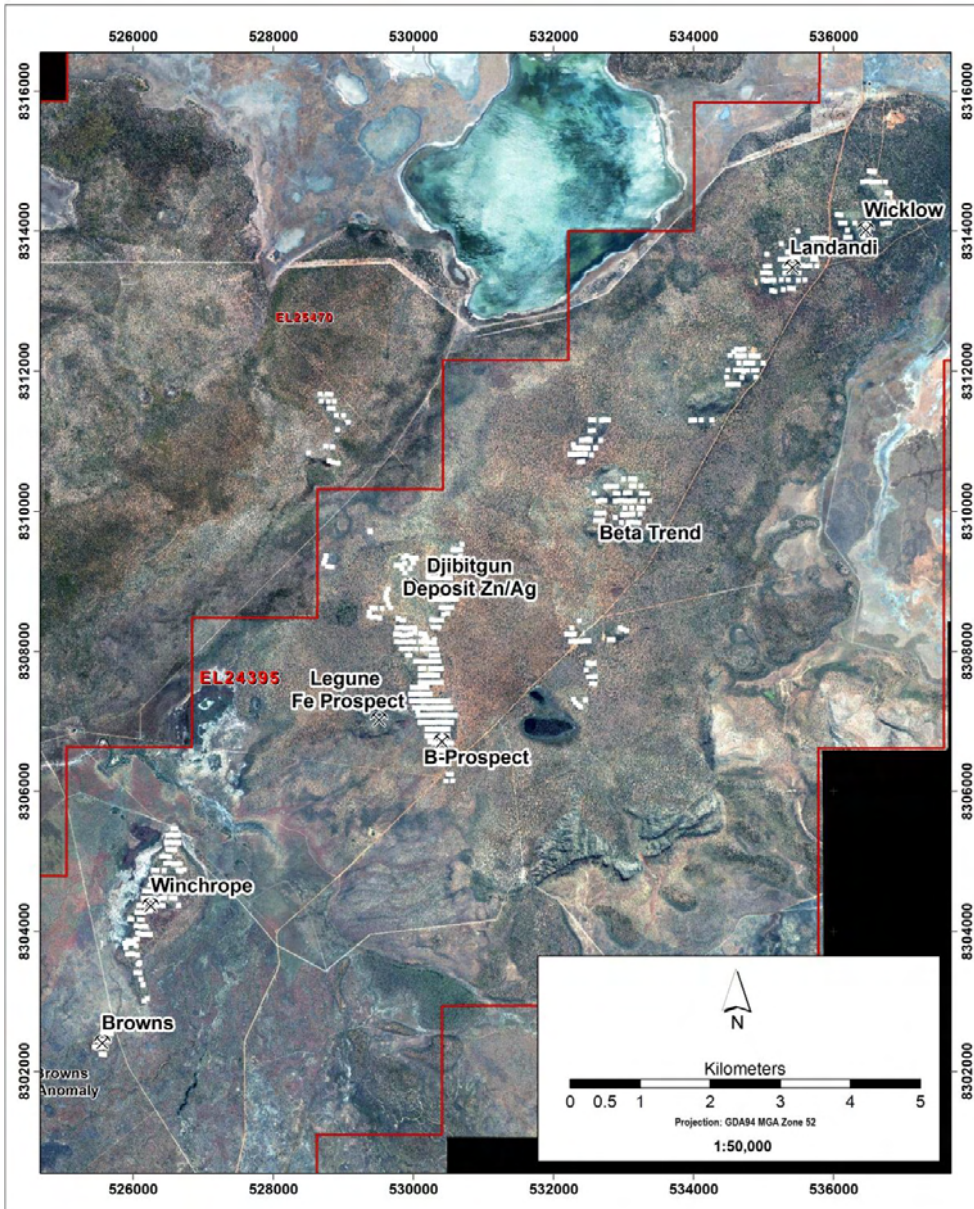
Hole ID	From (m)	To (m)	Thickness (m)	Grade Fe (%)
14LHDDH001	4.9	9.2	4.3	59.1
including	6.0	7.0	1.0	63.5
14LHDDH002	13.1	17.0	3.9	59.4
including	15.0	16.0	1.0	64.0
14LHDDH003	17.0	17.6	0.6	43.8

Commercial arrangements

In 2009, TNG signed a Mineral Rights Agreement with a private Chinese company, providing for the 100% sale by TNG of the rights to explore and advance the Legune iron ore prospect. The Chinese company subsequently withdrew and Legune Hill remains part of the Manbarrum project.

¹⁹ TNG ASX Release 18 December 2014

Figure 3.9 Legune Hill iron ore prospect



Source: TRT

3.1.9 Aboriginal heritage, Native Title and environment

Native title has been determined and is managed by the Northern Land Council. An exploration agreement exists with the Traditional Owners on behalf of the Miriuwung, Gajerrong and Wadainyang Groups (DG6008/98, DC95/1). Snowden has been advised of no problems with the licences or arrangements and observed successful rehabilitation of drill sites.

3.1.10 Snowden opinion

Snowden considers the Manbarrum project to be underexplored as a result of historic exploration being misdirected. Previous explorers have focused efforts toward major rift faults, the thinking being that these are of a size and significance to introduce large volumes of mineralisation under a replacement model.

This approach has identified the mineralisation at Sandy Creek and Djibitgun.

Snowden observes that the Manbarrum project covers about half of the terrestrial expression of the eastern half of the Bonaparte Basin. The basin has been demonstrated to host base metals mineralisation, predominantly in the Burt Range dolomite formation, as evidenced by TRT's assets and also the Sorby Hills project²⁰, which occurs on the western half of the basin. The result of previous exploration and the Burt Range Formation geometry has been to probably limit opportunities for expanding the scope of the project along the basin margins.

TRT's model is to examine listric faults within the basin as being the potential hosts of the significant volume of mineralisation thus far unidentified in the rift faults. TRT proposes to initially inform this strategy from the interpretation of gravity survey, there being significant volumes of such information as a result of regional hydrocarbon exploration. Soil sampling is being undertaken as a low-cost targeting tool in areas of thin cover.

A modification to the existing Bonaparte Basin MVT mineralisation model is application of a Lennard Shelf model, targeting listric faults as conduits for replacement fluids for strata-bound replacement.

Snowden's opinion is that, while the volume and grade of mineralisation identified thus far does not support development, the size of the basin and the mineralisation identified thus far indicate a high probability that such a development project is either yet undiscovered or can be assembled. Such assembly would be through drilling of wholly-owned projects or opportune purchase. TRT's understanding of the mechanics and geology of the basin represents its most valuable asset to this end.

Legune Hill

Given the current state of the iron ore market, Snowden does not consider Legune Hill to represent a significant iron ore resource. However, observation of other Kimberley iron ore projects and an understanding of the iron ore market as a whole indicates that this material may find a high-margin niche market as either a flux for steel making or a pigment. Snowden recommends that future effort be directed toward identifying such markets before significant capital is expended.

3.2 McArthur River

The McArthur River copper project is located in the same region as the significant McArthur River base metals mine and Rox Resources' significant Reward project²¹.

3.2.1 Location and access

The McArthur River copper project is situated in the Northern Territory, about 300 km northeast of Tennant Creek and about 450 km southwest of Katherine. The tenements are near the Tablelands Highway at Walhallow and lie in the far northern portion of the Walhallow (Sf53-07) 1:250,000 map sheet.

3.2.2 Tenements

The McArthur River project consists of two granted exploration licences and one exploration licence application (Table 3.4 and Figure 3.10), owned by TRT, having been transferred to TRM from Enigma Mining Limited (Enigma), a wholly owned subsidiary of TNG.

²⁰ KBL Mining, www.kblmining.com.au

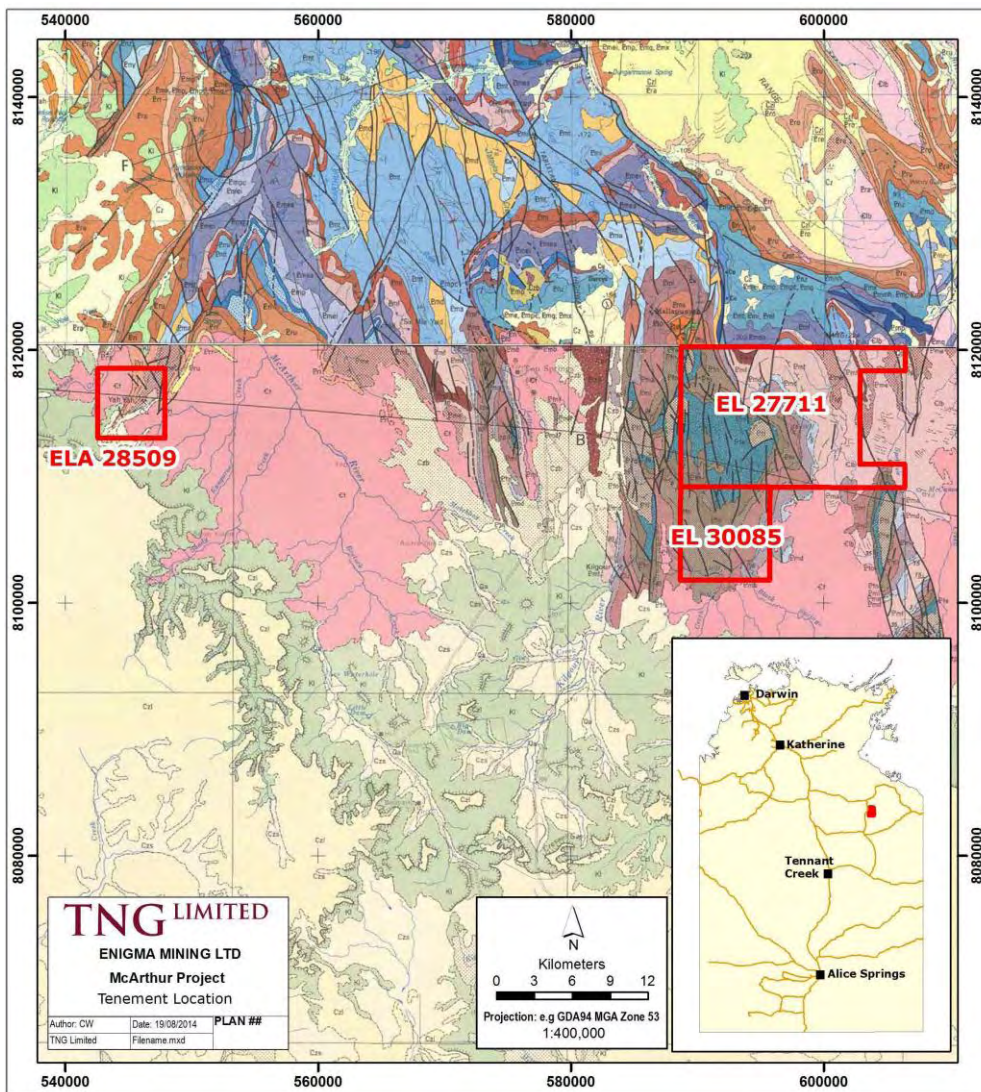
²¹ <http://www.roxresources.com.au/projects/reward-nt/>

Table 3.4 McArthur River project tenements

Tenement	Holder	Area (blocks)	Grant date	Expiry date
EL 27711	TRT – 100%	52	09/07/2010	08/07/2018
EL 30085		16	11/04/2014	10/04/2020
ELA28509		9	Application	Application

A historic copper mine, the Yah Yah Mine, is located 16 km to the west of the main project area, on ELA 28509, and the project area for the most part lies on Mallapunyah Station.

Figure 3.10 McArthur River tenements and project location



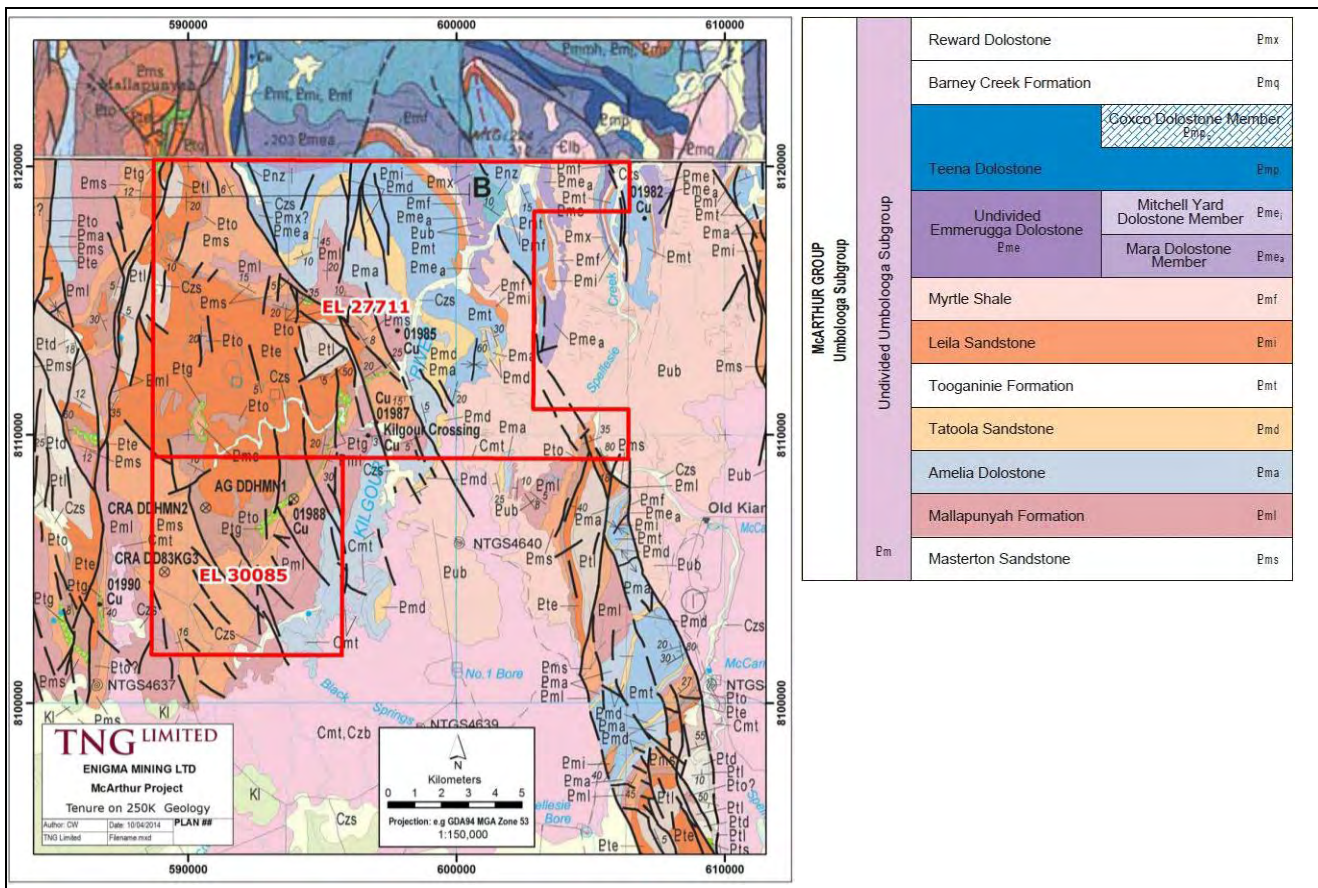
Source: TRT

3.2.3 Geology and mineralisation

The McArthur River project covers part of the McArthur Basin geology, 65 km southwest of the world-class McArthur River zinc-lead-silver mine. The tenement encompasses part of the basement of the McArthur Group, which consists of a 5 km thick succession of platformal stromatolitic dolostone and clastic sedimentary rocks with local pyritic carbonaceous siltstone units.

Exposures of the McArthur Group are confined to the Batten fault zone, where it unconformably overlies the Tawallah Group. The McArthur Basin sequence is divided into four major units: the Roper, Nathan, McArthur and Tawallah groups (Figure 3.11).

Figure 3.11 McArthur River geology (and legend)



Source: TRT

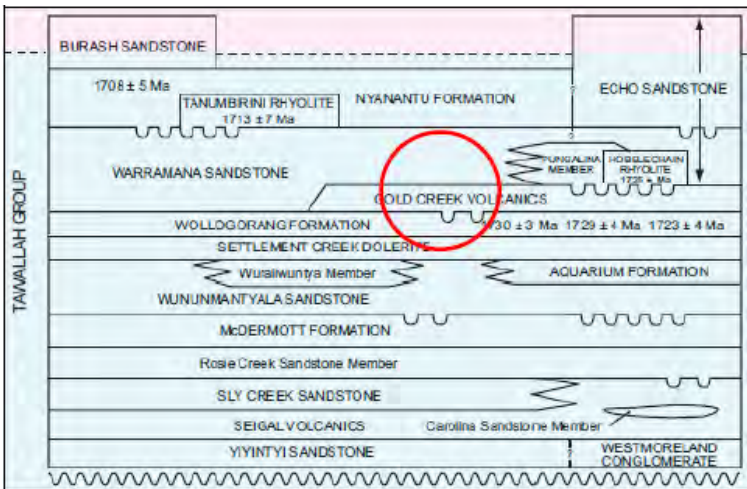
The Batten Fault Zone of the McArthur Basin is identified as being mineralised and prospective and is bounded by the Emu Fault to the east and the Tawallah Fault to the west (Figure 3.13). TRT's project is bound by a splay of the Tawallah Fault and the Mallapunyah Fault, both being considered by TRT to be potentially mineralising. The Emu Fault is considered to be the source of mineralisation at the McArthur River mine, hosted by the Barney Creek Formation, stratigraphically above the area in question.

The geology of the Mallapunyah area consists of units of the Tawallah Group (Settlement Creek Volcanics, Wollogorang Formation and Warramana Sandstone), overlain by sediments of the McArthur Group (Masterton Sandstone, Mallapunyah Formation, Amelia Dolomite, and Tatoola Sandstone, Figure 3.12).

The Wollogorang Formation is targeted for mineralisation of a style similar to the Zn-Pb-Ag HYC mine at McArthur River, based on sedimentological and geochemical grounds and supported by recent academic and government geological studies.

The Wollogorang Formation has also been examined as a source of organic material and unconventional hydrocarbons. It is dated to 1725 +/- 5 Ma, from U-Pb dating of zircons. Recent petrography has identified abundant organic material in the Wollogorang shales/argillite, with up to 6% organic material present in the three samples described.

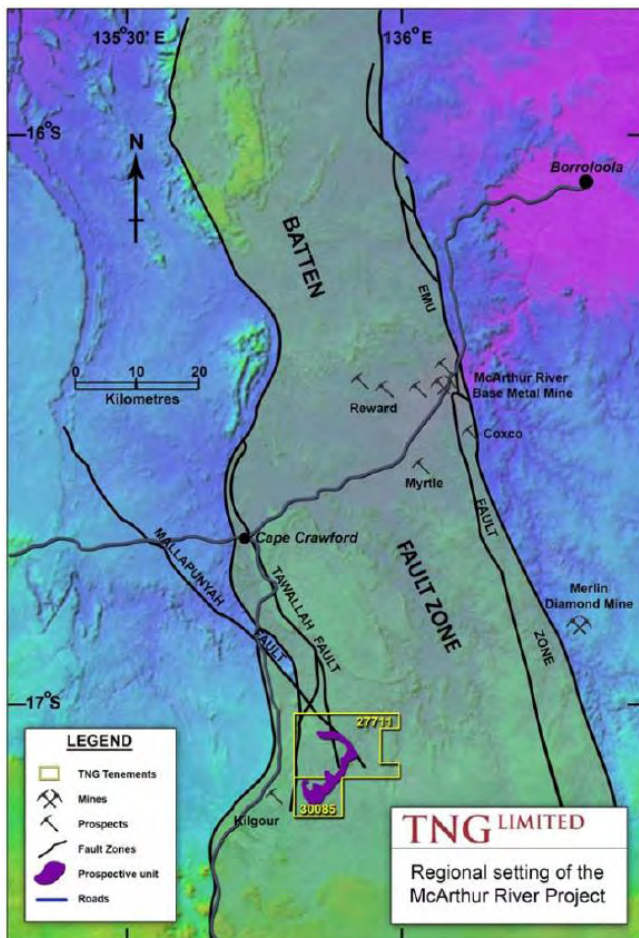
Figure 3.12 Tawallah Group stratigraphy



Source: TRT, project area stratigraphy in red circle

The Tawallah Group is the oldest group in the McArthur Basin and consists mainly of thick sequences of ridge-forming sandstones alternating with units of recessive volcanics and fine grained clastics. It has a maximum thickness of 5,200 m and an unconformable basal contact with the Scrutton Volcanics, part of the Lower Proterozoic basement.

Figure 3.13 McArthur River regional structure



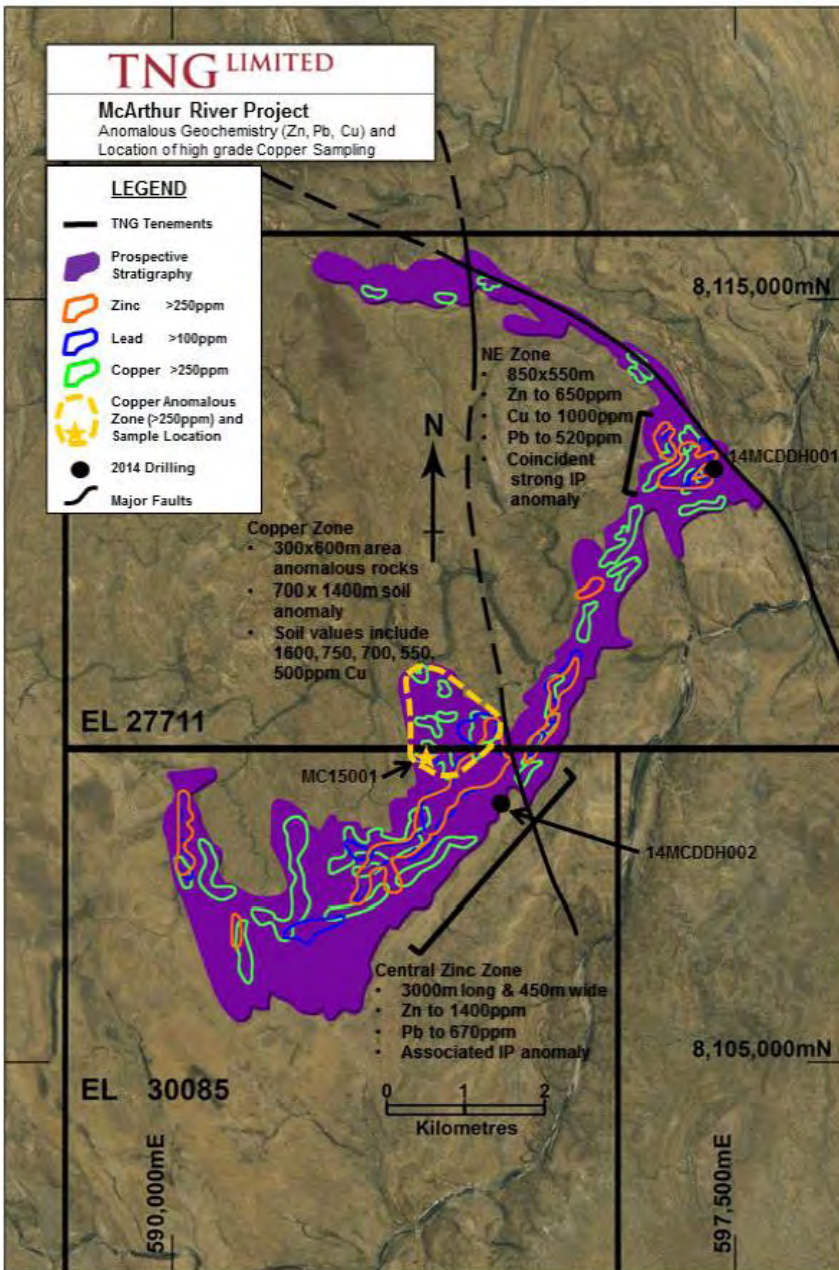
Source: TRT

The McArthur Group unconformably overlies the Tawallah Group and comprises a sequence of interbedded carbonates and dolomitic shale/siltstone with subordinate sandstones up to 4,200 m thick and is subdivided into the Umbolooga (older) and Batten (younger) subgroups which are separated by a regional palaeoregolith. The Umbolooga Sub-group is host to the McArthur River lead-zinc-silver deposit.

The shallow marine Amelia dolostone comprises interbedded partially stromatolitic dolostone with local beds of dolomitic shale/siltstone containing diagenetic siderite.

TRT project tenure contains two historically identified copper targets, Kilgour Crossing and Donkey Yard. Explorers have identified the Wologorang and Tawallah groups as being the most prospective rock units, with the prospectivity of the Wologorang Formation recently being recognised. This stratigraphy runs through both tenements (Figure 3.14).

Figure 3.14 McArthur River prospective stratigraphy



Source: TRT²²

Strata-bound and stratiform Sedex-style zinc and lead mineralisation within the tenements is indicated by anomalous soil sampling results and drilling within the central part of the Wollongorang Formation.

Strata-bound copper mineralisation occurs within the basal shale sub-unit of the Wollongorang Formation. TRT proposes a “red bed” exhalative model for its exploration and this is supported by recent regional work supported by government institutions²³.

²² TNG ASX Release 16 February 2015

²³ Cf Spinks, Schmid, Pagés, Bluett, Ore Geology Reviews vol.76, Elsevier, 2016

Yah Yah mine

The Yah Yah copper mine was exploited in the early 1900s and reportedly produced 40 tonnes of hand-picked, high-grade copper (20% to 30% Cu) ore prior to 1912²⁴. The NTGS considers Yah Yah to be stratabound and hydrothermal at the extreme western contact between the McArthur and Georgina basins, at the contact of the Tootoa Sandstone and Amelia dolomite (Figure 3.10).

Snowden considers the presence of the Yah Yah mine to be indicative of the presence of economic mineralisation in this part of the McArthur Basin.

3.2.4 Exploration potential

TRT's exploration program at McArthur River is aimed at identifying various types of sedimentary-hosted base metal deposit:

- Zn-Pb-Ag Sedex-style stratabound and stratiform mineralisation
- Stratabound Cu mineralisation similar to that seen at Mount Isa and Gunpowder in Queensland, which are temporally related to the McArthur project
- Breccia-hosted Cu mineralisation within the Wologorang Formation as found at Redbank, to the east of the Batten Fault Zone, and near the QLD border.

Historical exploration

The region has been partially explored for a variety of commodities including gold, copper, lead, zinc and diamonds (Figure 3.15)²⁵:

- From 1966 to 1967, the Mallapunyah Dome was extensively rock chipped and soil sampled by Australian Geophysical Pty Ltd. Exploration also included follow-up IP surveys over areas which returned anomalous results.
- From 1967 to 1976, Carpentaria Exploration Pty Ltd undertook stream sediment, soil and rock chip sampling along with a minor geophysical program, discovered copper mineralisation.
- In the years following, AO Australia, Shell Company of Australia and Perilya Mines completed work at the Kilgour prospect area.
- From 1993 to 1995, Mt Isa Mines Limited completed an extensive stream sediment program over the whole tenement area. The surveys returned anomalous Cu, Mn and Zn results.
- In later years, Aberfoyle Resources (1997) and Kiana Project Pty Ltd (2006 to 2007) were granted tenements in the McArthur River area.

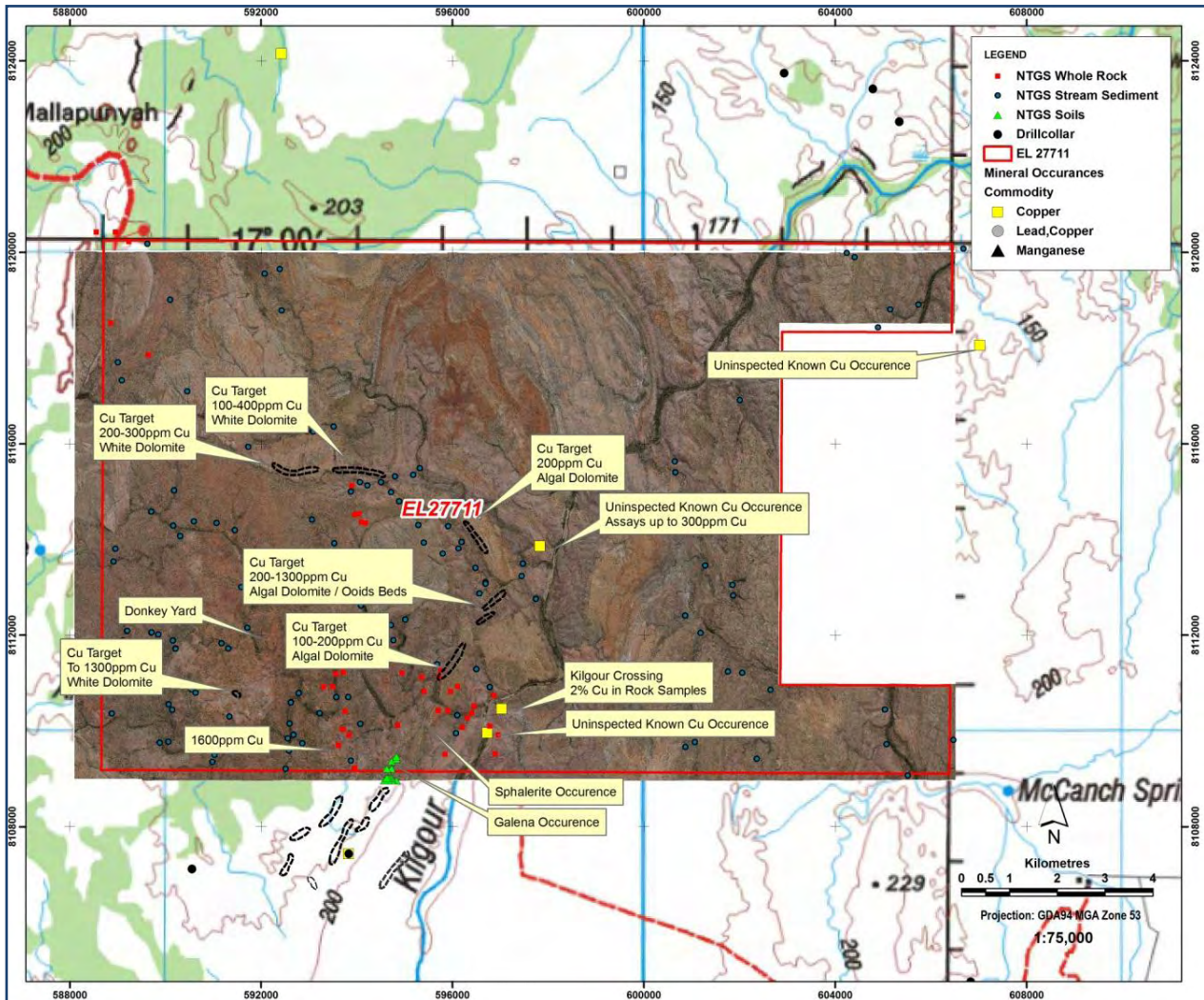
Copper mineralisation was discovered by Carpentaria Exploration in the 1960s and 1970s through stream sediment sampling and rock chip sampling. It is hosted by the Mallapunyah formation, in two dolomitic and variably bituminous intervals informally termed the "upper" and "lower" copper beds, which are 1 m and 150 mm thick, respectively. Chalcocite and minor chalcopyrite are present in the "lower copper bed" along its strike length of 500 m. Copper mineralisation in the lower copper bed 5 km north of the Kilgour Crossing prospect comprised about equal quantities of chalcocite and bornite.

²⁴ TNG ASX Release 20 January 2011

²⁵ TNG ASX Release 30 June 2011

Poor outcrop prevented delineation of the extent of copper mineralisation in the upper copper bed. In the lower copper bed, copper sulphides were associated with transparent calcite and quartz filled cavities in a 150 mm thick white dolomitic bed. The Kilgour Crossing mineralisation was deemed uneconomic at the time, however, some orientation geochemical work was warranted. Multi-element assays showed that copper was the only anomalous element at Kilgour Crossing.

Figure 3.15 McArthur River historical exploration



Source: TRT

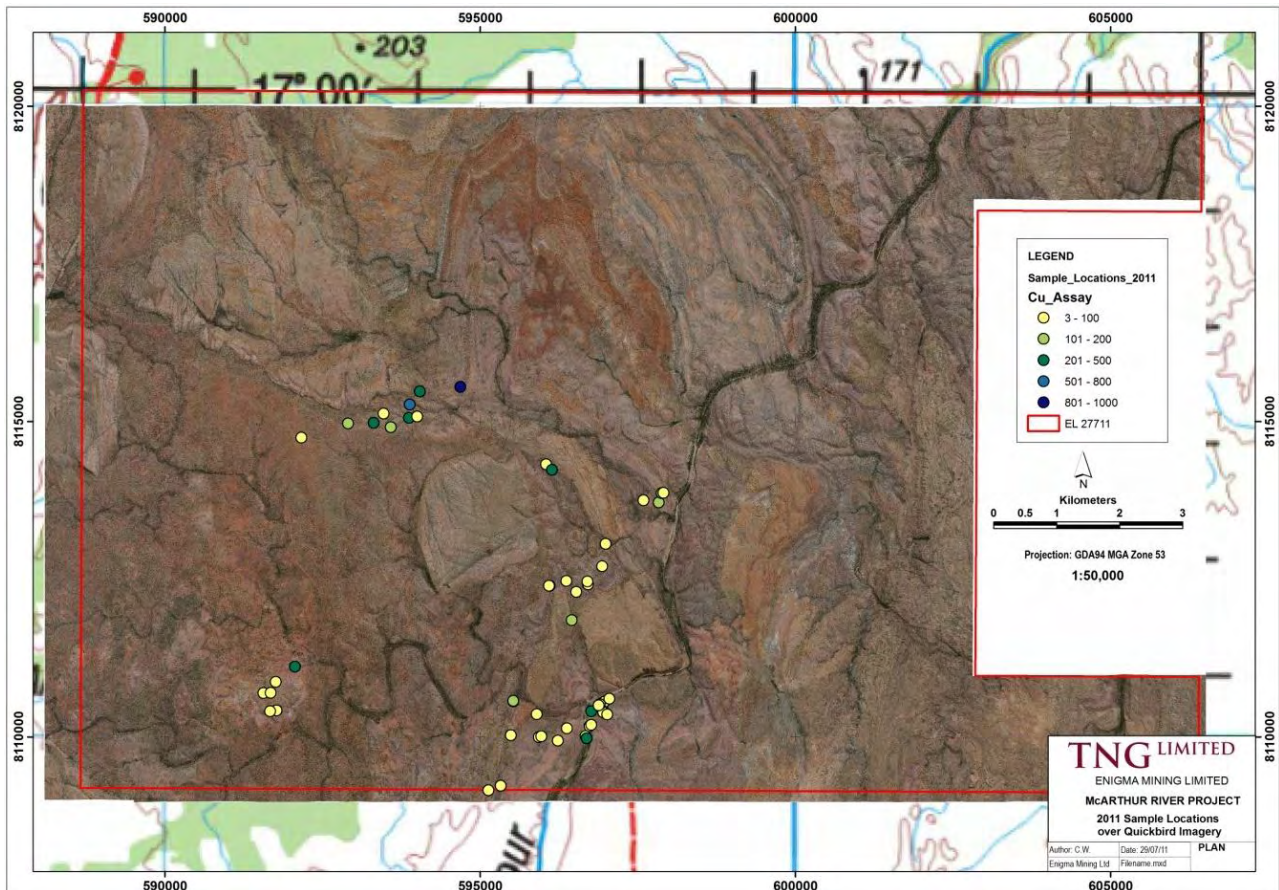
Recent exploration

Most recent work has focused on EL 27711. Historical exploration was regional, with EL 30085 being applied for to include a historically identified geochemical anomaly and the two licences contain 25 km length of what TRT considers to be highly prospective stratigraphy.

Regional targeting exploration was undertaken by TNG up until July 2011. A full literature review was carried out on the historical data and a comprehensive report on the geology and mineralisation produced. Image processing and image based interpretation of high resolution satellite data was purchased and used as a base for geological mapping. This confirmed and refined the previously identified major structural components.

Geological mapping of approximately 50 km² was completed at a scale of 1:10,000 in May 2011. The mapping was merged with satellite data with the aim to identify a copper-anomalous corridor within the stromatolitic Proterozoic Wollgorang Formation and a second zone of copper mineralised occurrences within the overlying Mallapunyah Formation. A total of 68 rock samples was collected as part of this survey and 16 returned over 100 ppm Cu, predominantly in dolomite (Figure 3.16)²⁶.

Figure 3.16 McArthur River sampling, 2011



Source: TRT

In addition to the high priority Kilgour Crossing and Donkey Yard prospects, the reconnaissance program also examined six previously-identified geophysical targets and two copper occurrences identified by the Northern Territory Geological Survey (NTGS), as well as numerous other prospective copper targets identified from previous stream sampling results and prospective geology.

A program of mapping and sampling was carried out in September 2013 to confirm the location of previously identified geochemical anomalies. A portable x-ray fluorescence (XRF) instrument was used to analyse 155 soil readings and 32 rock chip samples and the results correlated well with previous work, being largely located within the Wollgorang strata.

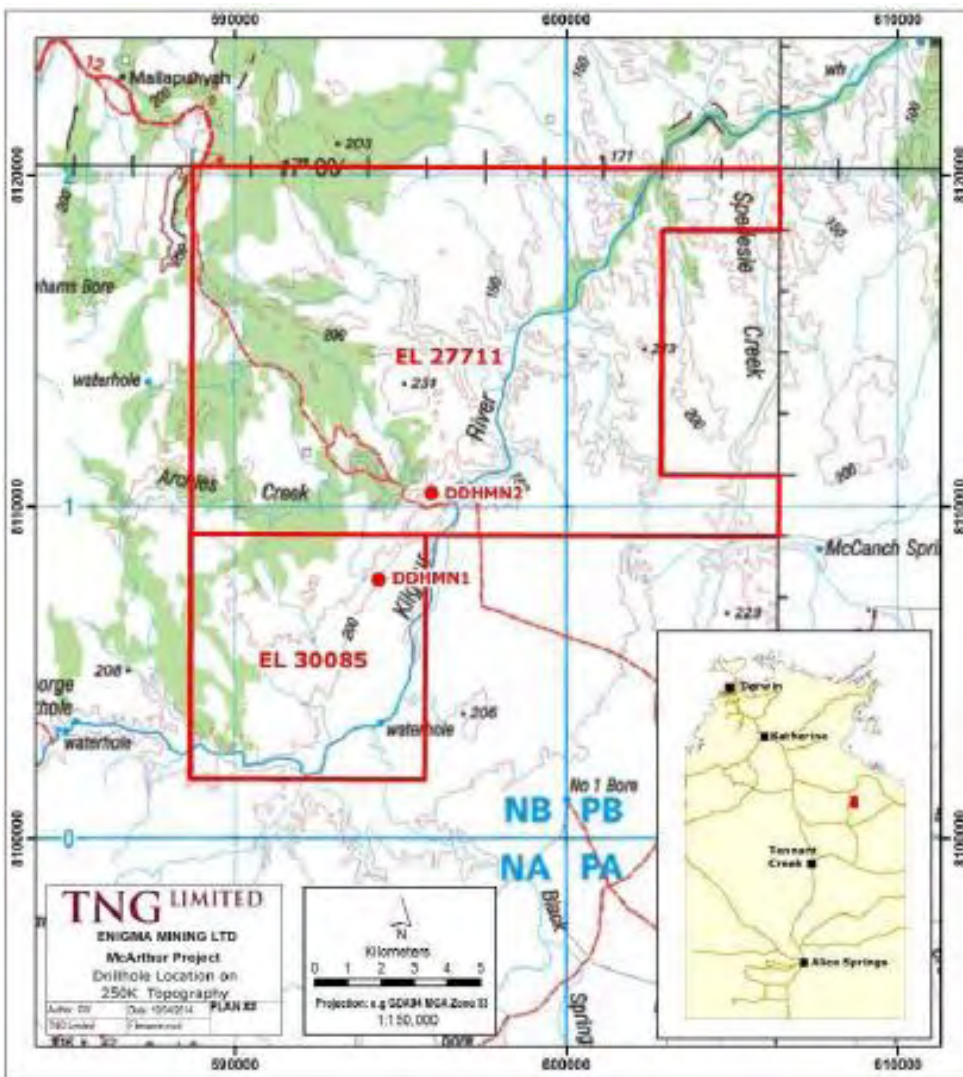
²⁶ TNG ASX Release 30 June 2011

In November 2013, NTGS core library core from two holes (DDHMN1 and DDHMN2, Figure 3.17) drilled in the 1960s, was re-logged and selectively resampled, with DDHMN2 returning anomalous Cu results (Table 3.5)²⁷.

Table 3.5 McArthur River historical drilling

Hole name	From (m)	To (m)	Interval (m)	Cu (%)
DDHMN2	119.48	122.53	3.05	0.22
DDHMN2	119.48	120.4	0.91	0.37
DDHMN2	121.62	122.53	0.91	0.32

Figure 3.17 McArthur River historical drilling, DDHMN1 and DDHMN2

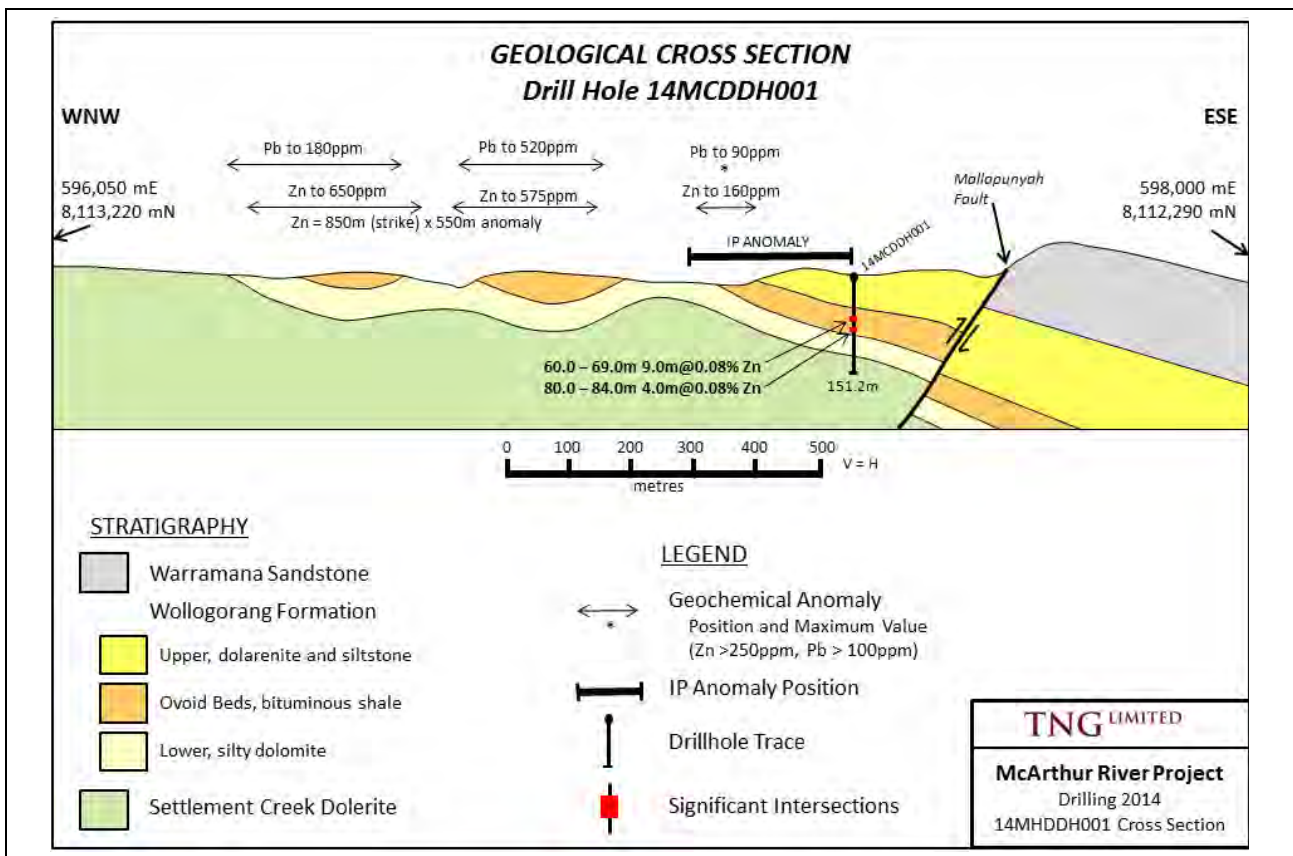


Source: TRT

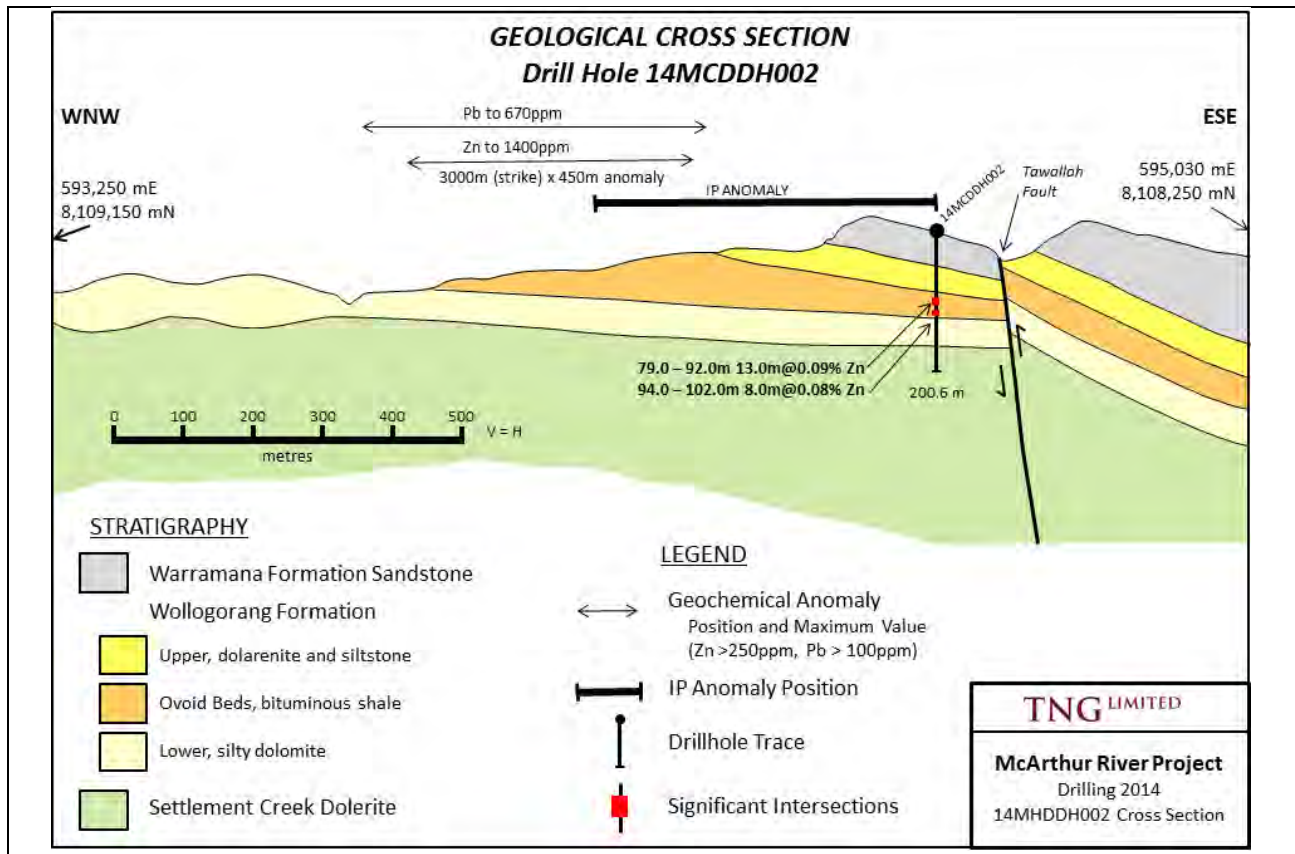
²⁷ TNG ASX Releases 16 September 2013 and 27 June 2014

In 2014, the Northern Territory Government co-funded two diamond drillholes, for a total of 600 m (14MCDDH001 within EL 27711 and 14MCDDH002 within EL30085 Figure 3.18) within EL 30085 to intersect the Wollgorang Formation where geochemistry/geology, major structures, and existing IP geophysics support a target. Holes were positioned to intersect the best geochemical anomalism in the Wollgorang Formation, adjacent to the Mallapunyah and Tawallah Faults (Figure 3.14). The result (Figure 3.18) is considered to have supported the interpreted stratigraphy and metal distribution and a sedimentary exhalative model for the area²⁸.

Figure 3.18 McArthur River drilling, 2014



²⁸ TNG ASX Releases 27 June 2014, 20 August 2014 and 18 December 2014



Two portable XRF soil sampling programs were completed in September 2014 and April 2015 across the north-western part of the Wollogorang Formation, and a detailed mapping and sampling program which confirmed the interpreted stratigraphy.

Traverses identified a significant area of surface outcropping rocks containing malachite and chalcocite located in a large zone of brecciated shale near the base of the Wollogorang Formation to the west of hole 14MCDDH002 (Figure 3.14). Rock samples returned grades of 48.3% and 47.9% copper²⁹.

Mapping and sampling in April/May 2015 confirmed that supergene malachite and chalcocite is stratigraphically controlled in an approximately 10 m thick shale band in the lowermost Wollogorang Formation, bound below by the Settlement Creek Dolerite and above by a dolomite subunit within the Wollogorang Formation. Silver, gold, bismuth and molybdenum are also considered anomalous. The new sedimentary-hosted stratiform layer of copper mineralisation has been outlined over an area in excess of 600 m x 400 m, is several metres thick and persistent over an area of at least 0.5 km². The horizon dips to the east and is inferred to be present over a couple of square kilometres at less than 100 m depth below surface, reappearing to the south of the area mapped.

3.2.5 Aboriginal heritage, Native Title and environment

Snowden has been advised of no native title issues with either the EL 27711 or EL 30085 licences, and observed effective rehabilitation of drill pads and access. ELA 28509 is currently in ALRA Moratorium.

²⁹ TNG ASX Release 16 February 2015

3.2.6 Snowden opinion

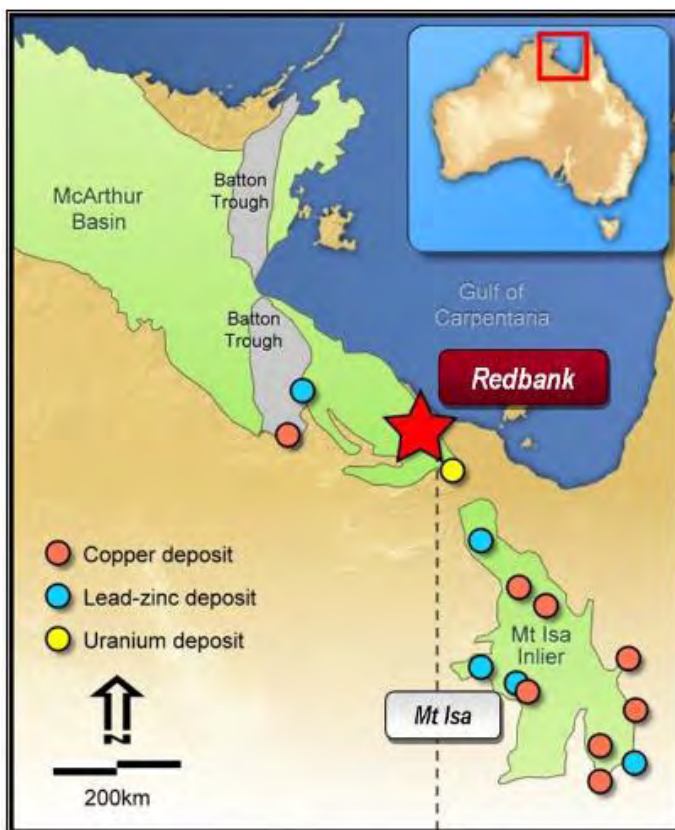
Snowden considers the McArthur River project to be at a basic level of exploration but at a highly developed conceptual level. Regional explorers have historically targeted the Barney Creek Formation, host of the McArthur River mine. TRT has targeted the underlying stratigraphy, initially based on the results of previous exploration, which sought to identify stratigraphically lower repetitions of the Barney Creek mineralisation.

TRT has reinterpreted previous work and collaborated constructively with the NTGS. This collaboration has resulted in the generation of a new mineralisation model that is supported by the results of stratigraphic drilling and academic research.

TRT's Mallapunyah mineralisation is older than that hosted by the Barney Creek Formation but is coincident with the Redbank copper mineralisation at the south-eastern extremity of the McArthur Basin and the giant deposits of the Mt Isa Inlier (Figure 3.19). The Redbank mineralisation is discrete and hosted by breccia pipes, a model that has not yet been identified on TRT's area.

Snowden's opinion is that TRT's McArthur River project represents a new approach to a historically explored area and that the value of the knowledge gained by its exploration efforts outweighs that of any results gained to date. Application of this knowledge is highly likely to result in the identification of economic mineralisation either on TRT's tenements or in the adjacent geology, for which TRT has a "first mover" advantage.

Figure 3.19 Redbank and Mt Isa Inlier mineralisation



Source: Redbank Copper Limited

3.3 Walabanba

Walabanba is a base metal sulphide exploration project that TNG considers to have similarities to its Mount Peake Project. Tin has been mined from the area, which incorporates all of the historic Anningie Tin Field.

3.3.1 Location and access

The Walabanba project is located approximately 250 km north-northwest of Alice Springs with good access via the Stuart Highway then unsealed station tracks. The tenement group is on the Mount Peake 1:250,000 map sheet with the majority of the tenement area in the Anningie 1:100,000 extending over the Conical Hill and Mount Peake 1:100,000 sheets.

3.3.2 Tenements

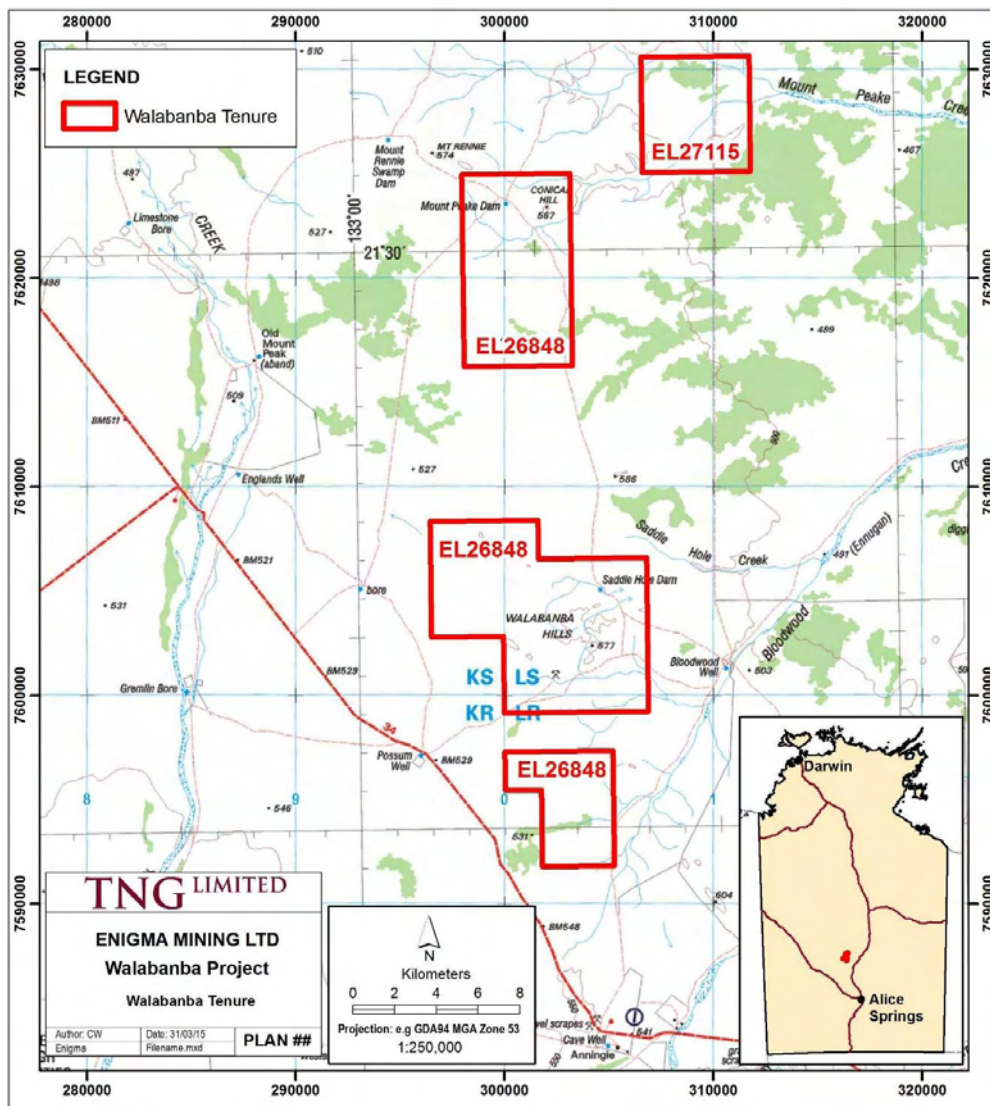
The Walabanba project consists of two granted exploration licences (Table 3.6 and Figure 3.20), which are wholly owned by TRT, ownership having been transferred to TRM from TNG.

Table 3.6 Walabanba project tenements

Tenement	Holder	Area (blocks)	Grant date	Expiry date
EL 26848	TRT – 100%	45	04/03/2009	03/03/2017
EL 27115		9	18/09/2009	17/09/2017

Both licences were renewed for a period of two years in 2015, with current expiry dates in March 2017 and September 2017.

Figure 3.20 Walabanba project tenements and project location



Source: TRT

3.3.3 Geology and mineralisation

The project lies within the Arunta region of the Northern Territory and the basement comprises Aileron Province Palaeoproterozoic to Mesoproterozoic metasedimentary and granitic rocks. This sequence includes the Reynolds Range Group, of which granites and orthogneisses are highly-radiogenic, hosting numerous veins and pegmatites with anomalous uranium and thorium. Locally, the Aileron Province rocks are overlain by Tertiary to recent clastic sequences, derived from erosion of Reynolds Range radiogenic granites.

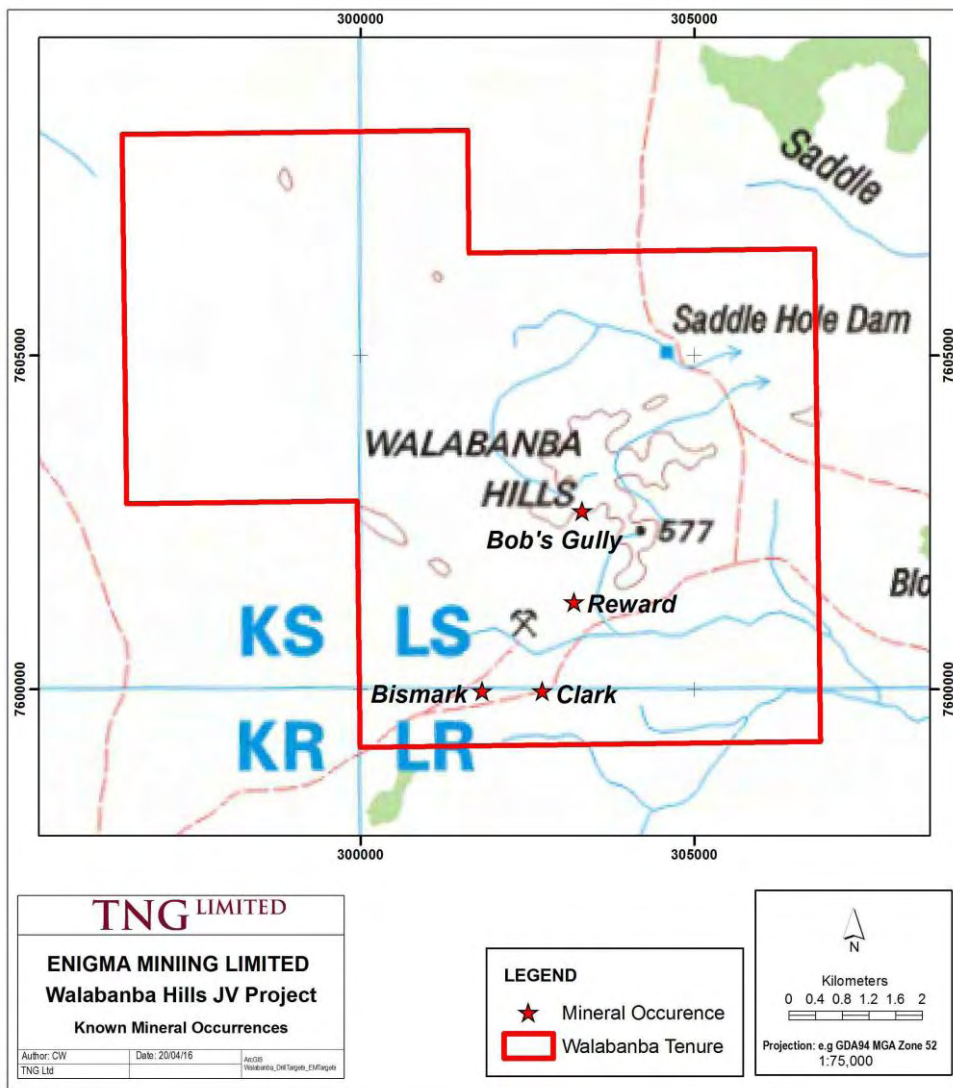
The mineralised Mount Peake gabbro lies to the east, a Ti-V-Fe orebody hosted by a differentiated basic sill with minor ultrabasic layers. The predominant rock type is olivine gabbro with layering defined by variations in plagioclase/olivine+clinopyroxene ratios.

The local geology (Figure 3.21) comprises sodic granites, gneisses and minor amphibolites, folded metasediments and intruded metabasic rocks. Major northwest shears cut the sequence and are associated with barren quartz intrusions. Two prominent structures run along the Lander River Valley, to the west and along the Salt Creek-Blue Bush Bore Valley. The granite batholiths are interpreted to be shallowly eroded with exposure of their upper levels only, with abundant pegmatite outcrops, typically of quartz-feldspar-muscovite-tourmaline composition.

The metasediments, comprising meta shales, cherts, siltstone and fine sandstone range in grade from lower to upper greenschist facies and are common in the Lander River valley. Some exhibit quartz sericite alteration. Tertiary to recent cover comprising laterite derived sands and clays (alluvium and colluvium) calcrete and ferricrete is common in low lying areas and can be up to 70 m thick; however, drilling indicates it is over 200 m thick in places.

Uranium mineralisation is known in the region and is restricted to the Proterozoic Aileron Province and nearby Carboniferous Ngalia Basin. To the southeast, uranium occurs in phosphate and REE-enriched metasomatic pods and veins within the high metamorphic grade Lander rock beds. Some of the pegmatite dykes are mineralised containing minor tantalum or tin mineralisation that has in places been mined.

Figure 3.21 Walabanba geology and current tenement boundaries



Source: TRT

Anningie Tin Field

The central block of EL 26848 cover the historic Anningie tin field, the Reward Claim of which was pegged by a prospector in 1935 (Figure 3.21). To the end of February 1936, two tonnes of tin oxide averaging 63.65% Sn had been “mined” from the area, and an additional tonne of concentrates were also bagged. Over the next few years, a further 23.8 tonnes of alluvial concentrate were produced from the ground, mainly on the Reward Claim.

The site was visited by government geologists several times throughout the 1940s but regular mining of the alluvial tin ceased. In 1949, a government radiometric survey across the Reward Claim returned readings of twice background over a greisen band, and a maximum of four times background from a dump beside a pit. The greisen was sampled within the pit and returned 0.024% U₃O₈.

In 1967, station hands carried out pitting and costeaning to assess any further prospects of the field as an alluvial deposit and over the following two years produced 3.3 tonnes of tin concentrates.

3.3.4 Exploration potential

TNG entered a joint venture agreement with Toro Energy Limited (Toro) with a view to exploration for gabbro-hosted mineralisation, as found at Mount Peake. With Toro's withdrawal, the licences have subsequently been transferred 100% to TNG.

Historical exploration

Five drillholes totalling 130.2 m were drilled at the Bismark prospect on the Anningie Tin Field by the Northern Territory Mines Branch in 1974 (Table 3.7)³⁰. Hole locations were given in reference to existing workings rather than grid coordinates and positions are approximate.

Table 3.7 Anningie drilling, 1974

Hole ID	Depth	Dip	Azimuth (mag)	Comment
DDH1	58.5	45°	55°	No significant result
DDH2A	13.4	vertical	-	1.30 m at 0.53% Sn from 1.37 m
DDH3	31.4	55°	320°	0.77 m at 0.12% Sn from 5.63 m
DDH4	9.5	vertical	-	Not sampled
DDH5	17.4	vertical	-	0.69 m at 0.15% Sn from 7.31 m

In total, 134 samples (18 surface ship samples and 116 split drill core samples) were assayed. Selected chip samples assayed 67.5% Sn while a channel sample returned 3.7% Sn. The average grade of the chip samples was 0.08% Sn.

It was concluded that the mineralisation at the Bismark prospect may warrant a small-scale surficial mining operation but that the mineralisation does appear to occur very sparsely within the observed pegmatite veins with little continuity between specific areas of ore-grade material.

Numerous mineral exploration companies have searched for uranium, gold, base metals and diamonds in the region over the past 40 years. Within the tenement boundaries, most drilling has been shallow (<100 m) and targeting gold. Uranium has been extensively explored for in the area but restricted to water bore sampling.

³⁰ NTGS Record GS1974-0007

Geophysical surveys over the region targeting magnetic and electro magnetic anomalies were completed by Anglo American Corporation (Anglo). Subsequent soil sampling and programs by Anglo and later Western Mining Corporation and Aberfoyle Resources, identified numerous targets anomalous in nickel, copper and platinum group elements, suggesting the presence of sulphide bearing intrusive rocks. Assay results included values of up to 3,581 ppm nickel and 2,410 ppm copper in shallow drilling over lengths of 20 m to 50 m above significant but unexplained magnetic anomalies; however, these results were never followed up³¹.

Following a desktop review of previous exploration by Toro and its consultant geophysicist, an area was set aside for an airborne electromagnetic (AEM) survey with the aim of identifying conductors within covered basement and palaeochannels. A TEMPEST AEM survey was carried out by Fugro Airborne Surveys Pty Ltd during August 2009 on behalf of Toro, and several targets were identified³².

During 2010 and 2011, Toro drilled 16 air-core drillholes totalling 2,440 m (two holes for 357 m in November 2010 and 14 holes for 2,083 m in October 2011) within EL 26848 and EL 27115. Samples were assayed for As, Ce, Cu, Mo, Ni, Pb, Se, Th, U and W by ICP-MS at ALS laboratories. No significant results were received as part of the program, and Toro decided to pursue joint venture opportunities over the licence area.

Recent exploration

TNG has completed the following work since its initial involvement in 2012, via the arrangement with Toro:

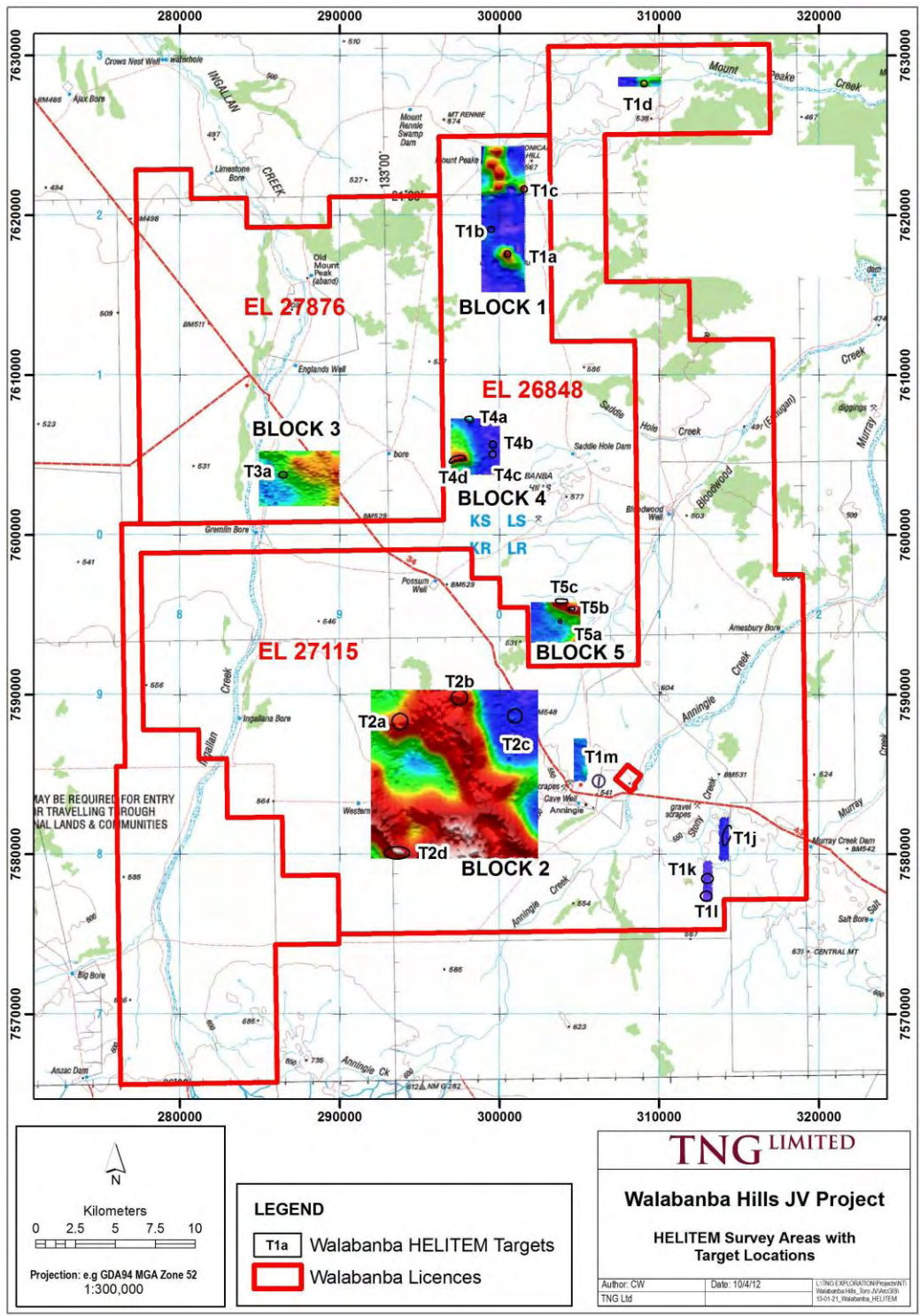
- In 2012, a HeliTEM survey was commissioned over several targets. Five block areas and four individual transects were flown for a total of 51 line kilometres at 500 m and 742 at 200 m line spacing; 20 targets were identified.
- In June 2013, 14 HeliTEM targets were selected for further analysis, which involved ground inspections, sampling and mapping (Figure 3.22)³³. The majority of the targets were found to be overlain by transported cover and could not be assessed without drilling. Some targets were found to be the product of cultural features such as fences and removed from further consideration. Anomalous copper rock and soil sampling results were returned for Target 1c.
- In April 2014, fixed loop EM was carried out over targets 1c, 1d and 5b/c. At EM Target 1c, a 1,400 m x 1,000 m area was surveyed with interpretation showing four discrete anomalies (A, B, C, D) that centre on the original conductor with a coincident aeromagnetic high. Drill testing has been recommended for anomalies A, B and C. A single mid-time anomaly at EM Target 1d was outlined for medium priority drill testing. The third area surveyed covered two adjacent but discrete EM conductor targets (5b and 5c). Interpretation of the fixed loop EM data suggests two moderately conductive bodies are present and three holes have been proposed to test the potential for base metal mineralisation.
- TNG used a portable XRF analyser to resample and photographed the core from the 1974 drilling program at the Bismark Tin Prospect, held in the DME core yard in Alice Springs. In addition, 52 samples (and five standards) were sent for multi-element analysis and petrography. The results were inconclusive and it was inferred that that drilling needs to be very specifically targeted in order to return significant results.

³¹ NTGS Open File Reports CR19970205, CR19970581, CR19980311 and CR19990028

³² TNG Annual Report, 2014 and 2015

³³ TNG ASX Release 14 August 2012 and 21 July 2014

Figure 3.22 HelITEM targets assessed in June 2013 – current licence boundaries



Source: TRT

3.3.5 Aboriginal heritage, Native Title and environment

The Central Land Council (CLC) informed TNG via email on 13 November 2014 that the “CLC held a meeting in Ti-Tree on 22nd October to seek instruction from Traditional Owners for a potential agreement over the Toro JV Tenements EL 27115 and EL 26848.”. TRT advises that negotiations on an Exploration Agreement are continuing.

3.3.6 Snowden opinion

Snowden considers the Walabanba project to be at a basic level of exploration and concept. There is sufficient regional exploration evidence to indicate that exploration effort and expenditure will be rewarded by discovery, but it is too early to determine the nature of that discovery. Exploration of the project is hampered by extensive cover and it remains a lower-priority target.

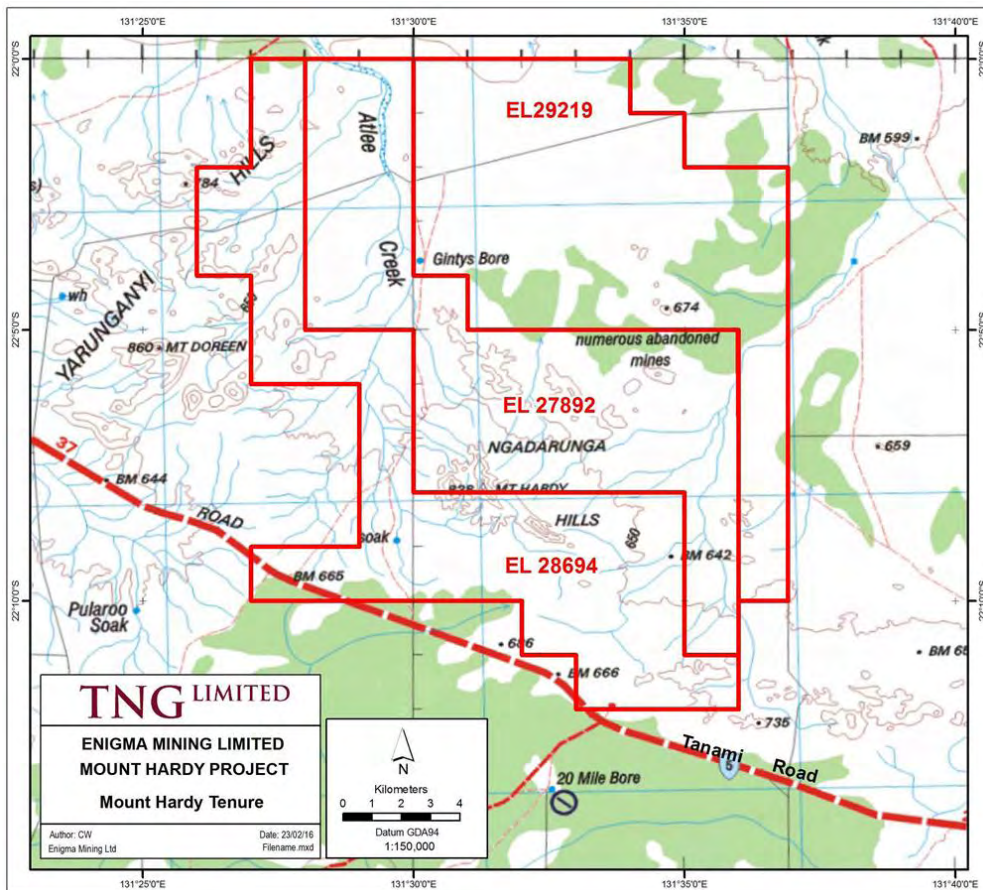
3.4 Mount Hardy

Mount Hardy is a copper-gold exploration project located northwest of Alice Springs on the southern edge of the Tanami Desert, which has been the location of several recent mineral developments, despite its remote location.

3.4.1 Location and access

The Mount Hardy project is located in the historic Mount Hardy copper field in the Northern Territory about 300 km to the northwest of Alice Springs (Figure 3.23). The project tenements straddle the Tanami Highway some 20 km west of the Yuendumu Aboriginal Community and are accessible by road from Alice Springs.

Figure 3.23 Mount Hardy tenements and project location



Source: TRT

3.4.2 Tenements

The Mount Hardy project consists of three granted exploration licences (Figure 3.23) which are owned by TRT, ownership having been transferred to TRM from TNG and its subsidiary, Enigma Mining (Table 3.8).

Table 3.8 Mount Hardy project tenements

Tenement	Holder	Area (blocks)	Grant date	Expiry date
EL 27892	TRT – 100%	32	04/08/2010	03/08/2018
EL 28694		32	01/03/2012	28/02/2018
EL 29219		34	17/09/2012	16/09/2018

3.4.3 Geology and mineralisation

The Mount Hardy project lies within the Aileron Province of the northern Arunta region. The oldest rocks are metamorphosed Palaeoproterozoic siliciclastic sediments of the Lander Group (Figure 3.24). These sediments have been subject to multiple episodes of deformation and metamorphism. The geomorphology at Mount Hardy is dominated by the rugged ranges of the Ngadarunga Hills, which comprise high quartzite ridges of the Reynolds Range Group, and lower rounded hills formed by schists and gneisses of Lander Group metasediments.

The Lander Group is interpreted to be stratigraphically equivalent to the Tanami Group, which hosts significant gold mineralisation at The Granites, Dead Bullock Soak and Coyote. Rare amphibolite and metagabbro occurs within the Lander Group and are interpreted to be metamorphosed dolerite sills. Volcanic units have not been identified in the Lander Group. There are other Palaeoproterozoic volcano sedimentary successions in the Mount Doreen area.

The historic Mount Hardy copper workings are hosted by the Lander Group, which are composed largely of psammite and lesser pelite, metamorphosed to amphibolite facies mica schist and andalusite porphyroblastic schist.

The copper workings display strong structural controls, being hosted by quartz veined shears. Surficial mineralisation comprises copper carbonates and gossans within sheared mica-schist wall rocks and boudinaged and brecciated quartz veins. Quartz veins are tabular and strike over tens to hundreds of metres. Two structural trends are evident from the workings and lineaments observable in imagery and aeromagnetics: northwest to west-northwest (parallel to trans-Tanami regional scale structures in the region); and east-northeast to west-southwest.

Range Group quartzites lie to the south of the workings separated from the higher grade schists by a major east-west fault. Dolerite and pegmatite stocks and dykes are common in the area, the pegmatites most likely related to granite plutons of the Southwark and Carrington suites lying to the west and south of the Ngadarunga Hills.

- NTGS assessed the economic feasibility of the Mount Hardy and Clarke copper deposits from 1968 to 1972³⁵.
- The NTGS and BMR completed second edition mapping of Mount Doreen sheet in the 1990s.
- White Industries conducted exploration on EL 5688 from 1988 to 1990. Rock chip and stream sediment sampling was carried out from Wolfram Hill through to Mount Hardy.
- Bruce and Mules explored the Silver King area for gold and base metals from 1988 to 1991.
- The Mount Isa Mines/Roebuck Resources Joint Venture targeted magnetic highs in the early 1990s and explored the silver King deposit.
- Yuendumu Mining Company/Posgold explored the western parts of the Mount Doreen area from 1992 to 1996, particularly Terry's Find; other targets were "Buger" and "Grasshopper".
- BMR completed airborne magnetic and radiometric surveys in 1993.
- Aberfoyle Resources was granted EL 8913 and EL 8608 in late 1994. They undertook ground magnetics surveys and significant RAB drilling. Exploration failed to locate significantly anomalous gold mineralisation and the tenements were surrendered.
- BHP tested the northern Mount Doreen and southern Mount Theo map sheets for copper-gold in the late 1990s, but concluded that no major deposits were likely.
- Tanami Gold NL explored for Tanami-style gold mineralisation and Tennant Creek style copper mineralisation in the Mount Doreen area from 2001 to 2005. The main target areas were the Terry's Find, Mount Hardy and Pyramid Hill prospects. Seven rock chip samples returned copper assays of 7,032 ppm to 217,972 ppm³⁶.
- Deep Yellow conducted exploration for uranium in the Mount Hardy area in 2009³⁷.

Tenements EL 29219 and EL 27892 cover the known copper occurrences and EL 28694 was acquired to cover the prospective Lander Group strata extend into this area and very little targeted exploration has been carried out within its boundaries.

Recent exploration

EL 27892 was acquired in July 2012 from Walla Mines Pty Ltd and subsequent work has included:

- A literature search was conducted targeting information relating to previous exploration work on the tenement.
- In 2012, a HeliTEM survey was carried out over the entire EL 27892 licence area and part of the EL 29219 tenement. A total of 930 line kilometres were flown on a north-south direction on lines 200 m apart. Five EM targets were identified from the survey, which are considered to be high priority targets and indicators of localised bedrock conductors at depths of less than 100 m below surface. All five targets were near or on known copper occurrences and a further eight anomalies considered to have less potential were also identified.
- The five high priority EM targets were mapped and sampled in September 2012 along with the existing historical workings at the Mount Hardy and Browns mines. Ground EM was conducted

³⁵ NTGS Record 1968-100

³⁶ NTGS Open File Reports CR20050501 and CR20060559

³⁷ NTGS Open File Report CR 20100967

over six of the identified EM anomalies, and a seven-hole RC program was completed targeting four of the anomalies. Downhole EM (DHEM) surveys were completed on six of the RC holes³⁸.

- In 2013, a gravity survey was conducted over the Browns Prospect, Mount Hardy Mine and EM 1, 2 and 4. The gravity survey was undertaken with a view to identifying to potentially identify the structural controls on the mineralisation as is evident at the Browns Prospect and Mount Hardy Mine.
- In March 2013, IP surveys were conducted over the Mount Hardy Mine and Browns Prospect. The surveys were planned as single line trials to assess the effectiveness of the technique over mapped copper workings in cases where the HeliTEM survey failed to highlight any significant anomalies.
- In March and April 2013, a 15-hole diamond drilling campaign was completed at the Mount Hardy Mine and Browns Prospect yielding 2,180 m of core and 642 m of RC pre-collars. The drilling was undertaken to test both mapped mineralisation and geophysical anomalies³⁹.

This drilling resulted in highly encouraging intersections (Table 3.9)⁴⁰.

Table 3.9 Mount Hardy drilling, 2013

Prospect	Drillhole	Intersection	Comments
EM target 1	13MHDDH010	21 m at 0.46% Cu, 4.35% Zn, 1.91% Pb	Steep northwest dipping conductor plate, open in all directions, DHEM to be completed before drilling
EM target 2	13MHDDH012	3.8 m at 1.77% Cu, 2.02% Zn, 0.52% Pb 2.3 m at 0.91% Cu, 3.11% Zn, 0.66% Pb 2.7 m at 1.55% Cu, 5.10% Zn, 1.65% Pb	Moderate northwest dipping plate, open in all directions, DHEM to be completed before drilling
Browns	13MHDDH015	13 m at 1.17% Cu, 1.82% Zn, 0.46% Pb	IP survey defined a strong chargeability and conductivity zone, blind at surface and open in all directions
Mount Hardy	13MHDDH002	10.3 m at 1.35% Cu	Four diamond drillholes into strong surface copper anomaly, consistent moderate north-northwest dipping broad structural zone of sericite/silica alteration with chalcopyrite-pyrite and strong IP conductor

Exploration completed since April 2013 has consisted of four DHEM surveys and an IP survey over EM Target 7 (Figure 3.25)⁴¹.

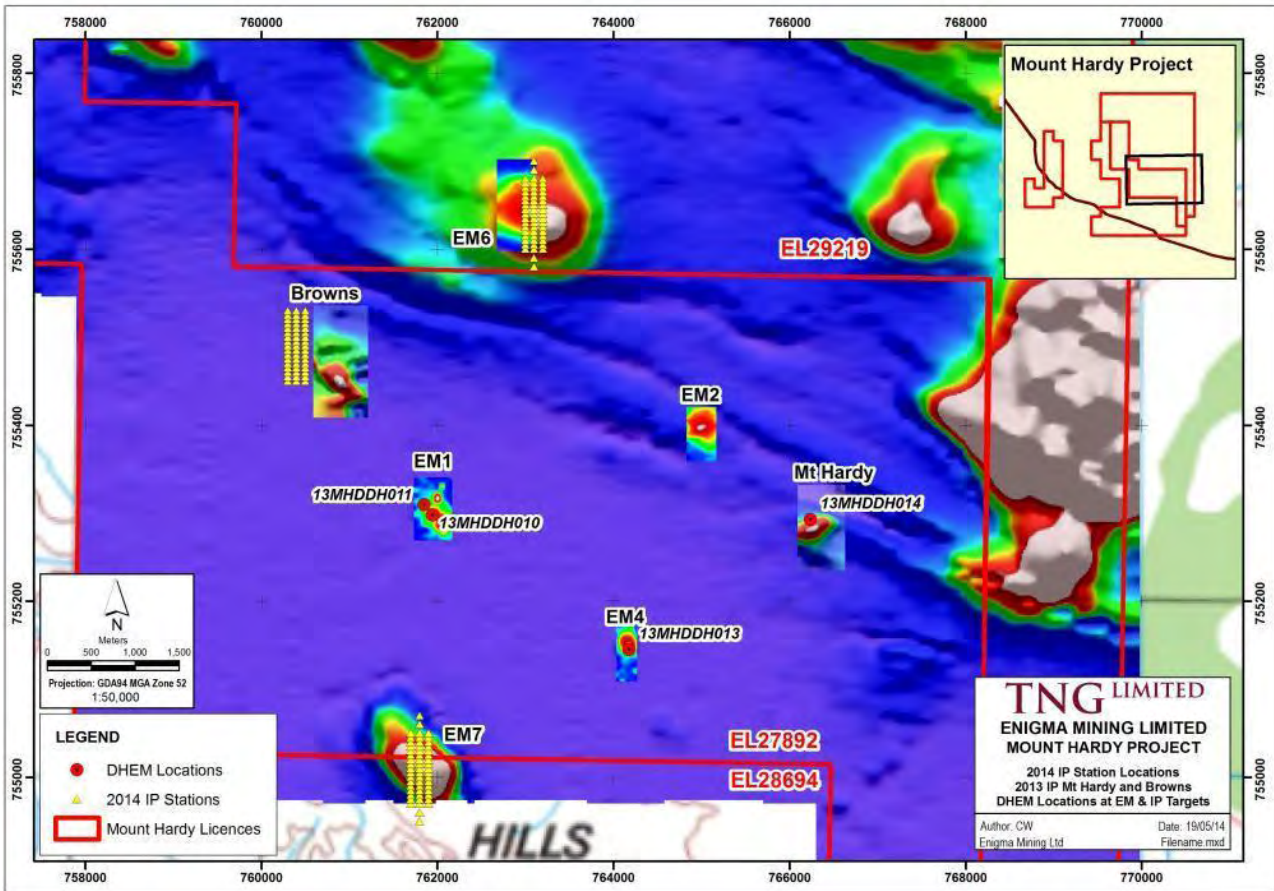
³⁸ TNG ASX Releases 14 August, 27 September, 2 October, 10 October, 5 November, 7 November, 10 December 2012

³⁹ TNG ASX Releases 22 January, 4 February, 25 February, 1 March, 18 April, 29 April, 13 May, 20 May 2013

⁴⁰ TNG Annual Report 2013

⁴¹ TNG ASX Release 21 July 2014

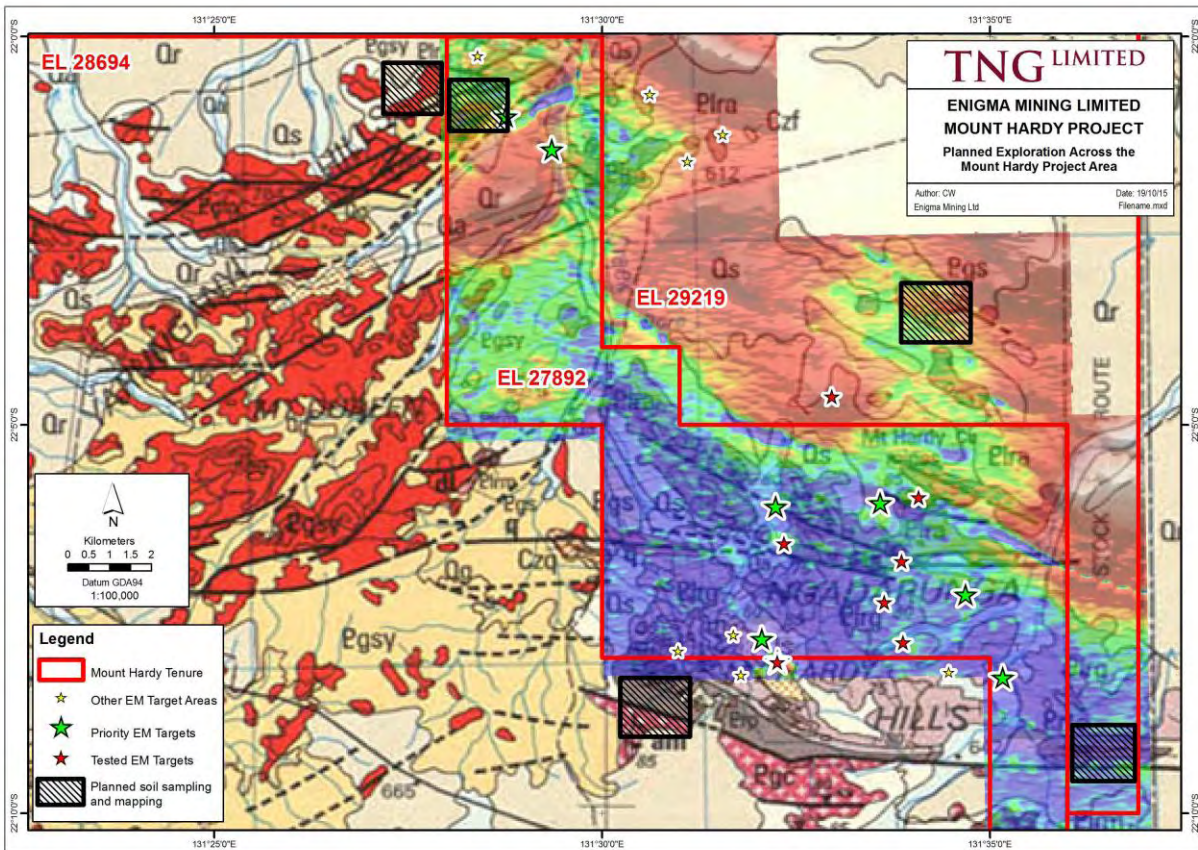
Figure 3.25 Mount Hardy DHEM and IP surveys, 2014



Source: TRT

Five areas have been selected for mapping and geochemical testing in the immediate future (Figure 3.26), based on structural and geological indications that the existing known mineralisation will continue and is controlled by structure. Several of these areas are located along the north-eastern margin of the Mount Doreen granite. This intrusive crops out over the central portion of EL 28694, and may be the heat source mobilising metals within the schists of the Mount Hardy Copper Belt to the east.

Figure 3.26 Mount Hardy planned exploration



Source: TRT

3.4.5 Aboriginal heritage, Native Title and environment

Snowden has not been advised of any Aboriginal heritage, Native Title or environmental issues relating to Mount Hardy.

3.4.6 Snowden opinion

Snowden considers the Mount Hardy project to be at a higher level of development than some others in TRT's portfolio, but conceptually advanced, thanks to recent geophysical work. The geology and limited production history indicate strong potential for the identification of economic copper or related mineralisation. The mineralisation appears to be structurally and stratigraphically controlled and related to the granites, a situation that is not uncommon and may result in mineralisation on a range of scales.

Snowden's opinion is that TRT's approach to exploration is appropriate for the degree of maturity of the project and the likely mineralisation. A cautious approach is warranted, with geophysics being followed by mapping and sampling which in themselves are likely to identify further targets. Recent exploration has commendably compared a variety of geophysical techniques.

Snowden infers that the focus on Mount Peake has diverted resources from further development of this project.

3.5 Stokes Yard

The Stokes Yard licence covers 16 graticular blocks and falls on Glen Helen station (NT Portion 719 Perpetual Pastoral Lease 1128).

The project area is underexplored, with only minor exploration work being completed for uranium, gold and base metals since the early 1970s, and no drill testing conducted in the last 40 years.

3.5.1 Location and access

The Stokes Yard tenement is accessed from Alice Springs via the sealed Larapinta Drive and from there via the formed gravel Haasts Bluff/Papunya Road and station tracks.

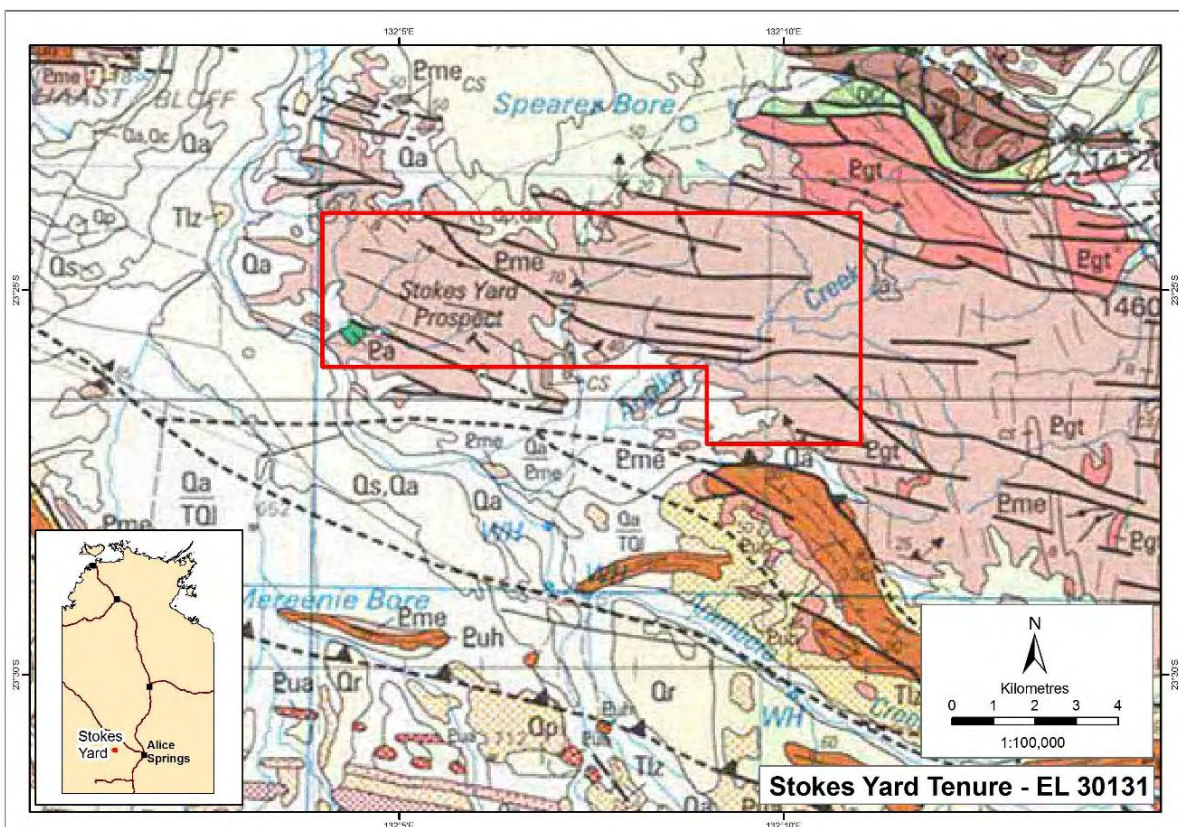
3.5.2 Tenements

The granted tenement was purchased from Imperial Granite and Minerals Pty Ltd and is wholly owned by TRT, title having been transferred from TNG (Table 3.10 and Figure 3.27).

Table 3.10 Stokes Yard project tenement

Licence	Title holder	Area (blocks)	Grant date	Expiry date
EL30131	TRT – 100%	16	11/08/2014	10/08/2020

Figure 3.27 Stokes Yard tenement and location



Source: TRT

3.5.3 Geology and mineralisation

The tenement area falls within the central-eastern portion of Warumpi Province in the Arunta Region of central Australia. Rocks underlying the tenement are medium to high grade metamorphics, of both metavolcanic and metasedimentary origin, including calcsilicates and schists. They form part of the ca. 1600 Ma Iwupataka Metamorphic Complex and Ikuntji Metamorphics, according to the recent NTGS interpretation.

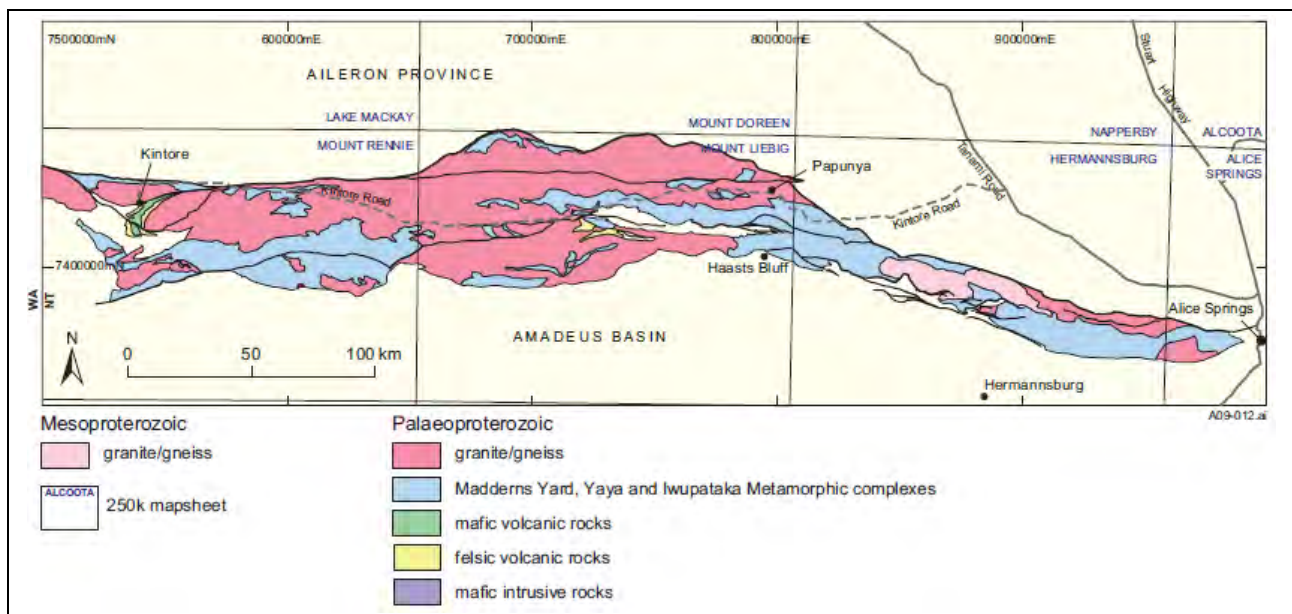
The Stokes Yard zinc-copper-lead prospect is located in the western part of the licence. Historical rock chip samples from this prospect have returned results of up to 26% Zn, 7.5% Cu, 7.5% Pb and 130 ppm Ag and it was drilled by government geologists in the late 1960s and subjected to an IP survey. The drilling report concluded that mineralisation did not persist at depth.

The Warumpi Province has been subjected to very little mineral exploration due to access difficulties and scarce outcrop and can be divided into three fault-bounded domains (Figure 3.28) with discrete protolith ages and metamorphic grades. The amphibolite-facies Haasts Bluff Domain is dominated by 1690-1660 Ma intrusive, volcanic and lesser metasedimentary rock with a younger cover succession (1630-1600 Ma) and occurs mainly in the eastern and southern Warumpi Province.

The granulite to upper amphibolite facies Yaya Domain is an east-trending, fault bounded domain that is characterised by a 1660-1640 Ma supracrustal succession intruded by 1640-1630 Ma felsic and lesser mafic suites. It dominates the northern Warumpi Province (Scrimgeour, 2011).

The Kintore Domain, forming the westernmost part of the Warumpi Province, is a greenschist facies domain comprised of two main elements: 1690-1685 Ma granites and a younger supracrustal succession of felsic, intermediate and mafic volcanics, quartzite and phyllite (Scrimgeour, 2011).

Figure 3.28 Warumpi Province geology



Source: NTGS Special Publication 5

The geology within the licence area has previously been identified as metasedimentary rocks of the Madderns Yard Metamorphic Complex, the oldest part of the Haasts Bluff Domain but are now considered to belong to the slightly younger Iwupataka Metamorphic Complex.

The Iwupataka Metamorphic Complex is a metasedimentary succession that occurs throughout the Haasts Bluff Domain, with the most extensive outcrop occurring in the east between Alice Springs and Ormiston Gorge. Units in this area include the Simpsons Gap Metasediments, Rungitjurma Gneiss, Ryans Gap Metamorphics, Lovely Hill Schist and the Chewings Range Quartzite.

Further west and within the licence area the dominant lithology is that of the Ikuntji Metamorphics which are host to the Stokes Yard and Ulpuruta (outside the licence area) prospects. The Ikuntji Metamorphics comprise a lower-mid amphibolite facies succession dominated by feldspathic to quartzic muscovite-biotite schist, quartz-muscovite schist, quartzite, amphibolite and calc-silicate rock grading upwards to clean quartzite.

The Stokes Yard mineralisation is hosted in a mylonite zone containing outcrops of mineralised tremolite schist, forsterite marble and less common actinolite-bearing schist. Base metal mineralisation may be a skarn (or carbonate replacement) and appears to be structurally controlled by the keel of a synformal fold.

3.5.4 Exploration potential

The area is underexplored, but TRT considers that main mineral potential in the area is base metals, based on indications from historic evidence.

Historical exploration

Exploration in the vicinity of the Stokes Yard prospect dates back to the 1960s⁴²:

- ASARCO (Australia) Pty Ltd completed rock chip sampling and IP surveys, returning results up to 26% Zn, 7.5% Pb, 7.5% Cu, and 130 ppm Ag. Average values were reportedly 2.1% Zn (50 samples), 1.4% Pb (49 samples), 0.23% Cu (65 samples), and 1 oz/tonne Ag (63 samples).
 - The IP survey identified six anomalies, the first of which coincides with the known surface mineralisation.
- A diamond drilling program conducted by the NTGS between November 1971 to March 1972 drilled five holes for a total of 1957.5 feet (596.6 m).
 - Eight surface chip samples and 134 drillhole samples were assayed for Pb, Zn, Ag and in part Cu and Ni with results reportedly received of up to 35.8% Pb, 18.5% Zn, 3.5% Cu, 9.1oz/ton Ag and <0.01% Ni.
 - DDH3 Cu 8500 ppm, Zn 2200 ppm, 144 to 145 feet downhole. Copper averaged 0.5%, zinc averaged 0.17%, 144 to 147 feet.
 - DDH4 Cu 2000 ppm, Zn 1000 ppm and Pb 800 ppm, 59 to 60 feet.
- Quardic Pty Ltd conducted stream sediment sampling in 1988, across EL 5365, which covered the Stokes Yard prospect and surrounds. The exploration target was gold mineralisation in silicified and deformed Upper Proterozoic quartzite and 41 stream sediment samples were collected, concluding that no further exploration was warranted.
- A sampling program was undertaken by the NTGS in 2000, returning grab sample results of 12.2% Pb, 8.8% Zn, 1.5% Cu and 50 g/t Ag.
- Northern Mining Limited operated tenure across EL 24438, including the Stokes Yard prospect from 2006 through to 2013. Eight rock chip samples confirmed previous work and returned results of up to 27.5% Zn. A ground magnetic survey returned no significant magnetic responses. Seventeen rock chip samples returned anomalous results from samples away from existing workings. An airborne geophysical survey was completed across the entire tenement, collecting magnetics, radiometrics and digital elevation, but the data never completely processed or interpreted.

⁴² NTGS Records CR1970-0018, TR1972-025, CR2003-001, CR2013-0802 and CR1988-0417

Northern Minerals considered the prospectivity of the licence very high, though a variety of reasons prevented further exploration.

Recent exploration

TNG completed a reconnaissance trip in September 2015 to gauge the access to and within the licence area and to view the historical workings at the Stokes Yard prospect.

At the same time, historical drill results from the 1972 NTGS drilling were collated and entered in a database along with new portable XRF (pXRF) data obtained from sampling of the stored drill core. Core was pXRF spot sampled at approximately 1 m intervals and photographed wet and dry. This work supported the 1972 drill results.

3.5.5 Aboriginal heritage, Native Title and environment

TRT informs Snowden that the area is subject to native title though at this stage no agreement has been formed with the CLC. Clearance will be requested as exploration progresses.

3.5.6 Snowden opinion

Snowden considers the Stokes Yard project to be at a low level of development. The geology indicates some potential for the identification of base metal mineralisation, but the area is unexplored and it is difficult to categorise its prospectivity.

Snowden's opinion is that TRT's low level approach to exploration is appropriate for the degree of maturity of the project and will not distract it from other, more advanced projects.

3.6 Tomkinson

The Tomkinson Project is considered to hold potential for McArthur River-style base metals mineralisation, based on geological correlation with the McArthur Basin.

3.6.1 Location and access

The project tenements are located between 130 km and 170 km to the north of Tennant Creek, and 200 km and 250 km south of Daly Waters. The tenements straddle the Stuart Highway and are located immediately to the east of the Alice Springs-Darwin railway and gas pipeline.

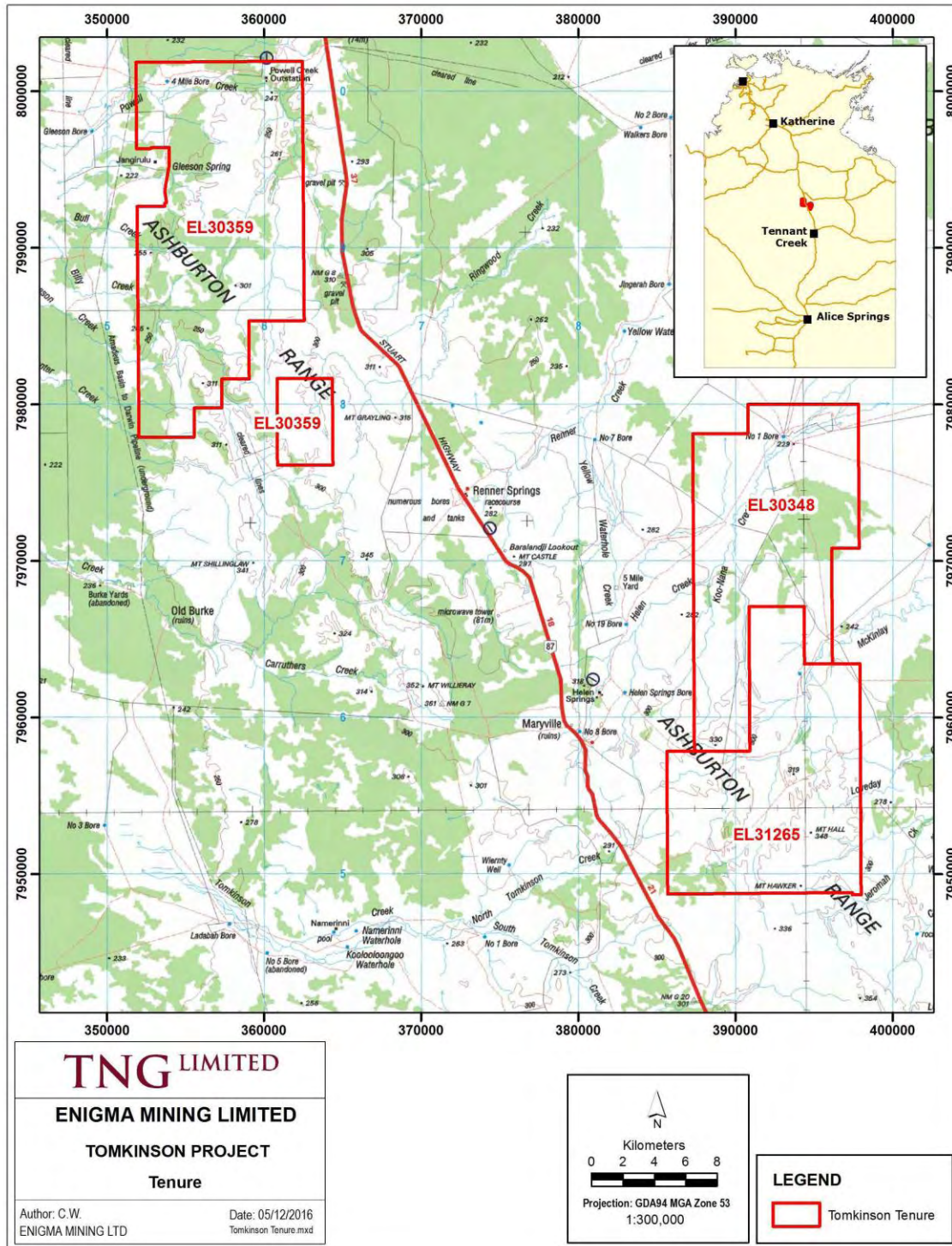
3.6.2 Tenements

The Tomkinson project consists of three granted exploration licences owned by TRT, ownership having been transferred to TRM from Enigma Mining (Table 3.11 and Figure 3.29).

Table 3.11 Tomkinson project tenements

Tenement	Holder	Area (blocks)	Grant date	Expiry date
EL 30348	TRT – 100%	50	20/01/2015	19/01/2021
EL 30359		71	20/01/2015	19/01/2021
EL 31265		51	5/12/2016	4/12/2022

Figure 3.29 Tomkinson project tenements and location



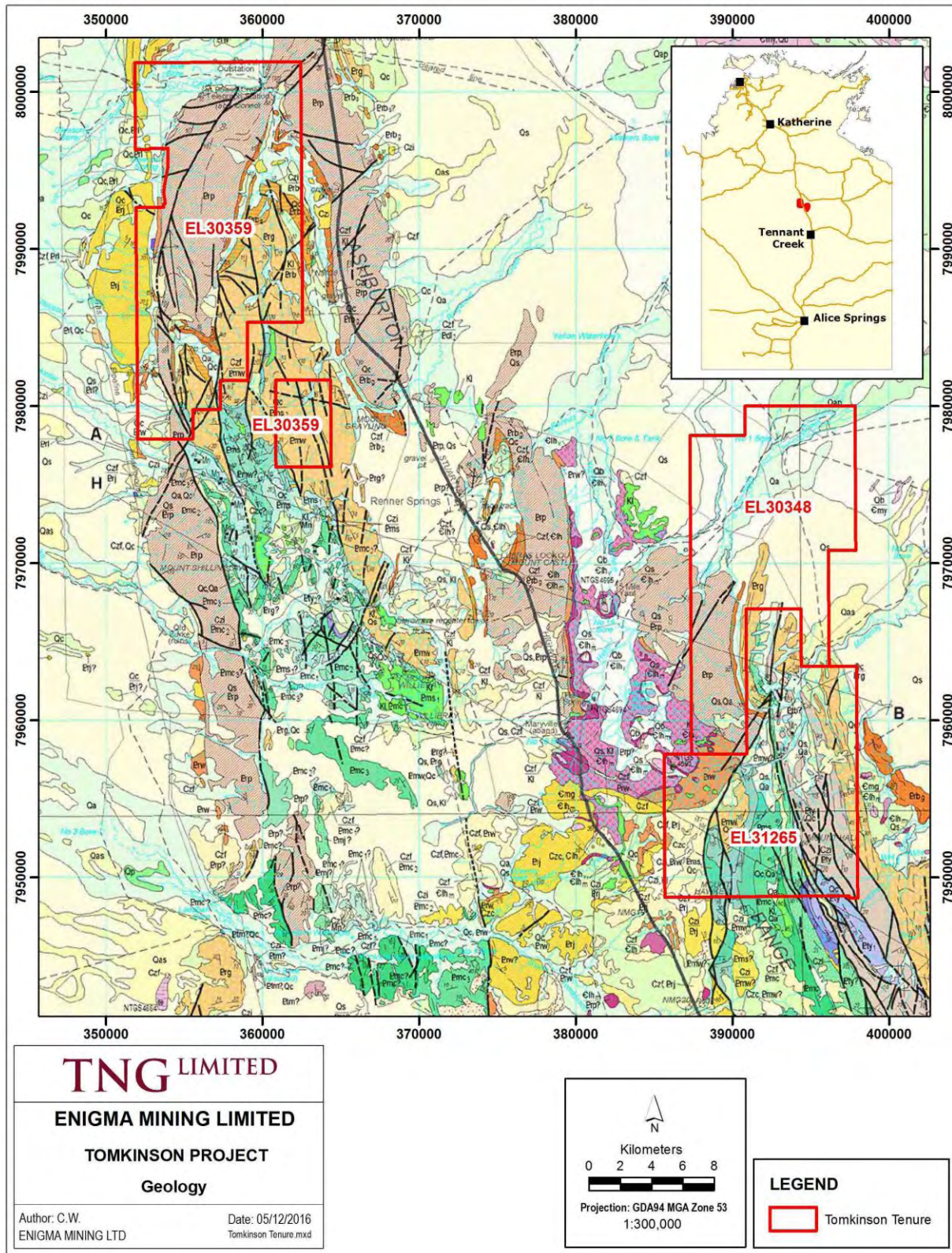
Source: TRT

3.6.3 Geology and mineralisation

The project area contains areas of outcropping and subsurface sediments belonging to the Proterozoic Tomkinson Basin (Figure 3.30). Of particular interest to TNG are the fine-grained siltstone, carbonate and sandstone sediments of the 1660-1610 Ma Namerinni Group, deposited in shallow marine to fluvial environments.

Importantly, the Namerinni Group has been correlated with the McArthur Group in the McArthur Basin, that host both the ore at the McArthur River mine in the HYC Member of the Barney Creek Formation and mineralisation at several prospects in the Batten Fault Zone, such as the recent Teena discovery by Rox Resources and Teck. Additionally, the Tomkinson Creek Group has been correlated with the Redbank package of the McArthur River Group, which is being explored by TRT at its McArthur River project.

Figure 3.30 Tomkinson geology



Source: TRT

The Tomkinson Province has historically attracted interest because it hosts regional manganese deposits.

The Province is dominated by thick siliclastic carbonate intervals that consist of cycles of ridge-forming clastic sedimentary rocks, overlain by a recessive mixed siliclastic-carbonate which are represented in the Tomkinson Creek Group as the Hayward Creek Formation, Morphett Creek Formation, Short Range Sandstone and Attack Creek Formation and Bootu and Carmilly formations.

A recessive sequence of calcareous siltstone and stromatolitic dolomite (Attack Creek Formation) is present in the upper part of the group. Along the contact with the overlying predominately ridge-forming sandstone sequence (Bootu Formation) is a Fe-rich manganiferous horizon within dolomitic siltstone and sandstone (Eliyahu, 2007). Manganese mineralisation is known from the Bootu Creek and the Renner Springs areas in Helen Springs. Deposits are hosted in the lower Bootu Creek Formation of the Tomkinson Creek Group, over approximately 24 km strike length on the flanks of the Bootu Syncline.

3.6.4 Exploration potential

The project area is considered prospective for base metal mineralisation based on the McArthur River and Teena projects, which are hosted in similar, if not identical stratigraphy to that found in the project area. The tenements represent a greenfields opportunity for TNG exploring a prospective yet relatively untested area.

Historical exploration

Previous exploration has been mainly targeted at diamonds and manganese with only minor base metal exploration work being conducted over the last 20 years, with no drilling or geophysical surveys targeting base metal exploration.

Recent exploration

No exploration has been undertaken by TRT.

Exploration planning has contemplated initial ground mapping and sampling to identify the prospective stratigraphic units followed by a significant and cost effective exploration program of airborne electrical geophysics to outline target areas, and then ground geophysics (EM and IP) to guide drilling. This will be planned further once initial reconnaissance has taken place.

3.6.5 Aboriginal heritage, Native Title and environment

Snowden has not been advised of any native title issues associated with the licence areas under application.

3.6.6 Snowden opinion

Snowden considers the Tomkinson project to be at a low level of exploration development but conceptually advanced, thanks to NTGS work. The geology indicates strong potential for the identification of economic base metal mineralisation.

Snowden's opinion is that TRT's approach to exploration is appropriate for the low level of exploration of the project, but highly encouraging geology.

3.7 Sandover

Sandover is a base and precious metals exploration project located northeast of Alice Springs and is considered by TRT to be prospective for base and precious metals. Snowden concurs with this assessment.

3.7.1 Location and access

The project is located 120 km to 160 km to the northeast of Alice Springs. Access to the tenements is via the Stuart and Plenty Highways from Alice Springs and then a series of unnamed roads, station tracks and fence lines. The area is situated on the Alcoota (SF53-10) 1:250,000 scale map sheet and lies within the Alcoota Perpetual Pastoral Lease.

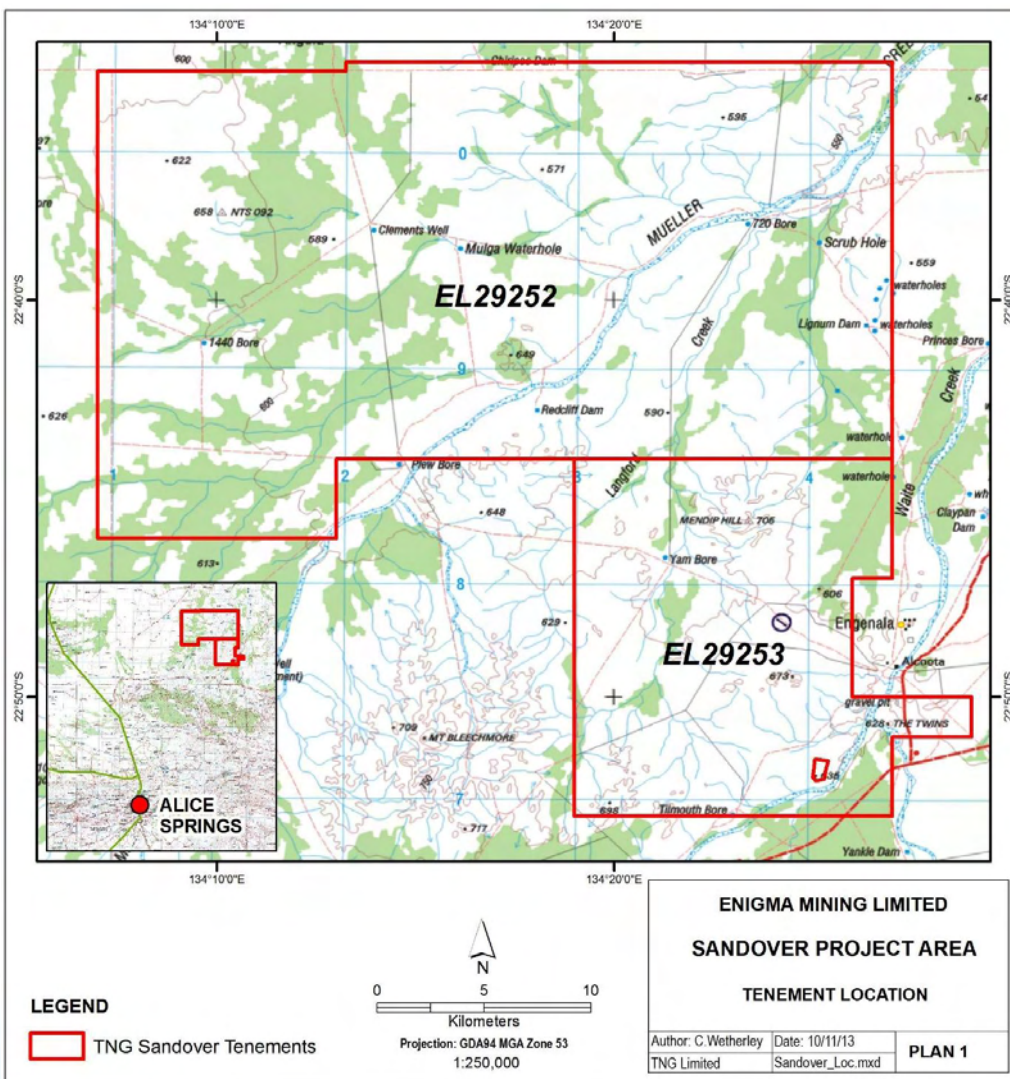
3.7.2 Tenements

The Sandover project consists of two exploration licence applications (Table 3.12 and Figure 3.31). Snowden is advised that these tenements were initially improperly granted and reverted back to applications, pending proper process for grant. The Applications are owned by TRT, having been transferred from Enigma Mining.

Table 3.12 Sandover project tenements

Tenement	Holder	Area (blocks)	Application date	Grant date	Expiry date
ELA 29252	TRT – 100%	212	05/12/2011	Revised application	Revised application
ELA 29253		71	05/12/2011	Revised application	Revised application

Figure 3.31 Sandover project tenement applications and location



Source: TRT

3.7.3 Geology and mineralisation

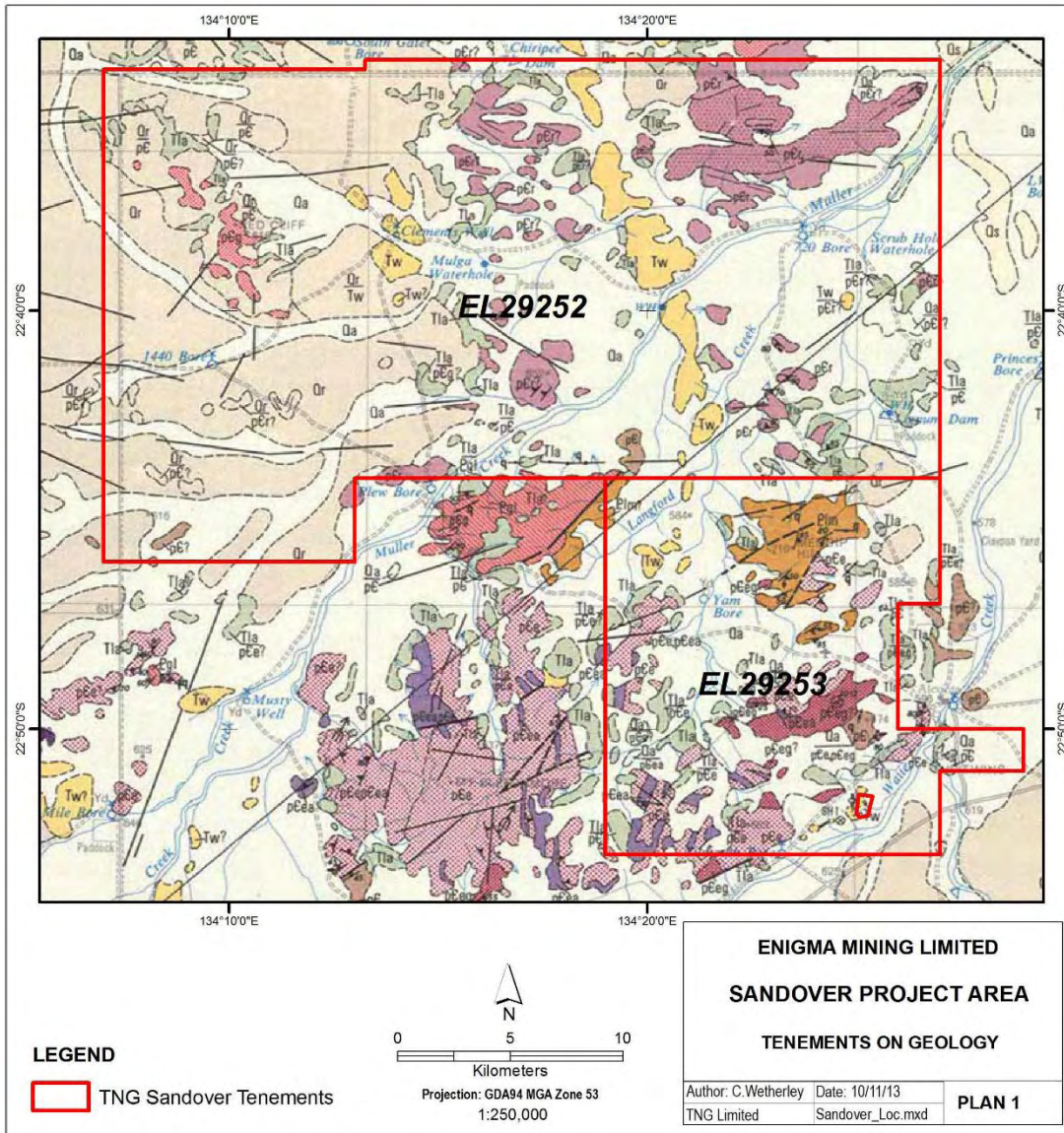
The Sandover project area is underlain by the fault-bound Palaeoproterozoic Aileron Province and Neoproterozoic Irindina Province of the Arunta Block. These provinces are formed deep, igneous intruded depocentres within the Centralian Superbasin. The region was metamorphosed in the Ordovician to amphibolite facies.

The Aileron Province strata are exposed in the northern part of ELA 29253 in the form of felsic and mafic gneiss and granulites of the Strangeways Metamorphic Complex (Aileron Province). These Palaeoproterozoic rocks are the oldest within the project area, the metamorphosed sediments are generally immature, corresponding to original arkosic or greywacke composition. These form the Strangeways Range immediately south of the EL 29253 tenement boundary. The Neoproterozoic Reynolds Range Group (schist, slate and siltstone) occurs on the northern boundary of the tenement. Further north rocks of the Lander Rock Beds (greywacke, siltstone, shale, schist and gneiss) outcrop. The Lander Rock Beds are host to copper workings in the Mount Hardy copper field (see Section 3.4).

The southern part of EL 29253 comprises magmatic metapelites, metabasite, calc-silicates, marble and quartzites of the Irindina Province. These are similar in age to the adjacent sedimentary rocks of the Amadeus and Georgina basins and suggest that the metamorphic complex is the high-grade metamorphosed equivalent of the unmetamorphosed basins. The basin is described as a highly metamorphosed Neoproterozoic to Cambrian basin including the thick metasedimentary Harts Range Group with subsidiary igneous units, including metabasalts, mafic to ultramafic intrusions, granites and pegmatites (Figure 3.32).

Part of the project area is overlain by Cainozoic sediments (sandstones, limestones and mudstones) of the Tertiary Waite Formation. Subsequent uplift and erosion has exposed the underlying strata in a series of gullies associated with a large creek which drains across the project area.

Figure 3.32 Sandover geology



Source: TRT

3.7.4 Exploration potential

TRT considers the Sandover project area to be prospective for base and precious metals deposits.

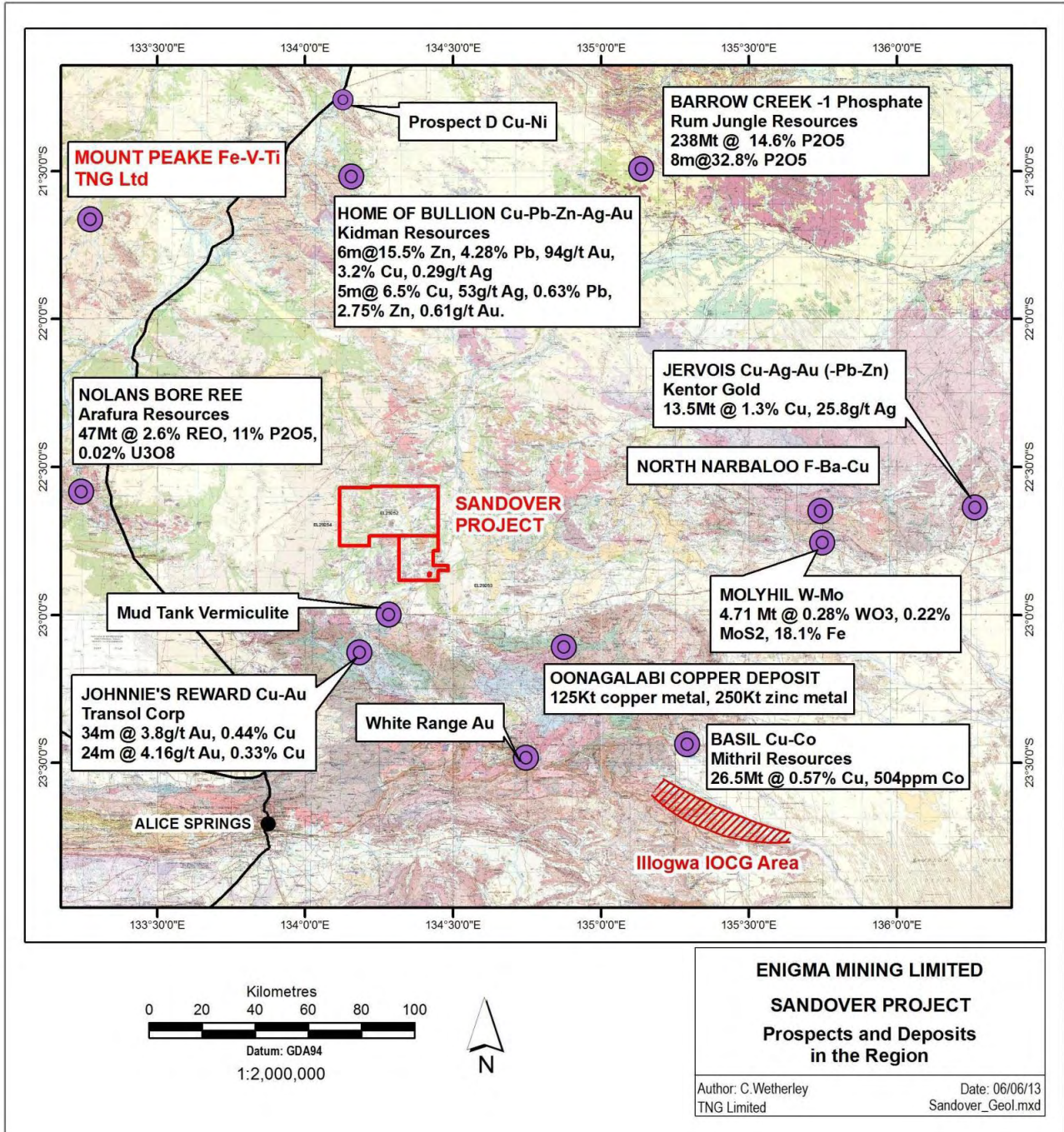
Mineralisation in the vicinity of the Sandover project (Figure 3.33)⁴³ includes:

- Home of Bullion Cu-Pb-Zn-Au-Ag prospect (Kidman Resources)
- Johnnies Reward Cu-Au deposit (Arunta/Transol)
- Molyhil W-Mo deposit (Thor Mining)

⁴³ TNG ASX Release 10 June 2013

- Nolans REE deposit (Arafura Resources)
- Mud Tank vermiculite deposit
- Jervois Cu-Au-Pb-Zn-Ag prospect (Kentor Resources)
- Illogwa iron oxide copper gold (IOCG) belt (Mithril Resources).

Figure 3.33 Sandover contextual geology



Source: TRT

Historical exploration (EL 29252 and EL 29253)

Very little exploration has been undertaken within the licence areas with limited soil, rock and stream sampling undertaken at various times since the late 1960s with no significant anomalies being identified. Mica mines, established on pegmatite dykes, operated until the 1950s.

Recent exploration

Exploration activities by TNG⁴⁴ have been limited to literature searches and some preliminary field work investigating options for site access and undertaking a mapping and soil sampling program over the eastern portion of EL 29253. Most of the soil sampling results returned largely background level copper values with the highest result being 308 ppm. Rock sampling along traverses over one soil anomaly confirmed the presence of a single narrow and relatively isolated copper occurrence in EL 29253 with the highest reading being 1343 ppm.

No anomalous precious metals or base metals results were reported.

3.7.5 Aboriginal heritage, Native Title and environment

EL 29253 and EL 29252 were originally granted on 30 August 2012 and 23 October 2012 respectively. During 2012, TNG conducted exploration on EL 29253 and it was decided to undertake a partial relinquishment of the licence, to 71 blocks (224.3 km²). The remaining areas within this licence and the entire area of EL 29252 are located on Alcoota PPL 1032, held by the Alcoota Aboriginal Corporation.

On 12 November 2012, TNG initiated discussions with the CLC for access to this land. On 7 May 2014, the CLC advised TNG that, in their view, the grant of the licences was invalidly made because the land was Aboriginal freehold title. On 15 July 2014, TNG received notification from the Minerals Titles Division of the DME that the licences were both invalid. It was requested that the licences be returned to application phase and that DME issue a Consent to Negotiate in order for the application to proceed through the Aboriginal Land Rights (Northern Territory) Act (ALRA) process. TNG agreed to this request.

On 8 August 2014, the DME gave TNG consent to enter in negotiations with the CLC and with reference to section 41(6) of the ALRA, TNG was advised that the Consent to Negotiate period expires on 8 November 2014. TNG issued consent to grant documentation to the CLC on 6 November 2014, confirmation of receipt of the documents was received by TNG on 7 November 2014. The matter remains under consideration.

3.7.6 Snowden opinion

Snowden considers the Sandover project to be at a very basic level of exploration. The geology indicates potential for the identification of economic mineralisation, but this remains to be tested.

Snowden's opinion is that Sandover represents a lower priority target to that of its peers, but is worthy of continuing preliminary exploration activities.

⁴⁴ TNG ASX Release 10 June 2013

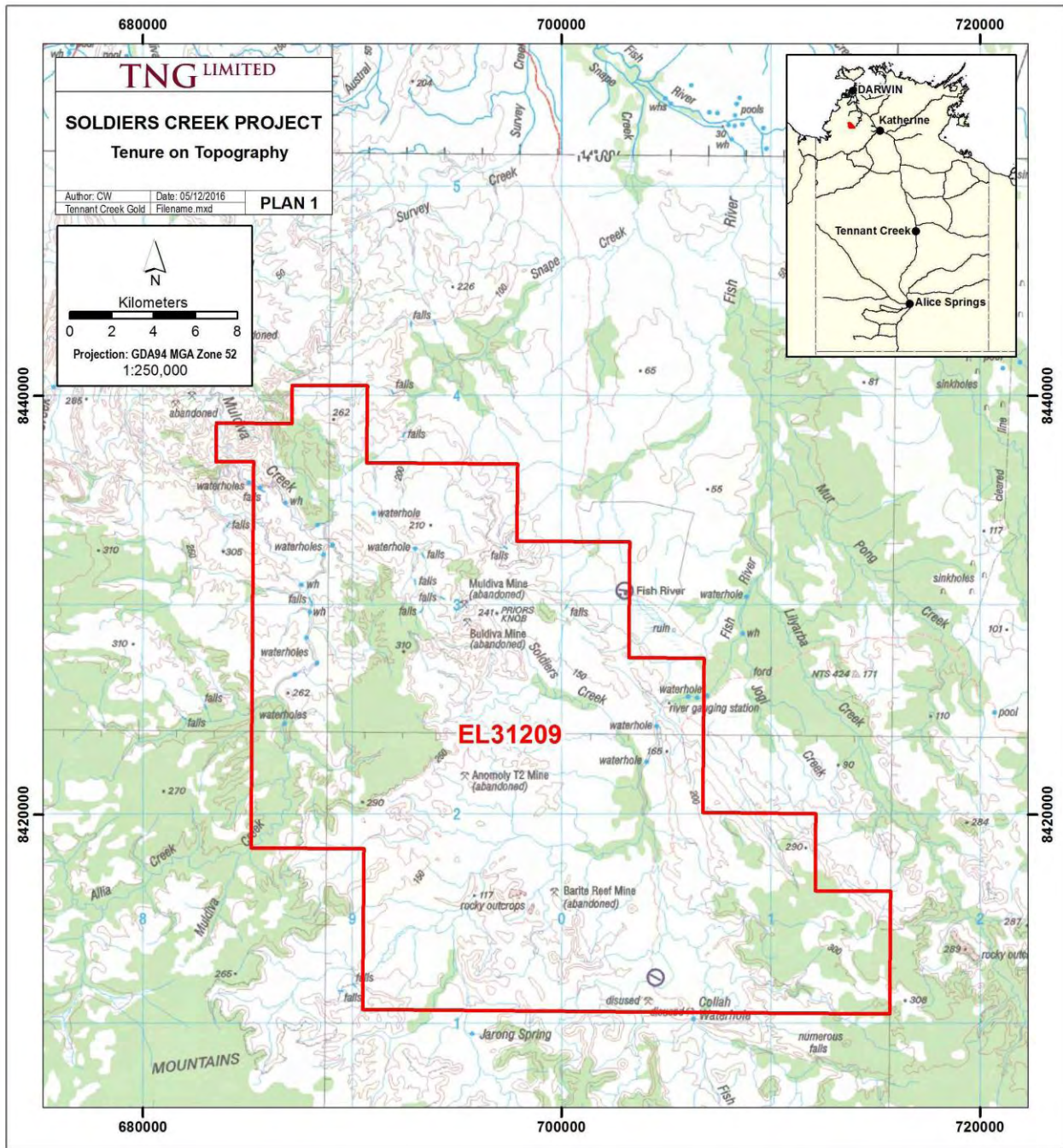
3.8 Soldiers Creek

This exploration licence covers the Soldiers Creek Pegmatite Field both within and surrounding the Soldiers Creek Granite. There are a number of tin and tantalum prospects within the area that have both alluvial and colluvial/eluvial placer workings and hard rock pegmatite-hosted cassiterite and tantalite content. The Soldiers Creek Granite is recognised as being a highly differentiated S-type granite, with high Rb, Cs, Li, Ga, Sn, Y and K/Ba content. The area is considered by TRT to be prospective for significant economic concentrations of tin and tantalum, as well as other pegmatite-hosted elements including lithium and greissen related elements and minerals.

3.8.1 Location and access

The licence is located about 200 km south of Darwin, in the Fish River area of the Northern Territory (Figure 3.34), 100 km northwest of Katherine, and around 60 km west of the Douglas-Daly Irrigation Area. Access is by road to the Douglas-Daly area and then tracks to the project area.

Figure 3.34 Soldiers Creek location



3.8.2 Tenements

The Soldiers Creek project consists of a single exploration licence, EL 31209, owned by TRT, having been applied for by and granted to TRM (Table 3.13 and Figure 3.34).

Table 3.13 Soldiers Creek application

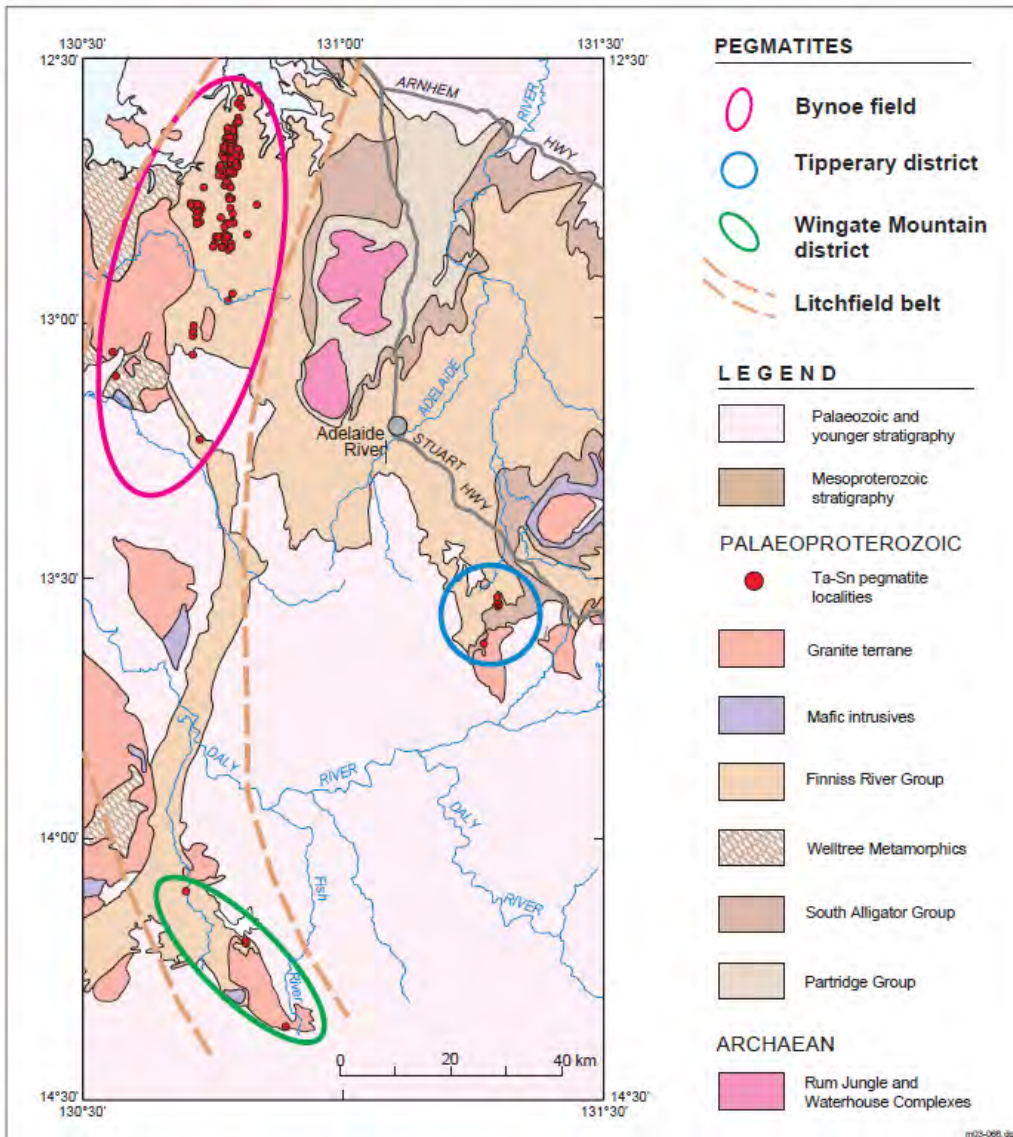
Tenement	Holder	Area (blocks)	Grant date	Expiry date
EL 31209	TRT – 100%	181	5/12/2016	4/12/2022

3.8.3 Geology and mineralisation

The Soldiers Creek project lies in the Wingate Mountain district of the Litchfield pegmatite belt⁴⁵ (Figure 3.35).

Pegmatites are hosted by the contact aureoles of the Palaeoproterozoic Allia Creek and Soldiers Creek granites and are described as sinuous, narrow bodies only a few metres wide⁴⁵ hosted by phyllite, quartz-mica schist and andalusite-mica schist of the Palaeoproterozoic Burrell Creek Formation of the Finnis River Group (Figure 3.36).

Figure 3.35 Wingate Mountain pegmatite district location

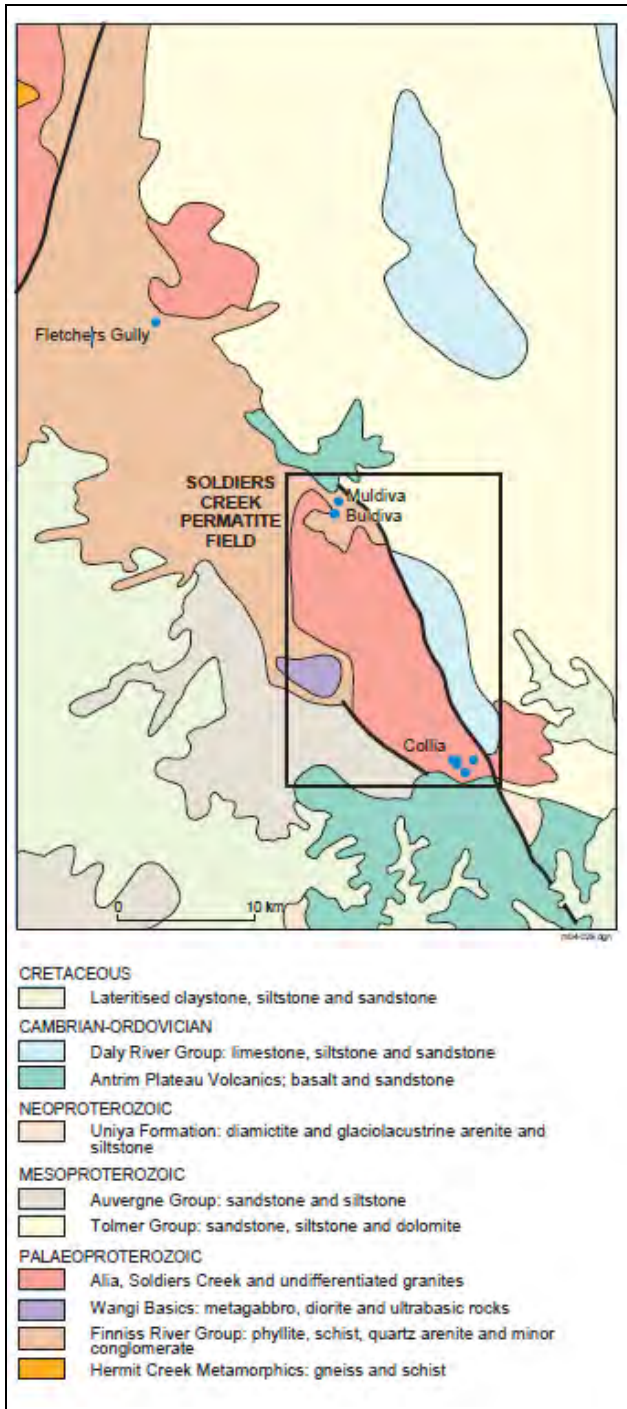


Source: NTGS Report 16

⁴⁵ NTGS Report 16; Tin-Tantalum pegmatite mineralisation of the Northern Territory; Frater, K.M.; Department of Primary Industries Fisheries and Mines; Darwin; 2005

The Soldiers Creek field includes pegmatites at Muldiva, Buldiva and in the vicinity of Collia, on the Fish River (Figure 3.36). The Muldiva and Buldiva pegmatite swarms are in the contact aureole of the Soldiers Creek Granite and the alluvial Collia mineralisation occurs within the Soldiers Creek Granite and although local pegmatite has not been recognised, it is considered to be the source of the alluvial tin.

Figure 3.36 Soldiers Creek geology



Source: NTGS Report 16

3.8.4 Exploration potential

TRT intends to explore the project for lithium, tin and tantalum. The Soldiers Creek area is recognised for its tin and tantalum potential, but its lithium potential has not been developed. TRT proposes preliminary prospecting, mapping and sampling the old workings, to be followed up with geophysics and drill targeting, if appropriate.

TRT considers that its strategy will be to identify the type of pegmatite, and that lithium-caesium-tantalum-type pegmatites are very prospective. The use of a portable XRF is expected to quickly identify prospective areas, recognising that the machine cannot detect Li, but identifies several associated elements – Cs, Nb, Rb, Sr, Sn, Ga, Ta, and Ti.

3.8.5 Aboriginal heritage, Native Title and environment

The project remains an application and the native title process is commencing. It falls on pastoral lease owned by the Department of Lands Planning and Environment and within the Fish River Gorge Block National Park and so will need approval prior to grant.

3.8.6 Snowden opinion

Soldiers Creek is a preliminary level exploration concept on unexplored geology, but with some historical production. The geology and concept is certainly attractive and Snowden considers that TRT's planned low-level preliminary approach to be appropriate.

3.9 Croker Island

Croker Island is an island in the Arafura Sea, of Arnhem Land, and is considered to hold potential for bauxite mineralisation.

3.9.1 Location and access

Croker Island is located about 240 km northeast of Darwin and is separated from the mainland by the Bowen Strait. The island has limited infrastructure and is accessible by sea.

3.9.2 Tenements

The tenement under application is wholly owned by TRT, having been transferred from Enigma (Table 3.14 and Figure 3.37).

Table 3.14 Croker Island project tenement

Licence	Title holder	Area (blocks)	Application date	Grant date	Expiry date
ELA 29164	TRT – 100%	62	31/10/11	Application	Application

Figure 3.37 Croker Island tenements and location



Source: TRT

3.9.3 Geology and mineralisation

Geology is dominated by lateritised Cretaceous siltstones, sandstones and mudstones of the Bathurst Island Formation. The coastline of nearby Coburg peninsula consists of deeply incised bays terminating in beaches or muddy mangrove creeks. Coastal relief is low with numerous rocky headlands with fringing coral and coralline algal reefs.

3.9.4 Exploration potential

The main mineral potential in the area is for bauxite.

Historical exploration

Prior to TNG's application for the Croker Island tenement in 2011, the following exploration work was undertaken by previous workers in the 1950s and 1960s⁴⁶:

- Rio Tinto Exploration conducted reconnaissance work on the bauxite deposits of Croker Island in 1957 as part of their regional Arnhem Land bauxite investigations.
- In 1958 the Reynolds Metals Company (RMC) started field work to map the occurrences of bauxite in order to identify targets for follow-up drilling. Drilling (method not documented) was completed on 300 m centres northeast of Mission Bay. From the work, RMC calculated an Inferred Resource of 650 kt at >30% Al₂O₃. The mineralised areas identified are located north of the proposed TNG tenement. Later drilling on the area covered by the proposed TNG tenement was completed on 1,600 m centres. No lateritic bauxite was identified.
- During 1964, United Uranium as part of a larger exploration program explored the island for bauxitic laterites based on aerial (helicopter) surveys followed by detailed ground surveys. Grab sampling was confined to areas north of the proposed TNG tenement.

Recent exploration

The tenement has yet to be granted and as such no exploration has been undertaken by TRT.

3.9.5 Aboriginal heritage, Native Title and environment

On the 23 October 2014, TNG and the Northern Land Council formally agreed in writing to extend the negotiating period by 24 months to 31 October 2016. Snowden understands that there is agreement to extend this to 2018.

3.9.6 Snowden opinion

Snowden considers the Croker Island project to be at a preliminary level of exploration and its future value is somewhat aligned to the Northern Territory bauxite industry and Rio Tinto.

⁴⁶ NTGS Open File Reports CR19570014, CR19610004, CR19650021 and CR19650024

4 JOINT VENTURE PROJECTS

The tenements examined in this section are subject to a Heads of Agreement with Western Desert Resources Ltd, Receivers and Administrators Appointed (WDR).

The Rover agreement with WDR allowed it to earn up to an 80% interest in each area subject to meeting specific exploration expenditure commitments. The Joint Venture (WDRJV) covers prospect areas known as Rover, Gosse River and McLaren. Kovacs is a small mining lease encompassed by the Gosse River tenement. This lease is 100% owned by TRT and is not part of the WDRJV, but it is considered to be part of the overall exploration project.

The Goddards and Petermanns Heads of Agreement with WDR allowed it to negotiate through to grant by the Mines Department and then earn into the licences. Snowden understands that WDR did not subsequently materially participate and that negotiations are taking place with the Liquidator to negate the heads of Agreement.

4.1 Rover

The WDRJV was managed by WDR and Snowden is aware that WDR held a negative attitude to the project, given its commitments elsewhere. No exploration has been undertaken on the project since 2013.

Tennant Creek is a historic goldfield characterised by small magmatic iron ore hosted copper/gold (IOCG) deposits of extremely high grade. Mines were originally simply located in shoots identified on ironstone outcrops, but the exhaustion of these shallow workings has led to significant technical challenges to explorers, utilising a variety of geophysical techniques. Mineralised shoots are rarely distinguishable from unmineralised magnetic material and most recent discoveries have tended to be deep and difficult to mine.

4.1.1 Location and access

The Rover project area is located approximately 50 km south of Tennant Creek. Access to the area is via the Stuart Highway for 7 km south of the town, then via an unsealed road which heads west for approximately 50 km to the Kunayungku Outstation, then via an unsealed track for about 30 km to the WDR Rover Camp. An unsealed track south of the camp allows access into the northern part of the tenement. The tenement can also be accessed from the east by means of station tracks from the Stuart Highway

4.1.2 Tenements

The WDRJV consists of three tenements, which are located in the Tennant Creek district (Table 4.1 and Figure 4.2). A fourth tenement, Kovacs, is wholly-owned by TRT and is considered to be part of the overall Rover exploration project, but is not part of the area subject to the WDRJV (Table 4.2 and Figure 4.2).

Table 4.1 Rover WDRJV project tenements

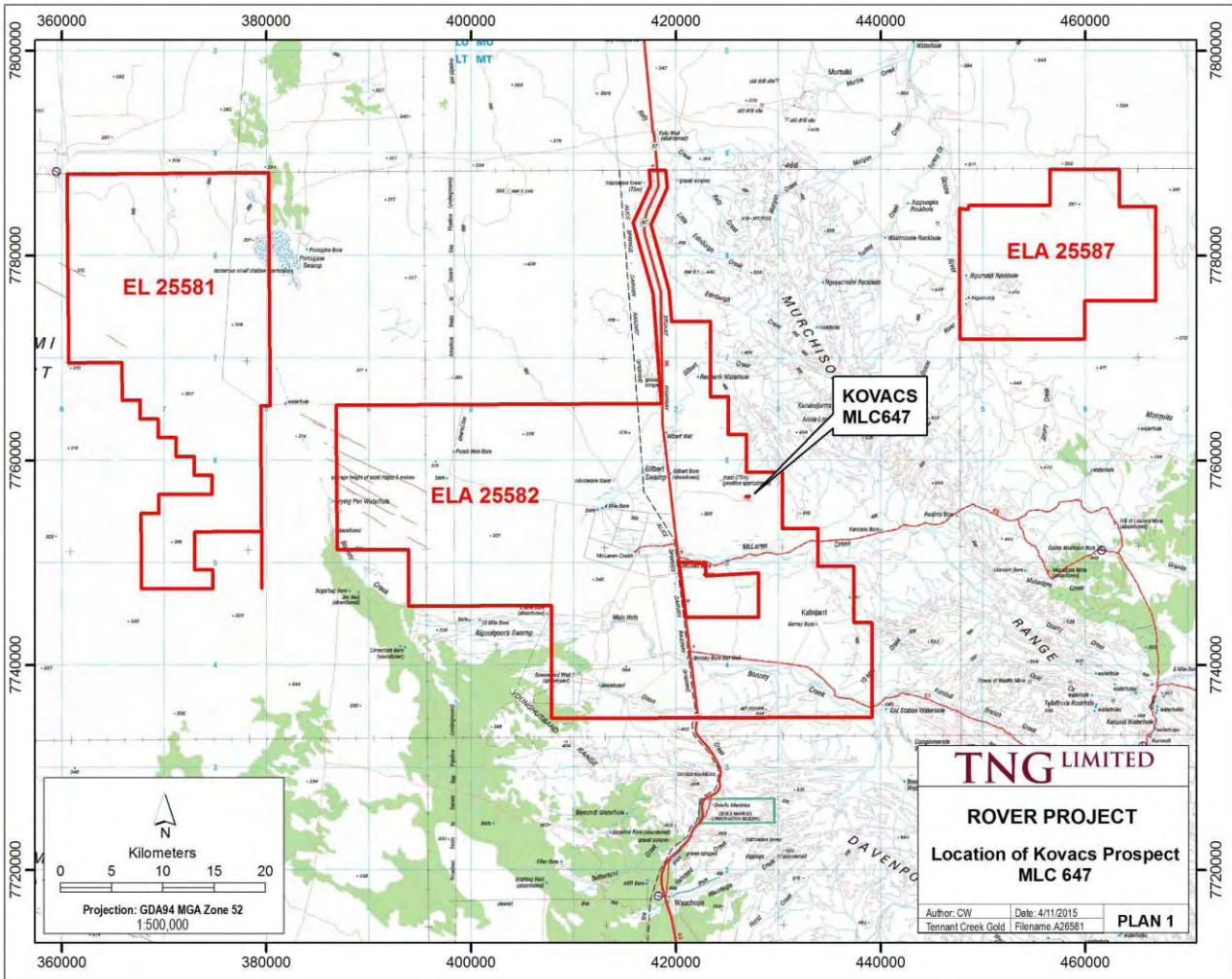
Project area	Licence	Title holder	Area (blocks)	Area (ha)	Application date	Grant date	Expiry date
Rover	EL 25581		187			12/05/2009	11/05/2017
Gosse River	ELA 25582	TRT – 20% WDR – 80%	401		06/09/2006	Application	Application
McLaren	ELA 25587		82		11/09/2006	Application	Application

The Rover, Kovacs, Gosse River and McLaren tenements are all located about 70 km to the southeast of Tennant Creek in close proximity to each other. The Kovacs licence falls within the boundaries of the ELA 25582 (Figure 4.1).

Table 4.2 Rover non- WDRJV project tenements

Project area	Licence	Title holder	Area (blocks)	Area (ha)	Application date	Grant date	Expiry date
Kovacs	MLC 647	TRT – 100%		8 ha ⁴		09/09/1970	31/12/2020

Figure 4.1 Rover tenement location

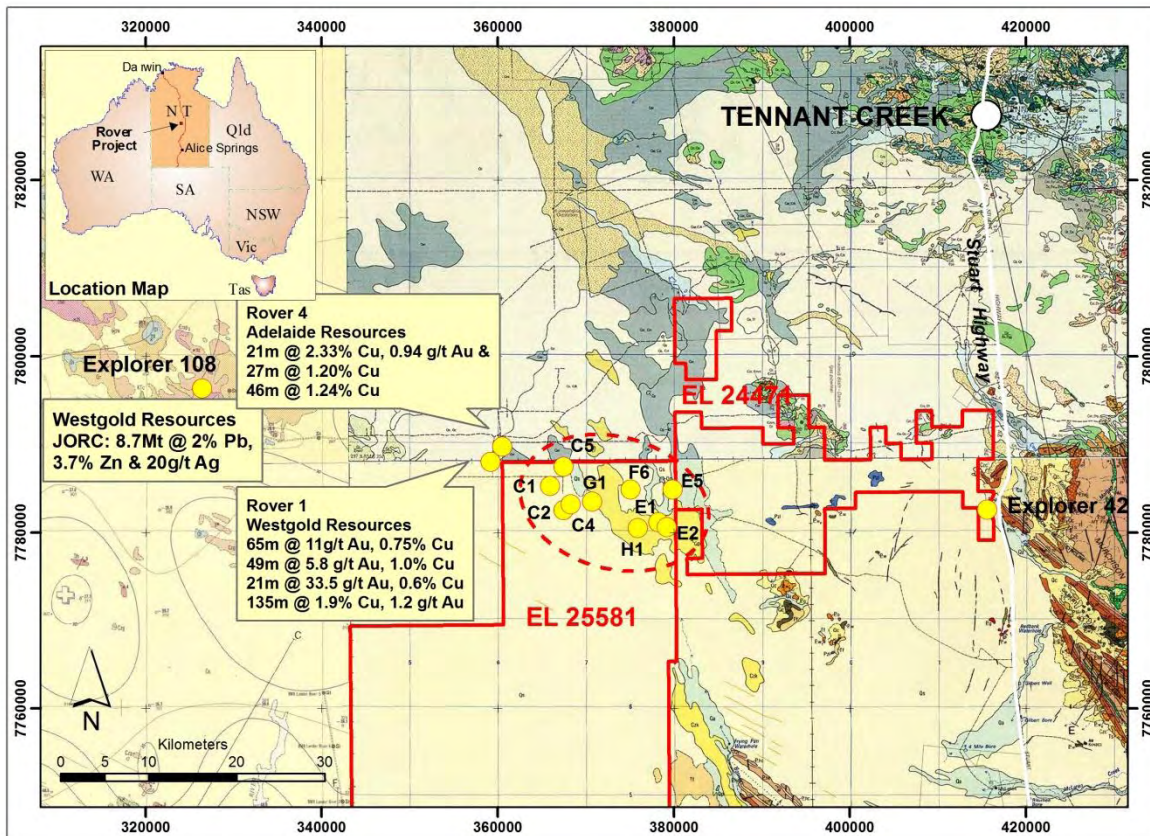


Source: TRT

Adjacent projects

The EL 25581, MLC 647 and ELA 25582 tenements are adjacent to Westgold's⁴⁷ Rover 1 project which has identified high gold grades in drillholes (Figure 4.2)⁴⁸. Surveys completed in 2009 identified numerous targets suggestive of Tennant Creek style ironstone bodies beneath extensive cover. The Rover joint venture tenement EL 25581 is also proximal to Westgold's Explorer 108 base metal deposit and Adelaide Resources' Rover 4 copper-gold deposit⁴⁹.

Figure 4.2 EL 25581 exploration and surrounding drill results



Source: TRT; This figure refers to Mineral Resources and Exploration Results derived by other parties either nearby or proximal to the Rover Project. It is important to note that such discoveries, results or geological similarities do not in any way guarantee that TRT will have any success or similar successes in delineating a Mineral Resource at Rover, if at all

4.1.3 Geology and mineralisation

The Rover Project covers an area on the poorly exposed southern margin of the Tennant Creek Block within the central Tennant Creek Inlier, an area of Proterozoic rocks covering about 43,500 km² in the Northern Territory. The Inlier contains three provinces, the Tomkinson Creek Province in the north, the Tennant Creek Block in the central area, which also contains the Tennant Creek gold field, and the Devonport Province to the south.

⁴⁷ <https://www.metalsx.com.au/gold/>

⁴⁸ TNG ASX Releases 18 March 2009, 31 July 2012 and 22 October 2012

⁴⁹ <http://www.adalaideresources.com.au/projects/rover>

The Tennant Creek Block is one of the most prospective gold provinces of the Northern Territory. For around thirty years until 1980, it was the only major Northern Territory producer and to June 1987 the Tennant Creek gold field had recorded the largest production of any Northern Territory field. The Tennant Creek Block is the most extensively explored and developed of Australia's few Proterozoic gold provinces.

The gold mineralisation in the region is linked by a common association with iron oxides. Gold occurs within the Warramunga Formation in association with copper and bismuth in haematite and magnetite rich lodes (ironstone).

The oldest exposed rocks in the Tennant Creek Inlier are the early Proterozoic Warramunga Formation, which consists of interbedded sedimentary and volcanic rocks, and forms the major part of the Tennant Creek Block. It is unconformably overlain by sediments belonging to the Hatches Creek Group which include felsic and mafic volcanic in the Devonport Province to the south, and by sediments of the Tomkinson Creek Beds in the Tomkinson Creek Province to the north. The eastern and western margins are the sedimentary sequences of the Palaeozoic Georgina and Wiso Basins.

There are isolated occurrences of gneissic rocks in the area, which have been interpreted as basement, possibly of Archaean age. The Warramunga and Hatches Creek groups are intruded by Proterozoic igneous rocks of granite, porphyries and dolerite.

The Warramunga Group, since renamed the Warramunga Formation and Flynn sub-group after redefinition in 1995, consists of a sequence of turbiditic greywacke, siltstone and shale with interbedded felsic volcanics. Some minor components of the sequence are thin, discontinuous, argillaceous banded iron formation (BIF), locally known as haematitic shale. The Warramunga Formation also contains quartz-feldspar porphyry lenses and broad strata bound zones of disseminated magnetite.

The Warramunga Formation is folded and metamorphosed to lower greenschist facies. In the Tennant Creek gold field, the Warramunga Formation is tightly folded about east-west axes, folds are upright and bedding is mostly steeply dipping.

The Cambrian Wiso Basin succession and Cainozoic sediments extensively cover the Tennant Creek area with a westward thickening trend from less than 20 m in the east to in excess of 200 m in the west. The Cambrian component of the cover sequence is composed of thin basal fluviatile sediments overlain by a shallow marine carbonate-rich siltstone and sandstone sequence.

The Cainozoic cover of around 20 m to 30 m in thickness is composed of colluvial, alluvial and aeolian deposits.

4.1.4 Exploration potential

Gold was discovered in the Tennant Creek area around 1925, however little mining or prospecting took place until 1932 due to the lack of gold in prominent quartz veins and the virtual absence of alluvial concentrations. Two small batteries were established near the site of the Tennant Creek town in 1932.

A gold rush followed and within three years, gold was being won from over 100 small mines. The most notable of these were Eldorado, Enterprise, Rising Sun, Hammerjack, Blue Moon, Burnt Shirt and Northern Star.

In the late 1940s to the late 1960s, several mines were developed that produced significant tonnages of gold and copper. These were owned by Australian Development and Peko-Wallsend, two companies that dominated the Tennant Creek field for 30 years, and include the Nobles Nob, Peko, Orlando, Ivanhoe, Juno and Warrego mines.

No mining has been carried within the area covered by the WDRJV.

Snowden considers the project to be prospective for Tennant Creek style gold, copper and bismuth mineralisation.

Historical exploration

The only exploration previously conducted in the WDRJV area was that undertaken by Geopeko Ltd in the period 1973 to 1976. This work consisted of an airborne magnetic survey, ground magnetic surveys and diamond drilling.

Three diamond drillholes were drilled on a magnetic anomaly, Explorer 124 (Figure 4.3). The Wiso Basin sediments intersected in the holes consisted of shales, siltstones and sandstones, about 90 m thick. The basement rocks were found to be feldspar porphyry, diorite and microdiorite with moderate to strong disseminated magnetite, which explains the magnetic anomaly.

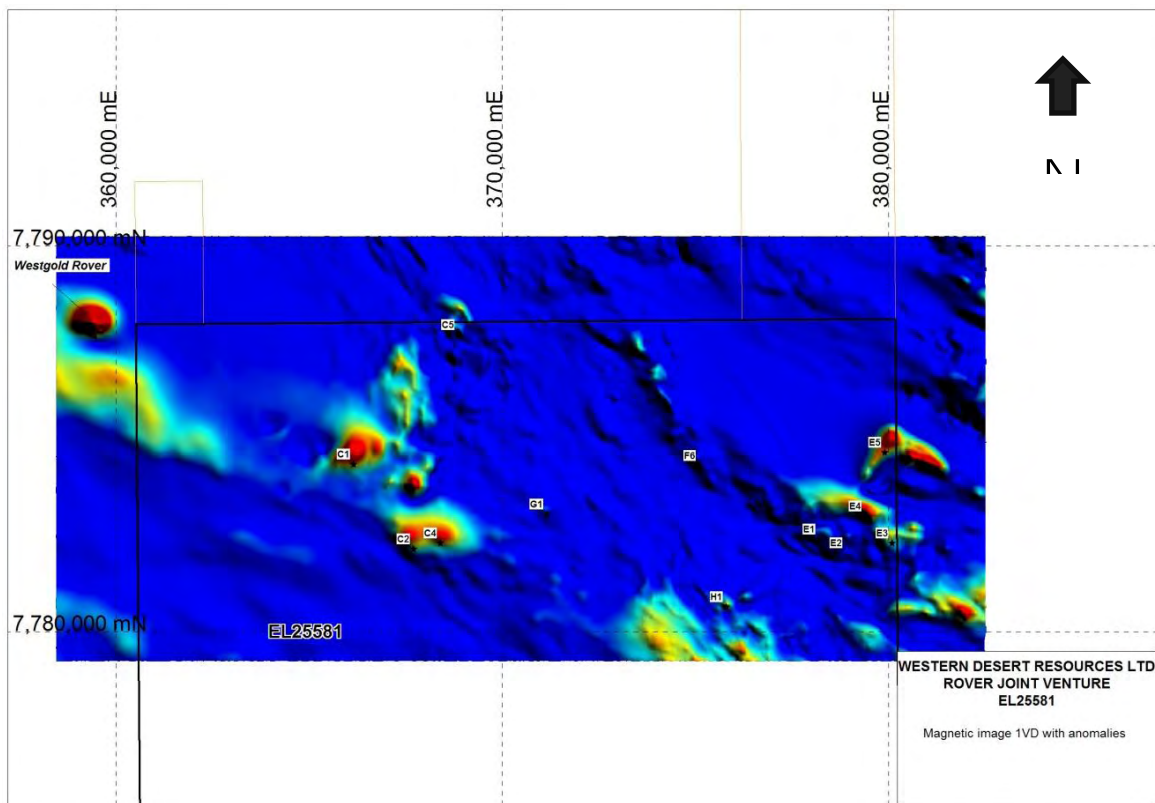
Recent exploration

The Gosse River and McLaren tenements are yet to be granted and no exploration has been undertaken.

A helicopter-borne magnetic/radiometric survey was flown over the northern part of EL 25581 in 2009/2010. The data was collected on a total of 5,766 line kilometres of east-west flight lines at a line separation of 50 m and a terrain clearance of 50 m. Interpretation of the magnetic data identified 12 magnetic targets, chosen to be further tested (Figure 4.3), with a target depth to the magnetic source of at least 300 m in each case.

Four of the targets (E1, E2, E3 and E4) in the south-east portion of the survey area were within or adjacent to a sacred site exclusion zone and were not drilled.

Figure 4.3 Location of magnetic targets



Source: TRT

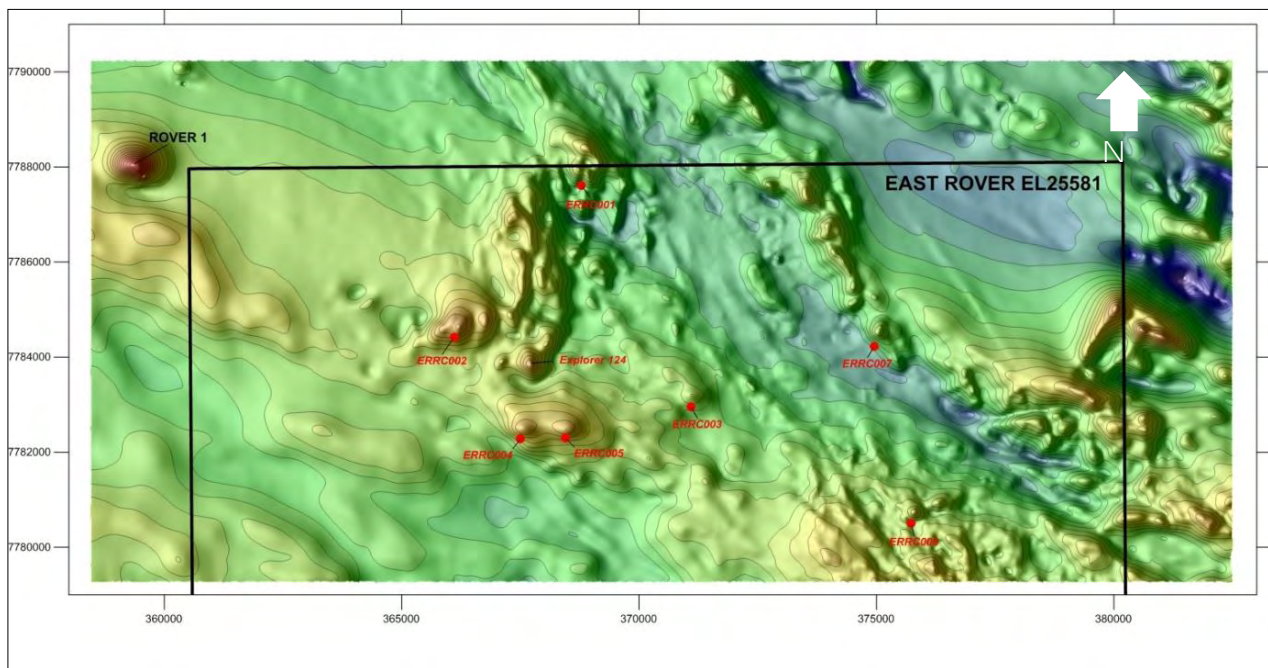
2010 drilling

Seven RC drillholes totalling 1,692 m were completed in January/February 2010 (Table 4.3 and Figure 4.4)⁵⁰. Assay samples were taken each metre from a depth of 100 m to the bottom of the holes and analysed by ALS Chemex for 33 elements by ICP-AES, following a four-acid digestion and for gold by fire assay using a 50 g charge and AA finish.

Table 4.3 Rover RC drilling

Hole no.	Target	Easting GDA	Northing GDA	Azimuth (magnetic)	Inclination	Planned depth (m)	Final depth (m)
ERRC001	C5	368775	7787610	360	-60	350	323
ERRC002	C1	366100	7784420	360	-70	350	233
ERRC003	G1	371090	7782950	360	-60	300	275
ERRC004	C2	367500	7782280	360	-65	350	239
ERRC005	C4	368450	7782295	360	-65	350	215
ERRC006	H1	375725	7780500	30	-60	300	107
ERRC007	F6	374950	7784225	45	-60	300	300

Figure 4.4 Location of drillholes on magnetic image



Source: TRT

⁵⁰ TNG ASX Release 5 March 2010

The holes intersected a similar sequence of volcanic and/or igneous rocks and analytical results were not anomalous. Magnetic susceptibility readings taken on the bulk samples showed that these rocks had a significant magnetite content which explained the magnetic anomalies. Anomalous phosphate values were recorded in two of the holes (ERRC002 and 005) at the base of the Wiso Basin succession.

2012 geophysics and drilling

An IP survey was undertaken in 2012 for 18 line kilometres on three grids, covering previously identified gravity and EM targets. Three targets were identified and diamond drilled, without returning potentially economic mineralisation or material that would explain the IP anomalies. Downhole geophysics did not identify any off-hole conductors at each location.

Snowden notes that these holes intersected chlorite alteration, which indicates hydrothermal activity and is associated with gold mineralisation in the Tennant Creek field. Snowden concurs with TRT's view that the unexplained anomalism warrants further examination, particularly considering the notoriously discrete mineralisation of the field.

4.1.5 Aboriginal heritage, Native Title and environment

An Exploration Agreement exists with the CLC for Rover and Kovacs. The Gosse River and McLaren tenements are yet to be granted and the application is proceeding as per the Aboriginal Land Rights Agreement (ALRA) process.

4.1.6 Snowden opinion

Snowden considers the Rover project to be at a basic level of exploration. The geology indicates potential for the identification of economic mineralisation, but this remains to be tested. Experience in the Tennant Creek field indicates that sophisticated geophysical analysis is the primary exploration tool, followed by deep drilling and that persistence is required.

Snowden's opinion is that Rover represents a lower priority target to that of its peers, but is worthy of continuing preliminary exploration activities.

4.2 Goddards

The Goddards tenement is an isolated project at a low level of development, but which displays some potential for copper and gold mineralisation. A Heads of Agreement with WDR allowed it to negotiate through to grant by the Mines Department and then earn into the licences. Snowden understands that WDR did not subsequently materially participate and that negotiations are taking place with the Liquidator to negate the Heads of Agreement.

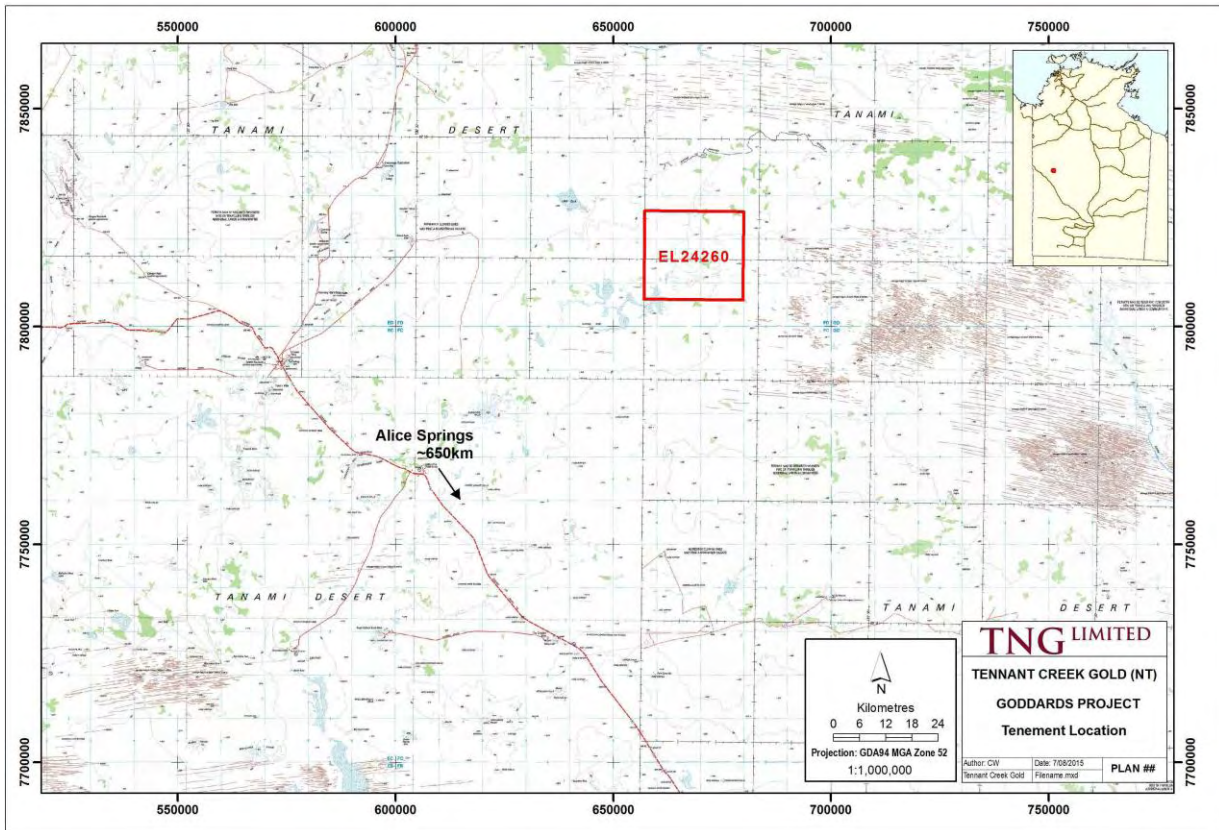
4.2.1 Location and access

The Goddards Exploration Licence Application (Table 4.4 and Figure 4.5) occurs about 400 km west of Tennant Creek. It was applied for on 15 April 2004 and approval is still pending. The area is accessible via bitumen road between Tennant Creek and the old Warrego Mine Site and then unsealed tracks/roads.

Table 4.4 Goddards project tenements

Licence	Title holder	Area (blocks)	Application date	Grant date	Expiry date
EL 24260	TRT – 100%	143	15/4/2004	Application	Application

Figure 4.5 Goddards project location



4.2.2 Geology and mineralisation

The exposed strata in the project area is dominated by Palaeozoic sandstones, calcareous units and metasediments which in many areas are capped by Tertiary and Quaternary laterites, gravels and sands.

Weak copper oxide mineralisation associated with veins hosted in a dolomite unit was discovered in the mid-1970s.

4.2.3 Exploration potential

The Goddards licence area is considered by TRT to have potential for copper.

Historic exploration

The area was explored in the mid-1970s by Peko Mines Limited, which undertook aerial geophysical surveys, rock chip sampling and general geological reconnaissance⁵¹.

Recent exploration

The tenement has yet to be granted and as such no exploration has been undertaken.

⁵¹ NTGS Open File Reports CR19750142 and CR19750112

4.2.4 Aboriginal heritage, Native Title and environment

The licence is still under application and the application is proceeding as per the ALRA process.

4.2.5 Snowden opinion

Snowden considers the Goddards project to be at a basic level of exploration. The geology indicates potential for the identification of economic mineralisation, but this remains to be tested.

Snowden's opinion is that Goddards represents a lower priority target to that of its peers, but is worthy of continuing preliminary exploration activities.

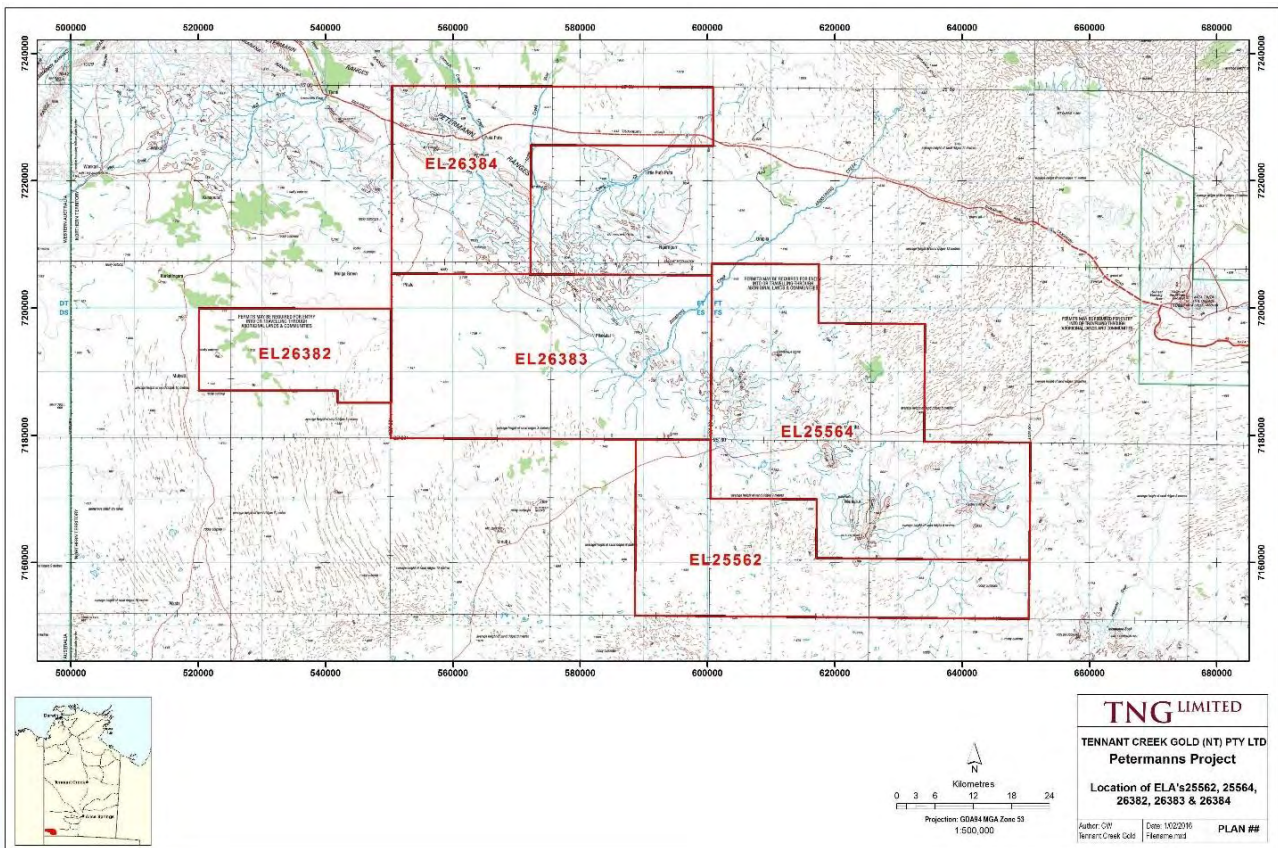
4.3 Petermanns

The Petermanns project comprises a large exploration licence application in an area that has previously seen very little exploration, but is considered to be highly prospective for base and precious metals. A Heads of Agreement with WDR allowed it to negotiate through to grant by the Mines Department and then earn into the licences. Snowden understands that WDR did not subsequently materially participate and that negotiations are taking place with the Liquidator to negate the Heads of Agreement.

4.3.1 Location and access

The Petermanns project consists of five exploration licence tenement applications in the Northern Territory, approximately 400 km southwest of Alice Springs (Figure 4.6). The tenements are owned by TRT, having been transferred from TCG (NT), a wholly owned subsidiary of TNG and Snowden understands that WDR did not earn an interest in the tenements.

Figure 4.6 Petermanns project location



Source: TRT

4.3.2 Tenements

The tenements remain subject to application, pending arrangements with WDR's liquidators (Table 4.5).

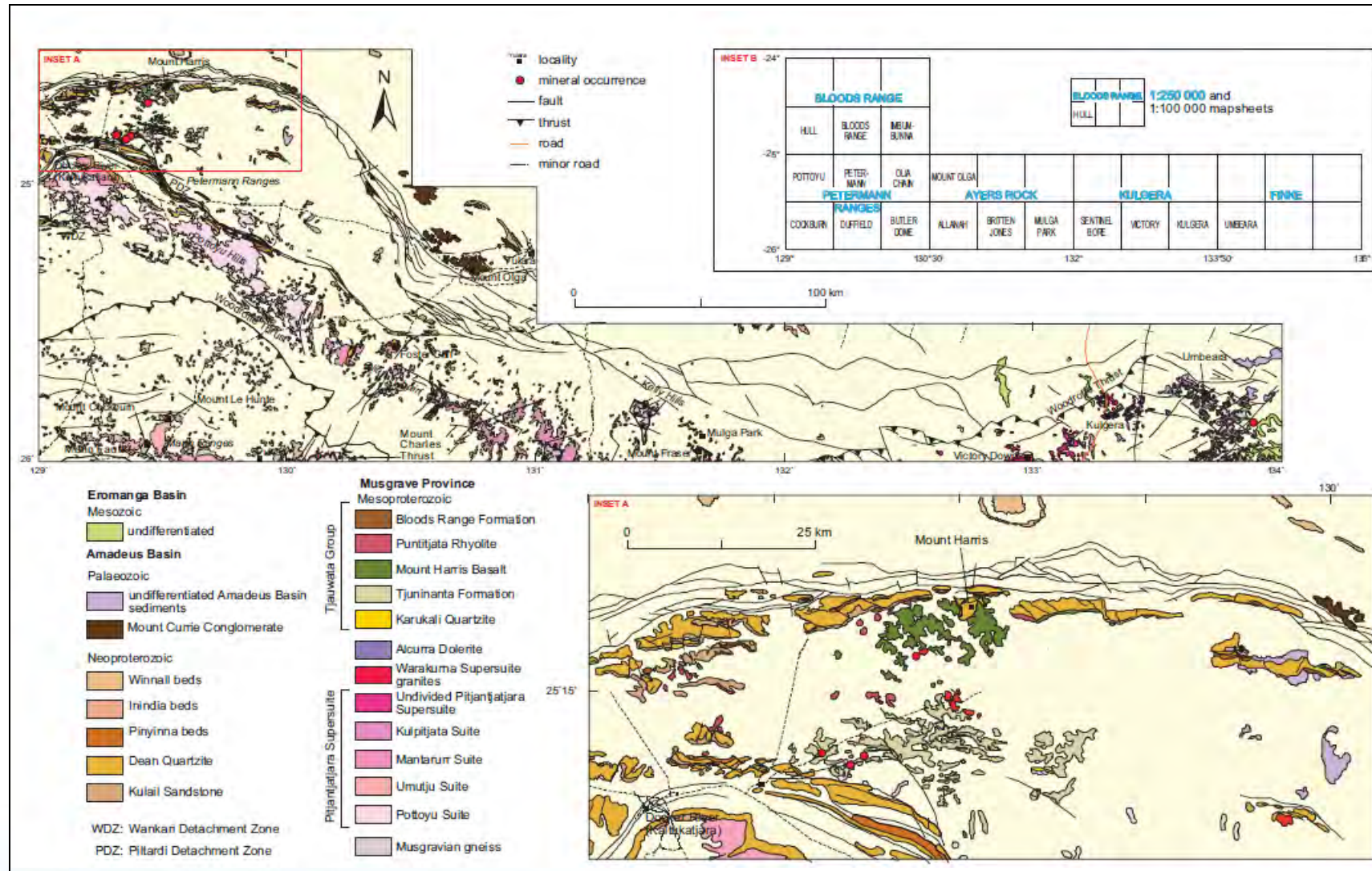
Table 4.5 Petermanns project tenements

Licence	Title holder	Area (blocks)	Application date	Grant date	Expiry date
ELA 25562	TRT – 100%	305	23/08/2006	Application	Application
ELA 25564		500	23/08/2006	Application	Application
ELA 26382		131	16/08/2007	Application	Application
ELA 26383		420	16/08/2007	Application	Application
EL 26384		293	16/08/2007	In moratorium, veto date 31/5/12	

4.3.3 Geology and mineralisation

The Petermanns Ranges consist of Neoproterozoic quartzites, sandstones, conglomerate, dolostone, and limestone, resting on Mesoproterozoic granite gneiss (Figure 4.7). The Petermann Ranges are located in the Musgrave Province of the southwest of the Northern Territory. This remote area has seen scant historic exploration but is considered to be highly prospective for base and precious metals following exploration results gained by BHP Billiton and subsequently Metals X and Cassini Resources.

Figure 4.7 Musgrave Province geology



Source: NTGS

4.3.4 Exploration potential

The Petermanns project is relatively unexplored and lies within the Musgrave Province. The tenements are considered by TRT to be prospective for gold, base metals, rare earths and nickel sulphides and possibly uranium. Snowden concurs with this assessment.

The NTGS reports⁵² that copper mineralisation is recorded at several localities in the Petermann Ranges. It has been claimed that the mythical gold reef purportedly discovered by Harold Bell Lasseter in the 1920s is located somewhere in the western Musgrave Province, but little evidence exists to support this.

The Musgrave province has attracted considerable exploration interest for Ni-Cu±PGE mineralisation in South Australia and Western Australia. Laterite nickel Mineral Resources and Ore Reserves have been reported by Westgold⁵³ at Wingellina, on the Western Australian side, which reports an inventory of 187 million tonnes of ore at 1% Ni and 0.08% Co. The Claude Hills deposit is located approximately 30 km east of Wingellina and 33.3 million tonnes at 0.81% Ni and 0.07% Co is reported.

The largest known deposit in the Musgrave Province is Cassini Resources' Nebo-Babel Ni-Cu(-PGE) deposit⁵⁴ in Western Australia with a resource estimate of 203.1 million tonnes at 0.41% Ni and 0.42% Cu.

The NTGS considers that small, strata-bound copper occurrences in the South Australian central Musgrave Province indicate some potential for metamorphosed sediment-hosted or VMS-style mineralisation. Some granites indicate potential for IOCG deposits, on the basis of their geochemistry and rift-related sedimentary rocks present targets for red-bed copper mineralisation, particularly as small occurrences have been identified.

Historical exploration

The licence is still under application and no literature reviews of past exploration have been undertaken.

Recent exploration

The tenement has yet to be granted and no exploration has been undertaken.

4.3.5 Aboriginal heritage, Native Title and environment

A revised consent to grant document was submitted to the CLC in February 2016, but until negotiations with the Liquidators have been finalised and the licences are transferred back to TRT, no progress can be made.

4.3.6 Snowden opinion

Snowden considers the Petermanns project to be at a low level of exploration development but in a highly prospective but underexplored area. The geology indicates strong potential for the identification of economic base metal mineralisation.

Snowden's opinion is that once the project is reassigned by the WDR liquidators, it will demand significant attention by TRT.

⁵² Ahmad M and Munson TJ (compilers), 2013. Geology and mineral resources of the Northern Territory. NTGS, Special Publication 5

⁵³ <https://www.metalsx.com.au/nickel/>

⁵⁴ <http://www.cassiniresources.com.au/west-musgrave-project/development/nebo-babel-wa>

5 EXPLORATION STRATEGY

TRT believes that the cumulative results of exploration carried out by TNG over the previous five to 10 years provide a platform on which it can progress future exploration on the Northern Territory projects and add value to TRT.

Snowden has assessed the exploration work which has already been undertaken on the projects and their relative geological prospectivity and considers that there is a reasonable basis for belief that exploration will result in the discovery of economic mineralisation and the establishment of a profitable mining operation. TRT's strategy is to preferentially explore and develop those projects located near established infrastructure which demonstrate the ability to be developed into early production opportunities. Snowden concurs with this strategy.

TRT has described to Snowden its proposed exploration budget (Table 5.2) and exploration activities (Table 5.1 and Table 5.4) for each project area. Based on its experience, Snowden considers that TRT's strategy is adequately budgeted, considering the level of development of the projects and geological location.

Snowden advises that mineral exploration is a process of discovery and any budget and strategy will be constantly revised as the results of exploration campaigns are assessed.

Snowden notes that those projects subject to joint venture have been excluded from this strategy, which will consequently require revision once the Liquidators of WDR have reassigned these tenements. This is particularly germane in relation to the Petermanns project, which Snowden considers to hold significant prospectivity.

Table 5.1 TRT proposed exploration activities

Project	Proposed activity
Manbarrum	Estimation of further Mineral Resources subject to the results of exploration Metallurgical testwork Exploration for MVT style mineralisation in the north-eastern tenements Scoping Studies at Sandy Creek
McArthur River	Geophysical surveys RC and diamond drilling Estimation of Mineral Resource
Walabanba	RC drilling of EM targets
Mount Hardy	Drilling and refined target definition Estimation of Mineral Resource
Tomkinson	Data compilation and literature review Geological mapping Geochemical soil and rock surveys
Stokes Yard	Geological mapping Geochemical soil and rock surveys Target generation RC drilling
Soldiers Creek	Data compilation and literature review Geological mapping Geochemical soil and rock surveys Target generation
Sandover	Data compilation and literature review Geological mapping Geochemical soil and rock surveys Geophysical surveys
Croker Island	Data compilation and literature review Geological mapping Geochemical soil and rocks surveys

Subject to a successful Initial Public Offering, TRT has an exploration budget of around \$2,500,000, in the case of the minimum subscription being raised (Table 5.2) and around \$3,500,000, for full subscription (Table 5.3), for its first two financial years, which includes exploration expenditure, tenement rents and rates, office and administration costs and salaries (Table 5.4 and Table 5.4).

Table 5.2 Expenditure breakdown by project area, minimum subscription case

Project area	Year 1 (A\$M)	Year 2 (A\$M)	Total (A\$M)
Manbarrum	0.21	0.27	0.49
McArthur River	0.29	0.29	0.57
Walabanba	0.14	0.17	0.32
Mount Hardy	0.25	0.29	0.54
Tomkinson	0.05	0.12	0.17
Stokes Yard	0.07	0.12	0.19
Soldiers Creek	0.03	0.05	0.08
Sandover	0.05	0.06	0.11
Croker Island	0.02	0.02	0.04
Total	1.11	1.38	2.50

Table 5.3 Expenditure breakdown by project area, full subscription case

Project area	Year 1 (A\$M)	Year 2 (A\$M)	Total (A\$M)
Manbarrum	0.30	0.38	0.68
McArthur River	0.40	0.40	0.80
Walabanba	0.20	0.24	0.44
Mount Hardy	0.35	0.40	0.75
Tomkinson	0.08	0.16	0.24
Stokes Yard	0.10	0.16	0.26
Soldiers Creek	0.05	0.06	0.11
Sandover	0.07	0.09	0.16
Croker Island	0.02	0.03	0.05
Total	1.56	1.94	3.50

TRT is aware that exploration success or failure and new circumstances have the potential to affect the manner in which the funds are ultimately applied and has explained to Snowden that it reserves the right to alter the way funds are applied.

Table 5.4 Expenditure breakdown by activity, minimum subscription case

Expenditure activity	Year 1 (A\$M)	Year 2 (A\$M)	Total (A\$M)
Geological field activities	0.20	0.18	0.38
Geochemical and metallurgical activities	0.10	0.09	0.20
Geophysics	0.09	0.02	0.12
Drilling	0.38	0.57	0.95
Rehabilitation	0.00	0.05	0.05
Technical studies	0.07	0.15	0.22
Geological studies	0.15	0.17	0.32
Field costs and tenement administration	0.12	0.14	0.25
Total	1.11	1.38	2.50

Table 5.5 Expenditure breakdown by activity, full subscription case

Expenditure activity	Year 1 (A\$M)	Year 2 (A\$M)	Total (A\$M)
Geological field activities	0.28	0.26	0.54
Geochemical and metallurgical activities	0.14	0.13	0.28
Geophysics	0.13	0.03	0.16
Drilling	0.53	0.80	1.33
Rehabilitation	0.00	0.07	0.07
Technical studies	0.10	0.21	0.31
Geological studies	0.21	0.24	0.45
Field costs and tenement administration	0.16	0.19	0.35
Total	1.56	1.94	3.50

Snowden has interviewed TRT staff and worked with them on a number of assignments over a period of some years and considers these personnel to be capable and suitably qualified to implement the proposed exploration strategy in a professional and productive manner. Snowden comments that the most valuable asset for any mining or exploration company is its knowledge of its Mineral Assets. Snowden considers that TRT staff are dedicated to acquiring and preserving this knowledge.

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7 ABBREVIATIONS AND UNITS

Table 7.1 Abbreviations and units

Abbreviation/unit	Definition
%	percent
°	degree
°C	degree Celsius
A\$	Australian dollars
AEM	airborne electromagnetic
ALRA	Aboriginal Land Rights Agreement
AMMTC	Australian Metallurgical and Mineral Testing Consultants
ASX	Australian Securities Exchange
Anglo	Anglo American Corporation
BIF	banded iron formation
BMR	Bureau of Mineral Resources
CaO	calcium oxide
CLC	Central Land Council
cm	centimetre
CO	carbon monoxide
CO ₂	carbon dioxide
CPR	Competent Person's Report
CSA	CSA Australia Pty Ltd
DHEM	downhole electromagnetics
DME	Department of Minerals and Energy
DMR	Department of Mineral Resources
ELA	Exploration Licence Application
Eng	engineering
Enigma	Enigma Mining Limited
ha	hectares
hr(s)	hour(s)
ID	inverse distance
IOCG	iron oxide copper gold
IP	induced polarisation
ITR	Independent Technical Review
JORC	(Australian) Joint Ore Reserves Committee
KBL	KBL Mining Limited
kg	kilogram
kℓ	kilolitre
km	kilometre
km ²	square kilometres
ℓ/hour	litres per hour

Abbreviation/unit	Definition
ℓ/s	litres per second
M	million
m	metre
m/min	metres per minute
m ²	square metre
m ³ /s	metres cubed per second
MgO	magnesium oxide
mH	metres high
Mn	manganese
Mt	million tonnes
Mt/a	million tonnes per annum
MVT	Mississippi Valley Type
mW	metres wide
NTGS	Northern Territory Geological Survey
P ₂ O ₅	phosphorous oxide
pXRF	portable x-ray fluorescence
RC	reverse circulation
RD	relative density
RGC	RGC Exploration Pty Ltd
RMC	Reynolds Metals Company
ROM	run of mine
SiMn	silicomanganese
SiO ₂	silicon dioxide or silica
Snowden	Snowden Mining Industry Consultants Pty Ltd
TCG (NT)	Tennant Creek Gold (NT) Pty Ltd
TNG	TNG Limited
TRT	Todd River Resources
VALMIN Code	2015 Australasian Code for Public Reporting of Technical Assessments and Valuations of Mineral Assets
VMS	volcanic massive sulphide
WDS	Western Desert Resources
XRF	x-ray fluorescence



Appendix A Snowden Sandy Creek
Mineral Resource
Estimate

Sandy Creek Mineral Resources as at January 2017 reported above 1% Zn cut-off

Classification	Material	Tonnes Mt	Zn %	Pb %	Ag g/t
Indicated	Oxide	0.6	1.45	0.43	5.14
	Primary	4.5	2.00	0.88	5.91
Total Indicated		5.1	1.94	0.82	5.82
Inferred	Oxide	0.9	1.26	0.28	3.24
	Primary	16.5	1.80	0.33	4.24
Total Inferred		17.4	1.77	0.33	4.19
Grand total		22.5	1.81	0.44	4.56

Small discrepancies may occur due to rounding

Competent Persons Statement

The information in this report that relates to the Sandy Creek Mineral Resource estimate is based on information compiled by John Graindorge who is a Chartered Professional (Geology) and a Member of the Australasian Institute of Mining and Metallurgy (MAusIMM) and has sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity to 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". John Graindorge is a full-time employee of Snowden Mining Industry Consultants Pty Ltd and consents to the inclusion in the report of the matters based on this information in the form and context in which it appears.

JORC (2012) Table 1 – Section 1 Sampling Techniques and Data

Item	Comments
Sampling techniques	<ul style="list-style-type: none"> The data used for resource estimation is based on the logging and sampling of RC and diamond core drilling. RC samples were collected at 1 m intervals using a static cone splitter mounted below the cyclone. A sample of 2kg to 4kg each, along with the bulk reject, were collected for each interval. Sample bags were pre-numbered. PQ diamond core was quarter core sampled and HQ core was half core sampled, with the core cut by a saw.
Drilling techniques	<ul style="list-style-type: none"> Drilling at Sandy Creek comprises 120 RC drillholes and 53 PQ/HQ diamond drillholes (some with RC pre-collars), for a total of 20,430 m of RC and 12,054.5 m of diamond drilling. All drilling was conducted by TNG in 2006 and 2007. The majority of drilling was completed using angled RC holes using a conventional cross-over sub with a 5.5" button bit. Diamond drilling was completed using either PQ or HQ diameter, with triple tubing used to improve core recovery. The core was not oriented.
Drill sample recovery	<ul style="list-style-type: none"> Sample weights (with a precision of 2 kg) were measured for some RC drillholes and the recovery calculated based on a nominal/assumed 20 kg expected weight (i.e. 100% recovery = 20 kg). Where recovery is recorded, the average RC recovery is approximately 50%, which in Snowden's opinion indicates poor recovery. Moreover, the vast majority of samples taken from below approximately 70 m vertical depth were recorded as being wet. No sample recovery was recorded for the diamond drilling.
Logging	<ul style="list-style-type: none"> Qualitative geological logging of most drillhole intervals (RC and core) was done with sufficient detail to meet the requirements of resource estimation. All intervals were logged. A handheld Niton XRF tool was used to aid the geological logging.
Subsampling techniques and sample preparation	<ul style="list-style-type: none"> A nominal 1 m sample interval was used for the RC drilling. Diamond core was sawn in half (HQ) or quarter (PQ) using a diamond saw and samples collected at 1 m intervals within the dolomite. RC samples were split using a static cone splitter with approximately 2 kg to 4 kg samples collected. Laboratory sample preparation for whole rock assays conducted at ALS Chemex in Brisbane, Queensland. The exact sample preparation process is not documented; however the following process is assumed: <ul style="list-style-type: none"> Drying at 105°C Crush and pulverise to nominally 75 µm Sub-sample from pulp collected (technique not documented) The sample sizes are considered to be reasonable to correctly represent the mineralisation based on the style of mineralisation, the thickness and consistency of intersections and the drilling methodology.

Item	Comments
Quality of assay data and laboratory tests	<ul style="list-style-type: none"> Assaying of Ag, As, Cd, Cu, Fe, Pb, S and Zn using 4-acid digest with analysis by ICP-AES. Quality control results for the 2006 and 2007 assays were reported by SRK in the 2009 QAQC report for the Sandy Creek project. Snowden reviewed the report and also generated independent QC charts for standards, field duplicates and blanks. A number of certified standards have been employed by TNG for the Sandy Creek sample batches, sourced from Geostats Pty Ltd and Gannet Holdings Ltd. Control charts for the seven standards sourced from Geostats Pty Ltd show reasonable analytical accuracy for Zn, Pb and Ag assays. Duplicate RC samples were collected in the field from either the rig mounted cone splitter or a manual riffle splitter. Just over half of the duplicate samples were collected using the rig mounted cone splitter at the same time as the original sample was being collected. In Snowden's opinion, the analysis of the field duplicate sampling data from the RC drilling (duplicate sample collected from second sample port on the cone splitter) at the Sandy Creek deposit indicates that the sampling precision, whilst reasonable, is not ideal for all the elements assessed (Zn, Pb and Ag). The lower than expected precision levels is likely to be a function of the wet samples below the water table along with the use of a cross-over sub, rather face sampling bit, during RC drilling. Results of the submitted blank materials identified three samples with elevated grades for Zn, Pb and Ag. No other significant problems were identified for the remainder of the blank samples and there is any evidence of systematic contamination of samples during the laboratory sample preparation or assaying. Results show that reasonable precision was achieved during sampling, sample preparation and assaying, although improvements to the drilling and sampling process should improve the precision (as measured by the field duplicates). Additionally, the analytical accuracy of the assaying is considered to be reasonable.
Verification of sampling and assaying	<ul style="list-style-type: none"> Snowden has not conducted any independent verification of the assay data. Detailed procedures for drilling, sampling and geological logging are not documented by TNG, although summaries of the processes employed are provided in various drilling reports. Eight RC drillholes have been twinned (within 5 m) by diamond core drilling. Comparisons using QQ plots show that for Zn and Pb grades within the mineralisation, the RC samples are on average around 50% to 100% higher grade than the diamond core. Snowden notes that high grades intersected in the RC drilling are not reproduced in the DDH holes. It is thought that this bias may be due to poor recovery of diamond core in broken and/or vuggy ground along with a loss of fines from the diamond drilling. Snowden believes that this explanation is plausible; however given the wet RC sampling and poor precision shown by the RC field duplicates, it is recommended that further studies are conducted to verify the cause of the observed bias. Values below the analytical detection limit were replaced with half the detection limit value. Other negative assay codes within the database to represent unsampled intervals, were reset to null. No other adjustments have been made to the assay data.
Location of data points	<ul style="list-style-type: none"> The grid is based on the MGA94 Zone 52 grid system. Drillhole collars from the 2006 and 2007 drilling programmes were surveyed using either handheld GPS or differential GPS. All diamond drillhole collars were surveyed by a contract surveyor after completion of the hole using differential GPS. The nominal horizontal and vertical accuracy of the collar surveying is not known. RC drillholes from 2006 were only surveyed at the collar. RC drilling from 2007 was surveyed downhole at approximately 60 m intervals if greater than 100 m deep; if less than 100 m deep then only a collar and end-of-hole survey were taken. All downhole surveying of RC drillholes was completed using a single-shot Eastman camera, recording the inclination and azimuth. Diamond drillholes were surveyed downhole at approximately 30 m intervals, primarily using a single-shot Eastman camera and then later an electronic Globaltech Pathfinder tool. A topography surface for the Sandy Creek area was developed by Snowden using point data derived from a space shuttle radar topography mission, with points collected at 30 m intervals. This data was adjusted down by 2.5 m based on a comparison with the surveyed drillhole collar points. A wireframe topographical surface was then generated using the adjusted shuttle data along with the drillhole collars.

Item	Comments
Data spacing and distribution	<ul style="list-style-type: none"> The drilling was completed along a set of east-west trending sections. The drill spacing is based on a 50 mN by 50 mE drilling grid, with infill drilling in the central portion of the deposit to 25 mE by 25 mN. The section spacing is sufficient to establish the degree of geological and grade continuity necessary to support the resource classification applied. The drilling was composited downhole using a 1 m interval.
Orientation of data in relation to geological structure	<ul style="list-style-type: none"> The vast majority of the drilling has been drilled at an inclination of 60° towards the east. The location and orientation of the Sandy Creek drilling is appropriate given the strike and sub-vertical morphology of the dolomites and associated base metal mineralisation.
Sample security	<ul style="list-style-type: none"> No specific measures have been taken to ensure sample security. Once received at the laboratory, samples were compared by the laboratory to the sample dispatch documents. Snowden has no reason to believe that sample security poses a material risk to the integrity of the assay data used in the Mineral Resource estimate.
Audits and reviews	<ul style="list-style-type: none"> Snowden is not aware of any independent reviews of the drilling, sampling and assaying protocols, or the assay database, for the Sandy Creek project.

JORC (2012) Table 1 – Section 2 Reporting of Exploration Results

Item	Comments
Mineral tenement and land tenure	<ul style="list-style-type: none"> The Sandy Creek deposit occurs within the southern portion of the TNG-owned tenement MA24518, which covers approximately 16.85 km².
Exploration done by other parties	<ul style="list-style-type: none"> Drilling at Sandy Creek was conducted TNG over several campaigns from 2006 to 2007, with 173 holes drilled. The drilling database comprises 120 reverse circulation ("RC") drillholes and 53 PQ/HQ diamond drillholes (some with RC pre-collars), for a total of 20,430 m of RC and 12,054.5 m of diamond drilling.
Geology	<ul style="list-style-type: none"> The Sandy Creek deposit occurs in the eastern portion of the Bonaparte Basin and is hosted within a sequence of Devonian-to-Carboniferous shelf carbonate sediments (the Burt Range Formation). Upper Burt Range Formation dolomites host numerous occurrences of classic Mississippi Valley Type (MVT) base metal mineralisation, primarily Zn-Pb-Ag mineralisation. Mineralisation is both structurally controlled and strata-bound, hosted by northerly-trending fault breccias along with sedimentary breccias which host lower grade, strata-bound mineralisation. Mineralisation is believed to be controlled by extensional splay faults from the regional Halls Creek fault system. The deposit is covered by a 5 m to 15 m thick layer of alluvial material comprising soil and ferruginous clays.
Drillhole information	<ul style="list-style-type: none"> No exploration results being reported.
Data aggregation methods	<ul style="list-style-type: none"> No exploration results being reported.
Relationship between mineralisation widths and intercept lengths	<ul style="list-style-type: none"> No exploration results being reported.
Diagrams	<ul style="list-style-type: none"> Refer to figures in main summary.
Balanced	<ul style="list-style-type: none"> No exploration results being reported.

Item	Comments
reporting	
Other substantive exploration data	<ul style="list-style-type: none"> No exploration results being reported.
Further work	<ul style="list-style-type: none"> Snowden understands that TRT intends to undertake metallurgical test work and a Scoping Study at Sandy Creek but makes no specific recommendations at this stage.

JORC (2012) Table 1 – Section 3 Estimation and Reporting of Mineral Resources

Item	Comments
Database integrity	<ul style="list-style-type: none"> The drill data was supplied as a series of comma delimited text files extracted from the master Access database. Snowden undertook a basic check of the data for potential errors as a preliminary step to compiling the resource estimate. No significant flaws were identified.
Site visits	<ul style="list-style-type: none"> Snowden visited the Sandy Creek deposit in August 2016. No drilling or sampling was taking place at the time of the site visit
Geological interpretation	<ul style="list-style-type: none"> Snowden believes that the local geology is reasonably well understood as a result of work undertaken by TNG. Different styles of mineralisation have been identified and further work is required to assess the impact on the Mineral Resource estimation. The geology and faulting were used to guide the mineralisation interpretation to define enclosed mineralised areas where the Zn grades were 0.15% or higher. Sometimes samples were included where the grade was less than 0.15% to aid with the grade continuity and maintain the overall shape of the polygons. The 0.15% cut-off was selected because it represents a change in the overall mineralisation style of the area and can be seen as an inflection point on a cumulative frequency curve of all the data for oxide and primary material. The deposit is covered by a 5 m to 15 m thick layer of alluvial material comprising soil and ferruginous clays. Zinc within the fresh mineralisation primarily comprises sphalerite, which is oxidised in the near surface portions to franklinite, zincite. The oxide zone averages 20 m to 30 m thick, but is locally up to approximately 100 m. The transition from oxide through to fresh likely occurs over a 5 m to 10 m wide zone. This transitional material has not been modelled and is included as part of the oxide zone in the resource model. Alternative interpretations of the mineralisation are unlikely to significantly change the overall volume of the mineralised envelopes in terms of the reported classified resources.
Dimensions	<ul style="list-style-type: none"> Mineralisation occurs over a strike length of approximately 1 km, striking roughly northeast-southwest and dipping at 25°→295 and ranging in thickness from between 50 m and 750 m, with a down-dip extent of approximately 700 m.
Estimation and modelling techniques	<ul style="list-style-type: none"> Grade estimation was completed using Datamine software. Estimation of Zn, Pb and Ag using ordinary block kriging (parent cell estimation) with hard domain boundaries and top cuts, where required, to control the impact of outlier grades. A top cut of 10% Pb was applied to oxide mineralisation only; no other top-cuts were applied. The grade estimation was constrained within the mineralisation and fault block domains, with the oxide and fresh zones estimated separately. Block model constructed using a parent block size of 25 mE x 25 mN x 10 mRL based on the results of a KNA study, along with an assessment of the grade continuity and geometry of the mineralisation. The parent block size represents half the nominal drillhole spacing. The search ellipse orientation and radius was based on the results of the grade continuity analysis, with the same search neighbourhood parameters used for all elements to maintain the metal balance and correlations between elements. An initial search of 75 m along strike by 75 m down dip by 5 m thick was used, with a minimum of 10 and maximum of 28 samples. Only the mineralisation was modelled. Surrounding host rock (waste) domains were not

Item	Comments
	<p>modelled.</p> <ul style="list-style-type: none"> Grade estimates were validated against the input drillhole composites (globally and using grade trend plots) and show a reasonable comparison.
Moisture	<ul style="list-style-type: none"> All tonnages have been estimated as dry tonnages.
Cut-off parameters	<ul style="list-style-type: none"> The mineralisation has been reported above a 1% Zn cut-off. A 1% Zn cut-off was applied for the reporting based on the pit optimisation carried out by Snowden (see Section 10), along with consideration of continuity of the mineralisation above various cut-off.
Mining factors and assumptions	<ul style="list-style-type: none"> It is assumed the deposit will be mined using conventional open cut drill and blast mining methods.
Metallurgical factors and assumptions	<ul style="list-style-type: none"> Metallurgical test work has been carried out on composite samples generated from RC and DDH drilling, and concludes that floatation test work has shown the production of lead and zinc concentrates from the upper zone and a zinc concentrate from the lower zone that would be acceptable to smelters, with recoveries of greater than 90% for Zn in the upper zone. The testwork is considered to be at a preliminary stage and further testwork and variability studies on representative samples are required to validate the metallurgical assumption.
Environmental factors and assumptions	<ul style="list-style-type: none"> It is assumed that no environmental factors exist that could prohibit any potential mining development at the Sandy Creek deposit.
Bulk density	<ul style="list-style-type: none"> In-situ density was measured for 34 samples from a single diamond drillhole at Sandy Creek using the water immersion method with wax-coating. The average of the density measurements is approximately 2.7 t/m³. It is assumed that these samples all fall within the dolomite domains. Bulk density values were assigned to the model blocks for the dolomite domains based on the diamond core density measurements. Assumed values were applied to other rock types based on average values for similar lithologies.
Classification	<ul style="list-style-type: none"> The resources have been classified based on the continuity of both the geology and the grades, along with the drillhole spacing and data quality. The Mineral Resource has been classified as combination of Indicated and Inferred Resources. Within the mineralised envelope, below the transported surface has been classified as Inferred. The central portion of the project which is bounded on four sides by faults has been classified as Indicated. Due to predominately wet samples being returned for drilling deeper than approximately 75 m below surface, the Indicated portion of the resource is limited to areas shallower than -70 mRL. Snowden applied a preliminary Lerchs-Grossman pit optimisation to assess the potential for mining by open-pit methods, based on current industry parameters. The Mineral Resource classification appropriately reflects the view of the Competent Person.
Audits and reviews	<ul style="list-style-type: none"> The Mineral Resource estimate has been peer reviewed as part of Snowden's standard internal peer review process. Snowden is not aware of any external reviews of the Sandy Creek Mineral Resource estimate.
Discussion of relative accuracy/ confidence	<ul style="list-style-type: none"> The Mineral Resource has been validated both globally and locally against the input composite data. Closer spaced drilling is required to assess the confidence of the short range grade continuity and local accuracy of the block grade estimates. No production data is available for comparison with the Mineral Resource estimate at this stage.