TNG LIMITED

31 July 2015

MOUNT PEAKE FEASIBILITY STUDY CONFIRMS A WORLD-CLASS PROJECT CAPABLE OF DELIVERING OUTSTANDING RETURNS OVER LONG LIFE

Robust 41% IRR and $4.9 billion net present value (NPV_8) paves way for final funding, construction and off-take contracts with existing portfolio of Tier One strategic partners

Highlights

- **Definitive Feasibility Study (DFS) finds that TNG's 100%-owned Mount Peake Vanadium-Titanium-Iron Project in the Northern Territory when developed will deliver robust financial and technical outcomes.**
- **Key findings of DFS include:**
  - ***Pre-production capital cost estimate of A$970M (Stage 1 infrastructure, mine site, concentrator and Refinery);***
  - ***Pre-tax net annual average production cash flow of A$785 million;***
  - ***Life-of-mine net cashflow of A$11.6 billion;***
  - ***Pre-tax IRR of 41%;***
  - ***Two year pre-production period for construction;***
  - ***Initial 17-year project life;***
  - ***3Mtpa (Stage1) mining operation expanding to 6Mtpa (Stage2) after 4 years of production;***
  - ***Average annual production of 17,560tpa V_2O_5, 236,000tpa TiO_2 (pigment), 637,000tpa Pig Iron;***
  - ***Pay back of 4 years.***
- **Maiden Probable Ore Reserve of 41.1Mt (50% of mine life) at V_2O_5 0.42%, TiO_2 7.99%, Fe 28.0% at a cut-off grade of 15% Fe, which has converted 65% of the Measured Resource with a 50% increase in V_2O_5 grade**
- **DFS includes a new proposed Darwin location for the TIVAN® Refinery.**
- **TIVAN® Refinery assumed to have an operational life of 40 years however revenues from years 18-40 have not been included in this DFS.**
- **In addition to the TIVAN® vanadium pentoxide process, the Refinery incorporates associated Titanium and Pig-Iron Plants to produce higher-value products.**
- **TNG expects DFS findings to underpin discussions for converting funding and construction MOU's to binding implementation agreements.**
- **Binding commodity off-take agreements expected to be negotiated this Quarter.**
- **Subject to all approvals, permitting and financing, construction of Mount Peake is planned to commence in 2016 with first production scheduled for early 2018.**

TNG Limited (ASX: TNG) is pleased to advise that the Definitive Feasibility Study (DFS) for its 100%-owned **Mount Peake Vanadium-Titanium-Iron Project** in the Northern Territory (Figure 1) has delivered exceptional results, outlining a world-class project capable of generating outstanding returns for shareholders.

The DFS (summarised below) found Mount Peake would generate a pre-tax internal rate of return **(IRR) of 41%** based on a **pre-production capital cost of A$970 million**, total estimated **life-of-mine net cash flow of A$11.6 billion** and **operating cash flows of A$13.6 billion** over an initial 17-year project life.

In light of these results, TNG will now progress discussions with its established network of key strategic partners. Where MOUs are already in place, TNG aims to finalise binding contractual agreements to underpin financing, construction and off-take arrangements.

Subject to satisfactory completion of these agreements and all other regulatory approvals and permitting, TNG envisages that construction of Mount Peake could commence in 2016, with a proposed 24 month construction timeline to first production.

TNG's Managing Director, Mr Paul Burton, said the results of the Mount Peake Feasibility Study were exceptional and had exceeded expectations. This now paves the way for financing, development and construction of one of the most significant new resource projects in northern Australia.

"Seeing the project come through a Feasibility Study at this level of detail and accuracy provided by Tier One engineering, mining and infrastructure groups is a considerable achievement against the backdrop of what can only be described as very challenging commodity market conditions," he said.

"Over the past 24 months we have continued to de-risk the project building on the already robust figures from the 2012 Pre-Feasibility Study. We have engaged the right consultants to deliver the Companies maiden Ore Reserve of 41.1 million tonnes and a Feasibility Study under budget," he continued.

"The Study shows that the Mount Peake Project is technically robust, financially strong given the assumptions and forecasting included in the study and, as a result, we anticipate securing finance for the project. On the back of these findings, we will now move ahead to complete funding, construction and off-take agreements.

"Like all resource projects the Mount Peake Project is inherently sensitive to commodity prices. We are therefore fortunate to have been able to unlock the maximum value in the resource through the production of three high-value products, which enables us to mitigate our commodity price risk exposure and proactively de-risk the project by producing higher-value marketable end-products.

"In a detailed study commissioned for TNG, our independent commodity consultants have confirmed that demand for vanadium and titanium is expected to continue to grow strongly and potentially increase as a result of expanding markets for both of these products, providing a solid foundation for the future of the project.

"The completion of this highly successful Feasibility Study is a major milestone for TNG and its shareholders after almost three years of hard work," Mr Burton said. "I would like to take this opportunity to thank the extensive team of consultants, engineers, metallurgists, analysts and technical experts who have worked on this study – which pulls together a vast body of work. I am very pleased that this work has confirmed the technical and financial viability of an important new Australian resource project.

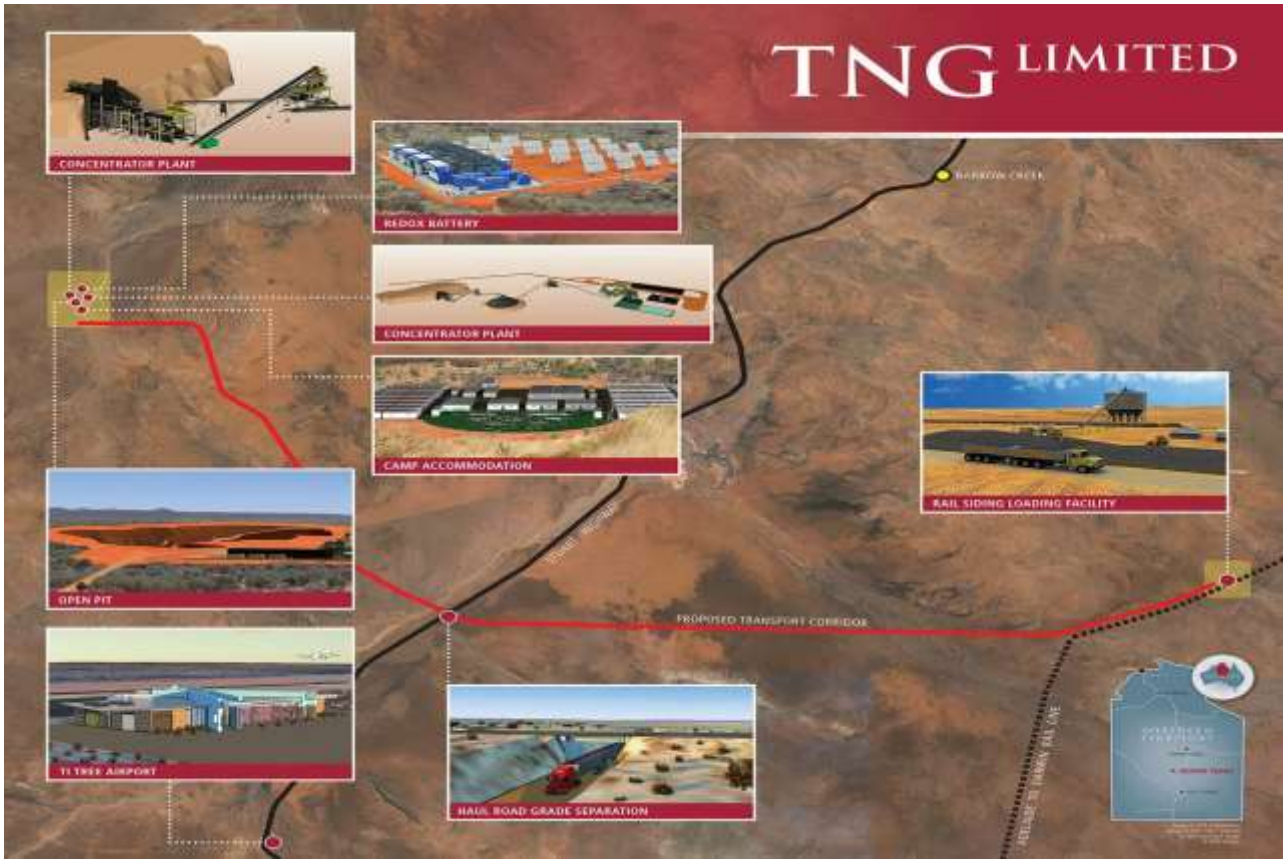
"Having already put in a considerable amount of preparatory work to position the project for financing and development, we are now well placed to move ahead with funding discussions in conjunction with our established network of strategic partners.

"The Board will immediately consider the results of the DFS with a view to proceeding to a Development Decision and project financing in the shortest possible time frame. With the completed Feasibility Study to hand, I am looking forward to commencing discussions with our strategic partners and investors in the coming weeks."

The following pages are a summary of the Mount Peake DFS.

The location of the proposed Mount Peake Mine site is shown in Figure 1 below:

A)



B)

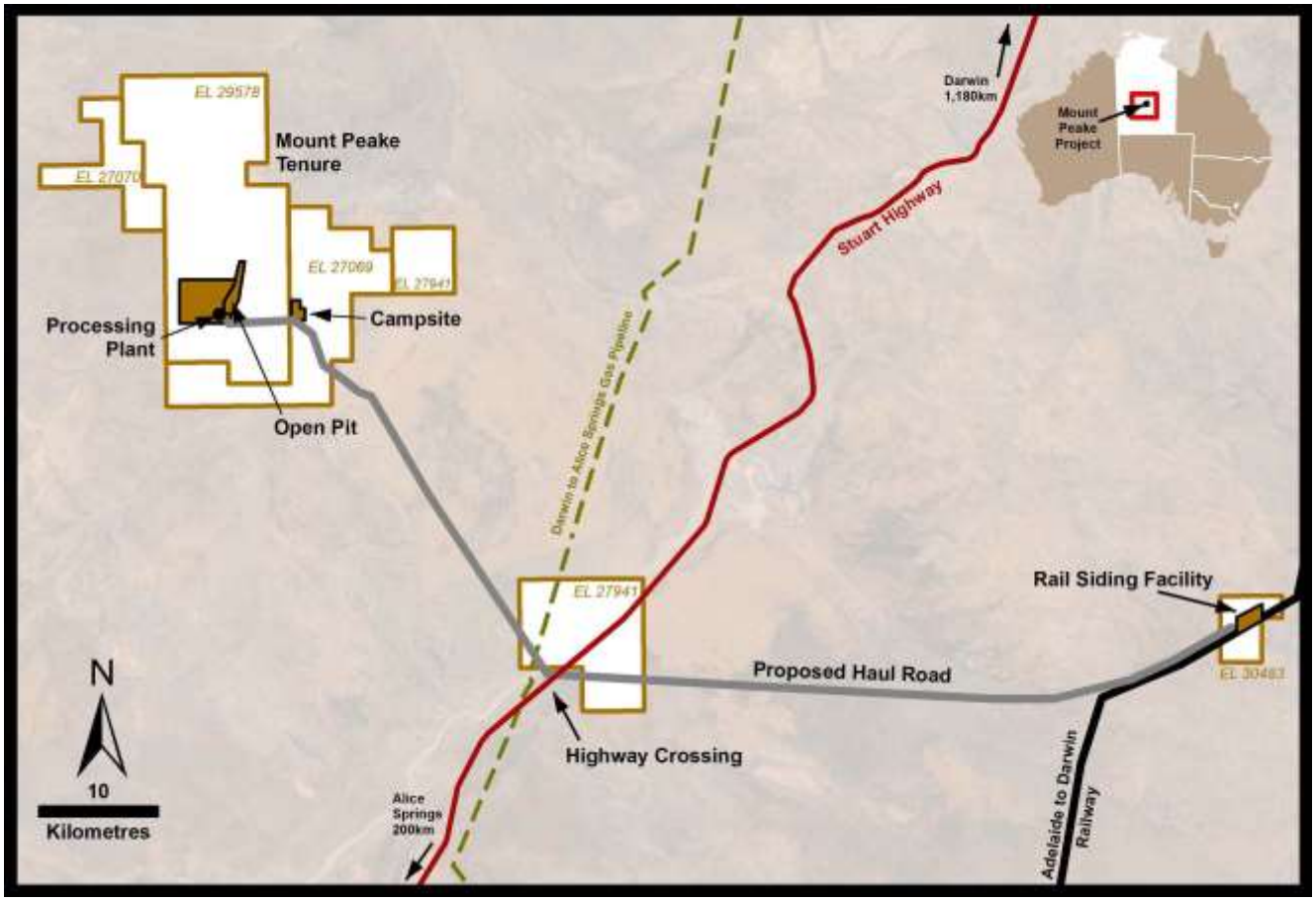


Figure 1. **A) Conceptual representation of the key infrastructure components.**
B) Mount Peake site layout. Showing tenure (MLAs in brown)

Definitive Feasibility Study Team

TNG engaged a team of professional engineering, metallurgical, mining, marketing and infrastructure groups, for the completion of the DFS.

The DFS was led and compiled by Snowden Mining Industry Consultants (Snowden). Snowden have been associated with the Mount Peake project since 2009, have compiled all previous Mineral Resources and mine plans for the project, and completed the financial model and results for the Pre-Feasibility Study (PFS). As such Snowden have a very good understanding of the resource, the geology, overall project and financial model; TNG acknowledges Snowdens significant input and contribution to the DFS.

SMS Siemag (SMSS), the Duesseldorf based global metallurgical development and construction group, have been associated with the Mount Peak project since 2011, and assisted in many aspects of the DFS including metallurgical testwork, flowsheet verification, financial modelling and with the final compilation: TNG acknowledges significant input and contribution to the DFS by SMSS.

TNG would also like to acknowledge the significant input of the following contributors to the DFS:

Metallurgical testwork and flowsheet design:	CSIRO (Perth), METS, ALS Ammtec, Bureau Veritas, Outotec, Furnace Technologies;
Environmental, Hydrology and Environmental Impact Statement:	GHD;
Engineering, mine plant design :	Como Engineers,
Mine and Infrastructure:	McMahon Services,
Commodity and market analysis:	The Roskill Group,
Rail and transport infrastructure:	Genesee & Wyoming Australia,
Land, Port handling and infrastructure:	Darwin Port Authority, Northern Territory Government,
Resource and aquifer drilling:	McKay Drilling, and Tomlin Drilling.

Definitive Feasibility Study Summary and key assumptions

DFS results show an increase in life-of-mine revenues and cash flows compared to the previous results from the Pre-Feasibility Study (PFS) completed in 2012 (see ASX Announcement – 15 July 2013).

The DFS is based on the production of magnetite concentrate on site at Mount Peake. The DSF assumes that concentrate will be trucked to a rail siding and then railed north to a TIVAN® Refinery facility to be located approximately 10km from Darwin Port. From the magnetite concentrate the TIVAN® facility will produce high-purity vanadium pentoxide, titanium dioxide concentrate and iron oxide. Associated downstream plants will produce high grade titanium pigment, and pig iron.

While the additional plant facilities increase the capital requirement of the project, the higher revenues achieved from the higher value end products provide the Company with the potential for an early payback (<4 years) and an exceptional internal rate of return. In addition, the products have well understood markets, transparent pricing and ready demand.

DFS financial model

The DFS financial model was compiled and audited by Snowden.
Key assumptions and findings are as follows:

Summary of Key Financial Parameters from cash flow model:

Mine Life:	15 years
Pre-production capital cost estimate (including all infrastructure:	A$970 million
Total operating costs (including mining, processing, transport & royalties):	A$167 per tonne of ore
Total revenue (life-of-mine):	A$27.3 billion
Operating cash flow (life-of-mine):	A$13.6 billion
Net cash flow (life-of-mine):	A$11.6 billion
Discount rate:	8%
Pay back:	4 years
Nett annual operating cash flow:	A$780M
IRR pre-tax:	41%
NPV (at 8% discounted)	A$4.9 billion

Mineral Resource

The Mount Peake Mineral Resource estimate was released in an ASX Announcement dated 26 March 2013, (see ASX Announcement – 26 March 2013, "Additional Information on the Mount Peake Resource", www.tngltd.com.au), and was completed in accordance with the guidelines of the JORC Code (2012). Initial mining and financial assessment work, based on the Mineral Resource, followed (see ASX Announcement – 15 July 2013, "TNG Considers Two-Stage Development Option for Mount Peake Project, NT ", www.tngltd.com.au). Details of the methodology and assumptions made are outlined in Appendix One.

The Company confirms that it is not aware of any new information or data that materially affects the information included in the original market announcement and, in the case of estimates of Mineral Resources, that all material assumptions and technical parameters underpinning the estimates in the relevant market announcement continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are represented have not been materially modified from the original market announcement.

Table 1. The 2013 Mount Peake Mineral Resource estimate,

Mineral Resource

Category	Tonnes (Mt)	V_2O_5%	TiO_2%	Fe%	Al_2O_3%	SiO_2%
Measured	120	0.29	5.5	24	8.2	33
Indicated	20	0.28	5.3	22	9.1	34
Inferred	22	0.22	4.4	19	10.0	38
TOTAL	**160**	**0.28**	**5.3**	**23**	**8.6**	**34**

Note: Tonnage and grade figures in tables have been rounded to 2 or 3 significant figures and as a result small discrepancies may occur due to the effect of rounding. Estimate calculated at a 0.1% V_2O_5 cut-off.

Ore Reserve

The Probable Ore Reserve estimated as part of the DFS is based on, and inclusive of, the above stated Mineral Resources. The Ore Reserve is classified as a Probable Reserve and constitutes around 30% of the Measured and Indicated Mineral Resource, limited only by price forecasts provided be TNG's external consultants.

The forecasts go out to the year 2025 and the resultant Probable Reserve encompasses the first eight years of the planned mine life.

Table 2. The maiden Mount Peake Probable Ore Reserve estimate.

Category	Tonnes (Mt)	V_2O_5%	TiO_2%	Fe%
Proven	0	-	-	-
Probable	41.1	0.42	7.99	28.0
TOTAL	**41.1**	**0.42**	**7.99**	**28.0**

Note: Tonnage and grade figures in tables have been rounded to 2 or 3 significant figures and as a result small discrepancies may occur due to the effect of rounding. Estimate calculated at 15% Fe cut-off grade

Planned Mining and Mining Inventory

Under the DFS the planned mine is based on a total mining inventory of 78Mt at an average grade of V_2O_5 0.38%, TiO_2 7.04%, and Fe 27.1%. The mining inventory includes all life-of-mine material within the planned pit shell, and is inclusive of both the Probable Ore Reserve material and the material to be mined during years 9 to 17. The inventory for mining in years 9-17 is not included in the Ore Reserve due to product pricing estimates not being available.

The mining inventory is defined by a pit shell produced by a Lerchs Grossman optimisation for mine planning purposes, detailed in Appendix One, and the Reserve constitutes around 53% of this mining inventory. The Mineral Resource has been promulgated on a 0.1% V_2O_5 cut-off and the Ore Reserve on a 15% Fe cut-off. An iron cut-off, rather than a vanadium cut-off has been applied for procedural simplicity in the mine planning process and does not materially affect the Resource estimate, as the iron cut-off encompasses all material above a 0.1% vanadium cut-off.

The total mining inventory assumed under the DFS represents a 65% conversion of the 2013 Measured Resource, but with a significant increase in grade (from 0.28% to 0.42% V_2O_5). The large size of the orebody (ca. 2000m x 350m x 100m) and gradual grade boundaries allows a low 2% dilution factor to be applied, with ore loss being correspondingly low.

The mining inventory of 78Mt is derived from the Probable Ore Reserve (41Mt), the Measured Resource (27Mt) and the Indicated Resource (10Mt).

87% of the Probable Ore Reserve is derived from Measured Resource (36Mt), and 13% Indicated Resource (5Mt), with no Inferred Resource material included in the Probable Ore Reserve.

The Strip ratio is 0.9. Following a pre-strip, the principal mining method will be an open pit with conventional drill and blast and load and haul with excavators and large mining equipment. Ore and waste will be trucked to the concentrator and waste dump respectively.

The mining schedule has been designed to initially fill the plant and maintain a consistent blend of mined material. Consequently, the majority of the capital development is scheduled to occur in the first 24 months.

Geotechnical and Groundwater Studies

Geotechnical testwork shows the enclosing rock to be geotechnically competent allowing relatively steep pit wall angles. Groundwater exploration, pump testing and modelling simulations have been completed around the Mount Peake deposit. Results indicate that no significant dewatering of the mine environment will be required during mine development.

Mine Site Concentrator

An extensive metallurgical testwork program involving a number of laboratories and the CSIRO (Perth) has been performed for the DFS.

The testwork results show that the ore is amenable to the production of a high specification magnetite concentrate Refinery feed stock via crushing, grinding and conventional magnetic separation.

A detailed mine site beneficiation flow sheet and layout has been developed utilising conventional crushing and HPGR grinding process with a primary crusher fed by a dedicated front end loader from stockpiles.

Other Infrastructure and Logistics

Power for onsite production and facilities is expected to be generated from an on-site gas-fired power station provided by a specialist power generation contractor. Gas is expected to be sourced from the Amadeus Gas Pipeline located 20km from the proposed mine site.

A 103km long road will provide access between the Mount Peake mine site and the rail siding, and includes an underpass on the Stuart Highway crossing (for concentrate trucks) and intersections with the Stuart Highway (for mine site access).

The road has been designed in accordance with Austroads Guide to Road Design and is suitable for concentrate and other trucks in a road train configuration of up to 50m in length.

New rail sidings, spur lines and associated signalling infrastructure will be built for both the mine and Darwin Refinery sites.

A 350 person construction village will be built, to be replaced by a 170 person operations accommodation facility.

The project is expected to use the existing Ti Tree airstrip, 70km from the mine site. This 1.6km long bitumen airstrip is available, and able to accommodate jet aircraft such as the Fokker F100 or BAE146. Negotiations with the Northern Territory Government on this facility are in progress and the upgrade of the current airstrip is anticipated to be covered by the Federal Government's Development Fund for Northern Australia.

TIVAN® Refinery, Metallurgy, and Associated Infrastructure

An extensive metallurgical testwork program for the development of the TIVAN® Refinery has been in progress since 2009, involving multiple flow sheets. For the DFS an industry standard pilot plant was constructed at the CSIRO (Perth) with leaching and continuous solvent extraction conducted to simulate scale-up to commercial design (see ASX Announcement - 8 July 2015).

The TIVAN® Refinery processing plant for the purposes of the DFS is proposed to be located in Darwin at a site approximately 10km from the Darwin Port. A suitable industrially zoned land site has been identified and reserved, while negotiations on the lease of the land are advanced with the Northern Territory Government. Darwin provides the necessary established infrastructure such as gas supply, power, water, a stable workforce and close access to a port.

The TIVAN® Refinery will have a design feed capacity of 900,000 tonnes of magnetite concentrate per year and is proposed to expand to a maximum capacity of 1,800,000 tonnes in production year 5. The TIVAN® Refinery consists of feed preparation, leaching, solvent extraction and acid regeneration. The Refinery will produce vanadium pentoxide, pigment grade titanium dioxide and pig iron. A detailed flow sheet and plant design have been completed with the site layout in progress. The plant layout has been designed with expansion capability should throughput be increased.

Mount Peake Final Products:

During the detailed 24-month DFS and TIVAN® testwork, the challenging commodity markets were constantly addressed. As a result the Company focussed on producing final products that had historically solid demand in readily available and growing markets, in addition to transparent pricing in order to demonstrate a significantly de-risked and robust project for financing. In the DFS it is assumed the following are for production:

Vanadium Pentoxide

It is planned that the Company will produce a high purity vanadium pentoxide (V_2O_5) via the 100% owned TIVAN® Process, providing an enhanced vanadium product available for different end-user markets and able to capture a premium price. This will be of a purity that can be used in both the ferro-vanadium and emerging Vanadium Redox battery market sectors. At maximum production TNG would supply approximately 8% of current global demand. Prices for V_2O_5 are at relative historic lows but are forecast to increase over the next few years as supply/demand tightens.

Pigment grade Titanium Dioxide

The Company will produce a high quality titanium dioxide (TiO_2) concentrate via the TIVAN® Process. This will then be further refined on site to pigment grade (>95% TiO_2purity), through an industry standard chloride process, providing an important high-value titanium product rather than a medium-grade product as was previously considered in the PFS.

Pigment grade titanium dioxide from a chloride process is in high demand and used extensively in chemical and high technology industry for a vast range of industrial and consumer goods. At maximum projected production TNG would supply approximately 2% of current global demand. It currently sells for approximately US$3000/tonne, compared to the US$400/tonne assumed in the PFS.

Pig-Iron

The Company will produce a high purity iron oxide (Fe_2O_3) via the acid regeneration process of the TIVAN® Refinery. In a reaction to the changed market conditions and outlook for iron oxide, the Company has taken advice from its metallurgical partners and decided to opt for a well-recognised, industry standard, iron product that has a guaranteed market and strong price. Pig-Iron is an intermediate iron product that is cast into ingot “pigs” and used in integrated steel mills and the metal casting industry and currently sells for approximately US$300/tonne. TNG’s projected production would represent 0.05% of the current global production of pig iron.

TIVAN® Refinery and the Acid Regeneration Plant (ARP)

The ARP is an integral part of the Refinery. For the DFS the ARP will fall under a Build-Own-Operate-Transfer (BOOT) model. As this plant serves an internal purpose (acid recycling) and does not produce any of the final products, the Company considers it is prudent and commercially sensible to outsource it.

It is important to note that the TIVAN® Refinery is expected to be designed for an operational life of approximately 40 years and will therefore be expected to run longer than the current life-of-mine for the Mount Peake project.

Drilling results have indicated the potential to find additional ore in the Mount Peake area, where other vanadium and titanium bearing magnetite-bearing intrusives have already been identified (see ASX Announcement – 15 April 2014). The location of the TIVAN® Refinery near Darwin Port also allows the potential for other concentrates to be shipped to the Refinery for processing.

The potential for the additional long-life revenue streams from the Refinery have not been incorporated into the DFS.

Capital Expenditure

The DFS assumes an overall Capital Expenditure (Capex) cost for Stage One of AUD $970 million, which includes an EPCM charge of 8% and 5% contingency. This figure includes all infrastructure, access/haul roads, mining, rail works, camp, water supply, concentrator, tailing dam, and the Darwin Refinery and port handling costs.

Table 3: Capital cost summary

Capital Expenditure	Stage 1 $AUD Million	Stage 2 $AUD Million
***Total Mining and Infrastructure Capex**	$208	$67.1
****Total Refinery Capex**	$647	$631
TOTAL CAPEX	**$856**	**$698**
EPCM (8%)	$68.4	$55.9
CONTINGENCY (5%)	$46.2	$37.7
TOTAL	**$970**	**$792**

*Includes: Camp, roads and rail infrastructure, water supply, concentrator and tailings facility.
**Includes: TIVAN refinery, Pig Iron and Titanium plants and port handling facilities.

Stage Two is planned to occur in years 4-5, where mine production is projected to increase from 3Mtpa to 6Mtpa, and the capacity of both the concentrator and Refinery double. It is assumed that Stage 2 Capex costs of AUD $793 million are to be paid out of operating revenue.

Operating Costs

Overall Operating Expenditure (Opex) costs have been estimated based on life-of-mine tonnage and grade information, processing costs for the beneficiation plant, Refinery costs, output tonnages, and sales revenues, with an overall assumed Opex of $167/tonne of ore mined.

Commodity Pricing

Independent pricing forecasts for each commodity were commissioned by TNG. These included forecasts for vanadium (supplied by Roskills, London), titanium dioxide (supplied by Roskills, London) and pig iron (supplied by commodity traders, Shanghai). Mount Peake is planned to commence production at a time when vanadium prices are forecast to have recovered from recent price lows, while titanium pigment and pig iron prices are expected to remain strong.

Forward estimate “Real” and “Nominal” prices for all commodities were provided by the consultants and are commercial in confidence. The methodology used by the consultants in the commodity forecasts was based on the following: Current market reviews of suppliers, consumers, reviews of global consumption, new markets, trends, Strengths Weaknesses Opportunities Threats (SWOT) analysis, historical and future trends of supply and demand in “Real” and “Nominal” prices. Only “real” pricing was used for all commodities in the DFS.

Exchange Rate

A USD exchange rate of 0.75 AUD based on RBA estimates was used in the DFS.

Commodity Off-take

At full production, the TIVAN® Refinery is expected to produce an average of 17,560tpa of V_2O_5, 236,000tpa TiO_2 pigment and 637,000tpa of pig iron.

TNG has shortlisted, and is continuing to progress advanced negotiations with major global tier one companies as potential off-take customers. It has secured initial agreements for all commodities, and a Binding Term sheet for vanadium pentoxide Offtake. Binding Offtake Agreements are in negotiation and expected to be completed this quarter.

Development Schedule

After the final Native Title Agreement is signed by TNG and the Traditional Owners, TNG expects a recommendation to be made by the NT Department of Mines and Energy with regards to the granting of the Mount Peake Mining Leases (ML28341, ML29855, ML29856, and ML30686). This is expected to take one month from the finalisation of the Native Title Agreement.

The Environmental Impact Statement (EIS) is well advanced and expected to be submitted shortly. No issues are currently anticipated from any of the above approvals and processes.

Subject to all regulatory approvals, permitting and receipt of financing, initial site works are expected to commence early in 2016 and will comprise concurrent construction of the accommodation village, the access road and commencement of clearing of the open cut through the overlying sand cover to enable the establishment of the first areas for mining.

The Mount Peake project proposed implementation schedule is dictated by the development of the TIVAN® Refinery. It is planned that first ore is expected to be extracted in Q1 2018, with initial ore stored on a run of mine (ROM) stockpile.

The process plant will commence processing when the ROM stockpile contains sufficient ore feed, which in the DFS assumes will occur in Q1 2018.

First concentrate production is expected to be sent to the TIVAN® Refinery in Q1 2018 and the first vanadium pentoxide, titanium pigment and pig-iron shipment is expected to occur in Q2 2018.

Satisfactory financing, final development approvals, signing of the final Native Title Agreement, the grant of the Mining Leases and a number of other environmental and other regulatory approvals and permits will be required before mine development and production can commence. The proposed schedule described above is subject to satisfying those requirements.

Next Steps

Financing and offtake discussions have progressed significantly and it is possible that these will be finalised prior to receipt of all necessary statutory approvals.

While the Company's immediate focus is on the permitting and development of the Mount Peake mine, it is also well placed to continue with developing its extensive asset portfolio to build TNG into a premier mining group.

Following recent discussions with Australian, European, Korean and Chinese Engineering Procurement and Construction (EPC) companies, TNG will now give immediate consideration to identifying potentially suitable partners for development of the project.

Paul E Burton

Managing Director

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Competent Person Statements

The information in this report that relates to the Ore Reserves (Mining) for the Mount Peake project is based on and fairly represents, information and supporting documentation compiled by Jeremy Peters who is a Fellow and Chartered Professional Mining Engineer and Geologist of The Australasian Institute of Mining and Metallurgy and a full time employee of Snowden Mining Industry Consultants Pty Ltd. Jeremy Peters has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Jeremy Peters consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Ore Reserves (Processing and Metallurgy) for the Mount Peake project is based on and fairly represents, information and supporting documentation compiled by Damian Connelly who is a Fellow, CP (Met) of The Australasian Institute of Mining and Metallurgy and a full time employee of METS. Damian Connelly has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Damian Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

The information in this report that relates to the Ore Reserves (Processing) for the Mount Peake project is based on and fairly represents, information and supporting documentation compiled by Alisdair Finnie who is a Member of The Australasian Institute of Mining and Metallurgy and a full time employee of Como Engineers. Alisdair Finnie has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity which he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Alisdair Finnie consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

About TNG

TNG is building a world-scale strategic metals business based on its flagship 100%-owned Mount Peake Vanadium-Titanium-Iron Project in the Northern Territory. Located 235km north of Alice Springs, Mount Peake will be a 20-year plus project producing a suite of high-quality, high-purity strategic metals products for global markets including vanadium pentoxide, iron oxide and titanium dioxide. The project, which will be a top-10 global producer, has received Major Project Facilitation status from the NT Government.

The Mount Peake Feasibility Study is well advanced and due for completion by mid-2015, paving the way for project financing and development to proceed. An integral part of TNG's emerging strategic metals business its 100% ownership of the unique and patented TIVAN® hydrometallurgical process, which offers significantly lower capital and operating costs, lowers risk and successfully extracts two other valuable metals from the resource in addition to vanadium – titanium dioxide and high-purity iron oxide.

Vanadium is a highly strategic metal which is used as an alloy in steel. It is also in strong demand for use in energy storage, with vanadium redox batteries used to store electricity generated by solar and wind power, and lithium-vanadium ion batteries used to power hybrid cars.

Forward-Looking Statements

This announcement has been prepared by TNG Ltd. This announcement is in summary form and does not purport to be all inclusive or complete. Recipients should conduct their own investigations and perform their own analysis in order to satisfy themselves as to the accuracy and completeness of the information, statements and opinions contained.
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This may include forward looking statements. Forward looking statements are only predictions and are subject to risks, uncertainties and assumptions which are outside the control of TNG Ltd. Actual values, results or events may be materially different to those expressed or implied.

Appendix One

The following section is provided to comply with the JORC (2012) requirements for the reporting of Ore Reserves for the Mount Peake V-Ti-Fe deposit on mining tenement ELR29627/MLA28341.

Section 1 Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	• *Nature and quality of sampling (eg cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.* • *Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.* • *Aspects of the determination of mineralisation that are Material to the Public Report.* • *In cases where 'industry standard' work has been done this would be relatively simple (eg 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (eg submarine nodules) may warrant disclosure of detailed information.*	A total of 102 reverse circulation (RC) and 25 diamond (DD) drillholes were drilled for 13,037 m and 3,819.6 m respectively. Holes were drilled on a nominal 50 m by 100 m grid spacing. RC drillholes were sampled at 1 m intervals and each sample interval was passed through a cyclone and rotary splitter resulting in a 2 to 5 kg sample which was submitted for analysis. Rock chips were obtained by sieving a large scoop of sample from each bag. Washed chips were placed into an appropriately labelled chip tray. Magnetic susceptibility was measured using a model KT-10 portable magnetic susceptibility metre. Individual measurements were taken at 1 m intervals. Samples requiring analysis were selected by the logging geologist based on magnetic susceptibility readings and the geology. Diamond core was PQ size and sampled at 1 m intervals. Core was cut in half and to provide 1 to 4 Kg samples which were crushed and split out to provide a sub sample for analysis.
Drilling techniques	• *Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).*	RC drill holes range in depth from 35 m to 222 m and DD drill holes range in depth from 65 m to 405.8 m. No downhole surveys have been completed on vertical holes. Downhole surveys were taken in angled RC and DD drillholes every 30 or 50 m using a Reflex survey instrument.
Drill sample recovery	• *Method of recording and assessing core and chip sample recoveries and results assessed.* • *Measures taken to maximise sample recovery and ensure representative nature of the samples.* • *Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.*	Diamond core recoveries were logged and average 99%. There are no core loss or sample recovery issues. The broad and consistent style of mineralisation and competent core with high recoveries are considered to preclude any issues with sample bias due to material loss or gain.
Logging	• *Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.* • *Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.* • *The total length and percentage of the*	Geological logging was carried out on RC samples and colour, grain size, lithology, alteration and magnetic susceptibility was recorded. Geological and structural logging was carried out on diamond core and lithology, alteration and magnetic susceptibility was recorded. All drilled intervals were logged in full.

Criteria	JORC Code explanation	Commentary
	relevant intersections logged.	Diamond core was photographed (wet and dry).
Sub-sampling techniques and sample preparation	• *If core, whether cut or sawn and whether quarter, half or all core taken.* • *If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.* • *For all sample types, the nature, quality and appropriateness of the sample preparation technique.* • *Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples.* • *Measures taken to ensure that the sampling is representative of the in situ material collected, including for instance results for field duplicate/second-half sampling.* • *Whether sample sizes are appropriate to the grain size of the material being sampled.*	Core was cut in half on site using a industry standard core saw. RC samples were collected at the rig after being passed through a cyclone and rotary splitter. RC samples were delivered to ALS preparation facility in Alice Springs for crushing and pulverising. Pulps were then sent to ALS Perth for analysis. The sampling for both RC and diamond drilling samples follows industry best practise in collection and preparation. Field duplicates were collected every 20 m. Samples from diamond drillholes were assayed by XRF at ALS Metallurgy in Balcatta, Perth and samples from reverse circulation holes were assayed by XRF at ALS Minerals in Malaga, Perth. 32 samples assayed at ALS Metallurgy were also assayed at ALS Minerals. 10 standards were submitted for analysis for the diamond core. No standards were submitted for the RC program. Sample sizes are considered appropriate.
Quality of assay data and laboratory tests	• *The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.* • *For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.* • *Nature of quality control procedures adopted (eg standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (ie lack of bias) and precision have been established.*	RC and DD samples were assayed using the method ME-XRF21n. Magnetic susceptibility was measured using a model KT-10 portable magnetic susceptibility metre. Individual measurements were taken every metre. A portable XRF was then used to further identify the ore zone. No pXRF values have been used in the drilling database or Resource calculation. Analysis of the field duplicates suggest that good precision is being achieved. Analysis of standards indicated that analytical accuracy of the results is reasonable.
Verification of sampling and assaying	• *The verification of significant intersections by either independent or alternative company personnel.* • *The use of twinned holes.* • *Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.* • *Discuss any adjustment to assay data.*	Logging of resource RC and Diamond drilling by company geologists was confirmed by TNG's Exploration Manager. Snowden has visually inspected the diamond core. There have been no twinned holes drilled at Mount Peake. The core and RC chips were logged onto paper A3 logging sheets then information transferred to Excel spreadsheets using standard templates and lookup codes. No adjustments or calibrations have been applied to any assay data used for the Mineral Resource estimate.
Location of data points	• *Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource*	Collar coordinates are GPS accuracy (±3m). RL coordinates have been determined by projecting holes vertically onto the topography DTM. Coordinates are on MGA GDA94 grid in

Criteria	JORC Code explanation	Commentary
	estimation. • *Specification of the grid system used.* • *Quality and adequacy of topographic control.*	Zone 53. Local coordinates are quoted in GDA Zone 53. Downhole surveys were taken in angled RC and DD drillholes every 30/50 m using a reflex magnetic survey instrument. The topographic surface over the Resource area is derived from WorldView 1m contour imagery.
Data spacing and distribution	• *Data spacing for reporting of Exploration Results.* • *Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.* • *Whether sample compositing has been applied.*	Nominal drillhole spacing is 50 m by 100 m, with several sections at 25m by 100m spacing. The drillhole spacing is sufficient to demonstrate geological and grade continuity appropriate for the Mineral Resource and classifications applied. Samples have been composited to 1m downhole, with the composite lengths adjusted to include all intervals and avoid the loss of residual samples.
Orientation of data in relation to geological structure	• *Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.* • *If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have introduced a sampling bias, this should be assessed and reported if material.*	Drillholes have been drilled predominantly perpendicular to the mineralised domains. All holes were either vertical or angled at 60 degrees to the horizontal, and the deposit is essentially flat-lying.
Sample security	• *The measures taken to ensure sample security.*	RC samples were collected from the drill site and delivered to the ALS preparation facility in Alice Springs. Diamond core was initially stored on site then dispatched to the Perth METS laboratory.
Audits or reviews	• *The results of any audits or reviews of sampling techniques and data.*	Snowden has validated the database and reviewed the sampling protocols and core photography for the drilling. Snowden considers that the sampling techniques are appropriate for this style of mineralisation.

Section 2 Reporting of Exploration Results

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	*Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.* *The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.*	The Mount Peake Project comprises eleven tenements, including ELs and MLAs. The resource is located on ELR 29627, and also falls on the Mining Lease Application MLA 28341, both held by Enigma Mining Limited, a wholly owned subsidiary of TNG Limited. The tenements are in good standing with no know impediments.
Exploration done by other parties	*Acknowledgment and appraisal of exploration by other parties.*	TNG has been exploring the Mount Peake resource area for over 6 years
Geology	*Deposit type, geological setting and style of mineralisation.*	The orebody is hosted by a magnetite gabbro intrusive unit which intrudes Neoproterozoic Georgina Basin sediments. This gabbro is bound to the west by a fault and granite, and is

		open to the east, north and south. The main resource area is a thick (>100 metres true thickness) and broad trough-shaped north/south orientated elongate zone – essentially all of the magnetite-bearing intrusive phase. The gabbro is nearly flat lying and has undergone minimal alteration and structural deformation since emplacement. Primary igneous mineralogy and texture is well preserved, while only a small proportion of the resource has undergone alteration due to weathering (generally to less than 35 metres below surface.
Drill hole Information	*A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes:* ○ *Easting and northing of the drill collar* ○ *Elevation of RL (Reduced Level – elevation above sea level in metres) of the drill collar* ○ *Dip and azimuth of the hole* ○ *Down hole length and interception depth* ○ *Hole length*	No new exploration results are announced with this report. Information on the drilling of the resource is contained in ASX Announcement 26 March 2013.
Data aggregation methods	*In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.* *Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.* *The assumptions used for any reporting of metal equivalent values should be clearly stated.*	No new exploration results are announced with this report.
Relationship between mineralisation widths and intercept lengths	*These relationships are particularly important in the reporting of Exploration Results.* *If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.* *If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (eg 'down hole length, true width not known').*	No new exploration results are announced with this report.
Diagrams	*Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.*	The location of the Mount Peake Resource is shown on Figure 1. No new exploration results are announced with this report.
Balanced reporting	*Where comprehensive reporting of all Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.*	No new exploration results are announced with this report.
Other substantive	*Other exploration data, if meaningful and*	No new exploration results are announced with

exploration data	*material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples – size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.*	this report.
Further work	*The nature and scale of planned further work (eg tests for lateral extensions or depth extensions or large-scale step-out drilling). Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.*	No new exploration results are announced with this report.

Section 3 Estimation and Reporting of Mineral Resources

Criteria	JORC Code explanation	Commentary
Database integrity	• *Measures taken to ensure that data has not been corrupted by, for example, transcription or keying errors, between its initial collection and its use for Mineral Resource estimation purposes.* • *Data validation procedures used.*	Snowden carried out the following basic validation checks on the data supplied by TNG prior to resource estimation: • Drillholes with overlapping sample intervals. • Sample intervals with no assay data. • Duplicate records. • Assay grade ranges. • Collar coordinate ranges. • Valid hole orientation data. • There are no significant issues with the data.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	Jeremy Peters (Snowden) visited the site in April 2015..
Geological interpretation	• *Confidence in (or conversely, the uncertainty of) the geological interpretation of the mineral deposit.* • *Nature of the data used and of any assumptions made.* • *The effect, if any, of alternative interpretations on Mineral Resource estimation.* • *The use of geology in guiding and controlling Mineral Resource estimation.* • *The factors affecting continuity both of grade and geology.*	The interpretations for structural and lithological surfaces have been compiled by Snowden using the drillhole database supplied by TNG. The interpretations for the mineralisation envelope and domains based on V_2O_5 grade cut-offs of 0.1% for low grade and 0.3% for high grade were also updated by Snowden. The topography used was provided by TNG in 2010 and has not changed. Confidence in the geological interpretation of the mineral deposit is considered to be good.
Dimensions	• *The extent and variability of the Mineral Resource expressed as length (along strike or otherwise), plan width, and depth below surface to the upper and lower limits of the Mineral Resource.*	The deposit covers an area of approximately 2 km north-south by approximately 300 m to 500 m east-west. The thickness ranges up to about 140 m.
Estimation and modelling techniques	• *The nature and appropriateness of the estimation technique(s) applied and key assumptions, including treatment of extreme*	Drillhole data was coded using the wireframe interpretations representing oxidation surfaces and mineralised domains. Samples were

Criteria	JORC Code explanation	Commentary
	grade values, domaining, interpolation parameters and maximum distance of extrapolation from data points. If a computer assisted estimation method was chosen include a description of computer software and parameters used. • *The availability of check estimates, previous estimates and/or mine production records and whether the Mineral Resource estimate takes appropriate account of such data.* • *The assumptions made regarding recovery of by-products.* • *Estimation of deleterious elements or other non-grade variables of economic significance (eg sulphur for acid mine drainage characterisation).* • *In the case of block model interpolation, the block size in relation to the average sample spacing and the search employed.* • *Any assumptions behind modelling of selective mining units.* • *Any assumptions about correlation between variables.* • *Description of how the geological interpretation was used to control the resource estimates.* • *Discussion of basis for using or not using grade cutting or capping.* • *The process of validation, the checking process used, the comparison of model data to drill hole data, and use of reconciliation data if available.*	composited to 1 m downhole, with the composite lengths adjusted to include all intervals and avoid the loss of residual samples. Statistical analysis of the domains indicates that there are no extreme outliers and therefore no top cut was applied. Normal scores variograms were modelled for each of the mineralised domains and were back-transformed prior to estimation. Datamine software was used to estimate grades for V_2O_5, TiO_2, Fe, SiO_2 and Al_2O_3 using ordinary block kriging into 25 mE by 50 mN by 5 mRL parent cell with sub-celling to 5 m by 5 m by 1.25 m. A block discretisation of 5 by 5 by 5 was used in the easting, northing and elevation directions respectively. Mineralised zone boundaries were treated as hard boundaries for estimation. The orientation of the search ellipses was derived from the variogram orientations. The initial search pass used ranges equivalent to the ranges of continuity seen in the variograms at around 60% of the variance. Blocks were estimated using a minimum of 6 and a maximum of 30 samples as determined by a kriging neighbourhood analysis (KNA) that was carried out for the October 2011 estimate. If the initial search failed to find the minimum number of samples required, then a second search was conducted using double the search radii. A third search using quadruple the initial search radii with the minimum number of samples reduced to 2 was used to populate all remaining un-informed blocks. The maximum number of samples allowed from a single drillhole was restricted to 6. The estimates were validated using: • A visual comparison of the block grade estimates to the input drillhole composite data shows a good correlation • Generation of moving window average plots of the block grade estimates, declustered (nearest neighbour method) composites and naïve composite grades, along with the number of composite samples available. These grade trend plots show a good correlation between the local patterns in the block grade estimates compared with the drillhole composite grades in the well informed parts of the deposit. • A global comparison of the estimated block grades to the average composite (naïve) grades for all elements within the mineralised domains shows that both sets of results are within 6%.

Criteria	JORC Code explanation	Commentary
		The Mount Peake Resource was previously estimated by Snowden in October 2011. A comparison between the October 2011 estimate and the March 2013 estimate shows that the Indicated Resource has been upgraded to Measured and part of the Inferred Resource has been upgraded to Indicated. There has been no change in the total tonnage.
Moisture	• *Whether the tonnages are estimated on a dry basis or with natural moisture, and the method of determination of the moisture content.*	Not applicable to this estimate – only dry mass considered.
Cut-off parameters	• *The basis of the adopted cut-off grade(s) or quality parameters applied.*	Mineral Resource reported at a 0.1% V_2O_5 grade cut-off. This threshold was determined by a combination of statistical analysis (log probability plots and grade-tonnage curve) as well as corresponding to the visual (from geological logging) drop in magnetite abundance from above 10% to below five volume percent in the rock. The economic cut-off was considered in the Prefeasibility Study conducted in 2012 and was again chosen as 0.1% V_2O_5 in the updated Mineral Resource made in 2013..
Mining factors or assumptions	• *Assumptions made regarding possible mining methods, minimum mining dimensions and internal (or, if applicable, external) mining dilution. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential mining methods, but the assumptions made regarding mining methods and parameters when estimating Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the mining assumptions made.*	The resource is less than 200 metres below surface and mining is therefore assumed to be by open cut methods. The deposit was the subject of a Prefeasibility Study (PFS) in 2012 which considered mining, metallurgical and economic factors. These assumptions were used for the 2013 Mineral Resource calculation. Consideration of economic factors and mining assumptions is made for the Ore Reserve (considered below).,
Metallurgical factors or assumptions	• *The basis for assumptions or predictions regarding metallurgical amenability. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider potential metallurgical methods, but the assumptions regarding metallurgical treatment processes and parameters made when reporting Mineral Resources may not always be rigorous. Where this is the case, this should be reported with an explanation of the basis of the metallurgical assumptions made.*	For the Mineral Resource it was assumed that material above a cut-off of 0.1% V_2O_5 is potentially economically recoverable. This threshold was determined from a combination of statistical analysis and geological logging. This has been supported by extensive processing and metallurgical testwork on some 25 tonnes of diamond drill core material selected with geological, engineering, and metallurgical input and tested at independent metallurgical laboratories.
Environmental factors or assumptions	• *Assumptions made regarding possible waste and process residue disposal options. It is always necessary as part of the process of determining reasonable prospects for eventual economic extraction to consider the potential environmental impacts of the mining and processing operation. While at this stage the determination of potential environmental impacts, particularly for a greenfields project,*	TNG has completed all baseline environmental studies and is in the process of gaining all required environmental approvals to allow the mining and processing operations to proceed. It is assumed that these will be gained in due course as no significant issues have been identified. The waste dump is to be sited immediately west

Criteria	JORC Code explanation	Commentary
	may not always be well advanced, the status of early consideration of these potential environmental impacts should be reported. Where these aspects have not been considered this should be reported with an explanation of the environmental assumptions made.	of the pit and will accumulate 58Mt over the life of the mine. Studies confirm it will not be acid generating. It will be low profile, dust will be managed and monitored, and rehabilitation will occur progressively. Some 55Mt of benign non-acid forming tailings will be generated from the magnetic separation of the crushed ore. This silt and sand sized non-magnetic material will be stored in a 1km radius tailings storage facility (TSF), which has been designed to National standards.
Bulk density	• *Whether assumed or determined. If assumed, the basis for the assumptions. If determined, the method used, whether wet or dry, the frequency of the measurements, the nature, size and representativeness of the samples.* • *The bulk density for bulk material must have been measured by methods that adequately account for void spaces (vugs, porosity, etc), moisture and differences between rock and alteration zones within the deposit.* • *Discuss assumptions for bulk density estimates used in the evaluation process of the different materials.*	Bulk density is set to 2.51 t/m^3 for oxide material, 3.32 t/m^3 for transitional material and 3.40 t/m^3 for fresh material based on measurements from diamond core.
Classification	• *The basis for the classification of the Mineral Resources into varying confidence categories.* • *Whether appropriate account has been taken of all relevant factors (ie relative confidence in tonnage/grade estimations, reliability of input data, confidence in continuity of geology and metal values, quality, quantity and distribution of the data).* • *Whether the result appropriately reflects the Competent Person's view of the deposit.*	The estimate has been classified as a Measured, Indicated and Inferred Mineral Resource based on the integrity of the data, the spatial continuity of the mineralisation as demonstrated by variography, and the quality of the estimation. The following criteria were used to classify Measured Resources: • Drill spacing 50 m by 100 m or closer and • grades estimated in the first search pass (60 % of the variogram range) and • blocks estimated using a minimum of 6 samples. The following criteria were used to classify Indicated Resources: • Drill spacing 100 m by 100 m or closer and • grades estimated in the first or second search pass and • blocks estimated using a minimum of 6 samples. In order to maintain continuity, some blocks falling outside the constraints listed above were included. The remainder has been classified as an Inferred Resource. The Mineral Resource estimate appropriately reflects the views of the Competent Person with

Criteria	JORC Code explanation	Commentary
		respect to the deposit.
Audits or reviews	• *The results of any audits or reviews of Mineral Resource estimates.*	Snowden has completed an internal peer review of the estimate which has concluded that the procedures used to estimate and classify the Mineral Resource are appropriate.
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Mineral Resource estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the resource within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors that could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	The relative accuracy and confidence in the Mineral Resource estimate is reflected in the reporting of the Mineral Resource as set out in the JORC code (2012 Edition).

Section 4 Estimation and Reporting of Ore Reserves

Criteria	JORC Code explanation	Commentary
Mineral Resource estimate for conversion to Ore Reserves	• *Description of the Mineral Resource estimate used as a basis for the conversion to an Ore Reserve.* • *Clear statement as to whether the Mineral Resources are reported additional to, or inclusive of, the Ore Reserves.*	Data collection and geological interpretations supporting the resource estimate were completed by TNG. Resource model wire-frames, resource block models and Mineral Resource estimation were completed by Mr Richard Sulway of Snowden. Mineral Resource estimates based on a cut-off of 0.1 % V2O5. Mineral Resource estimates are inclusive of the Ore Reserve estimate.
Site visits	• *Comment on any site visits undertaken by the Competent Person and the outcome of those visits.* • *If no site visits have been undertaken indicate why this is the case.*	A site visit was undertaken by Mr. Jeremy Peters in April 2015. The Competent Person for Mining related aspects of the Reserve is Mr Jeremy Peters, Snowden Principal Consultant.
Study status	• *The type and level of study undertaken to enable Mineral Resources to be converted to Ore Reserves.* • *The Code requires that a study to at least Pre-Feasibility Study level has been undertaken to convert Mineral Resources to Ore Reserves. Such studies will have been carried out and will have determined a mine plan that is technically achievable and economically viable, and that material Modifying Factors have been considered.*	The Mount Peake project was examined to a pre-feasibility study level in 2011. Snowden completed the mining aspects of this study. A Feasibility Study was completed in July 2015. The Ore Reserves statement is based on the combined information from these Snowden studies.

Criteria	JORC Code explanation	Commentary
Cut-off parameters	• *The basis of the cut-off grade(s) or quality parameters applied.*	Snowden used a cut-off grade of 15% Fe to define the Ore Reserve. The cut-off grade was selected on project economics and encompasses all material included in the Resource, which was expressed at a 0.1% V_2O_5 cut-off . An iron cut-off was applied, rather than a vanadium cut-off for computational simplicity and efficiency. The cut-off grade was selected primarily based on the marketing criteria and project economics.
Mining factors or assumptions	• *The method and assumptions used as reported in the Pre-Feasibility or Feasibility Study to convert the Mineral Resource to an Ore Reserve (i.e. either by application of appropriate factors by optimisation or by preliminary or detailed design).* • *The choice, nature and appropriateness of the selected mining method(s) and other mining parameters including associated design issues such as pre-strip, access, etc.* • *The assumptions made regarding geotechnical parameters (eg pit slopes, stope sizes, etc), grade control and pre-production drilling.* • *The major assumptions made and Mineral Resource model used for pit and stope optimisation (if appropriate).* • *The mining dilution factors used.* • *The mining recovery factors used.* • *Any minimum mining widths used.* • *The manner in which Inferred Mineral Resources are utilised in mining studies and the sensitivity of the outcome to their inclusion.* • *The infrastructure requirements of the selected mining methods.*	**Mining method** The choice and method of mining is conventional drill and blast and load and haul with an excavator and large open pit mining equipment. This is considered to be appropriate for the style of mineralisation and is applied to similar operations in the area. **Optimisation** The method used to convert Mineral Resources to Ore Reserves is pit optimisation to identify the economic shell within which a design process is applied to achieve a practical mine design. Measured, Indicated and Inferred Mineral Resource categories were used in the optimisation process. The Inferred Mineral Resource component does not materially contribute to the total Ore Reserve inventory. A geotechnical study was undertaken as part of the feasibility study, which recommended maximum slopes of 55° to 70° depending on depth from surface. This is incorporated in the pit design. Snowden has modelled dilution and mining ore loss by regularisation of the geological model using a selective mining unit (SMU) of 6.5 m (length) by 6.5 m (width) by 5 m (depth). The cut-off grade was applied after dilution. Dilution has reduced the available ore inventory for consideration by approximately 2%, compared to the geological model. A 1:10 gradient and 27 m width (including safety windrow) is used on in-pit pit ramps. • A 50 m minimum mining width is applied on all benches except drop cuts. **Mine plan** No unclassified material was included in the mine plan. The total project movement (including waste and low grade rehandle) is 139Mt and varies from 10.4 Mtpa to 12.0 Mtpa. Ore production commences at 2.25Mtpa of plant feed in the 1st year of mining and ramps up to 6 Mtpa of plant feed in the 5th year of the mine.
Metallurgical factors or assumptions	• *The metallurgical process proposed and the appropriateness of that process to the style of mineralisation.* • *Whether the metallurgical process is well-tested technology or novel in nature.* • *The nature, amount and representativeness of metallurgical test work undertaken, the nature of the metallurgical domaining applied and the corresponding metallurgical recovery*	TNG proposes to beneficiate ore from the mine pits in the proposed on-site process plant. The beneficiated product will then be loaded onto train for transport to Darwin for refining. METS and Como Engineering managed the metallurgical investigation and provided the infrastructure cost, processing costs, throughput and recovery estimates for the study. Snowden considers this work to have been completed and peer reviewed

Criteria	JORC Code explanation	Commentary
	factors applied. • *Any assumptions or allowances made for deleterious elements.* • *The existence of any bulk sample or pilot scale test work and the degree to which such samples are considered representative of the orebody as a whole.* • *For minerals that are defined by a specification, has the ore reserve estimation been based on the appropriate mineralogy to meet the specifications?*	to an appropriate standard. The mine will produce a magnetite concentrate. The Darwin Refinery will produce high purity vanadium pentoxide and titanium dioxide products, together with pig iron.
Environmental	• *The status of studies of potential environmental impacts of the mining and processing operation. Details of waste rock characterisation and the consideration of potential sites, status of design options considered and, where applicable, the status of approvals for process residue storage and waste dumps should be reported.*	TNG is in the process of gaining all the required environmental approvals for the proposed mining and processing activities. It has been assumed that all approvals will be gained in due course as no significant issues have been identified. Baseline flora, fauna, surface water, and groundwater studies have been completed. Impact assessments for the above, together with air quality, noise, biodiversity, heritage, and socioeconomic studies are ongoing and will form part of the Environmental Impact Statement (EIS). The project is a straightforward mining and beneficiation operation with inert non-hazardous waste streams and limited use of hazardous materials on site. Most of the potential impacts can be managed through appropriate design and monitoring. Once all studies are complete the EIS will be submitted to the NTEPA for assessment by the Territory and Commonwealth government departments under their respective environmental assessment acts.
Infrastructure	• *The existence of appropriate infrastructure: availability of land for plant development, power, water, transportation (particularly for bulk commodities), labour, accommodation; or the ease with which the infrastructure can be provided, or accessed.*	The Mount Peake project is dependent on access to or development of the following major infrastructure: • A rail siding on the Darwin to Alice Springs Railway Line. • A Refinery, to be constructed in Darwin. • A beneficiation plant, tailings dam and associated power supply, to be constructed on site • An access road and Stuart Highway underpass, to be constructed between Mount Peake and the railway. • The major infrastructure required for the Mount Peake site consists of a main site access road, pit access ramps, ROM pad and crusher area, stockpile areas, product stockpiling and load out yard, waste dumps, weighbridge area, mine operations centre, borefield, power station, contractors' laydown yard, explosives storage and camp or accommodation. Sufficient allocation of land has been planned and made available for the provision of all infrastructure, including site access.
Costs	• *The derivation of, or assumptions made, regarding projected capital costs in the study.* • *The methodology used to estimate operating costs.* • *Allowances made for the content of deleterious elements.* • *The source of exchange rates used in the study.*	**Cost definition** Processing cost includes all costs not considered by mining: plant, road-haulage, port, general and administration (i.e. overheads). Capital costs have been estimated by TNG's consultants and included in the Mount Peake financial model. Snowden assumes contractor mining, therefore

Criteria	JORC Code explanation	Commentary
	• *Derivation of transportation charges.* • *The basis for forecasting or source of treatment and refining charges, penalties for failure to meet specification, etc.* • *The allowances made for royalties payable, both Government and private.*	mining fleet costs are considered operating costs. **Capital costs** Mining capital costs were developed by Snowden. Processing, infrastructure, rail, port and all other capital costs were developed by TNG's consultants. Projected Capital costs are based on estimates compiled in 2015. **Operating costs** Mine operating costs were developed by Snowden and process operating costs were developed by TNG's consultants. The mining production rates and operating costs have been applied from first principles and budget rates supplied by external contractors. The Life of Mine operating cost is expected to average A$3.41 / wmt mined (on a nominal basis). Non mining on-site costs have been estimated at $15.29/t of ore Off-site costs have been estimated at $261.98/t of concentrate. Operating costs include allowances for mining, processing, administration, rail to the Darwin and refining. Of these, the mining, processing and haulage costs are supplied by budget and first principle estimations. Where necessary all costs are converted from $US to $AU based on exchange rates advised by external market analysts. Exchange rates used $0.75 over the life of the mine. Allowances have been made for Government royalties payable.
Revenue factors	• *The derivation of, or assumptions made regarding revenue factors including head grade, metal or commodity price(s) exchange rates, transportation and treatment charges, penalties, net smelter returns, etc.* • *The derivation of assumptions made of metal or commodity price(s), for the principal metals, minerals and co-products.*	TNG provided Snowden with forecast sales prices supplied by external forecasting analysts: Roskills of London (vanadium and titanium) and HLG Shanghai commodity traders (pig iron) product, and are (2018 price): V_2O_5: US $6.28/lb; TiO_2: US $3.573/t; Pig Iron US $388/t.t Where necessary all revenues are converted from $US to $AU based on an exchange rate of 0.75 over the life of the mine.
Market assessment	• *The demand, supply and stock situation for the particular commodity, consumption trends and factors likely to affect supply and demand into the future.* • *A customer and competitor analysis along with the identification of likely market windows for the product.* • *Price and volume forecasts and the basis for these forecasts.* • *For industrial minerals the customer specification, testing and acceptance requirements prior to a supply contract.*	TNG engaged Roskills of London and HLG commodity traders in Shanghai to provide guidance to assess the long term market and sales prices for vanadium pentoxide, titanium dioxide and pig iron in early 2015. Snowden accepts the results of these studies.
Economic	• *The inputs to the economic analysis to produce the net present value (NPV) in the study, the source and confidence of these economic inputs including estimated inflation, discount rate, etc.* • *NPV ranges and sensitivity to variations in the significant assumptions and inputs.*	Financial modelling indicates that Mount Peake will produce a positive NPV at a discount rate of 8.0 %, based on a range of assumed long term Iron Ore prices and exchange rates, derived from external forecasting analysts, and capital and operating cost assumptions. Sensitivity analysis indicates that the project's economics remain positive within typical sensitivity

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		ranges of operating cost, commodity price and foreign exchange rates.
Social	• *The status of agreements with key stakeholders and matters leading to social licence to operate.*	TNG has directly engaged or contracted other consultants to engage stakeholders to address: – government relations – environmental studies – community relations – labour requirements – power supply – land access – licencing – logistics. Snowden has not identified deficiencies that are likely to affect the result of the project. GHD is in the process of preparing an environmental impact assessment for the study. TNG has received a Sacred Site Clearance Certificate for the mining site area, and has commenced negotiations with the CLC and Traditional Landowners on a Native Title Agreement.
Other	• *To the extent relevant, the impact of the following on the project and/or on the estimation and classification of the Ore Reserves:* • *Any identified material naturally occurring risks.* • *The status of material legal agreements and marketing arrangements.* • *The status of governmental agreements and approvals critical to the viability of the project, such as mineral tenement status, and government and statutory approvals. There must be reasonable grounds to expect that all necessary Government approvals will be received within the timeframes anticipated in the Pre-Feasibility or Feasibility study. Highlight and discuss the materiality of any unresolved matter that is dependent on a third party on which extraction of the reserve is contingent.*	Snowden was dependent on other consultants for non-mining related feasibility study data and is satisfied itself that this information is professionally, adequately and truthfully prepared. Snowden provided the geotechnical recommendations for the study and is satisfied that this risk is appropriately ameliorated. There is no identified material naturally occurring risk that could impact on the project or Ore Reserves. TNG will continue to engage with the local and Northern Territory governments in relation to the Project.
Classification	• *The basis for the classification of the Ore Reserves into varying confidence categories.* • *Whether the result appropriately reflects the Competent Person's view of the deposit.* • *The proportion of Probable Ore Reserves that have been derived from Measured Mineral Resources (if any).*	Snowden has applied Probable classifications to the Ore Reserves based on Measured and Indicated Mineral Resource classifications. Snowden is satisfied that there are no material impediments preventing the project's progress from study to operation. The Ore Reserve classification results appropriately reflect the Competent Persons' view of the deposit.
Audits or reviews	• *The results of any audits or reviews of Ore Reserve estimates.*	No Competent Independent Reviews (CIRs) have been undertaken on the Ore Reserve estimate.

Criteria	JORC Code explanation	Commentary
Discussion of relative accuracy/ confidence	• *Where appropriate a statement of the relative accuracy and confidence level in the Ore Reserve estimate using an approach or procedure deemed appropriate by the Competent Person. For example, the application of statistical or geostatistical procedures to quantify the relative accuracy of the reserve within stated confidence limits, or, if such an approach is not deemed appropriate, a qualitative discussion of the factors which could affect the relative accuracy and confidence of the estimate.* • *The statement should specify whether it relates to global or local estimates, and, if local, state the relevant tonnages, which should be relevant to technical and economic evaluation. Documentation should include assumptions made and the procedures used.* • *Accuracy and confidence discussions should extend to specific discussions of any applied Modifying Factors that may have a material impact on Ore Reserve viability, or for which there are remaining areas of uncertainty at the current study stage.* • *It is recognised that this may not be possible or appropriate in all circumstances. These statements of relative accuracy and confidence of the estimate should be compared with production data, where available.*	Snowden has not made an assessment of the relative accuracy or confidence limits of the Ore Reserve estimate. There is no production data for benchmarking of the Ore Reserve estimate. Factors that may affect the global tonnages and grade estimates may include: – geological interpretation – mining ore recovery – mining dilution – processing and refining performance. The optimisation of the mineral resource indicates that the Ore Reserve estimate is not sensitive, within sensible ranges, to: – commodity price and currency exchange rate – pit slope angle.