

AUSTRALIAN

# RESEARCH

INDEPENDENT INVESTMENT RESEARCH

**TNG Limited (ASX: TNG)**

**Flash Note - KfW IPEX-Bank Mandated as  
Lead Debt Arranger for Mount Peake**

December 17, 2018

## WHO IS IIR?

Independent Investment Research, "IIR", is an independent investment research house based in Australia and the United States. IIR specialises in the analysis of high quality commissioned research for Brokers, Family Offices and Fund Managers. IIR distributes its research in Asia, United States and the Americas. IIR does not participate in any corporate or capital raising activity and therefore it does not have any inherent bias that may result from research that is linked to any corporate/ capital raising activity.

IIR was established in 2004 under Aegis Equities Research Group of companies to provide investment research to a select group of retail and wholesale clients. Since March 2010, IIR (the Aegis Equities business was sold to Morningstar) has operated independently from Aegis by former Aegis senior executives/shareholders to provide clients with unparalleled research that covers listed and unlisted managed investments, listed companies, structured products, and IPOs.

IIR takes great pride in the quality and independence of our analysis, underpinned by high caliber staff and a transparent, proven and rigorous research methodology.

### INDEPENDENCE OF RESEARCH ANALYSTS

Research analysts are not directly supervised by personnel from other areas of the Firm whose interests or functions may conflict with those of the research analysts. The evaluation and appraisal of research analysts for purposes of career advancement, remuneration and promotion is structured so that non-research personnel do not exert inappropriate influence over analysts.

Supervision and reporting lines: Analysts who publish research reports are supervised by, and report to, Research Management. Research analysts do not report to, and are not supervised by, any sales personnel nor do they have dealings with Sales personnel

Evaluation and remuneration: The remuneration of research analysts is determined on the basis of a number of factors, including quality, accuracy and value of research, productivity, experience, individual reputation, and evaluations by investor clients.

### INDEPENDENCE – ACTIVITIES OF ANALYSTS

IIR restricts research analysts from performing roles that could prejudice, or appear to prejudice, the independence of their research.

Pitches: Research analysts are not permitted to participate in sales pitches for corporate mandates on behalf of a Broker and are not permitted to prepare or review materials for those pitches. Pitch materials by investor clients may not contain the promise of research coverage by IIR.

No promotion of issuers' transactions: Research analysts may not be involved in promotional or marketing activities of an issuer of a relevant investment that would reasonably be construed as representing the issuer. For this reason, analysts are not permitted to attend "road show" presentations by issuers that are corporate clients of the Firm relating to offerings of securities or any other investment banking transaction from that our clients may undertake from time to time. Analysts may, however, observe road shows remotely, without asking questions, by video link or telephone in order to help ensure that they have access to the same information as their investor clients.

Widely-attended conferences: Analysts are permitted to attend and speak at widely-attended conferences at which our firm has been invited to present our views. These widely-attended conferences may include investor presentations by corporate clients of the Firm.

Other permitted activities: Analysts may be consulted by Firm sales personnel on matters such as market and industry trends, conditions and developments and the structuring, pricing and expected market reception of securities offerings or other market operations. Analysts may also carry out preliminary due diligence and vetting of issuers that may be prospective research clients of ours.

### INDUCEMENTS AND INAPPROPRIATE INFLUENCES

IIR prohibits research analysts from soliciting or receiving any inducement in respect of their publication of research and restricts certain communications between research analysts and personnel from other business areas within the Firm including management, which might be perceived to result in inappropriate influence on analysts' views.

Remuneration and other benefits: IIR procedures prohibit analysts from accepting any remuneration or other benefit from an issuer or any other party in respect of the publication of research and from offering or accepting any inducement (including the selective disclosure by an issuer of material information not generally available) for the publication of favourable research. These restrictions do not preclude the acceptance of reasonable hospitality in accordance with the Firm's general policies on entertainment, gifts and corporate hospitality.

### DISCLAIMER

This publication has been prepared by Independent Investment Research (Aust) Pty Limited trading as Independent Investment Research ("IIR") (ABN 11 152 172 079), an corporate authorised representative of Australian Financial Services Licensee (AFSL no. 410381). IIR has been commissioned to prepare this independent research report (the "Report") and will receive fees for its preparation. Each company specified in the Report (the "Participants") has provided IIR with information about its current activities. While the information contained in this publication has been prepared with all reasonable care from sources that IIR believes are reliable, no responsibility or liability is accepted by IIR for any errors, omissions or misstatements however caused. In the event that updated or additional information is issued by the "Participants", subsequent to this publication, IIR is under no obligation to provide further research unless commissioned to do so. Any opinions, forecasts or recommendations reflects the judgment and assumptions of IIR as at the date of publication and may change without notice. IIR and each Participant in the Report, their officers, agents and employees exclude all liability whatsoever, in negligence or otherwise, for any loss or damage relating to this document to the full extent permitted by law. This publication is not and should not be construed as, an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. Any opinion contained in the Report is unsolicited general information only. Neither IIR nor the Participants are aware that any recipient intends to rely on this Report or of the manner in which a recipient intends to use it. In preparing our information, it is not possible to take into consideration the investment objectives, financial situation or particular needs of any individual recipient. Investors should obtain individual financial advice from their investment advisor to determine whether opinions or recommendations (if any) contained in this publication are appropriate to their investment objectives, financial situation or particular needs before acting on such opinions or recommendations. This report is intended for the residents of Australia. It is not intended for any person(s) who is resident of any other country. This document does not constitute an offer of services in jurisdictions where IIR or its affiliates do not have the necessary licenses. IIR and/or the Participant, their officers, employees or its related bodies corporate may, from time to time hold positions in any securities included in this Report and may buy or sell such securities or engage in other transactions involving such securities. IIR and the Participant, their directors and associates declare that from time to time they may hold interests in and/or earn brokerage, fees or other benefits from the securities mentioned in this publication.

IIR, its officers, employees and its related bodies corporate have not and will not receive, whether directly or indirectly, any commission, fee, benefit or advantage, whether pecuniary or otherwise in connection with making any statements and/or recommendation (if any), contained in this Report. IIR discloses that from time to time it or its officers, employees and related bodies corporate may have an interest in the securities, directly or indirectly, which are the subject of these statements and/or recommendations (if any) and may buy or sell securities in the companies mentioned in this publication; may affect transactions which may not be consistent with the statements and/or recommendations (if any) in this publication; may have directorships in the companies mentioned in this publication; and/or may perform paid services for the companies that are the subject of such statements and/or recommendations (if any).

However, under no circumstances has IIR been influenced, either directly or indirectly, in making any statements and/or recommendations (if any) contained in this Report. The information contained in this publication must be read in conjunction with the Legal Notice that can be located at <http://www.independentresearch.com.au/Public/Disclaimer.aspx>.

### THIS IS A COMMISSIONED RESEARCH REPORT.

The research process includes the following protocols to ensure independence is maintained at all times:

- 1) The research process has complete editorial independence from the company and this included in the contract with the company;
- 2) Our analyst has independence from the firm's management, as in, management/ sales team cannot influence the research in any way;
- 3) Our research does not provide a recommendation, in that, we do not provide a "Buy, Sell or Hold" on any stocks. This is left to the Adviser who knows their client and the individual portfolio of the client.
- 4) Our research process for valuation is usually more conservative than what is adopted in Broking firms in general sense. Our firm has a conservative bias on assumptions provided by management as compared to Broking firms.
- 5) All research mandates are settled upfront so as to remove any influence on ultimate report conclusion;
- 6) All staff are not allowed to trade in any stock or accept stock options before, during and after (for a period of 6 weeks) the research process.

For more information regarding our services please refer to our website [www.independentresearch.com.au](http://www.independentresearch.com.au).



**Note:** This note is based on information provided by the company as at 17 December, 2018.

Investment Profile	
Share Price - 14 Dec, 2018	A\$0.12
12 month L/H	A\$0.082/ 0.22
Valuation	A\$0.60/share
Issued Capital:	
Ordinary Shares	963.5 m
Unlisted Options	12.5 m
Fully Diluted	976.0 m
Market Capitalisation	A\$115.6 m
Cash - Sept 30, 2018	A\$13.9 m
Subsequent Placement	A\$3.87 m
R & D Refund	A\$1.55 m

Board and Management	
Paul Burton: Managing Director	
Mr Greg Durack: Non-Executive Director	
Mr Rex Turkington: Non-Executive Director	
Mr John Davidson: Non-Executive Director	

Major Shareholders	
V. M. Salgaocar	9.73%
WWB Investments	8.30%
Aosu Investments	5.83%
Board and Management	2.62%
Top 20	36.78%



Senior Analyst – Mark Gordon

The investment opinion in this report is current as at the date of publication. Investors and advisers should be aware that over time the circumstances of the issuer and/or product may change which may affect our investment opinion.

### KFW IPEX-BANK MANDATED AS LEAD DEBT MANAGER FOR MOUNT PEAKE

- ◆ **KFW IPEX-Bank has been mandated to structure the total debt package of up to US\$600 million (~A\$830 million) to underpin the financing of TNG's 100% owned Mount Peake Vanadium-Titanium-Iron Project.**
- ◆ **The mandate will commence on January 15, 2019, with KfW IPEX-Bank to structure, coordinate, lead and manage the debt finance syndicate; this will also include advising the Company on the best strategy to maximise cover instruments from export credit agencies ("ECA").**
- ◆ **The final capital requirements will be ascertained following lenders' due diligence and the ongoing Mount Peake Front-End Engineering and Design ("FEED") study: the due diligence will also determine appropriate amounts of contingency, working capital, debt service reserve and owner's costs which will help determine the debt structure.**
- ◆ **In association with SMS Finance and TNG, KfW IPEX-Bank has had input into the capex and opex assumptions used in the ongoing FEED study, with the study being led by SMS Group, TNG's strategic engineering and construction partner.**
- ◆ **KfW IPEX-Bank, as a part of the broader Frankfurt headquartered, German government-owned KfW Group, is one of the leading global providers of export credit and project financing.**
- ◆ **In view of the progress made and further de-risking, we have updated our valuation to A\$0.60/share**

### IIR'S COMMENTS

The signing of the mandate with KfW IPEX-Bank is a critical, and one of the final steps leading to the development of the Company's Mount Peake Vanadium-Titanium-Iron Project, located in the Northern Territory of Australia.

One of the strengths of going down this finance route is the potential to access ECA cover, which can result in relatively low interest rates, thus reducing the cost of financing when compared with other debt finance options.

The signing of the financing mandate is the culmination of a year where major advances have been made towards project implementation, with milestones including:

- ◆ Territory and Federal Government environmental approvals for the Mount Peake mine site,
- ◆ Execution of the Mount Peake Project Native Title Agreement with the Central Lands Council and the Eynewantheyne Aboriginal Corporation RNTBC,
- ◆ Signing of a binding titanium products term sheet; and,
- ◆ Grant of the Mining and Ancillary Leases at Mount Peake.

The grant of the Mount Peake site leases is one of the last of the major permitting processes prior to construction and development of the Project - the granting of the leases was contingent upon the environmental approvals and the Native Title Agreement. The latter will ensure that employment opportunities, training and other benefits will flow back to the Native Title holders and local communities from the Project.

Remaining major permitting activities include environmental approvals for the Darwin TIVAN® plant site, with work on the Environmental Impact Statement ("EIS") ongoing, and due for completion in early 2019.

Another significant factor in obtaining finance is having offtake agreements in place, with the titanium products agreement being the final one for the three products to be produced from Mount Peake - the other agreements in place include:

- ◆ A binding life-of-mine offtake agreement with South Korean company WOOJIN Metals for a minimum of 60% of the vanadium output - this includes a technology transfer agreement; and,

- ◆ A binding Term Sheet for a life-of-mine offtake agreement with Gunvor (Singapore) for iron products, with these expected to be largely pig iron.

This titanium binding Term Sheet was signed with the Switzerland based specialty chemicals distributor "DKSH" for the life-of-mine offtake of 100% (up to 150,000 tpa) of titanium products, which are initially to include products for the outdoor coating industry - it is expected that the terms will be settled, and a final binding offtake agreement be executed within six months of the October 30, 2018 execution of the Term Sheet.

In our view this is the most significant of the offtake agreements, with, at current prices, our modelling indicates that titanium products provide over 50% of project revenue.

Also on the titanium front the Company has entered into a binding Heads of Agreement with German technology provider, T-Cons, for the supply of a titanium dioxide pigment production technology package. This package includes the new sulphate-based TiO<sub>2</sub> production route, that directly uses feedstock produced by the TIVAN® process without any intermediate upgrading.

This progress on the Project has also come at a time of continuing strong prices for the Project's products, with these being positive for the already strong project economics.

With ~A\$18 million in the bank, the Company is now largely funded through to the main project development funding, with this expected to be finalised, with all going well, in early to mid 2020.

## VALUATION

- ◆ We have updated our indicative valuation for TNG (Table 1), with changes in the model including:
  - Updating the AUD:USD exchange rate from 0.75 to 0.72,
  - Increasing the risk multiplier to 70% to reflect the advances in the Project,
  - Increasing cash and current shares on issue to reflect the current position.
- ◆ We have left other parameters the same, including capex - the continuing input of KfW IPEX-Bank into the FEED study and the ongoing association with SMS should mitigate the chance of significant increases in capex as we have seen on some other projects using this funding route; in addition our modelling indicates that the Project is fairly insensitive to changes in capex as shown in Table 2.
- ◆ This is based on a conceptual 70:30 debt:equity mix.

**Table 1: TNG indicative base case valuation**

TNG indicative base case valuation					
Asset	Value (A\$m)	Risk Factor	Risked (A\$m)	Risked/Share	Notes
Mount Peake	\$2,171	70%	\$1,520	\$0.594	Post-tax NPV <sub>8</sub>
Cash	\$18.00	100%	\$18.00	\$0.007	Current
Todd River Holding	\$0.53	100%	\$0.53	\$0.000	Current
<b>Total</b>	<b>\$2,190</b>	<b>N/A</b>	<b>\$1,539</b>	<b>\$0.601</b>	
Diluted Shares	2,561 m	Tax Status	Post Tax		30% equity funding
Mount Peake Prices	V <sub>2</sub> O <sub>5</sub>	Pig Iron	TiO <sub>2</sub>	AUD:USD	
	\$16,500/tonne	\$350/tonne	\$3,000/tonne	0.72	IIR scenario

Source: IIR analysis

**Table 2: Un-risked Mount Peake sensitivity analysis**

Un-risked Mount Peake sensitivity analysis						
Change	V <sub>2</sub> O <sub>5</sub> Price	TiO <sub>2</sub> Price	Pig Iron Price	Exchange Rate	Opex	Capex
-15%	\$1,918	\$1,558	\$1,936	\$3,469	\$2,813	\$2,307
-10%	\$2,002	\$1,762	\$2,014	\$2,989	\$2,599	\$2,262
-5%	\$2,087	\$1,967	\$2,093	\$2,559	\$2,385	\$2,217
0%	\$2,171	\$2,171	\$2,171	\$2,171	\$2,171	\$2,171
5%	\$2,256	\$2,376	\$2,250	\$1,821	\$1,957	\$2,126
10%	\$2,341	\$2,581	\$2,329	\$1,503	\$1,744	\$2,081
15%	\$2,425	\$2,785	\$2,407	\$1,212	\$1,530	\$2,036

Source: IIR analysis

# DISCLAIMER

## (a) Disclaimer

The information, reports, financial models, forecasts, strategies, audio broadcasts and other media (referred to as "Content" throughout this Legal Notice), provided on this web site has been prepared and issued by Altavista Research Pty Ltd trading as Independent Investment Research "IIR," Independent Investment Research Holdings Pty Ltd (ACN 155 226 074), as authorised to publish research under an Australian Financial Securities Licence (AFSL No 420170) which allows Independent Investment Research to offer financial service advice to retail and wholesale clients. Users of this web site should not act on any Content without first seeking professional advice. Whilst the Content contained on this web site has been prepared with all reasonable care from sources which we believe are reliable, no responsibility or liability is accepted by Independent Investment Research, for any errors or omissions or misstatements however caused. Any opinions, forecasts or recommendations reflect our judgement and assumptions at the date of publication or broadcast and may change without notice. Content on this web site is not and should not be construed as an offer to sell or the solicitation of an offer to purchase or subscribe for any investment. We are not aware that any user intends to rely on the Content provided or of the manner in which a user intends to use it. In preparing our Content it is not possible to take into consideration the investment objectives, financial situation or particular needs of any individual user.

Access by any user to this website does not create a client relationship between Independent Investment Research and the user. Users seeking to invest must obtain individual financial advice to determine whether recommendations are appropriate to their investment objectives, personal financial situation or particular needs, before acting on any recommendations. Any Content is not for public circulation or reproduction, whether in whole or in part and is not to be disclosed to any person other than the intended user, without the prior written consent of Independent Investment Research.

## (b) Disclosure of Interest

### General

Independent Investment Research, its officers, employees, consultants and its related bodies corporate have not and will not receive, whether directly or indirectly: any commission; fee; benefit; or advantage, whether pecuniary or otherwise, in connection with making any recommendation contained on this web site. Independent Investment Research, discloses that from time to time, it or its officers, employees and its related bodies corporate: may have an interest in the securities, directly or indirectly, which are the subject of these recommendations; may buy or sell securities in the companies mentioned in the Content; may effect transactions which may not be consistent with the recommendations in the Content; may have directorships in the companies mentioned in the Content; and/or perform paid services for the companies that are the subject of such recommendations.

However, under no circumstances, has Independent Investment Research been influenced, either directly or indirectly, in making any recommendations contained on this web site.

### Corporate Research

Independent Investment Research has or may have, received a fee either directly by a company itself or by a third party, to provide coverage and/or corporate research (the "Fee"). Where a Fee has been received, Independent Investment Research does not publish:

Buy / Hold / Sell recommendations for the security or managed investment schemes.

## (c) Copyright Protection

All Content at this web site is protected by copyright. Apart from any use permitted under the Copyright Act (Cth) 1968, you must not copy, frame, modify, transmit or distribute the material at this web site, without seeking the prior written consent of the copyright owner. Content on this web site is owned by the business Independent Investment Research. Users are prohibited from copying, distributing, transmitting, displaying, publishing, selling, licensing, creating derivative works or using any content on the web site for commercial or public purposes

Copyright 2010 Independent Investment Research. All rights reserved.

## (d) Trade Marks

The trade marks and logos displayed on this web site belong to Independent Investment Research or other parties. Such trade marks include registered trade marks and trade marks pending registration. Users are prohibited from using any of these trade marks, without seeking the prior written consent of IIR or such third party, which may own the trade mark content on this web site.

## (e) Limitation of Liability

To the fullest extent permitted by the law, Independent Investment Research and any of its officers, employees, agents, consultants or related bodies corporate disclaim any liability, whether based in contract, tort, strict liability or otherwise, for any direct, indirect, incidental, consequential or special damages arising out of or in any way connected with the use of any Content made available on this web site by any person or entity.

## (f) No Warranties

Independent Investment Research does not make any claims, promises, guarantees, representations or warranties regarding the accuracy, completeness or fitness for purpose of the Content made available on this web site. All information on this web site is provided to you on an as is basis, without warranty of any kind either express or implied. To the extent that research can be provided by third parties, Independent Investment Research makes no warranty or representation as to the accuracy or completeness of such information displayed on this site, and accepts no liability for errors or omissions arising from such third party information. To the fullest extent permitted by law, under no circumstances will Independent Investment Research be liable for any loss or damage caused by users reliance upon information obtained through this web site. It is the responsibility of the user to evaluate the accuracy, completeness or usefulness of any information, opinion, general advice or other content made available through this web site. Furthermore, Independent Investment Research does not warrant or represent that this web site is error free or free from viruses or defects. A user must do all that is necessary (including using virus checking software) to satisfy itself that accessing this website will not adversely affect its system.

For further information, please contact IIR at: [client.services@independentresearch.com.au](mailto:client.services@independentresearch.com.au)



**Independent Investment Research (Aust.) Pty Limited**

**SYDNEY OFFICE**

Level 1, 350 George Street  
Sydney NSW 2000  
Phone: +61 2 8001 6693  
Main Fax: +61 2 8072 2170  
ABN 11 152 172 079

**MELBOURNE OFFICE**

Level 7, 20-22 Albert Road  
South Melbourne VIC 3205  
Phone: +61 3 8678 1766  
Main Fax: +61 3 8678 1826

**HONG KONG OFFICE**

1303 COFCO Tower  
262 Gloucester Road  
Causeway Bay, Hong Kong

**DENVER OFFICE**

200 Quebec Street  
300-111, Denver Colorado USA  
Phone: +1 161 412 444 724

**MAILING ADDRESS**

PO Box H297 Australia Square