

# TNG LIMITED

ASX:TNG

**The next world class Vanadium and Titanium producer**  
**Company Update for 121 - London**  
**November 2018**  
**Paul Burton, Managing Director**





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## COMPETENT PERSON'S STATEMENTS

- ▶ The information in this report that relates to the Mount Peake Mineral Resource estimates is extracted from an ASX Announcement dated 26 March 2013, (see ASX Announcement – 26 March 2013, "Additional Information on the Mount Peake Resource", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.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](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.com.au)). 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 that all material assumptions and technical parameters underpinning the Mineral Resource 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.
- ▶ The information in this report that relates to the Mount Peake Ore Reserve estimates is extracted from an ASX Announcement dated 31 July 2015, (see ASX Announcement – 31 July 2015, "Mount Peake Feasibility Study Confirms a World-Class Project", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asc.com.au](http://www.asc.com.au)) and was completed in accordance with the guidelines of the JORC Code (2012). 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 that all material assumptions and technical parameters underpinning the Ore Reserve 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.

## PRODUCTION TARGETS AND FINANCIAL INFORMATION

- ▶ Information in relation to the Mount Peake Definitive Feasibility, including production targets and financial information, included in this report is extracted from an ASX Announcement dated 20 November 2017 , (see ASX Announcement – 20 November 2017, "Updated Feasibility Study Results", [www.tngltd.com.au](http://www.tngltd.com.au) and [www.asx.com.au](http://www.asx.com.au)). The Company confirms that all material assumptions underpinning the production target and financial information set out in the announcement released on 20 November 2017 continue to apply and have not materially changed.

## Key Corporate and Financial Data

ASX code:	TNG
Market capitalisation (at 12c):	\$111M
Shares on issue:	961M
Cash:	\$18M
Auditors:	KPMG

## Board of Directors

Paul Burton	Managing Director
Greg Durack	Non-executive Director
Rex Turkington	Non-executive Director
John Davidson	Non-executive Director

## Major Shareholders

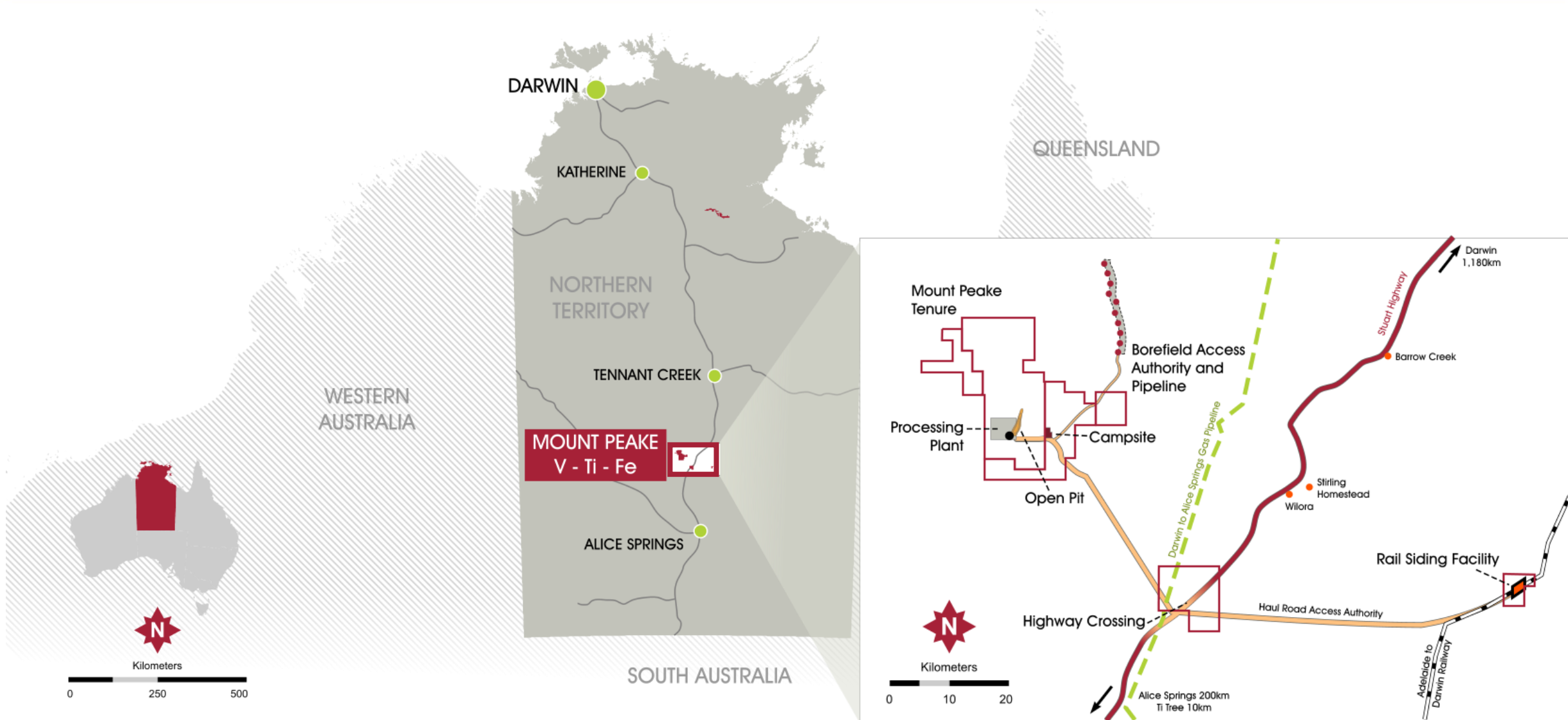
V M Salgaocar	9.76%
WWB Investments P/L	8.32%
Aosu Investment & Development Co	5.85%
J P Morgan Nominees	1.52%
SMS Investments SA	1.46%
Mr Paul Burton	1.25%

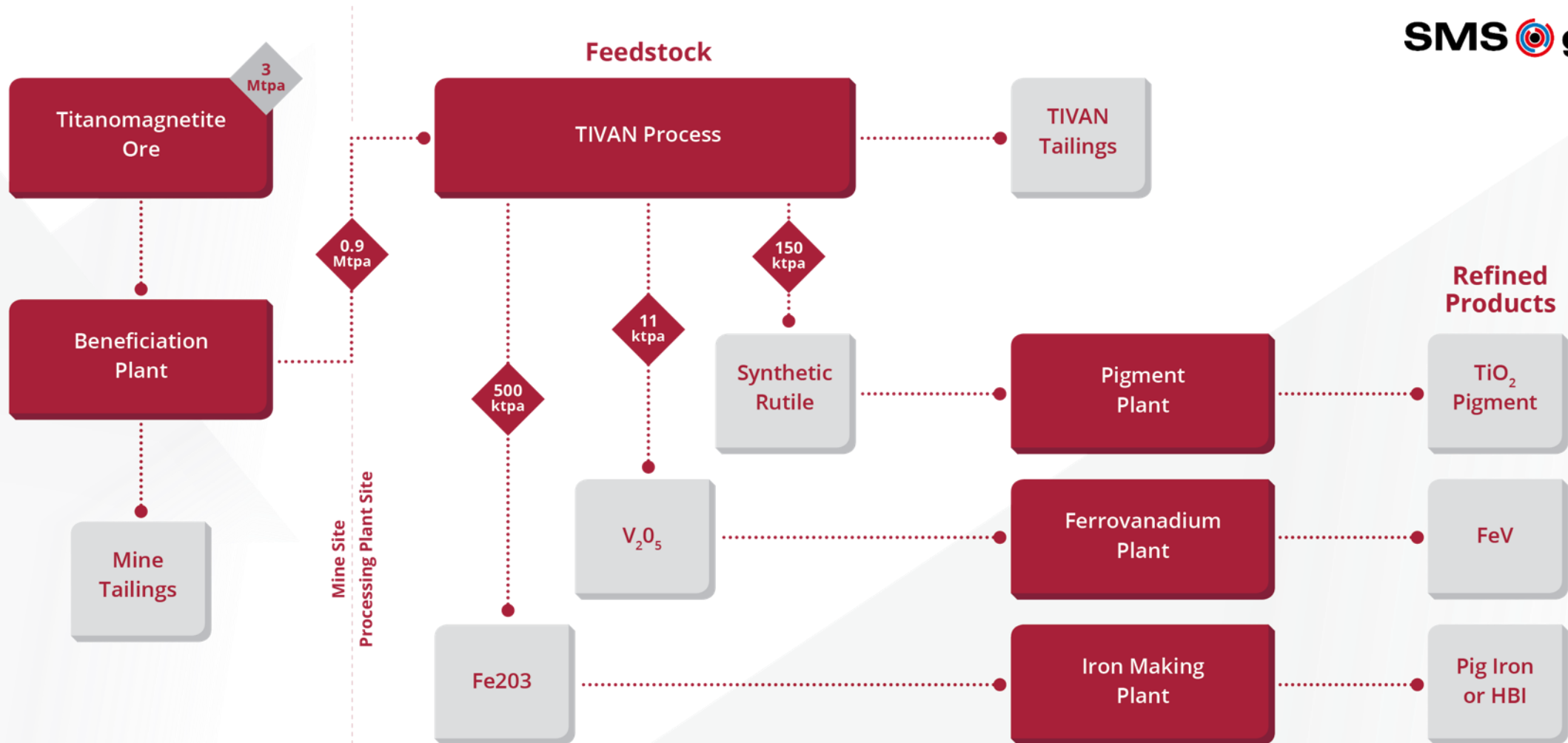
*(Directors and their related companies hold approximately 2.34% of issued capital)*

## 12-month share price

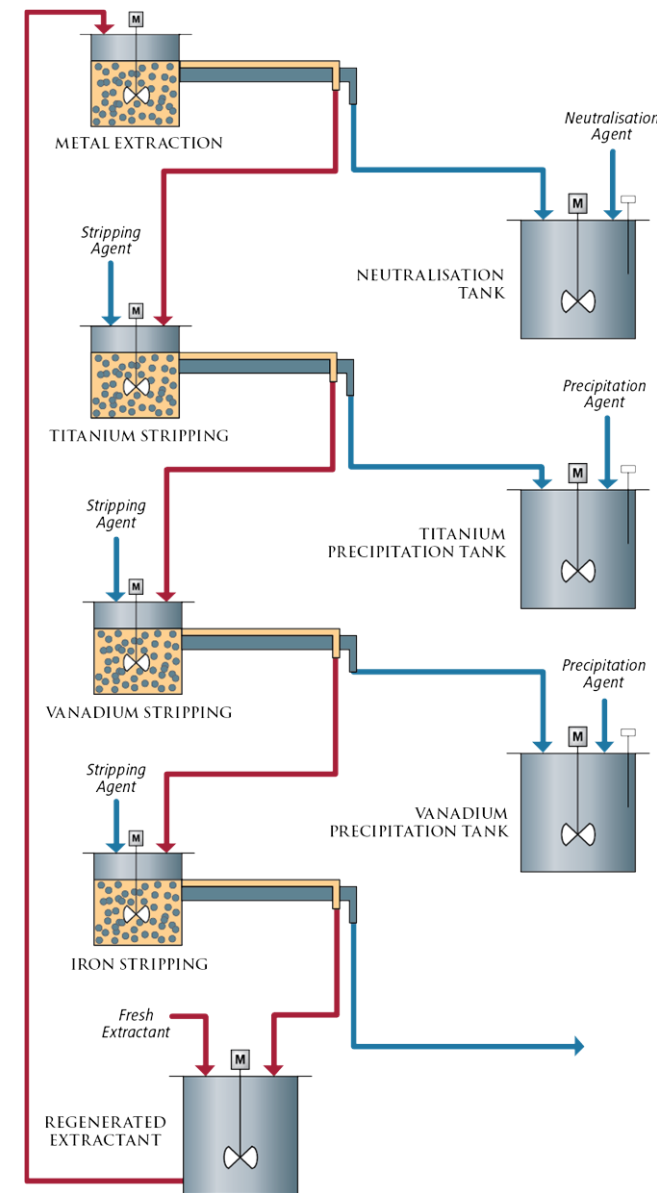


# Mount Peake: Environmental approval and native title agreement completed.





- ▶ Hydrometallurgical process that extracts three high products from a single resource (titano-magnetite)
- ▶ 3 High purity commercial products:
  - ▶ High purity V2O5 (99.8%)
  - ▶ High grade TiO2 pigment (94%) – following a further standard processing
  - ▶ High purity Fe2O3 (92%)
- ▶ Final optimisation and design work completed
- ▶ SMS engaged to complete the FEED process on TIVAN® and will provide TNG Process and Product Guarantee
- ▶ Patent/Trademark Registered in over 12 countries



# Mount Peake updated DFS: Key metrics 2017

Project life	19 years +
Mining rate	3 Mtpa ( <i>Stage 1</i> ) expanding to 6 Mtpa ( <i>Stage 2</i> ) after 4 years
Pre-production capital estimate ( <i>including all infrastructure</i> )	<b>A\$853 million</b> ( <i>Stage 2 expected to be covered from revenue</i> )
Total operating costs ( <i>including mining, processing, transport &amp; royalties</i> )	<b>A\$185</b> per tonne of ore
Total revenue (life-of-mine)	A\$29.2 billion
Operating cash flow (life-of-mine)	A\$13.5 billion
Net cash flow (life-of-mine)	A\$11.7 billion
Payback period	3 years
Net annual operating cash flow	A\$738 million
IRR pre-tax	44%
NPV (at 8% discounted)	A\$4.7 billion

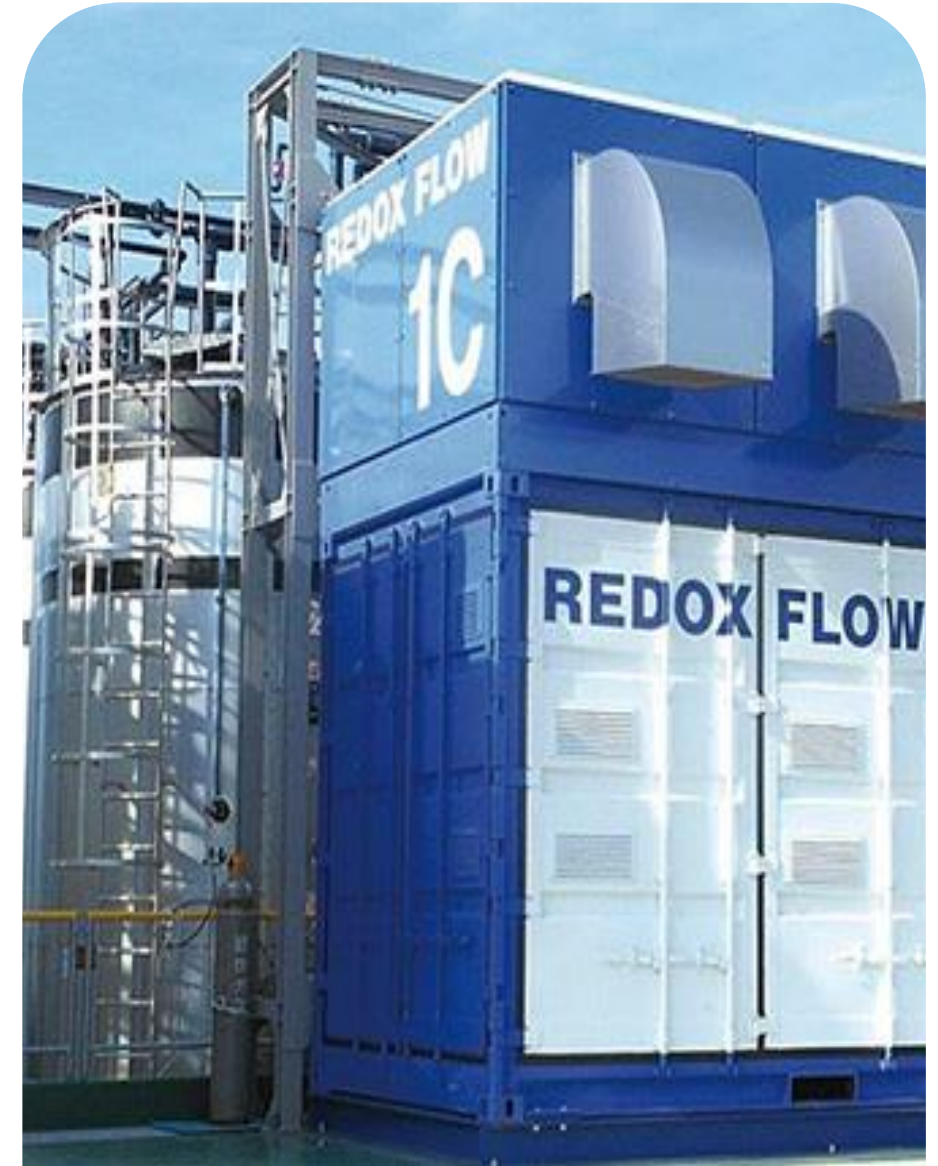
*Refer ASX announcement 20 November 2017*



# TNG's Key Products: Vanadium Pentoxide and Titanium Dioxide

## Future demand drivers for strategic metals

- ▶ Global requirement for higher quality steel – vanadium is key for strengthening / alloying. Recent regulations, mainly in China, are significantly pushing consumption and restricting supply leading to a structural deficit
- ▶ Vanadium Redox Flow Batteries (VRB) are gaining momentum with strong growth and worldwide commercial deployment and the Industry is forecasted to grow at 30.8%pa. between 2015 and 2020.
- ▶  $\text{TiO}_2$  (white) pigment consumption is growing steadily, closely linked with global urbanization, mainly in the developing markets. Demand for quality pigment is expected to double by 2025.





# TNG Products: Commercial summary

## Off-take Agreements

### Vanadium Products – Woojin (Korea)

- ▶ Binding Life-of-Mine (LOM) Off-take Agreement and Technology Transfer agreement with WOOJIN Metals.

### TiO2 Products

- ▶ Binding Term Sheet for LOM Off-take Agreement with DKSH for TiO2 pigment products

### Iron Products – Gunvor (Singapore)

- ▶ Binding Term Sheet for LOM Off-take Agreement with Gunvor for iron products



## Key developments in TNG's markets

- ▶ TNG products experienced solid price growth over 24 months:

V <sub>2</sub> O <sub>5</sub>	+900%	from US\$3/lb to a peak of US\$30/lb
TiO <sub>2</sub>	+40%	from US\$2,300/t to US\$3,200/t
Pig Iron	+60%	from US\$250/t to US\$400/t

- ▶ Relative weakness in Australian Dollar is also very favourable



## Recent Key Announcements

- ▶ EIS mine site – Federal approval
- ▶ Strategic investment from Indian mining group - Completed
- ▶ Titanium Pigment Technology Provider Ti-Cons - Executed
- ▶ Mount Peake Native Title Agreement - Executed
- ▶ Binding Offtake terms for Titanium Pigment with DKSH - Executed
- ▶ FEED: SMS to provide TNG Process and Product Guarantee - Commenced





## Next Steps

- ▶ Mining license grant by NT government
- ▶ Completion of EIS for TIVAN ® plant
- ▶ Project finance structured
- ▶ Mine site equipment tender
- ▶ Appointment of EPC
- ▶ Commencement of development





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Thank you

