



## POSITIVE METALLURGICAL TEST WORK RESULTS FROM MOUNT PEAKE (NT) CONTINUE TO IMPROVE PROJECT POTENTIAL

### HIGHLIGHTS

- **Test work confirms that Mount Peake ore is amenable to upgrading via low-cost magnetic separation**
- **Significant improvement in vanadium head grade from 0.3% V<sub>2</sub>O<sub>5</sub> up to 1.2% V<sub>2</sub>O<sub>5</sub> achieved by magnetic separation and minimal re-grinding**
- **Test work achieves high V<sub>2</sub>O<sub>5</sub> recovery of 85-97% in 40% of the mass**
- **Maximum iron head grade of 66% Fe achieved from upgrading original head grade of 32% Fe**
- **The titanium grade also showed an upgrade from a head grade of 9.4% TiO<sub>2</sub> to 16% TiO<sub>2</sub>**
- **Positive initial results from assessment of low-cost processing options**
- **Recovery of all three components, vanadium, titanium and iron currently being explored**

Australian resources company TNG Limited (ASX: TNG) is pleased to report further encouraging results from ongoing metallurgical test work being carried out at the Company's 100%-owned **Mount Peake Vanadium Project** in the Northern Territory (see Figure 1).

The updated test work results – which follow the recent 30% increase the Inferred Resource for the Mount Peake Project to **140 Mt @ 0.30 % V<sub>2</sub>O<sub>5</sub>, 5.9 % TiO<sub>2</sub>, 29% Fe** – represent another positive development for the Project, highlighting the potential to recover a high-grade vanadium pentoxide (V<sub>2</sub>O<sub>5</sub>) concentrate, as well as to extract the other metals, iron and titanium.

TNG's metallurgical consultants, Mineral Engineering Technical Services Pty Ltd ("METS"), have designed and managed the metallurgical test work program. METS has in-depth experience with vanadium deposits, particularly with Australian projects, and is well suited to evaluate the Mount Peake mineralisation.

Initial test work confirmed that a high-grade vanadium pentoxide ( $V_2O_5$ ) concentrate can be produced from the Mount Peake mineralisation. Further test work has been aimed at optimising the grade and recovery, and exploring processing options.

Results from new magnetic separation beneficiation test work have been highly encouraging. The ore responded well to coarse cobbing, giving an upgrade from 0.3%  $V_2O_5$  to 0.5-0.8%  $V_2O_5$ . High  $V_2O_5$  recovery at 85-97% was obtained (see *Table 1 below*). This high rejection of barren material at a coarse size reduces the load on the downstream processing and therefore reduces the processing cost.

Drill Hole	Grind size (mm)	Stream	Fe Grade (%)	$V_2O_5$ Grade (%)	$TiO_2$ Grade (%)
MPRC001	-3.35	Mags	30.8	0.6	10.8
	-1.0	Mags	34.8	0.7	12.8
	-0.5	Mags	31.1	0.6	10.9
		Feed Grade	18.4	0.3	5.0
MPRC002	-3.35	Mags	34.4	0.7	10.6
	-1.0	Mags	38.5	0.8	12.6
	-0.5	Mags	40.3	0.8	13.0
		Feed Grade	23.4	0.3	6.4
MPRC003	-3.35	Mags	34.3	0.5	8.0
	-1.0	Mags	35.4	0.5	8.6
	-0.5	Mags	39.3	0.7	10.2
		Feed Grade	29.3	0.3	5.6
MPRC004	-3.35	Mags	29.5	0.5	7.8
	-1.0	Mags	33.8	0.6	9.8
	-0.5	Mags	35.8	0.6	10.5
		Feed Grade	23.6	0.3	5.5
MPRC006	-3.35	Mags	32.0	0.6	10.3
	-1.0	Mags	33.9	0.6	11.1
	-0.5	Mags	31.6	0.6	9.9
		Feed Grade	20.1	0.3	5.3

**Table 1: Course cobbing results**

Re-grinding the cobbing magnetic concentrate to  $P_{100}$  75  $\mu m$  resulted in a further upgrade in the magnetic concentration. The  $V_2O_5$  grade was increased to 0.9-1.2%, a grade that is suitable for both pyrometallurgical and hydrometallurgical processing. Again, a high recovery of  $V_2O_5$  at 80-94% was achieved.

Davis tube recovery tests performed on additional samples from a recent drilling campaign in November 2009 have improved on the previous results, producing a vanadium-rich titanomagnetite grading 1.0-1.3%  $V_2O_5$ . This work has confirmed that the Mount Peake ores exhibit good potential to be upgraded by low-cost magnetic separation processing.

Preliminary test work showed that the samples are amenable to conventional pyrometallurgical processing (salt roasting followed by water leaching), giving an initial  $V_2O_5$  extraction efficiency of 70%. This value aligned well with the typical values achieved from other titanomagnetite type ore.

As an alternative to the conventional salt roasting, the magnetic concentrate was also found to be amenable to hydrometallurgical processing. A high vanadium extraction of 98% was achieved using acid leaching. About 83-99% of the iron was also co-extracted with the vanadium.

Preliminary test results showed that the iron can be separated from the vanadium by solvent extraction, generating an iron solution with purity of 99.6%  $FeCl_3$ . Optimisation of the solvent extraction test work programme is underway and will be reported at the completion of the sighter test.

Overall, the test work completed to date has demonstrated that the Mount Peake deposit has no mineralogical issues that would inhibit the response of the ore to magnetic separation beneficiation. The ore is not refractory and is highly amenable to hydrometallurgical processing. The hydrometallurgical test route allows more than a single product to be generated, which could have a positive impact on the project economics.

Solvent extraction tests are in progress to generate high purity vanadium, iron and titanium products. The results and interpretations will be reported at the completion of the metallurgical programme.

In addition, the beneficiation potential of the low grade materials (<0.3%  $V_2O_5$ ) by magnetic separation at coarse size and/or screening are currently being investigated.

Yours faithfully

**TNG LIMITED**



**Paul Burton**  
**Director & CEO.**

**March 4<sup>th</sup> 2010.**

**Competent Person's Statement**

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled by Paul Burton who is a Member of The Australasian Institute of Mining and Metallurgy and a Director of TNG Limited. Paul Burton 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Paul Burton 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 Mineral Resources is based on information compiled by Michael Andrew who is a Member of The Australasian Institute of Mining and Metallurgy and a full time employee of Snowden Mining Industry Consultants Pty Ltd. Michael Andrew 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 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves'. Michael Andrew consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

Mr Damian Connelly, MAAusIMM, Chartered Processional (MET), MMICA, MSME, MSAIMM was responsible for the preparation of the metallurgical test work results reported herein. Mr Connelly has sufficient experience to the activity which he is undertaking to qualify as a Competent Person as defined in the 2004 Edition of the "Australasian Code for

Reporting of the Exploration Results, Mineral Resources and Ore Reserves. Mr Connelly consents to the inclusion in the report of the matters based on his information in the form and context in which is appears.

**Forward-Looking Statements**

This report contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company's business strategy, plans, objectives, performance, outlook, growth, cash flow, earnings per share and shareholder value, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses, property acquisitions, mine development, mine operations, drilling activity, sampling and other data, grade and recovery levels, future production, capital costs, expenditures for environmental matters, life of mine, completion dates, and currency exchange rates. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast' and similar expressions. Persons reading this report are cautioned that such statements are only predictions, and that the Company's actual future results or performance may be materially different.

Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information. Forward-looking information is developed based on assumptions about such risks, uncertainties and other factors set out herein, including but not limited to the risk factors set out in the Company's Annual Information Form.

This list is not exhaustive of the factors that may affect our forward-looking information. These and other factors should be considered carefully and readers should not place undue reliance on such forward-looking information. The Company disclaims any intent or obligations to update or revise any forward-looking statements whether as a result of new information, estimates or options, future events or results or otherwise, unless required to do so by law.

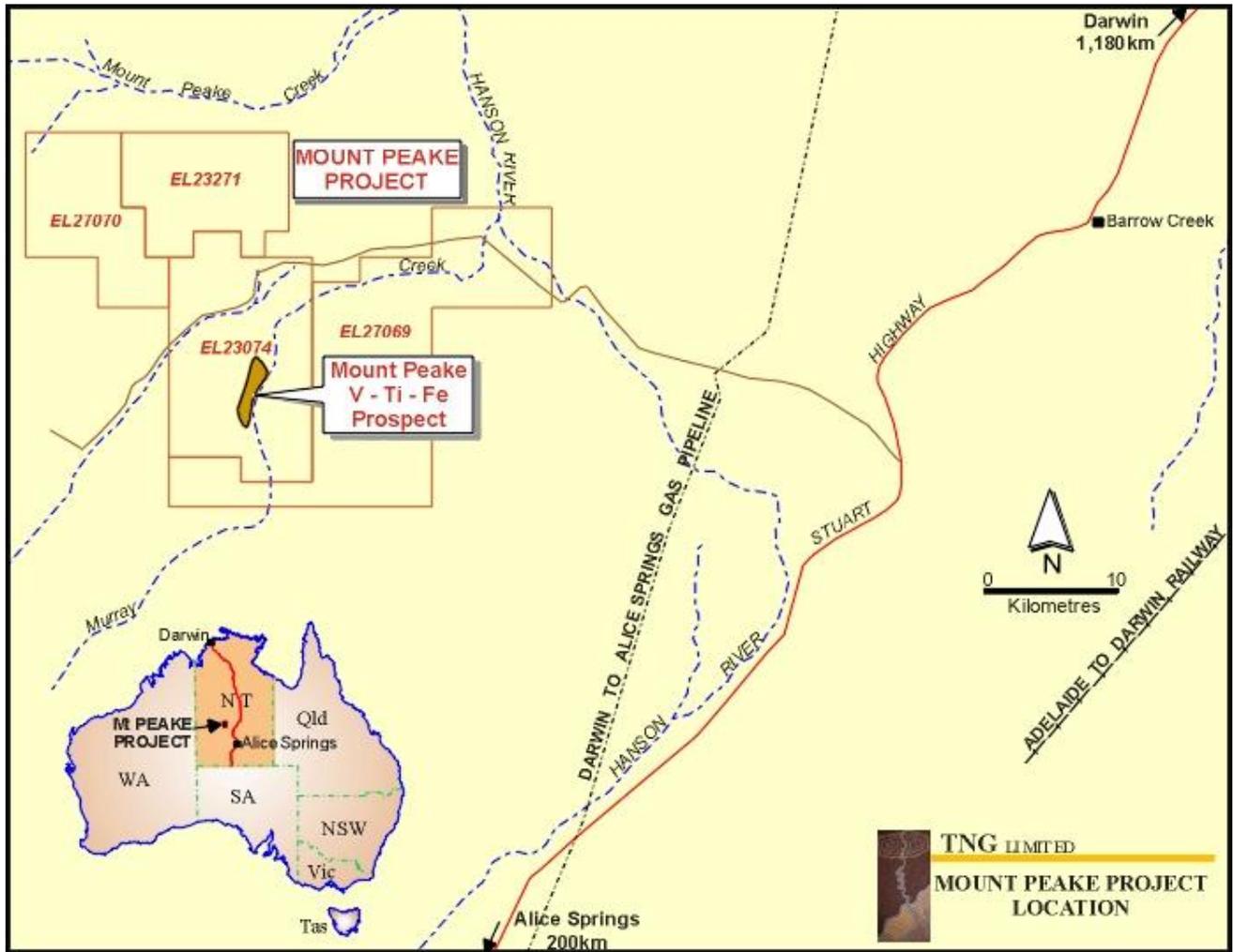
**Enquiries:**

**Paul E Burton**  
**Director & CEO**

**+ 61 (0) 8 9327 0900**

**Nicholas Read**  
**Read Corporate**

**+ 61 (0) 419 929 046**



**Figure 1: Project Location Map**