

14 November 2017

PATENT COVERAGE FOR TNG'S PROPRIETARY TIVAN® PROCESS FOR EXTRACTION OF VANADIUM EXTENDED TO USA AND RUSSIA

Approvals for EU, Vietnam, China, Canada currently in process

Australian strategic metals company TNG Limited (ASX: TNG) is pleased to advise that patents for its proprietary TIVAN® hydrometallurgical process for the extraction and recovery of high-purity vanadium have now been approved in both United States of America and Russia after being granted in Australia.

The patents provide protection and security for the Company for one of its core pieces of Intellectual Property as it reaches the final stages of pre-development for its flagship Mount Peake Vanadium-Titanium-Iron Project in the Northern Territory, and reflects the robustness of its leach process.

TNG also owns the trademark "TIVAN".

The TIVAN® process patent is based on the extraction and recovery of vanadium and was developed by TNG and its metallurgical consultants, Perth-based METS Pty Ltd. The leach process is the backbone of the TIVAN® process which allows the Company to extract vanadium, titanium and iron in commercial grades and quantities.

The Company's long-term business plan is for the TIVAN® process to be developed for licensing globally, which could be potentially highly lucrative for TNG and its shareholders.

The global patent process is being managed by Perth-based patent lawyers WRAYS. Approvals for China, Vietnam, South Africa, the European Union and Canada are currently in process.

TNG's Managing Director, Mr Paul Burton, said: *"We are very pleased to see acceptance of our process in the large jurisdictions of the USA and Russia, which complements our existing patent protection in Australia. We expect to receive approvals for the other countries in due course, paving the way for future licensing of the TIVAN® process globally – a business strategy which could generate significant returns for the Company over and above those flowing from the development of the Mount Peake Project itself."*

Copies of the recently granted patents and trademarks are attached to this announcement for shareholders' reference.

Paul E Burton
Managing Director

14 November 2017

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Australian Government

IP Australia

CERTIFICATE OF REGISTRATION OF TRADE MARK

No. 1429747

I, **Fatima Beattie**, Registrar of Trade Marks hereby certify -

that the trade mark represented on this certificate was filed as Trade Mark No. 1429747 on **9 June 2011**. It is due for renewal on **9 June 2021** and **TNG Limited ACN/ARBN 000 817 023** of **Level 1 282 Rokeby Road SUBIACO WA 6008 AUSTRALIA** has been entered in the Register of Trade Marks as the owner of the trade mark.

TIVAN

The goods and/or services for which the trade mark is registered, plus any endorsement, additional owners or other information relating to the registration, are listed on the attached pages.

*Given under my hand and the seal of the Trade
Marks Office on 5 March 2012*



Fatima Beattie
REGISTRAR OF TRADE MARKS

TRADE MARKS ACT 1995

CERTIFICATE OF REGISTRATION

The International Bureau of the World Intellectual Property Organization (WIPO) certifies that the indications appearing in the present certificate conform to the recording made in the International Register of Marks maintained under the Madrid Agreement and Protocol.



Ásta Valdimarsdóttir
Head of the Operations Service
International Registries of Madrid and Lisbon
Brands and Designs Sector

Geneva, May 10, 2012

1 113 988

Registration date: November 18, 2011
Date next payment due: November 18, 2021

TNG Limited
Level 1
282 Rokeby Road
SUBIACO
WA 6008
(Australia).

Legal nature of the holder (legal entity) and place of organization: Limited Company, Australia.

Name and address of the representative: Wrays, Ground Floor,
56 Ord Street, West Perth WA 6005 (Australia).

TIVAN

Indication relating to the nature or kind of mark: standard characters

List of goods and services - NCL(9):

- 1 Titanium and/or iron containing compounds for industrial use; metal oxides; metallic oxides; processed minerals;

- raw mineral substances; chemical products for use in the extraction and recovery of minerals; industrial minerals.
- 6 Metals, including vanadium, titanium and iron; alloys of vanadium, titanium and/or iron; ores of metal; processed metal ores; vanadium.
- 40 Mineral processing services, including those directed to the extraction and recovery of vanadium, titanium and/or iron metal or compounds containing those metals; metallurgical processing; processing of metallic materials.
- 42 Engineering consultancy, including these services directed to methods of mineral processing and recovery; gas, oil, petroleum and minerals exploration; metallurgical analysis, testing and laboratory services; engineering testing; research, engineering and technical consultancy relating to the development of technologies.

Basic application: Australia, 09.06.2011, 1429747.

Designations under the Madrid Protocol: China, European Union, Russian Federation, United States of America.

Declaration of intention to use the mark: United States of America.

Date of notification: 10.05.2012

Language of the international application: English



Australian Government
IP Australia

CERTIFICATE OF GRANT STANDARD PATENT

2011256118

The Commissioner of Patents has granted the above patent on 21 July 2016, and certifies that the following are the particulars of this patent appearing in the Register of Patents:

Name and Address of Patentee(s):

TNG Limited

Level 1 282 Rokeby Road Subiaco WA 6008 Australia

Name of Actual Inventor(s):

Connelly, Damian Edward Gerard; Yan, Denis Stephen and Lam, Sai Wei

Title of Invention:

Method for the extraction and recovery of vanadium

Term of Patent:

Twenty years from 5 May 2011

Priority Details

Number
2010902191

Date
19 May 2010

Filed with
AU



Dated this 21st day of July 2016

Commissioner of Patents

PATENTS ACT 1990

The Australian Patents Register is the official record and should be referred to for the full details pertaining to this IP Right.

The
United
States
of
America



**The Director of the United States
Patent and Trademark Office**

Has received an application for a patent for a new and useful invention. The title and description of the invention are enclosed. The requirements of law have been complied with, and it has been determined that a patent on the invention shall be granted under the law.

Therefore, this

United States Patent

Grants to the person(s) having title to this patent the right to exclude others from making, using, offering for sale, or selling the invention throughout the United States of America or importing the invention into the United States of America, and if the invention is a process, of the right to exclude others from using, offering for sale or selling throughout the United States of America, or importing into the United States of America, products made by that process, for the term set forth in 35 U.S.C. 154(a)(2) or (c)(1), subject to the payment of maintenance fees as provided by 35 U.S.C. 41(b). See the Maintenance Fee Notice on the inside of the cover.

Joseph Mataf

Performing the Functions and Duties of the

Under Secretary of Commerce for Intellectual Property and

Director of the United States Patent and Trademark Office

РОССИЙСКАЯ ФЕДЕРАЦИЯ



ПАТЕНТ

НА ИЗОБРЕТЕНИЕ

№ 2561554

СПОСОБ ИЗВЛЕЧЕНИЯ И ВОССТАНОВЛЕНИЯ ВАНАДИЯ

Патентообладатель(ли): *ТиЭндЖи Лимитед (AU)*

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Дэнис Стивен (AU), ЛАМ Сай Вей (AU)*

Заявка № 2012145197

Приоритет изобретения 19 мая 2010 г.

Зарегистрировано в Государственном реестре
изобретений Российской Федерации 03 августа 2015 г.

Срок действия патента истекает 05 мая 2031 г.

Заместитель руководителя Федеральной службы
по интеллектуальной собственности

Л.Л. Кирий

A handwritten signature in black ink, appearing to read 'L.L. Kiriy', is written over the printed name.

