TNG LIMITED

13 May 2019

TNG SIGNS BINDING LIFE-OF-MINE OFF-TAKE AND MARKETING AGREEMENT WITH LEADING GLOBAL SPECIALTY CHEMICAL DISTRIBUTOR DKSH FOR TITANIUM DIOXIDE PIGMENT FROM MOUNT PEAKE

Agreement encompasses the purchase and global distribution of up to 100% of TNG's TiO₂ pigment production and marks another key step towards finalising funding package for Mount Peake

Key Points

- Binding Life-of-Mine Off-take and Marketing Agreement signed for TNG's TiO₂ pigment.
- DKSH will provide full distribution services, including freight financing, technical support, logistics, marketing and sales for TNG's TiO₂ product(s) from the Mount Peake Vanadium-Titanium-Iron Project.
- TNG will sell, and DKSH will purchase, up to 150,000 tons per year or 100% of TNG's TiO₂ production on an FOB basis to distribute globally, excluding the Iberian Peninsula and European Nordic countries and subject to the terms and conditions of the agreement.
- TNG will initially produce a high-durability pigment for the outdoor coating industry, which represents the largest pigment market, before expanding to other high-value niche markets.
- TNG already has binding life-of-mine off-take agreements in place for vanadium with Korean group WOOJIN and Binding Terms for iron products with Gunvor.
- The finalisation of a binding off-take agreement for titanium dioxide production means that TNG will have binding sales contracts in place for all three of its high-value products, supporting its funding and commercialisation strategy for the Mount Peake Project.

Australian strategic metals company TNG Limited (ASX: TNG) is pleased to announce that is has signed a Binding Life-of-Mine Off-take and Marketing Agreement (**Agreement**) with the leading Market Expansion Services provider **DKSH** to purchase, on a life-of-mine basis, up to 100% of the titanium dioxide (TiO₂) pigment that will be produced by its flagship 100%-owned **Mount Peake Vanadium-Titanium-Iron Project** in the Northern Territory.

The signing of this pivotal Agreement with a highly respected multi-billion dollar group which is a leader in its field, particularly across the Asian region, follows the Binding Term Sheet with DKSH announced last year (see ASX announcement, 30 October 2018), under which the parties agreed key terms for the off-take.

DKSH is a publicly-listed (SWX: DKSH) leading Market Expansion Services provider. Headquartered in Zurich and with a history dating back over 150 years, DKSH is deeply rooted in communities all across the Asia-Pacific region. The company offers any combination of sourcing, marketing, sales, distribution and after-sales-services and is organized into four Business Units: Consumer Goods, Healthcare, Performance Materials and Technology. Its core business is supporting other companies to grow their business in new or existing markets.

With 825 business locations in 35 countries and 33,000 specialized staff, it is one of the top-25 Swiss companies ranked by sales and employees. In 2018, DKSH generated annual net sales above US\$11 billion. For more information: <u>http://www.dksh.com</u>

The Agreement encompasses the titanium dioxide (TiO₂) pigment products that will be produced by TNG's proprietary TIVAN[®] hydrometallurgical process, incorporating an innovative new process announced last year (see ASX announcement, 26 February 2018).

The breakthrough process, which is based on the conventional TiO₂ sulphate route, followed extensive technical work undertaken by TNG and its partners over the past two years.

ASX CODE: TNG ABN 12 000 817 023 REGISTERED OFFICE Suite 20, 22 Railway Road Subiaco, Western Australia 6008 **T** +61 8 9327 0900 **F** +61 8 9327 0901

W www.tngltd.com.au E corporate@tngltd.com.au



The TIVAN[®] titanium feedstock's low iron content is a significant advantage over standard TiO₂ feedstocks. Lowiron feedstock has the potential to minimise the environmental impact compared to a standard sulphate titanium pigment production process – an important competitive and strategic advantage for TNG.

This recent technical breakthrough has the potential to further improve $TNG's TiO_2$ product quality, price and the overall economics of Mount Peake while at the same time reducing the technical complexity and environmental impact of the Project.

Together with the binding agreements already in place for its vanadium and iron products, the signing of this Agreement with DKSH marks another important step in TNG's commercial strategy for the Mount Peake Project and paves the way for project financing to proceed.

The Company already has the following off-take agreements in place:

- A binding life-of-mine off-take agreement with WOOJIN Metals for minimum 60% of vanadium output; (see ASX announcement 19 March 2015); and
- A binding Term Sheet for life-of-mine off-take agreement with Gunvor (Singapore) for iron products; (see ASX announcement 23 March 2016).

Management Comment

Commenting on the signing of a Binding Term Sheet with DKSH, TNG's Managing Director & CEO, Mr Paul Burton, said:

"This is a really exciting milestone for TNG and marks the formalisation of our strong relationship with DKSH, one of the world's leading Market Expansion Services providers. We have now converted the previously announced Binding Term Sheet with DKSH into a binding off-take agreement within the timeframe that we set – which is a great achievement for TNG, our shareholders and the Mount Peake Project.

"DKSH is a great fit for us given the technological breakthrough we achieved last year with our ability to produce titanium dioxide pigments. We are really looking forward to working closely with them as we complete the funding package for Mount Peake and move the Project towards development and construction.

"With our final environmental assessment and permitting milestones also making strong progress, as announced last week, the completion of this binding off-take agreement will add significant momentum to our funding and commercialisation strategy for Mount Peake. We are also working on signing final binding off-take agreements in the coming months for both our vanadium pentoxide and iron products. Together with the Front End Engineering and Design work currently underway, these agreements will effectively underwrite our funding strategy for Mount Peake."

Commenting on the signing of a Binding Term Sheet with TNG, Dr. Natale Capri, Co-Head Business Unit Performance Materials, DKSH, said:

"Today's signing of the binding off-take agreement is another milestone in our future cooperation with TNG. DKSH has a track record in the distribution of TiO2 and future sales from Mount Peake are synergic with the existing product offering addressed to the same customer base. DKSH's customers worldwide will benefit from a reliable and steady supply of high-quality products."

Paul E Burton Managing Director & CEO

13 May 2019





Additional Information

TNG updated the economics of its Definitive Feasibility Study (DFS) for the Mount Peake Project in November 2017, confirming a world-class project capable of generating outstanding returns (ASX Release, 20 November 2017). The recent technical breakthrough should further improve the economics of TNG's Mount Peake project while at the same time reducing some technical complexity and environmental impact.

Key findings of the updated DFS included life-of-mine net cash flow of \$11.7 billion, a pre-tax IRR of 44% and an NPV₈ of \$4.7 billion (see ASX Announcement – 20 November 2017).

TNG intends to produce 3 commercial products:

Vanadium Pentoxide and Vanadium Electrolyte:

TNG has previously confirmed the ability to produce high-purity vanadium pentoxide at +99% purity from its TIVAN[®] plant following an extensive pilot plant testwork program in 2015 (ASX release, 8 July 2015).

Subsequently, the Company successfully produced commercial-grade high-purity vanadium electrolyte from this vanadium pentoxide (see ASX release, 10 October 2016) to the exacting and detailed specification required by Sumitomo Electric (SEI). TNG has a binding life of mine off-take agreement for its vanadium pentoxide in place with Korea's WOOJIN Group.

Titanium Dioxide Pigment:

TNG has previously confirmed its ability to produce a high-grade titanium dioxide feedstock from its TIVAN[®] process, grading approximately 80% TiO₂ (see ASX release, 8 July 2015). This feedstock is a direct residue from the initial leaching phase of the TIVAN[®] process, where the vanadium and iron have been dissolved into solution. With this current breakthrough TNG has now confirmed that this feedstock can be taken to a pre-coating pigment phase directly.

Iron Oxide:

As part of the acid digestion process, the Fe component of the magnetite is removed and then captured once the vanadium is extracted from solution, producing a 99.9% pure Fe_2O_3 product .TNG has agreed binding terms with Gunvor.



Inquiries:

Paul E Burton Managing Director & CEO	+ 61 (0) 8 9327 0900
Nicholas Read Read Corporate	+ 61 (0) 8 9388 1474

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 long-life project producing a suite of high-quality, high-purity strategic metals products for global markets including vanadium pentoxide, titanium dioxide and pig iron. The project, which will be a top-10 global producer, has received Major Project Facilitation status from the NT Government.

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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