TRANS-TASMAN RESOURCES LTD

TARANAKI VTM PROJECT

Fast-Track Act Application

15 April 2025

Executive Summary

EXECUTIVE SUMMARY

Outstanding Opportunity for New Zealand

Trans-Tasman Resources Limited ("**TTR**") is applying for marine consents under the Fast-track Approvals Act 2024 ("**FTA**") to enable all activities associated with the recovery of iron sand deposits containing the critical minerals vanadium and titanium (vanadiferous titanomagnetite ("**VTM**") resource) from the South Taranaki Bight ("**STB**"). The Taranaki VTM project ("**Project**") is located within New Zealand's Exclusive Economic Zone ("**EEZ**"), between 22km to 36km offshore in waters ranging from 20m to 50m deep.

TTR has discovered and drill defined a 3.2 billion tonne ('**Bt**") world-class VTM resource in the STB and been granted a mining permit to undertake iron ore extraction and processing operations to produce iron ore concentrates for export. Seabed in the Project area consists of a layer of volcanic sand 20-30m deep. The company plans to extract 50 million tonnes ("**Mt**") of seabed material a year, process on board a mining vessel to recover and export 5Mt of high value iron ore concentrates containing vanadium and titanium metal by-products. The process returns the remainder of the de-ored material (approximately 45Mt) to the seabed in a controlled manner to minimise the generation of suspended sediment in the water column (the plume).

This Project represents a transformative opportunity for New Zealand's economy and environmental leadership. TTR has invested more than $85 million over 15 years in the Project to undertake resource discovery, extensive development work and planning including:

- Mineral exploration and geophysical surveys;
- Seabed drilling;
- Sample processing and analysis;
- Mineral resource definition and reporting;
- Bulk sampling;
- Pilot plant processing;
- Metallurgical testwork;
- Engineering and process design;
- Specialist Marine Vessel design:
- Marine research, surveys and monitoring;
- Environmental impact studies;
- Market research;
- Feasibility studies;
- Economic impact assessment;
- Wide ranging consultation and engagement; and
- Independent expert peer reviewed assessments.

The objective of the Project is to maximise the extraction of the VTM concentrates from the mineral deposit, subject to suitable environmental controls.

The Project will generate significant economic growth, foster regional employment, and position New Zealand as a significant western world producer and exporter of critical minerals essential for the transition to clean energy technologies and other critical sectors. The Project has comprehensive environmental safeguards, with the environmental effects being managed by an extensive set of 109 proposed consent conditions and a set of detailed management plans that will protect the STB marine environment.

The Project will extract 50Mt of iron sands per year and mechanically recover, by magnetic separation, 5Mt annually of heavy mineral sands concentrates containing iron ore, vanadium and titanium, for export.

The operation is essentially a seabed dredging operation with shipboard processing, concentrate washing and direct dewatering, and off-loading onto bulk carrier vessels for export, with approximately 90% (~45Mt) of the material extracted being returned unadulterated immediately to the seafloor in a controlled process into an adjacent, previously extracted area. There are no toxins or chemicals used as the process is entirely mechanical using physical properties of the iron sands to separate the target minerals.

An animated video can be viewed at: TTR Taranaki VTM Project Operations Video.

The extracted iron ore is used to produce steel that is essential for all modern economic activity and for maintaining our standard of living and well-being. Magnetite is playing a crucial and growing role in the push toward green steel production. Unlike traditional hematite-based processes, magnetite requires less energy to reduce in a direct reduced iron (DRI) setup, especially when paired with hydrogen as the reducing agent. This not only slashes carbon emissions but also makes magnetite a preferred feedstock for emerging low-carbon steel technologies. As the industry shifts away from coal-based blast furnaces, magnetite is fast becoming the backbone of a cleaner, more sustainable steel future. Steel and steel alloys are widely used in industry, construction, agriculture, food production, transport, commerce, communications, and energy production and transmission. Vanadium is required to strengthen steel and is a key component for utility-scale battery storage and is essential for renewable energy storage systems. Titanium is a vital component of clean energy technologies, aerospace, aircraft, electronics, paints, paper, medical instruments and implants and is used in a wide range of industrial applications.

TTR is seeking a 35-year consent term under the Exclusive Economic Zone (Environmental Effects) Act 2012 ("**EEZ Act**") with the actual extraction activity taking place over a 20-year period. The balance of the consent term will be used for pre-commencement marine monitoring and research and post operation marine monitoring and decommissioning activities. With stringent environmental safeguards and low impact sustainable mineral recovery practices, the Project aligns with New Zealand's economic, environmental, and social goals.

The Project timeline will commence with the establishment of a head office in New Plymouth and with the work required to establish the operation. This work includes a bankable feasibility study ("**BFS**") and financing of the NZ$1 billion required for the Project. This will result in a regional spend of about $25 million over the first year, the employment of about 35 to 40 professional staff by TTR and the engagement of a range of expert consultants in environmental, economic, engineering and ship building, metallurgical, geological, accounting, mineral marketing and corporate finance disciplines.

The completion of the BFS will lead to a Final Investment Decision ("**FID**") being made to proceed with the Project financing and development of the Taranaki VTM Project. This work will be followed by a two-to-three-year period for construction, commissioning, personnel recruitment, training as well as implementing the Environmental Management and Monitoring Plan ("**EMMP**"), the Pre-commencement Environmental Monitoring Plan ("**PCEMP**") and setting up of the Technical Reference Group ("**TRG**"), the Kaitiakitanga Reference Group ("**KRG**") and the Kaimoana Monitoring Programme ("**KMP**").

The Taranaki VTM Project will deliver strong economic benefits to the Taranaki region and nationally. Independent economic impact assessment by the New Zealand Institute of Economic Research ("**NZIER**") includes:

- **Employment Creation** - Directly employ over 300 high-value positions in Taranaki, a further 170 jobs in the region in services, 1,125 jobs in the region in logistics, services, provisioning, supplies, bunkering, maritime operations, heavy engineering and training activities (regional support) and indirectly creating more than 1,365 jobs nationwide. The Project will also actively support regional and national workforce development;
- **Regional Investment** - An annual spend of NZ$234 million in Taranaki on employment, services and regional support activities particularly in areas like New Plymouth, Hawera and Whanganui;
- **Regional and National Boost to GDP** - NZIER estimate positive economic impacts in the region with the Project increasing Taranaki's annual GDP by $222 million and, for the nation, boosting New Zealand's GDP by $265 million;
- **Head Office in New Plymouth** - The head office will employ 35 professional staff in corporate management, HR, health and safety, ore marketing, metallurgy, geosciences, recruitment, accounting and project administration;
- **Hawera Training and Logistics** - A training institute will be established along with a helicopter logistics base for personnel and supplies transfers to the offshore vessels;
- **Port of Taranaki and Whanganui Port Upgrades** - Supply, maritime logistics, marine research and monitoring, geology and grade control drilling vessels will be based at the Ports;
- **Institutions, Community and University Grants** - TTR will establish an indexed $50,000 per year Charitable Trust for community and cultural grants in South Taranaki. There will be flow-on indirect investment in universities, grants for community and cultural activities, scholarships,

marine research and government institutions minerals and metallurgical research capabilities will strengthen over the 30 years of operational marine research and monitoring to be undertaken;

- **Government Revenues** - At current prices, the annual royalty payment for iron ore and vanadium is estimated to be between NZ$36 million and NZ$39 million in the Project's first seven years of operation, increasing to about NZ$54 million per annum thereafter. This is additional to an annual corporate tax paid to the Crown ranging from NZ$91 million to NZ$136 million;
- **Export Revenue and Foreign Exchange Earnings** - At current market prices the VTM concentrates will generate NZ$854 million (US$496 million) of foreign exchange revenues annually from the export of high-value iron ore and vanadium concentrate contributing significantly to New Zealand's balance of trade and will be one of NZ's top 12 exporters;
- **Major Capital Investment in Leading Edge Technology -** NZ$1 billion (US$602 million) capital investment in proven leading edge mineral recovery and proprietary technology and marine research; and
- **Long-Term Industry Impact** - The Project has the potential to make a major contribution to the Government's stated aim to double the mining sector's export value to more than NZ$3 billion by 2035.

The Project's success will establish a precedent for leveraging New Zealand's natural resources and minerals sustainably to drive economic growth and global competitiveness.

Minister for Resources Hon Shane Jones said in Parliament on 18 September 2024: *"Minerals, including vanadium, located in inordinately large content and quantities off the coast of Taranaki, will add not only to the climate change journey but they represent a new source of great wealth."*

Scale of the Project

The area of extraction is approximately 44km^2 within the 66km^2 area of the Cook South deposit which is the size equivalent of a few land-based dairy farms. At any one time, the disturbed area totals approximately 0.3km^2, or an area approximately the same as the footprint of Sky Stadium in Wellington. The entire mining permit area represents just 0.18% of the 36,000km^2 area of the STB, which is a large ocean area with considerable commercial activity such as commercial shipping and fishing, oil and gas exploration and production, harbour dredging and now, potential offshore wind energy installations.

Table Error! No text of specified style in document.**.1: Relative Scale of Operation**

LOCATION	Approx km^2	Approx % of EEZ	Approx % of STB

Exclusive Economic Zone (EEZ) (Approx 15 x NZ Land Area)	4.1 million	~0.0016%	-
South Taranaki Bight	36 thousand	0.9%	100%
Marine and Benthic Protected Areas	1.7 million	42%	2.1%
TTR Mining Area within MMP55581	66	0.0016%	0.18%
TTR Area of Operations at Any One Time	0.3	<0.00001%	<0.001%

Strategic Importance

The strategic value of iron ore, vanadium and titanium cannot be overstated. With increasing global demand for renewable energy and technological advancements, securing a geopolitically stable and sustainable supply of these materials places New Zealand at the forefront of the clean energy transition. The Project's ability to meet domestic and international demand ensures long-term economic stability and growth.

TTR has discovered and reported a 3.2Bt VTM iron sands resource[1] grading 10.17% Fe_2O_3, 0.05% V_2O_5 and 1.03% TiO_2 containing 1.6Mt of vanadium pentoxide ("**V_2O_5**") ranking it globally as a world-class titanomagnetite iron sand deposit and one of the largest known drilled, analysed and JORC reported deposits of the critical mineral, vanadium.

The Taranaki VTM Project positions New Zealand as a significant global player, potentially becoming the third-largest vanadium producer in the world and the largest in the western world. By harnessing this resource, New Zealand not only enhances its export portfolio, introduces more resilience into its economy, contributes to geo-political autonomy in resource supply but also contributes to global sustainability goals.

TTR has granted mining permit MMP55581 over the mineral resource within the EEZ containing 1.88Bt VTM resource where the Pre-feasibility Study ("**PFS**") mine plan can deliver production of 5Mt of VTM mineral concentrates a year for export grading 56-57%Fe, 0.5%V_2O_5 and 8.5%TiO_2.

Environmental Leadership

Environmental stewardship is central to the Taranaki VTM Project. TTR's proposal has been subjected to detailed environmental assessments and its implementation will employ best practices, and be further informed by pre-commencement monitoring, to ensure that any environmental impacts will be transient, localised and short-term in nature.

The VTM recovery operation includes:

1 ASX release 1 March 2023

- **Removing top 5 meters of Seabed –** TTR is dredging the top 5m (on average — sometimes up to 11m, or as little as 1m) from a layer of volcanic sand deposits 20-30m deep. The higher grade iron sand "sits on top" of the existing 20-30m of seabed sand.;
- **Minimal Disturbance -** The operation affects an area of less than 0.3km² at any given time and following the redeposition of sand to the seafloor, recolonisation of the marine benthos will begin. As a result, from an ecological perspective, the seafloor will "return to normal" within two to five years. The total area of disturbance (approximately 0.0016%) represents a negligible portion of New Zealand's entire EEZ area of over 4,000,000km^2;
- **No Chemicals or Toxins Used -** The modern seabed mineral removal process is all-natural with the dredged sands being passed through a mechanical magnetitic separator with seawater to extract the VTM concentrate, about 10% of the volume. The residual de-ored sediment, 45Mt a year being 90% of the dredged material, is continuously returned to the seafloor from where it came, in a controlled manner to minimise the generation of suspended sediment in the water column (the plume);
- **The Plume -** The plume generated by returning the de-ored sands to the seafloor is very localised. 1 to 2km from the redeposition location, the plume will be invisible to the naked eye and entirely dispersed within 15km from the operation. The plume is confined and will be largely negligible adding 0.5 to 1.5mg/L of Suspended Sediment Concentration ("**SSC**") into the ocean where naturally occurring SSC range from 10mg/L to over 100mg/L and periodically exceed over 1,000mg/L SSC. To put this into perspective, an Olympic-sized swimming pool holds approximately 2.5 million litres of water. An increase of 0.5 to 1.5 mg/L of suspended sediment equates to roughly 1.25 to 3.75 kilograms of sediment added across the entire volume.
- **Emissions Profile -** Project operations will produce fewer carbon emissions per tonne of concentrate compared to other iron sand and hard rock iron ore mines around in the world. Producing only 62kg CO^2 per tonne of concentrate, TTR's operations have less than half the carbon emissions compared to traditional land-based mining (average 120 to 250kg CO^2/t) which is dominated by process driven landside activities. There are environmental advantages that extend beyond the immediate extraction operations. By providing critical minerals for clean energy technologies, the Project indirectly supports global efforts to reduce greenhouse gas emissions. TTR's commitment to continuous rehabilitation and monitoring ensures that the environment is restored and maintained, setting a benchmark for sustainable marine mining practices.

Managing Environmental Effects

Thanks to the efforts of TTR, the Project area and surrounds are one of the best studied marine environments in New Zealand. Every potential effect of the sediment discharge on marine life has been considered and peer reviewed by independent experts including effects on primary producers such as phytoplankton, effects on mussels, sponges and other reef fauna, effects on other benthic organisms, effects on fish, effects on marine mammals and effects on seabirds. In all instances

independent experts have concluded that the effects, which will be managed through the proposed consent Conditions, will not result in material harm.

Dr Alison MacDiarmid, NIWA Regional Manager, concludes in her expert reports and evidence:

"The proposed mining area in the STB is one of the best studied shallow exposed shelf marine environments in New Zealand";

"There's a wealth of studies generated by the applicant [TTR] that add to a body of existing information" with "The effects so small and perhaps impossible to measure", and concludes,

"Granting consent, subject to the proposed conditions, will avoid material harm, and will favour caution and environmental protection in relation to the effects of the proposed mining operations".

TTR will undertake environmental monitoring in accordance with the procedures and methods, at the locations, and for the duration and frequency detailed in an EPA-certified Environmental Management and Monitoring Plan ("**EMMP**"). The EMMP will ensure the monitoring required is appropriate to ensure that the activities authorised by the consents do not result in any adverse effects that were not anticipated at the time of the consent approvals.

By way of context, the Project area, as part of the STB, has very exposed, high energy, highly dynamic sandy environments, very turbid seas with relatively high suspended sediment concentration ("**SSC**") loads of 10 to 1,000's mg/L of SSC and thus is subjected to frequent episodic disturbances from current, wave, tidal and storm events, and river inputs during high rainfall events.

The area is heavily bottom trawled by the commercial fishing industry and is a busy seaborne container and bulk shipping trade route. There have never been any marine recreational activities or sports (including diving, swimming, surfing or recreational fishing) undertaken in the area 22km to 36km offshore. It is simply too far out and weather and ocean conditions significantly limit anything but the operation of large commercial vessels within this area of the STB. The Project will not result in any effect or impact on the South Taranaki coastline, beaches or environment or on food gathering sites along the coast.

In the course of identifying key ecological areas in the marine area where mineral extraction and sediment redeposition is proposed, research was undertaken by the National Institute of Water and Atmospheric Research ("**NIWA**") and TTR using seismic and sonar scans, hundreds of photos and physical samples, instrument measurement and video footage. A representative video of the seafloor within the proposed area of mineral extraction can be viewed at: NIWA ROV Seabed Video of MMP55581

The studies show the overall environmental effect of TTR's proposed operation will be negligible to minor and, therefore, situate the Taranaki VTM at the most benign end of extractive processes. It is no more impactful than ploughing or harvesting a field – a result of which is immediate detrimental impact on organisms (mostly microalgae and microphytobenthos less than 1mm in size) in the

immediate area followed by rapid recolonisation and recovery in a relatively short time scale (a few months).

Other common and accepted human development activity (such as creating a subdivision or building a road) have similar environmental impacts but generally these are permanent whereas the Taranaki VTM Project's impacts are transient and temporary and the disturbed area will quickly recover.

TTR's process ensures recovery starts immediately after sediment deposition (the extracted areas are continuously refilled) and conservative assessments by experts indicates the areas will be fully rehabilitated within two years after deposition. The benthic community is already well adapted to disturbance and will recover rapidly, expected to be within weeks to months once extraction has moved beyond the immediate area.

TTR will manage environmental effects of the Project by working to a comprehensive set of consent conditions and detailed management plans that are subject to the ongoing approval and scrutiny of the compliance regulator, the EPA. The plans, agreed with a wide range of stakeholders and the EPA, outline how TTR would operate and sustainably manage the resource, and protect the marine environment from any permanent adverse effects. The consent conditions require activities to cease if the effects exceed those permitted, with remedial action to be taken.

TTR expects to be held accountable to high environmental and other standards operating to international best practice.

Planning expert Dr Phil Mitchell, partner of Mitchell Daysh, concludes in his expert evidence and reports on the proposed operation:

"Granting of both the marine and discharge consents is consistent with the overall purpose of Section 10 of the EEZ Act in that it will:

(a) Promote the sustainable management of natural resources of this marine environment; and

(b) Protect this environment from pollution by regulating the discharge component of the activity."

The Plume

The most significant and contentious effect of the Project is the discharge of natural sediments and associated plume. Throughout the duration of the consents, TTR will maintain an Operational Sediment Plume Model ("**OSPM**") in order to ensure that activities authorised by the consents comply with the conditions and to provide an effective mechanism to predict background and mining derived SSC, forecast sediment plume dynamics and geographical spread in real time.

As outlined, TTR intends to return about 45Mt of this natural sediment (the de-ored sand) to the seafloor in a controlled manner via a discharge pipe, about 4m above the seabed.
The plume generated from returning the sands will be largely negligible. It will have the effect of adding 0.5 to 1.5mg/L of SSC into the ocean.

TTR's system to extract and redeposit the sediment is designed to minimise the plume effect. The amount of sediment being added into the STB by Taranaki rivers flowing into the STB far exceeds the plume suspended sediment fraction of 1mg/L on average by over 15 to 100 times. The median level of naturally occurring suspended sediment in the STB near shore areas, where most of the rocky reefs are, is 10mg/L SSC and periodically exceeds over 1,000mg/L SSC, particularly near river mouths. Local marine life is already well adapted to such a dynamic, sediment laden environment.

The discharged material is entirely natural with the majority settling quickly and directly onto the seafloor. A proportion of the finer SSC content will remain suspended in the water for longer and will be dispersed by currents. Within 2 to 3km from the discharge location, the sediment introduced will be indistinguishable from natural conditions.

TTR's operating conditions will limit the intensity of the plume and its effect on the environment.

Oil and Gas

TTR has an operating agreement in place with the Kupe Joint Venture Operator to co-ordinate and inform each other on our activities in the STB.

TTR will prepare a Collision (Loss of Position) Contingency Management Plan ("**CCMP**") certified by the EPA following consultation with the Kupe Operator. The purpose of the CCMP is to demonstrate how the objectives set out in the conditions are achieved and to outline the specific operating procedures to be implemented during the seabed material extraction operations.

As well, TTR will implement a Simultaneous Operations Plan ("**SIMOPP**") in accordance with the requirements of IMCA M 203 Guidance on Simultaneous Operations (SIMOPS) following consultation with the Kupe Operator. The purpose is to define operating procedures when two or more vessels are operating in close proximity to each other, oil and gas drilling and safeguarding of existing platform and pipeline infrastructure.

Fishing and Fisheries

The scientific data collated to inform the Project demonstrates the overall effects on fish species and populations will generally be no more than minor, and that there will be no effect on either the abundance or health of the commercial or recreational fisheries in the STB.

TTR will meet every six (6) months with representatives of the commercial fishing industry including any representatives nominated by Seafood NZ. The purpose of the meetings shall be to enable parties to share relevant information and to establish a co-ordinated approach between TTR's mining activities and commercial fishing activities, including communications protocols. As well, commercial fisheries representatives are included on the TRG that provides technical advice to TTR. TTR has an operating agreement in place with Sanfords Limited, one of the largest quota holders in Fishing Management Area 8.

Marine Mammals

TTR will prepare a Marine Mammal Management Plan ("**MMMP**") certified by EPA that has been prepared following consultation with the Department of Conservation and the KRG. The MMMP sets procedures and protocols to minimise the risk of whale and dolphin entanglements, ensure there are no adverse effects on marine mammals in the STB and training for marine mammal operational responses.

Studies of marine mammals within the STB include data from the Department of Conservation and marine mammal observers on vessels, oil and gas installations, aerial observations including an 8,426km aerial survey in 2015 by TTR, and the Dr Torres 2017 study.

The main population of Blue/Pygmy Blue whales according to sightings is approximately 50-120km west of TTR's permit area, in water depths greater than 70m. The Blue whale is an oceanic animal, preferring deep water on the edge of the continental shelf and in the middle of the ocean to coastal waters.

Historically, there have only been two recorded sightings of Maui's dolphins in the STB and none in the last 50 years. This is because the majority of recorded sightings of the critically endangered Maui's dolphins occur north of Cape Egmont with the main population living between Raglan and Kaipara Harbour, 230 to 370kms north of TTR's Mining Licence area.

Noise Levels

TTR has gained expert evidence that says none of the marine mammals, including whales, on record in the STB would be affected by behavioural disturbance as a result of the location of its vessels, mobile subsea sediment extraction device or noise from its operations. The conditions developed by TTR and the Department of Conservation, address the underwater noise effects of the proposal and incorporate an extensive suite of further marine mammal management and operational measures to provide for any adverse effects.

Seabirds

There are no major nearby colonies of sea-going birds. Seabirds such as albatross and petrel, along with the migratory birds resident in coastal estuaries are wide-ranging and therefore relatively unaffected by the comparatively small area of TTR's operations.

TTR will prepare a Seabird Effects Mitigation and Management Plan ("**SEMMP**") certified by EPA that has been prepared following consultation with the Department of Conservation and the KRG. The SEMMP sets out indicators of any adverse effects on seabirds in STB, identify responses and monitoring requirements and reporting of bird strike.

Of the more range-restricted seabirds, gulls and terns have been identified as most commonly able to extend offshore. The fairy prion is a petrel and are found in Cook Strait islands. Stephen's Island is the nearest Cook Strait Island to TTR's operation, some 80km south.

Less likely to extend offshore are little blue penguins, which feed inshore because most of their dives are only 2m in depth and further out to sea they could suffer predation from marine mammals and sharks.

Biosecurity Management

TTR will prepare a Biosecurity Management Plan ("**BMP**") certified by the EPA in consultation with the Ministry for Primary Industries and Aquaculture New Zealand to ensure overseas vessels undertake acceptable measures for biofouling to minimise the transfer of invasive aquatic species.

All operational vessels carrying ballast water that travel to and from overseas ports, including bulk carriers, will be required to have a shipboard ballast water treatment system as part of their charter agreements with TTR. The ballast water treatment system shall be in the Ministry for Primary Industries List of Approved Ballast Water Treatment Systems, or be an equivalent system approved by the International Maritime Organisation.

Spill Prevention and Waste Management

TTR will be required to undertake all necessary measures to ensure that there are no discharges or spills of oils or fuels from any of the operational vessels into any environment. In the event that there is a discharge or spill of oil or fuels, TTR will implement all necessary operational responses, including the measures set out in oil spill contingency plans required under Parts 130A and 131 of the Marine Protection Rules, to ensure that any adverse effects associated with such event/s are remedied or mitigated.

There will be no disposal, or discharge, of any harmful substances at sea. All hazardous and/or oily waste shall be stored on board each project vessel and transported to a shore side facility that is authorised to accept such material.

Risk Management

TTR will maintain public liability insurance of not less than NZ$500,000,000 (2025-dollar value) for any claim or series of claims arising from our operations to cover costs of environmental restoration and damage to the marine environment, assets of existing interests or infrastructure in the STB as a result of an unplanned event occurring during operations.

TTR will provide the EPA with a Post Extraction Monitoring Plan ("**PEMP**") for certification. Following the completion of the seabed material extraction activities TTR will undertake five (5) years of post-

extraction monitoring of the biological environment, including heavy metal concentrations, within the consent area and its surrounds, the purpose of which is to assess whether recovery of the benthic environment, as defined in the conditions, has been achieved.

Consultation

TTR undertook an extensive and wide-ranging stakeholder engagement process including but not limited to, regional and local authorities, commercial fishing, oil and gas, recreational fishing, diving and boating clubs, and charter operators and government agencies. TTR has tried repeatedly to engage with Taranaki Iwi, but all advances have been rebuffed. Nevertheless, the Project has undertaken to incorporate mātauranga Māori into its operational framework and TTR has endeavored to address concerns through conditions that require it to establish and maintain:

- A Kaitiakitanga Reference Group ("**KRG**") with Ngāti Ruanui, Ngaa Rauru Kitahi and Ngāruahine (and others);
- A Technical Reference Group ("**TRG**") that provides technical advice to TTR includes representatives of Te Tai Hauāuru Regional Fishing Forum, the KRG, TRC, Fisheries, DoC, Kupe Operator and others with specialist expertise in mātauranga Māori; and
- A Kaimoana Monitoring Programme ("**KMP**") to be prepared and implemented following consultation with the KRG.

The intent of these conditions is to recognise the kaitiakitanga of tangata whenua and to ensure the ongoing involvement of iwi in monitoring the effects of the Project.

Following the commencement of mining operations, TTR will establish a Charitable Trust to provide an annual inflation adjusted fund of $50,000 per year to be administered by the South Taranaki District Council in collaboration with the company. The purpose of the fund is to assist in the establishment of projects for the benefit of the South Taranaki community, in particular for the social and economic wellbeing of the community.

Alignment with Government Policies

The Taranaki VTM Project aligns with Government policy and fits within the purpose of the Fast-track Approvals Act 2024. These include the following.

1. **New Zealand Government Coalition Agreements 2023:** These agreements of 23 November 2023 provide priorities for mining development projects including:
    - Explore the potential for a critical minerals list with a preferential pathway for development for these minerals;
    - Prioritise regional and national projects of significance for approvals;
    - Investigate strategic opportunities for NZ's minerals resources, including vanadium; and

> Develop a plan to develop these opportunities.

2. **MBIE Briefing to Minister of Resources:** In a briefing to Minister Jones on 27 November 2023, the Ministry of Business, Innovation & Employment ("**MBIE**") estimated an 'in the ground' value of [TTRs] Taranaki iron sand at NZ$100 billion with additional offshore marine iron sand deposits along the coast of up to NZ$275 billion.

3. **GNS Report Mineral Potential of New Zealand:** GNS released its report on the Mineral Potential of New Zealand on 29 August 2024 identifying a wide range of potential economic mineral resources that could be developed. The report details TTR's JORC-reported Taranaki VTM resource at 3.2Bt of 10.17% Fe_2O_3, 1.03% TiO_2 and 0.05% V_2O_5 containing over 1.6Mt vanadium pentoxide in the Cook, Kupe and Tasman north and south deposit blocks in STB as one of the opportunities for development. The world class VTM resource discovery offers New Zealand the opportunity to be a long term iron ore exporter and lead producer of critical minerals internationally.

4. **Critical Minerals List for New Zealand**: MBIE released *A Critical Minerals List for New Zealand* on 31 January 2025. Vanadium and titanium are both included in the list compiled by international resource consultants Wood Mackenzie. Development of the TTR Project could elevate NZ to be the third largest vanadium producer globally with 10,000t vanadium after China (39,000t) and Russia (11,760t), and the western world's largest producer ahead of South Africa (4,480t) and Brazil (2,800t).

   Vanadium and titanium are also included in Australia, USA, Canada, UK, EU and China's critical minerals lists.

5. **Minerals Strategy for New Zealand to 2040:** MBIE also released *A Minerals Strategy for New Zealand to 2040* on 31 January 2025. This strategy has a vision for a minerals sector that delivers for New Zealand, now and into the future, by supporting a productive and resilient economy through responsible and sustainable practices. The aim is to double NZ's mineral exports to $3 billion by 2035.

   TTR's offshore Taranaki iron sand deposits, containing vanadium and titanium used in a wide range of industrial applications including iron and steel making, superalloys, pigments, carbides, chemical catalysts and redox flow batteries for renewable energy storage, have been identified in the strategy as an opportunity to underpin growth by scaling up our existing exports and by realising new mineral [export] opportunities. Importantly, the magnetite within these sands aligns with the growing demand for green steel production, offering a low-emission feedstock for hydrogen-based steelmaking processes.The export of high-value iron ore and vanadium concentrate by TTR, generating foreign export earnings in the order of $854

million per year, will contribute significantly to New Zealand's balance of trade and the Government's aim to double mineral export revenues over the next 10 years.

The Project's alignment with the Government's mineral-related policies underscores its importance as a catalyst for economic and environmental progress. By integrating regional and national priorities, the Taranaki VTM Project serves as a model for sustainable resource development.

Conclusion

TTR's Taranaki VTM Project will deliver sustainable jobs; a boost to national employment, much-needed infrastructure investment in Taranaki and Whanganui; taxes and royalties to the Crown, at no cost to New Zealand taxpayers, and with a minimal, confined and short-term impact on the STB marine ecosystems.

The Project delivers substantial economic benefits, strengthens the nation's position in critical mineral markets, and exemplifies sustainable development, with robust environmental protections, community engagement, and alignment with national goals. The Project deserves support.

The Project's broader benefits include producing critical minerals needed for the clean energy transition, supporting the green steel industry, and ensuring minimal environmental impact. It will also make a contribution to NZ's economic well-being, foreign exchange credits and balance of payments.

TTR's commitment to innovation, environmental stewardship, and social responsibility ensures that the Taranaki VTM Project will not only meet but exceed expectations, providing enduring benefits for New Zealand and its citizens.