

BEFORE AN EXPERT PANEL

FTAA-2504-1048

UNDER

the Fast Track Approvals Act 2024

IN THE MATTER

of a substantive application for marine consents that would otherwise be applied for under the Exclusive Economic Zone and Continental Shelf (Environmental Effects) Act 2012

BY

Trans-Tasman Resources Limited

**EVIDENCE OF GARY TEEAR ON BEHALF OF TRANS-TASMAN
RESOURCES LIMITED IN RESPONSE TO MINUTE 34 OF THE EXPERT
PANEL**

9 January 2026



HOLM | MAJUREY

Mike Holm/Nicole Buxeda
PO Box 1585
Shortland Street
AUCKLAND 1140

Solicitor on the record
**Contact solicitor
Counsel**

Mike Holm
Nicole Buxeda
Morgan Slyfield



Qualifications and experience

1. My name is Gary Charles Teear. I hold the qualification of Bachelor of Engineering (1st class honours) and a Masters of Commerce from the University of Canterbury. I am a qualified diver, to mixed gas and saturation level.
2. I am a chartered professional engineer (CPEng, PE Int) with 50 years' experience in offshore, subsea, coastal and port engineering – marine civil engineering. I am the managing director of Offshore and Coastal Engineering Limited (**OCEL**), an engineering consultancy with specialist skills in coastal and offshore engineering.
3. I spent 12½ years working internationally as a project engineer/manager and engineering manager for the French subsea contractor Comex (which through a series of mergers became Stolt Seaway Comex, then Stolt Offshore, Acergy and is now Subsea 7) in the Asia Pacific, Middle East, North Sea and Gulf of Mexico regions.
4. I returned to live in New Zealand in 1989, and based in New Zealand working for OCEL I continued to do international assignments on contract for Stolt Offshore/Acergy in Indonesia, Argentina and Norway/UK for a further 12½ years.
5. In New Zealand I have worked on a total of six seabed geotechnical investigation projects using a subsea diver operated geotechnical drilling rig developed in conjunction with NZ Diving and Salvage Ltd. The concept for the rig derived from my experience with this method during my time with Comex. OCEL designed the rig, capable of drilling to 30m penetration into the seabed with in situ soil testing, and the launch and recovery system for the rig. The design evolved over time, incorporating lessons learned from previous investigations.
6. The aim of five of these projects was to obtain site specific geotechnical information prior to deployment of an oil and

gas offshore jackup drilling rig, to calculate the depth to which the spudcans of the jackup rig would penetrate the seabed and to identify any potential for punch through type bearing capacity failure which could jeopardise the safety of the rig. As CPEng geotechnical I undertook the calculations and signed off the assessments.

7. The calculations were undertaken in accordance with the American Society of Naval Architects and Marine Engineers Recommended Practice Guidelines (SNAME Guidelines).

Involvement in Project

8. I prepared a report for Trans-Tasman Resources Limited (**TTR**) in relation to its first application for marine consent in 2014, titled *Implications of Loose Tailings Seabed Material on Future Jack-up Deployment in the South Taranaki Bight* (**OCEL Report**) and I provided evidence to the decision-making committee appointed to determine that application.
9. I understand the OCEL Report was submitted to support TTR's subsequent 2016 application, and has been submitted to support TTR's present application under the Fast Track Approvals Act 2024.
10. I participated in expert conferencing with Mr Erbrich on 18 November 2025 in accordance with Minute 19 of the Expert Panel, and co-authored with Mr Erbrich the Joint Statement of Expert Witnesses: Fate of Tailings Backfill dated 18 November 2025 (**JWS**).

Code of Conduct

11. I have been provided with a copy of the Code of Conduct for Expert Witnesses contained in the Environment Court's Practice Note dated 1 January 2023. I have read and agree to comply with that Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to

consider material facts known to me that might alter or detract from the opinions that I express.

Scope

12. I have been provided with Minute 34 of the Expert Panel and Mr Thompson's supplementary statement of evidence regarding generation of fines (12 December 2025). This statement sets out my formal response to that supplementary statement, in accordance with the Expert Panel's request in Minute 34.

Response

13. The JWS at paragraph 14 refers to the mining discharge including "an indeterminate amount of fines added".
14. The possibility of an increase in the fines content of the redeposited sediment was initially raised by Mr Erbrich in his report for JERA NEX BP, Qualitative Assessment on Coexistence of Mining and OWF Development, South Taranaki OWF, Section 2.12 Grain Size Distributions: "*The redeposited material is anticipated to contain a higher fines content than the in-situ material*".
15. As recorded at paragraph 49(a) of the JWS, Mr Erbrich considered the mining tailings may be silty sands (as a result of the fines addition through the extraction process) and for such materials transitional drainage conditions apply that are more complicated and can lead to unexpected outcomes.
16. As also recorded in the JWS I disagreed with Mr Erbrich's view that there was any reason to be concerned about jackup stability.
17. Mr Thompson's supplementary statement concludes that the TTR process would create negligible new fines beyond what already exists naturally in the ROM (Run of Mine) material.

18. In the absence of any significant increase in the fines content in the redeposited material the more '*complicated transitional drainage conditions*' postulated by Mr Erbrich will not apply and the spudcans of a jackup rig will penetrate down into loose fine sand material until the bearing capacity at depth matches the applied preload.
19. In other words, there will be no fundamental change to the properties of the existing seabed material and its characteristic behaviour (i.e. it compacts well under wave action) other than it will start in a loose condition when returned to the seabed and will be subject to densification by wave action and normal consolidation following deposition. For these reasons, I maintain that it is appropriate for the soil mechanics to be informed by traditional binary drained soil behaviour (as recorded at paragraph 49(a) of the JWS). I consider:
 - (a) the sand will compact, increase in density, under the applied load;
 - (b) the width/diameter of the spudcans is such that the pressure bulb, compacted zone, under each one will extend down to the undisturbed seabed;
 - (c) how far the densification process has progressed and the variation with depth will depend on how long after the mining operation any offshore wind farm infrastructure has licences/consents to proceed (which is an application process that has yet to begin); and
 - (d) in any event the soil properties will be known before any jackup is deployed, as is required by regulation, so any risks will be known in advance and the actual in-situ conditions will be able to be incorporated into any design.

20. In summary, the conclusions I expressed in the JWS remain the same, and are further supported by Mr Thompson's confirmation that the mining process will add negligible fines to the mining discharge.

Gary Tear

9 January 2026