

OCEANAGOLD (NEW ZEALAND)
LIMITED

MACRAES PHASE FOUR (MP4)

Tailings Storage Facilities

Evidence of **Dr Trevor Matuschka**
Regarding Technical Assessment of
Tailings Storage Facilities Effects and
Proposed Conditions

INTRODUCTION

1. My name is Dr Trevor Matuschka.
2. My role in relation to Macraes Phase 4 (“**MP4**”) has been to provide expert advice in relation to Tailings Storage Facilities. I oversaw the preparation of the following reports which are provided within *Part B – Technical Reports* of the application:

Fraser’s Tailings Storage Facility Stage 3 Technical Report (“**FTSF Stage 3 Report**”)

MTI and SP11A Technical Report (“**MTI & SP11A Report**”)
3. This evidence has been prepared to accompany the **FTSF Stage 3 Report and MTI & SP11A Report** and the application by Oceana Gold (New Zealand) Limited (“**OGNZL**”) for approvals required for MP4 under the Fast-track Approvals Act 2024 (“**FTAA**”).
4. Section 4.1(h) of the FTAA Panel Conveners’ Practice and Procedure note (July 2025) says all technical experts authoring reports should include a statement regarding compliance with the Code of Conduct for Expert Witnesses. This evidence has been prepared to fulfil this requirement, and if a hearing is not held, this evidence confirms that, relative to my area of expertise the **FTSF Stage 3 Report and MTI & SP11A Report** provide an appropriate description of the relevant environment, the proposed activities comprising the effects of the MP4 on that environment, and the way those effects are proposed to be managed.
5. My findings are set out in full in the following reports included within *Part B – Technical Reports* of the application:

Fraser’s Tailings Storage Facility Stage 3 Technical Report

MTI and SP11A Technical Report
6. While this application is not being considered by the Environment Court, I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court of New Zealand Practice Note 2023 and that I have complied with it when preparing the **FTSF Stage 3 Report and MTI & SP11A Report**. Other than when I state I am relying on the advice of another person, the **FTSF Stage 3 Report and MTI & SP11A Report** are within my area of expertise. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

QUALIFICATIONS AND EXPERIENCE

7. I hold a BE(Hons) in Civil Engineering and a PhD in Civil Engineering. I am a Chartered Professional Engineer and International Professional Engineer. I am also a Recognised

Engineer for both Potential Impact Classification and Dam Safety Assurance Programmes.

8. I am currently employed as Director of Engineering Geology Ltd and have held that position since 1989.
9. My previous work experience includes:
 - a) Project Engineer for Martha Gold Mine, Waihi (1985 to present) - responsible for geotechnical investigation, feasibility studies, consenting, including evidence at hearings, design, specifications, assistance with construction supervision, monitoring and surveillance and annual safety audits of tailings storage facilities (TSF).
 - b) Design Engineer and Technical Reviewer for Macraes Gold Mine, Otago (1988 to present) - responsible for geotechnical investigation, feasibility studies, consenting, including evidence at hearings, design, specifications, supervision during construction, monitoring and surveillance and annual safety audits of TSFs.
 - c) Design Engineer and Technical Reviewer for Stawell Gold Mine, Victoria, Australia (1993 to present) - responsible for design, documentations to obtain regulatory approvals, preparation of contract documents, assistance with contract supervision of TSFs, monitoring and surveillance and annual safety and performance reviews.
 - d) Design Engineer and Technical Reviewer for Reefion Gold Mine, West Coast, New Zealand (1994 to present) - responsible for geotechnical investigation, feasibility studies, consenting, including evidence at hearings, design, specifications, assistance with contract supervision of TSF.
 - e) Design Engineer and Technical Reviewer for Golden Cross Mine, Waitekauri Valley - Coeur Gold (1986-1989) - including seismic hazard study and preliminary design of tailings retention embankment, waste stock and silt detention ponds. Statement of evidence at Planning Tribunal.
 - f) Design Engineer and Technical Reviewer for the Bendigo Ophir Gold Project (2023 to present) – responsible for geotechnical investigation, feasibility studies, consenting, including evidence at hearings, and design of TSF.
 - g) Design Engineer, Technical Reviewer and Subject Matter Expert for TSF at multiple international mine sites across Australia, New Caledonia, Bulgaria, Romania, Indonesia, Papua New Guinea, Philippines, UK, Peru, Mali, Côte d'Ivoire, and Democratic Republic of Congo. This has included developing design concepts, undertaking scoping studies, peer review work, feasibility designs, and being a member of Independent Tailings Review Boards (ITRB). ITRBs are recommended by

the Global Industry Standard on Tailings Management (GISTM) for large very or extreme consequence TSF.

- h) I am a past chair of New Zealand Society on Large Dams (NZSOLD). I was an author of the 2015 and 2024 versions of the New Zealand Dam Safety Guidelines published by NZSOLD. I am the current vice-chair of the International Committee on Large Dams (ICOLD) Technical Committee on Seismic Design Aspects of Dams. I was General Reporter for the topic of Earthquake Performance and Safety of Dams at the 2025 ICOLD Congress held in Chengdu, China, where I was responsible for reviewing papers submitted on this topic and presenting on the state of practice of seismic aspects of dams. I am a member of 5 Independent Tailings Review Boards (ITRBs) for tailings dams associated with major mining projects in Australia and New Caledonia and was previously a member of an ITRB for a project in Peru. I am currently a member of Technical Review Panels for different water storage dams in Australia and New Zealand. The topic of my PhD was assessment of seismic hazard in New Zealand.

10. In providing this evidence, I have considered the following matters as relevant to that topic:

- (a) The project description provided by OGNZL as set out in Section 6 of the Substantive Application prepared by Mitchell Daysh Limited;
- (b) The description of the existing environment as set out in Section 4 of the Substantive Application, the effects of MP4 on that environment and their significance, and the proposals to manage those effects as all set out in the assessment of effects in Section 9 of the Substantive Application;
- (c) The technical assessments of GHD, PSM and Agilitus.

CONFIRMATION OF CONTENTS OF REPORT AND PROPOSED CONDITIONS

- 11. I confirm that in my opinion the Report contains an accurate and appropriate description of the environment, the actual and potential effects of MP4, and the recommended actions to manage those effects within my area of expertise.
- 12. I confirm that in my opinion the contents of the Report may be relied on in making a decision on the approvals sought for MP4, and confirm that provided effects within my area of expertise are managed as proposed in the application those effects will not be unacceptable and will be managed to a standard that I consider meets good practice.

13. I confirm that I have reviewed the conditions that OGNZL proposes for the various approvals being sought as they relate to my area of expertise. I confirm that in my opinion those proposed conditions are appropriate.



Dr Trevor Matuschka

2 September 2026