

**UNDER** the Fast-track Approvals Act 2024 (**Act**)

**IN THE MATTER** an application for approvals for the Waihi North  
Project (**WNP**) – a listed project described in  
Schedule 2 of the Act

**BY** **OCEANA GOLD (NEW ZEALAND) LIMITED**  
**Applicant**

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**STATEMENT OF EVIDENCE BY LEROY CRAWFORD-FLETT ON  
BEHALF OF OCEANA GOLD (NEW ZEALAND) LIMITED**

**Resources, reserves and geological confidence**

**Dated 1 September 2025**

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**Counsel acting:**  
Stephen Christensen  
Project Barrister  
P 027 448 2325  
stephen@projectbarrister.nz

## Introduction

1. My full name is Leroy Crawford-Flett.
2. I have a Conjoint Bachelor of Science and Commerce & Administration degree from Victoria University of Wellington, a Master of Project Management qualification from the University of Sydney, and I am a Chartered Professional Member of the Australasian Institute of Mining and Metallurgy (Geology). I am the Exploration and Geology Manager at Waihi and the Qualified Person for Waihi, for technical reporting purposes relating to geology, sampling, data verification and Mineral Resources.<sup>1</sup>
3. I have been asked by OceanaGold (New Zealand) Limited (**OceanaGold**) to provide a response to specific matters within my area of expertise contained in written comments by Dr Steven Emerman on behalf of Coromandel Watchdog of Hauraki<sup>2</sup> on the Waihi North Project (**WNP**) application.
4. I have prepared this statement within the limited time available to me. Consequently, it is necessarily at a high level. I am able to provide a more fulsome response to the issues covered in this statement if the Panel requires further assistance from me.

## Scope of Evidence

5. Discussion point 8 of Dr Emerman's comments is headed: *"The lack of any mining plan means that it is impossible to meaningfully assess the*

<sup>1</sup> NI 43-101 Technical Report Waihi District Pre-feasibility Study, New Zealand, December 11, 2024.

<sup>2</sup> Comments for Coromandel Watchdog of Hauraki Inc, 'B' comments, Appendix A.01, Dr Steven Emerman of Malach Consulting.

*environmental impact of the proposed Waihi North Project at the present time”.*<sup>3</sup>

6. My evidence is concerned with the comments that form part of that discussion. For ease of reference, I have listed the paragraph numbers of Dr Emerman’s comments that my evidence directly applies to as individual headings below.

### **Code of conduct**

7. I acknowledge I am employed by OceanaGold. This has not prevented me from complying with the code of conduct. Instead, OceanaGold authorised me to prepare this statement in accordance with the code of conduct.
8. I confirm that I have read the code of conduct for expert witnesses contained in section 9 of the Environment Court Practice Note 2023 and have complied with it in preparing this evidence. I confirm that the issues addressed in this evidence are within my area of expertise, and I have not omitted material facts known to me that might alter or detract from my evidence.

### **Paragraph 66 – ‘No mining plan for the WNP’**

9. At paragraph 66, Dr Emerman states:

There is no mining plan for the Waihi North Project because OceanaGold still does not know whether there is anything worth mining. This extraordinary finding results from the fact that, in their latest report to investors, OceanaGold (2024) did not report any measurable resources for any of their mining areas (see Fig. 1a), no proven reserves for any of their mining areas (see Fig.1b), and not even any probable reserves for either the MOP (Martha Open Pit) or the GOP (Gladstone Open Pit) (see Fig. 1b). Mining plans are developed based

3 Comments for Coromandel Watchdog of Hauraki Inc, 'B' comments, Appendix A.01, Dr Stevent Emerman of Malach Consulting, at page 29.

upon the sum of probable reserves plus proven reserves. OceanaGold (2024) confirms, “Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability” (see Fig. 1a). It has been my experience that all environmental impact studies and other similar documents are based upon the assumption that the project proponent will mine the sum of probable reserves plus proven reserves and will produce the corresponding quantities of tailings and waste rock.

(my emphasis)

10. I do not consider Dr Emerman’s comments as correct or determinative for the following reasons:
  - a. In December 2024 OceanaGold published a Waihi District NI43-101 Technical Report,<sup>4</sup> comprising a Pre-Feasibility Study, declaring 4.1Mt of probable reserve equating to 1.2Moz of Gold (Au) at an average grade of 9.2g/t Au of the Wharekirauponga Underground Mine (**WUG**). The Pre-Feasibility study included details of the geology and mineralisation, the mine design, including tunnelling to the resource, mineral processing, surface and underground infrastructure, capital and operating costs and a financial evaluation. A Pre-Feasibility Study is the requisite standard to support the declaration of a Mineral Reserve. This report supported Mineral Resources and Mineral Reserves estimates as of 30 June 2024.
  - b. Measurable Resources is not a recognised standard definition under the applicable Canadian Institute of Mining, Metallurgy and Petroleum (**CIM**) international reporting standards. I assume Dr Emerman is referring to Measured Resources, being the highest confidence resource category that is typically only achieved in an Epithermal Ore body during mining prior to stoping when geological continuity is confirmed at high resolution, following lateral ore-drive development

<sup>4</sup> A report published to meet the shareholder disclosure requirements of Canadian National Instrument 43-101 – Standards of Disclosure for Mineral Projects (NI 43-101), which can be found here: <https://ogc.irmau.com/site/pdf/a6922c71-c6fd-49b8-90c7-57ddab50aab1/Waihi-District-NI43101-Technical-Report.pdf?Platform=ListPage>

i.e. tunnelling following veins under the supervision of Geologists. Indicated Resources may be Converted to a Probable Mineral Reserve, as detailed in the December 2024 Waihi District NI-43-101 Technical Report.

- c. Ore is converted to a proven reserve confidence equivalent during mining and immediately preceding production, but this is immaterial to the OceanaGold Reserve and Resource Statement with only small relative quantities available at any given time.
11. I do, however, agree with Dr Emerman that Mining Plans are developed based upon the sum of probable reserves plus proven reserves, based on the sentiment that Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

**Paragraphs 67, 68 and 69 – Distinction between mineral resources and mineral reserves**

12. At paragraphs 67 - 69, Dr Emerman expands on his distinction between mineral resources and mineral reserves. The crux of the three paragraphs seems to imply that OceanaGold need Measured Resources and Proven Reserves. In my opinion, there is nothing in Dr Emerman's comments, nor any supporting evidence, which displaces the evidence provided as part of the WNP application.
13. I agree with Dr Emerman's comments that there must be "reasonable prospects for economic extraction," "the conversion of an ore body into a commodity cannot be only a theoretical possibility" and that "the estimation of resources must be based upon a particular cut-off grade with an assumed commodity price, along with many other factors." Respectfully, that is why the conceptual mine design constraints and cut-off grades are stated in footnotes to the resource table.<sup>5</sup>

5 Table 14-22 in the NI 43-101 Technical Report Waihi District Pre-feasibility Study, New Zealand.

14. Notably, Waihi District currently mines remnant areas within the Martha Underground (**MUG**), providing strong factual basis for the local assessment of reasonable prospects for economic extraction. The WUG resource has an average grade (taking into account the modifying factors) of almost 3 times that of MUG (3.8g/t Au (MUG) vs 9.2g/t Au (WUG)) and therefore is approximately 3 times more valuable than MUG. That is not to say, however, that the MUG is “proof” that WUG has Reasonable Prospects for Economic Extraction (**RPEE**) or reserves, rather the NI43-101 Technical Report demonstrates it.
15. OceanaGold also protects the investor and maintains fair and balanced reporting of uncertainty at WUG by using appropriate Indicated Resource and Probable Reserve classifications in alignment with CIM and international best practice. This allows confidence and risk to be considered appropriately by the market. In practice, high resolution data informing final design and mine planning analogous to that required for Measured Resource classification is gathered during Grade Control processes (Drilling, Face Sampling, Mapping, ore drive development) during mining and preceding final stope design within the short-term planning cycle. Given the frequent turnover of this material, and small quantities of potential Measured Resource available at any given relative to the Indicated and Inferred resource, it is considered immaterial to the Resource and Reserve statement and therefore is reported as Indicated Resource.

#### **Paragraph 70 – Absence of mineral reserves**

16. Paragraph 70 of Dr Emerman's comments provides:

The absence of any mineral reserves and, thus, the absence of any mining plan means that the most basic information is missing.
17. I do not agree with this comment. Reserves are clearly outlined in NI43-101 and the table 1b referenced by Dr Emerman. Mineral Reserve is established

from Indicated Resource by Pre-Feasibility Study which, at the time of reporting, demonstrates that extraction could be reasonably justified.

18. Further, paragraph 70 comments that “it is impossible to evaluate the above claims when there is no information as to how much low-mercury non-acid forming (**NAF**) waste rock will be available or whether there will be any low-mercury NAF waste rock.” I do not agree with this comment either, on the basis that mercury and other deleterious elements are routinely assayed, modelled and estimated to inform material type classifications.
19. In the instance of Gladstone Open Pit (**GOP**), OceanaGold collected multi-element assays including mercury, arsenic, antimony on all drilling and thereby has data density equivalent to the gold estimate. While differences in geostatistical properties mean the gold confidence classification cannot be directly applied, it is largely analogous. In other words, at GOP, approximately 80% of the material is supported by a data density “sufficient to assume geological and grade continuity between points of observation” with the remaining 20% “sufficient to imply but not verify geological and grade continuity”.<sup>6</sup> High resolution material classification including NAF and mercury modelling would be undertaken during grade control processes preceding mining.

#### **Paragraph 72 – Application for WNP is premature**

20. Dr Emerman’s concluding remarks at paragraph 72 are that “the current application for the Waihi North Project is premature and should be paused until OceanaGold has established the existence of mineral reserves and developed a mining plan (sometimes called the general plan of operations).”
21. I do not agree with these comments. Reserves are established and supported by the Waihi District NI-43-101 Technical Report,<sup>7</sup> as referenced

<sup>6</sup> Committee for Mineral Reserves International Reporting Standards (CRIRSCO) Standard Definitions 2012.

<sup>7</sup> Table 15-4 in the NI 43-101 Technical Report Waihi District Pre-feasibility Study, New Zealand.

by Mr Emerman, who additionally presents the Reserves table as Figure 1b. The Technical Report is a 215-page Pre-Feasibility Study level report that details all pertinent information necessary to support reserve declaration including Mineral Reserves and Resources, Mining Methods, Recovery Methods, Infrastructure, Environmental Studies, Permitting, Social and Community Impact, Costs and Economics.

**Figure 1a – Zero measurable resources at any of OceanaGold’s mining areas**

22. As part of Figure 1a, Dr Emerman noted that “OceanaGold reported to its investors that it has zero measurable resources at any of its mining areas. Even so, the table clarifies that “Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability”.
23. This is correct. The footnotes provided as Table 1-1 explicitly states this to leave no room for confusion by the investor. Demonstration of economic viability takes place via currency of Pre-Feasibility or Feasibility studies. Not all resources are currently subject to this, and hence reserves are not declared on MOP and GOP. All of this is entirely in adherence to the reporting code.
24. In summary, the most recent Resources and Reserves statement for WUG shows 1.4M ounces of Measured and Indicated Resources of which there are 1.21M ounces of Proven and Probable Reserves, consistent with the economic modelling (1.5M ounces for WUG and GOP combined). Inferred Resource adds another 0.6M ounces (noting that there has been 0.2Moz of growth of Inferred Resource between the NI43-101 PFS and the Resources and Reserves Statement). Exploration drilling continues to increase confidence in the Resource.
25. In terms of reconciliation of mined to modelled ounces, OceanaGold has a comprehensive reconciliation process. Each month we update the Resources and Reserves model to adjust for “mine to mill” reconciliation

performance, which increments to annual and multi-year performance metrics. We also monitor compliance to mine plan.

26. In summary, against both OceanaGold's Resource and Reserve modelling (reported under stock exchange listing rules, applying international codes of practice and as certified by me and my fellow Qualified Persons for the purposes of meeting those listing rules and codes of practice) and the company's track record of conversion of Resources to Reserves, and Reserves to mined ounces, I have no concerns in terms of the confidence that can be placed in the economic viability and potential of the proposed mines at WUG and GOP.

**Dated:** 1 September 2025

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Leroy Crawford-Flett