

Before the Hearing Commissioners  
Appointed by the Grey District Council  
and West Coast Regional Council

Under the Resource Management Act 1991

In the matter of Resource consent applications by TiGa Minerals and Metals  
Ltd to establish and operate a mineral sands mine on State  
Highway 6, Barrytown (RC-2023-0046; LUN3154/23)

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**Summary Statement of Thomas John Lawson**

2 February 2024

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**Applicant's solicitor:**  
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**anderson  
lloyd.**

## Summary of evidence

- 1 My name is Tom Lawson.
- 2 I prepared a statement of evidence on plant design dated 19 January 2024. My qualifications and experience are set out in that statement of evidence.
- 3 I repeat the confirmation given in that statement that I have read and agree to comply with the Code of Conduct for Expert Witnesses in the Environment Court.
- 4 My role in relation to TiGa Minerals and Metals Limited's (**TiGa**) application (the **Application**) has been to provide leadership of the IHC Mining Australia (**IHC**) process development for extracting a Heavy Mineral Concentrate (**HMC**) from the mined ore and the design of the plant to deliver that developed process.

## Summary

- 5 The Process plant consists of two major elements being the Mining Unit Plant (**MUP**) and the Wet concentrator Plant (**WCP**) with each having a closed water system. The MUP will not operate during the hours of darkness while the WCP does operate 24 hours per day as it contains processes that require this type of operation.
- 6 The MUP, located on the bench ahead of the mining pit, receives damp ore from the mining equipment during its day time only operation. The MUP screen and cyclone units remove, and return to the mining pit, the ore >2mm in size and most of the ore <45 micron. The sand ore sized between 45 micron and 2mm is pumped to the WCP. Further separation then occurs to concentrate the minerals into a Heavy Mineral Concentrate (**HMC**).
- 7 Once operational, the water entering the systems is from ingress at the mine void from ground water or rain. The water in the process water system manages solids from the mine void at the mine water facility, and further at the WCP Thickener/Process Water Tanks.
- 8 The ore removed from the ground does contain a small proportion of fine clay particles (called Slimes) which will tend to flow with the water throughout the process. The process design may utilise biodegradable flocculants in the mine water facility and the WCP thickener, with a clarifier also available to minimise total suspended solids to <20mg/l.

## Lighting

- 9 I have read the concerns in the evidence around lighting, and I agree with the comments made by Mr Stephen Miller. All external lights will be shielded design of minimal intensity and directed down at the equipment requiring attention. Around

the Plant, the facilities include process water equipment including tanks, clarifier and pumps that require lighting for maintenance only and not ongoing operations. Level sensors in the tanks and flow meters on the pipelines tell the operators what is happening in the control room. You will only go out when needed to fix a problem that cannot wait until the morning and the lighting on that area would be turned off until needed.

**Tom Lawson**

Dated this 2<sup>nd</sup> day of February 2024