

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, and
associated activities on State Highway 6, Barrytown (RC-2023-
0046; LUN3154/23)

Joint Witness Statement – Hydrology & Water

2 February 2024

Introduction

- 1 This joint witness statement has been prepared to record the outcome of witness conferencing on hydrology and water-related matters arising from the proposed mineral sands mine and associated activities at State Highway 6, Barrytown (**Application and Application Site**).
- 2 Witness conferencing has taken place between:
 - (a) Mr Jens Rekker, KSL for TiGa Minerals and Metals Limited (TiGa);
 - (b) Mr Brett Sinclair, WGANZ for West Coast Regional Council and Grey District Council (the Councils);
 - (c) Professor Brian McGlynn, E3 Scientific for Langridge family
- 3 Previous correspondence between the parties consisted of:
 - (a) Brief correspondence between Mr Rekker and Mr Sinclair in mid-January regarding Brett's role and involvement on behalf of the WCRC.
 - (b) Email correspondence between Mr Rekker, Mr Sinclair and Professor McGlynn in late January 2024 with the objective of arranging a time for caucusing before or during the TiGa hearing.
- 4 In preparing this statement, the expert witnesses have read and understood the Code of Conduct for Expert Witnesses as included in the Environment Court of New Zealand Practice Note 2023.

Matters agreed

- 5 A range of matters were discussed with respect to the site geology and hydrogeology and potential impacts of the proposed mining operation on the nearby wetlands. Attempts were made by Mr Sinclair and Mr Rekker to set out a range of geological conditions for initial agreement. However, Professor McGlynn was not in agreement that the suggested range was appropriate for the mine site. No clear agreement was achieved on any of the matters discussed.

Matters not agreed

- 6 The following matters were discussed in various levels of detail and no clear consensus achieved:
 - (a) The geological characterization of the site, and specifically the geological variability under the site, with respect to informing an understanding of groundwater flow behavior.
 - (b) The impacts of the mining operation and backfilling of the mine void on the behavior of the groundwater system.
 - (c) The impacts of the mining operation on the physical availability and levels of water in nearby wetlands.

- (d) The impacts of the mining operation on the future water quality in the nearby wetlands.
- (e) The appropriateness of the groundwater modelling undertaken to date to inform the evaluation of mining effects on the groundwater system.

Matters not discussed

- 7 The following matters were mentioned but not discussed further as a result of the lack of consensus on the matters listed above:
- (a) The appropriateness and effectiveness of the water management measures proposed by the applicant at achieving the intended mitigations.
 - (b) The appropriateness and effectiveness of the draft consent conditions and associated monitoring program put forward by the applicant to support the proposed Water Management Monitoring and Mitigation Plan and enable the management or mitigation of identified potential effects on water levels, flows and quality.

Other Matters

- 8 During the discussion Professor McGlynn raised the matter of the lack of direct investigations of wetlands on the neighbouring properties by TiGA. Mr Rekker pointed out that it was his understanding that authorisation to access the neighbouring properties had never been provided by the landowners. This was also the understanding of Mr Sinclair, based on past conversations with WCRC staff and text in the technical reports reviewed. Professor McGlynn stated that one of the Langridge family indicated that this was a misunderstanding and that authorisation to access the adjacent block to the south of the proposed mine has not been withheld. The actual situation is unclear.

Dated 2 February 2024

BRETT SINCLAIR



JENS REKKER



PROFESSOR BRIAN MCGLYNN

Acceptance of above Witness Statement provided by e-mail dated 2 February 2024.