

**BEFORE THE HEARINGS PANEL**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of submissions on the Proposed Otago Regional  
Policy Statement 2021 (non-freshwater parts)

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**EVIDENCE OF SHAMUBEEL EAQUB**

**FOR OCEANA GOLD NEW ZEALAND LIMITED**

**Dated 24 November 2022**

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## **1 Qualifications and Experience**

- 1.1 My full name is Shamubeel Eaqub. I reside in Auckland, and I am an economist.
- 1.2 I hold a BCom with Honours in Economics from Lincoln University and I am a Chartered Financial Analyst (CFA).
- 1.3 I have worked as a macro-economist at the ANZ Bank in Wellington and Melbourne, as a macro-economist and financial analyst at Goldman Sachs JBWere in Auckland, as an economic consultant at the New Zealand Institute of Economic Research, in my own practice, and now at Sense Partners.
- 1.4 Sense Partners is a boutique consultancy. We are experienced economists with backgrounds in modelling, public policy, regulatory affairs and economic assessments. My areas of work tend to focus on housing, construction, economic development, economic measurement and evaluation, and cost benefit analysis. My role as an economic consultant has included giving expert economic evidence in court cases and arbitrations.
- 1.5 Relevant to this application, I have advised OceanaGold New Zealand Limited (OGNZL) on various economic matters since 2015. I have worked as a macro economist since 2001 and have deep experience in regional economic development. I have conducted consultancy projects for industry, central government, and local government on regional economic issues.

Even though this matter is not before the Environment Court, I have read the Environment Court's Code of Conduct for Expert Witnesses and agree to be bound by it. The matters I address in this brief of evidence are within my expertise, except where I state that I am relying upon material produced by another person. I have not omitted to consider material facts known to me that might alter or detract from my opinions.

## **2 What I have been asked to do**

- 2.1 OGNZL has asked me to assess the economic contribution of Macraes gold mine (Macraes hereafter) in 2021 (the latest financial year) and thus the likely impact of mine closure.
- 2.2 We have relied on the 2021 Annual Report and more detailed internal management accounts to build a careful economic picture of Macraes.

## **3 What we found**

- 3.1 Economic contribution needs to be considered slightly differently at national versus local levels.
- 3.2 At the national level, exports, royalties, and GDP contributions are useful indicators (see Figure 1).
  - (a) Macraes exported \$343 million of gold in 2021, compared to an estimated \$4.3 billion of exports from Otago Region and \$63 billion of exports nationally. These exports would not be readily replaced by other resources, as the gold would otherwise not be mined.

- (b) Macraes gold exports of \$343 million are large. In 2021, wool exports for New Zealand were \$423 million and vegetable exports were \$484 million. If Macraes shut, these exports would simply cease (as the gold will be left in the ground, but the workers and capital may be redeployed elsewhere in the economy).
- (c) The revenue would rank Macraes at 118 in Deloitte's Top 200 Index,<sup>1</sup> larger than well-known companies such as TVNZ and Ports of Tauranga. Macraes is a large economic entity in the New Zealand business landscape.
- (d) Macraes paid royalties of \$4.1 million in 2021. This is income that would otherwise not accrue to the public purse.
- (e) Macraes' GDP contribution in 2021 was \$237 million, compared to national GDP of \$327 billion. (For context, latest available regional GDP estimates are: Waitaki \$1.5 billion, Dunedin \$7.2 billion, and Otago Region \$14 billion.)
- (f) Figure 1: National benefits

| 2021, \$m                   | Exports              | GDP                  | Other |
|-----------------------------|----------------------|----------------------|-------|
| Macraes                     | 343                  | 237                  |       |
| Waitaki District            | ...                  | 1,450 <sup>(2)</sup> |       |
| Dunedin City                | ...                  | 7,194 <sup>(2)</sup> |       |
| Otago Region                | 4,300 <sup>(1)</sup> | 14,003               |       |
| NZ                          | 63,291               | 326,507              |       |
| Memo items:                 |                      |                      |       |
| Royalties                   |                      |                      | 4.1   |
| Local donations and support |                      |                      | 0.2   |

Notes:

(1) MFAT. <https://www.mfat.govt.nz/assets/Trade-General/Trade-Market-reports/STORM-Analysis-Regional-Summaries-Otago-28-September-2020-PDF.pdf>

(2) 2020, latest estimates from MBIE. <https://www.mbie.govt.nz/business-and-employment/economic-development/regional-economic-development/modelled-territorial-authority-gross-domestic-product/>

Source: Company data, MBIE, Statistics New Zealand, Sense Partners

- 3.3 There were 603 people directly employed by Macraes in 2021. For context, the typical large firm in New Zealand (those employing over 200 people), employ 400-1000 people depending on sector. Macraes is a large New Zealand business entity. Importance to the local economy depends on if they are concentrated in one place, with purchases from local suppliers, and injecting capital expenditure that would otherwise not happen.
- 3.4 At a local level, a more nuanced perspective is required. While the business unit is in the Waitaki District, it is supported by head office functions in Dunedin, supported by suppliers across New Zealand, and staff that live across the region. So, the local or

<sup>1</sup> <https://top200.co.nz/wp-content/uploads/2022/03/nz-en-Top-200-2021-Top-200-Index.pdf>

regional economic effects requires a careful analysis of where directly employed staff live, where the suppliers are located and likely additional spend by those additional workers.

- 3.5 The results of our analysis are summarised in Figure 2 (spend) and Figure 3 (employment effects, both direct and indirect).

Figure 2: Estimated local spend effects

| 2021, NZ\$m          | Purchases    | Wages       | Total        |
|----------------------|--------------|-------------|--------------|
| Waitaki              | 18.7         | 17.3        | 36.0         |
| Dunedin              | 40.6         | 41.6        | 82.2         |
| Rest of Otago Region | 1.9          | 2.5         | 4.4          |
| <i>All of Otago</i>  | <i>61.3</i>  | <i>61.4</i> | <i>122.7</i> |
| Rest of NZ           | 169.9        | 4.6         | 174.5        |
| <b>All of NZ</b>     | <b>231.2</b> | <b>66.0</b> | <b>297.2</b> |

Figure 3: Estimated local employment effects

| 2021, FTEs          | Direct            | Indirect in suppliers | Indirect in induced & other effects <sup>(1)</sup> | Total effects       | Total economy  |
|---------------------|-------------------|-----------------------|--|---------------------|----------------|
| Waitaki District    | <b>158</b>        | 76                    | 99   | <b>333</b>          | 12,268         |
| Dunedin City        | <b>380</b>        | 151                   | 226  | <b>757</b>          | 68,566         |
| Rest of Otago       | <b>23</b>         | 7                     | 12   | <b>43</b>           | 55,266         |
| <i>All of Otago</i> | <i><b>561</b></i> | <i>234</i>            | <i>338</i>   | <i><b>1,132</b></i> | <i>136,100</i> |
| RoNZ                | <b>42</b>         | 580                   | 480  | <b>1,103</b>        | 2,654,000      |
| Total               | <b>603</b>        | 814                   | 818  | <b>2,235</b>        | 2,790,100      |

Note: (1) Consumption effect of direct and supplier employees.

Source: Company data, Statistics New Zealand, Sense Partners estimates

- 3.6 Figure 2 summarises all spend (on operating and capital expenditure) in 2021. We analysed the supplier data at a local district level to understand the geographic distribution of the spend.
- 3.7 Figure 3 summarises the employment effects of Macraes. The three columns show:
- (a) Direct: Those who are employed by the mine. The location is where the staff live, as that tends to be where the incomes tend to be primarily spent.
  - (b) Indirect in supplier: We know where suppliers to Macraes are located. We have assumed, as we do not have access to residence location for suppliers' staff, that those employment effects are local.
  - (c) Indirect in induced and other effects: largely reflects jobs supported by the consumption effects of high value employment in the mine. Average income at Macraes is \$110,000, roughly twice the average of \$56,000 in Waitaki, \$61,000 in Dunedin, and \$59,000 in the Otago Region. Even if all those at

Macraes were able to find other jobs, which is likely given widespread labour shortages, the income differential alone is equivalent to over 577 Waitaki District jobs. Our induced effect assumptions are realistic.

3.8 We estimate the impact of Macraes closure on jobs using the extraction method based on economic literature<sup>2</sup>, where we analyse the Statistics New Zealand's Input-Output tables and estimate how many jobs would be affected if an industry were to shut. We estimate that if the metal mining industry were to close, for each mining job, 3.7 jobs in other parts of the economy would be lost. We sense-checked this against bottom-up analysis of jobs in the supply chain and in consumption effects for Macraes, and believe these estimates are realistic.

3.9 However, multiplier analysis needs to be interpreted with care. The analysis shows where the current dependencies are through suppliers and jobs, but it does not look at if the local economy is flexible and whether these resources may be redeployed elsewhere over time. In small regional economies, it is often difficult to quickly redeploy workers and resources to other uses, because there are few other large businesses who have need for such specialised resources.

### 3.10 *Implications for Waitaki District*

- (a) Macraes has been a large and relatively steady employer in the Waitaki District. The mine employs 603 people, and 158 also live there.
- (b) We estimate the mine injects \$36.0 million into the Waitaki District, through incomes of Macraes staff who live there, and from suppliers located in the district. For context, the district's GDP is \$1.5 billion.
- (c) We estimate this injection of spending supports 333 jobs in the district, compared to an estimated 12,268 jobs across all sectors. This gives a sense of job losses that will most affect the local district.
- (d) As a memo item, Macraes also supported local activities through donations and support in kind of over \$220,000 in 2021.

### 3.11 *Implications for Dunedin City*

- (a) Dunedin City is a significant beneficiary of Macraes. This is because over half of Macraes staff live in Dunedin (380), related \$41.6 million in income, and \$40.6 million is injected via purchases from suppliers (a total of \$82.2m million). For context, Dunedin's GDP is \$7.2 billion.
- (b) We estimate Macraes supports 757 jobs in Dunedin, compared to an estimated 68,566 jobs across the district.
- (c) The residence of Macraes staff and support via suppliers makes Macraes a large business entity for Dunedin.

### 3.12 *Implications for Otago Region*

- (a) Much of the benefits to the Otago Region accrue to Waitaki District and Dunedin City.

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<sup>2</sup> Erik Dietzenbacher & Michael L. Lahr (2013) "Expanding Extractions", *Economic Systems Research*, 25:3, 341-360, DOI: 10.1080/09535314.2013.774266

- (b) Across the Otago Region, Macraes supports the regional economy through \$122.7 million of payments to suppliers and workers who live in the region.
- (c) This directly and indirectly supports 1,132 workers in the region. As noted earlier, this makes Macraes a large business entity by national terms, which is locally located, and the direct jobs that Macraes are very well paid (around double the local average).
- (d) Presence of mining attracts highly skilled and well-paid staff into the region, with both economic and non-economic spill-overs from this. The mine's suppliers benefit from transacting with a large business, which often has better systems and processes than small and medium sized enterprises. This can lead to improved performance of the mine's suppliers, either through procurement activities, or through "osmosis".

#### **4 Conclusion**

- 4.1 Our analysis of Macraes shows that it is a large economic entity in its own right. At a national level, exports (\$343 million), royalties (\$4.1 million) and GDP (\$237 million) are on par with a large business. By revenue, Macraes would rank nationally 118 in the Deloitte Top 200 Index.
- 4.2 The local benefits are also significant. Macraes employs 603 directly, and in total supports 2,235 jobs across New Zealand, through purchases from suppliers and spillover effects.
- 4.3 For Waitaki District, Dunedin City and Otago Region, Macraes is a large economic entity.
  - (a) It injects \$36.0 million into Waitaki District and supports 333 jobs directly and indirectly.
  - (b) It injects \$82.2 million into Dunedin City and supports 757 jobs directly and indirectly.
  - (c) It injects \$122.7 million into the Otago Region and supports 1,132 jobs directly and indirectly.
- 4.4 In the event of mine closure, these direct benefits will be lost. The gold resource would not be redeployed, and thus the economy would be smaller. Workers would be redeployed, but local economies do not offer comparable incomes and many would choose to live and work elsewhere, and local suppliers are unlikely to find a similar customer.
- 4.5 Macraes is a large economic entity, at a national, region (Otago) and district (Waitaki District and Dunedin City) level.

Date: 24 November 2022

Shamubeel Equb