

## **Dendrobium Mine Extension Project (Sub-2333)**

Submission from Simon Green

Sept 15, 2019

### **Objection**

I object to giving approval to South32 to extend its coal mining at the Dendrobium mine on the basis of uncertainties about its coal 'mix', the future viability of coking coal based on its two mining operations, and the failure of BlueScope Steel to do anything tangible about its reliance on the current coking coal blend that it uses.

The proposal by South32 is predicated on the need for steel manufacturing at Port Kembla. I am sympathetic to and supportive of initiatives which create and support manufacturing in Australia and, since I live in Wollongong, especially the manufacturing of steel at Port Kembla. However, the 'need' related to these things must be counterbalanced by current and future impacts of mining on the natural environment, as well as questions to be asked of South32 about the mix of coal it produces for sale from its Illawarra mines against a backdrop of self-promotion as a miner of solely metallurgical coal.

### **Rationale for Objection**

South32 plans to expand its mining of metallurgical (coking) coal at its Dendrobium mine. This expansion will occur in Area 3 and involve the long-wall mining of three walls. The reason for this expansion relates to the original conception and rationale for the Dendrobium mine to provide part of an optimal blend of coking coal for steel manufacturing by BlueScope Steel based at Port Kembla (Whittall, 2004). The other part of this coal blend is supplied by the nearby Appin mine, also owned by South32. At the time of the conception of the Dendrobium mine, BHP (who owned both mines and the steelworks) felt that the close location of the two mines was very important to the viability of steel manufacturing (Whittall, 2004).

The fates of the Dendrobium mines and BlueScope Steel appear to be intertwined. This, along with questions about the type of coal being mined, raises questions and concerns that I think are relevant to the proposed extension. In addition, mining in the Appin area has had a very detrimental impact on the environment (e.g. decimation of swamp lands, surface fracturing, subsidence, contamination of downstream waterways) and seriously threatens the viability of the Sydney Water Catchment (e.g., Cataract Dam). This raises the prospect of similar impacts in the Dendrobium environment area and threats to another part of the water catchment, Cordeaux Dam. In my opinion, these environmental impacts are far more serious than other concerns I raise below but which are the main subject of my submission and I wanted to draw to the attention of others.

South32 owns a subsidiary, Illawarra Metallurgical Coal (IMC), which operates the Dendrobium and Appin mines. South32 markets its Illawarra operation (IMC) as a solely metallurgical coal mining operation and links this with steel manufacturing at Port Kembla. But what types of coal are actually mined at Dendrobium?

In its financial report for 2018-2019, South 32 indicated that IMC produced both metallurgical and 'energy' (thermal) coal (South32, 2019). In this report, the 'production profile' for IMC states that for the previous financial year (2017-2018) the production levels for metallurgical coal and thermal coal were 3165 kt and 1079 kt, respectively. For year 2018-2019 these production levels were 5350 kt and 1297 kt, respectively. The percentages of energy coal as a fraction of total coal production (metallurgical plus thermal) in these two years are 25.4 % and 19.5 %. Thus, South32 and IMC also mine thermal coal, not just metallurgical coal,

and in very significant quantities. What is less clear is the contribution of the two mines to the production of thermal coal.

The Appin operation mines the Bulli Seam and coal from this seam is used mostly as a coking coal (Hutton 2009). By contrast, the Dendrobium operation mines the deeper Wongawilli Seam that is considered to be a valuable addition to the coking coal blend (Hutton 2009). It appears as if coal from the Bulli Seam is the essential coal in the coal mix produced by IMC. It might be speculated that the fractions of thermal coal from these two seams differ and with a higher fraction in the Wongawilli Seam and thus from the Dendrobium operation. Anecdotally, an IMC project manager recently told concerned citizens that the percentage of thermal coal mined at Dendrobium was about 50 % of the coal produced by that mine. This is consistent with data in the South32 2019 financial report and assumption that the Dendrobium mine produces relatively more thermal coal than the Appin mine.

### **Questions to Ask**

I urge the panel to request the following from South32 or IMC:

1. recent data (2014-2019) about the amounts of thermal and metallurgical coal it has produced from its Dendrobium and Appin mines;
2. the projected amounts of these two types of coal (point 1) that it expects to produce from its intended expansion of Area 3 at the Dendrobium mine;
3. projected impact of further problems at the Appin mine on both the viability of BlueScope Steel manufacturing and need for what the Dendrobium mine provides BlueScope.

This last request speaks to the importance of not isolating the two IMC mines in the context of this proposed expansion – the expansion must take into account the fate of the Appin mine and the fact that South32 appears to be scaling down its Appin operations. In addition, BlueScope Steel is inextricably linked to these problems and they should be invited to contribute to the dialogue related to the proposed Dendrobium expansion and address their plan for a future that depends less on current supplies of coking coal.

### **Be a Big Australian**

This is a BHP problem. BHP is everything in this network of organisations (BlueScope, South32, IMC, Dendrobium, Appin). It must act like the Big Australian it once was to protect Australian jobs AND to protect the Australian environment.

### **References**

Hutton, A.C. (2009) Geological setting of Australasian Coal Deposits. In R. Kininmonth & E. Baafi (Eds.). Australasian Coal Mining Practice. The Australasian Institute of Mining and Metallurgy. P 40-84.

South32 (2019). 2019 Financial results. Obtained on September 15, 2019 from the website: [www.south32.net](http://www.south32.net).

Whittall, P. (2004) Dendrobium mine: from paper to production. Coal Operators Conference. Faculty of Engineering and Information Science. University of Wollongong. P 20-39.