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NSW Department of Planning and Environment
Major project Assessment – Hume Coal Project

Attention: Mr Clay Preshaw

OBJECTION TO THE HUME COAL EIS

As a concerned resident I would like to make the following comments on the EIS by HUME COAL for development of a coalmine in the Southern Highlands of NSW.

I currently practice as a consulting geologist, with over 50 years experience in Australia, the United States (in academia and with BP Alaska) and more recently in Papua New Guinea. My experience includes a time as Managing Director of Sydney Oil Company Ltd, which explored throughout Australia and held permits in the Sydney Basin. I have published many papers on the Sydney Basin and it remains one of my greatest interests.

From my point of view, the key issues with the HUME EIS are as follows:

1. There is insufficient borehole data in the EIS to properly evaluate a mining plan.
 - The target coking coal layers are thin and variable in lateral extent. Some modern seismic control would help them understand this variability, as well as show the position of major fault zones and the position of igneous bodies. HUME say they have some seismic but that data has not been made public.
 - In addition, HUME say they have new magnetic surveys covering the proposed mine area and this also has not been made public.
 - The community has serious doubts about this project, and their concern is increased when the company fails to provide the data needed to justify their position.
2. HUME'S interburden thickness map indicates the extent of the Hawkesbury sandstone erosion surface across the south-western and southern parts of the proposed mine area.
 - This has meant that a coarse sand and pebbly sand layer often sits directly on the underlying coal sequence. This sandy and porous zone needs to be mapped in detail, as it is the zone that would be the best reservoir to hold underground water.

- Once again, more bore data is needed. These bores could then be tied to regional seismic to more fully understand the nature of faulting and continuity of the proposed target coals.
- It is further suggested that the Hawkesbury deposition of sands would be one where river channels could have eroded into the underlying coal sequence and that these channels would cross the proposed mine area leaving areas of very little or no coal to mine. An inspection of HUMES coal seam thickness map shows that there are areas like this.

IN SUMMARY, I find that the lack of important geological data in the EIS quite distressing. I have looked at most of the well data that I could find in the NSW DIGS data base and this has increased my concern over HUME'S geological analysis. Some of the early drilling was reported by geologists such as Cliff McElroy in 1970 on the New Belanglo bores drilled for AUSTEN AND BUTTA LTD. These well logs show the extreme variability in the coal sequence but there is NO reference to this in the EIS.

I knew McElroy well, having spent some time with him while we were both on the faculty at the UNIVERSITY OF NSW in the 60s. His work was meticulous as are his descriptions of wells drilled in the proposed mine area by HUME. By contrast the well descriptions provided by HUME few in number and scant in detail. If they have well data to support their case they should have included them in EIS.

My overall impression is that the geology presented in the EIS is not satisfactory as outlined above. There is no way I could recommend a mine based on the geology as presented.

I also have serious doubts on the value of the coal in this resource, as this thin, eroded edge of the Southern Coal Basin is a poor place to find good thick minable coking coal. It seems to me that the Southern Highlands community is being put through a great deal of grief for little purpose.

Dr. John Conolly