Economic impact of the proposed Drayton South Open-cut Coal Mine

September 2015 Rod Carr, Associate Director Marsden Jacob Associates



Introduction

Thank you for the opportunity to present.

Marsden Jacob Associates (Marsden Jacob) has been commissioned by Coolmore Australia and Darley Australia to review the economic impact assessment of the Drayton South coal mine.

Marsden Jacob's review has focused on whether the Drayton South coal mine is economically beneficial (results in a net social benefit). The economic analysis is important because:

- SEARs: a "detailed assessment" of the "costs and benefits of the project, identifying whether the development as a whole would result in a net benefit to NSW".
- NSW Treasury: "The economic appraisal should present an independent, unbiased assessment of all the costs and benefits".

Marsden Jacob has not assessed the financial viability of the Drayton South coal mine.

Overall Conclusions

Conclusion 1: The Drayton South coal mine is not economically beneficial, even before impacts on Coolmore Australia and Darley Australia are considered.

Conclusion 2: The economic assessment does not comply with the SEARs or the NSW government guidelines.

Conclusion 3: The economic assessment fails to recognise the impact of the project on Coolmore and Darley, their critical contribution to the regional and NSW economies and the economic impact that would result if they were forced to relocate inter-state.

Marsden Jacob's conclusions differ from those of the other peer reviews because we tested the present value calculations. The other peer reviews did not test the calculations.

Today I will focus on Conclusion 1, but there is further detail on Conclusions 2 and 3 in the detailed submission.

Conclusion 1

The Drayton South coal mine is not economically beneficial, because the:

- Value of Coal has been over-estimated; and
- Value of external impacts has been under-estimated.

Value of coal @ AUD\$87/t



Gillespie states that the assumed coal prices are:

- USD\$72/t in 2016;
- USD\$82/t in 2017; and
- AUD\$87/t thereafter.

The AUD/USD exchange rate is 0.85.

Source: Gillespie Economics 2015 pages 25, 56 and 61

Value of coal @ AUD\$102/t



If you calculate the Value of Coal based on AUD\$102/t (2018 and thereafter) the present value result is achieved.

At Gillespie Economics' stated exchange rate (0.85): AUD\$102/t = USD\$87/t

Coal Price Assumptions

There is broad agreement that using a long-run coal price AUD\$87/t for benchmark thermal coal is acceptable – <u>not AUD@\$102/t</u>.

- Secretary's Environmental Assessment Report: "NSW Trade & Investment, which forecasts that the medium and long term export thermal coal price is likely to be between US\$67 and US\$88 a tonne (assuming an AUD/USD exchange rate of 0.75)". (2015, p47)
- Gillespie Economics: "Projected prices for the Project product thermal coal were provided by Anglo American and are based on the average of the December 2014 Consensus Pricing from 21 financial institutions (UBS, 2014). The assumed price is USD\$72/t in 2016, USD\$82/t in 2017 and AUD\$87/t thereafter". (2015, E-25)

Same problem for Royalties



External costs have fallen by over 95% Why?

Why have external costs fallen so significantly?

External costs are important because as the NSW Treasury guidelines state: "external costs and benefits must be taken into account." (page 11)



Value of greenhouse gas emissions

The present value of greenhouse gas emissions should be \$81 million (not \$6 million).

	2012	2015	
GHG emissions (over 15 years)	11.5 Mt of CO _{2-e}	6.2 Mt of CO _{2-e}	46% reduction
Value of GHG emissions	\$23/t of CO _{2-e}	\$23/t of CO _{2-e}	
TOTAL (undiscounted value)	\$265 million	\$142 million	
Present Value (15 years @ 7% discount rate)	\$142 million	\$81 million	43% reduction (not 96%)

Marsden Jacob agrees with both peer reviewers (BDA Group and Deloitte Access Economics) that the greenhouse gas emissions cost should be fully attributed to the project in the economic analysis.

Drayton South coal mine is not economically beneficial

The Drayton South open-cut coal mine:

- Net social benefit falls from \$458m to -\$30m when re-estimated Value of Coal and GHG emissions values are used; and
- Net social benefit falls to -\$80m when other aboriginal heritage (Gillespie Economics, 2012) and travel costs are included.

	NPV @ 7% discount rate
Gillespie Economics (2015) – Net Social Benefit of Drayton South, excluding employment benefits	\$458 million
less revised Value of Coal	\$413 million
less revised Greenhouse Gas Emission Cost	\$81 million
Net Social Benefit of Drayton South	-\$30 million
less additional aboriginal heritage and transport costs (~\$50 million)	~-\$80 million

Conclusion 2

The economic assessment does not comply with the SEARs or NSW Government Guidelines because:

- 1. All assumptions and underlying estimates are not explicit stated in the assessment.
- 2. Does not accurately consider all of the costs and benefits.
- 3. Does not pay particular attention to the operation and reputation of the Upper Hunter Equine and Viticulture Critical Industry Clusters.

Anglo American claims that key assumptions and information cannot be revealed because they are 'commercial-in-confidence'. But, as I have already demonstrated it is critical that all assumptions are reported, so that you can test their assumptions.

Key costs and benefits have changed Where is the detail?



How can the PAC have confidence in the analysis when key drivers of the economic analysis results cannot be checked or replicated?

Deloitte Access Economics (2015): "Prioritising transparency, our review advised that more detail could be provided on key assumptions, particularly those relating to operating costs and coal prices". (2015, page 35)

Independent expert review by mining engineer (Michael White) has identified significant issues with the capital/operating cost and coal production assumptions.

Conclusion 3

The economic assessment fails to recognise :

- the impact of the Drayton South open-cut coal mine on Coolmore and Darley's business model;
- Coolmore and Darley's critical contribution to the regional and NSW economies; and
- the economic impact that would result if Coolmore and Darley were forced to relocate inter-state.

Coolmore and Darley: Major Regional Employers

Without economic diversification regional economies are highly vulnerable to shocks that are outside their control, such as climatic events and commodity price changes.

- Coolmore and Darley's stud operations represent over 50% of the average annual income from stallion service fees in NSW and the Hunter Valley.
- Coolmore and Darley directly employ over 220 people.
- If they were forced to depart this would very conservatively put 640 jobs at risk in the Hunter Valley across broodmare farms, veterinary hospitals, transport, farriers, saddlers, capital equipment, hospitality, construction that are not supplying the mines.
- extract over \$120 million per annum in gross regional production from the local economy.

Coolmore and Darley: Business Model

Anglo American and the Department do not understand Coolmore and Darley's business models.

There is a misconception that the capital investment in their properties and proximity to the Hunter Valley are material barriers to relocation.

Coolmore and Darley clearly do not wish to leave the Hunter Valley. However, it is crucial to understand that:

- Earnings from stallion fees are fundamental to their business viability.
- Value of their bloodstock (hundreds of millions of dollars) is far greater than the properties.
- If are forced to relocate they will take their clients and valuable bloodstock with them, they will not leave a void in the market.
- Numerous regional stakeholders have commented that if Coolmore and Darley were forced to relocate the impact on the equine Critical Industry Cluster will be devastating:

Broodmare farmers: "If they move we move"

In Conclusion

How can the PAC have confidence in the results of the economic analysis, when our review identifies that Drayton South is not economically beneficial?

- 1. Net social benefit falls from \$458m to -\$30m (when re-estimated value of coal and GHG emissions values are used); and
- 2. Net social benefit falls to -\$80m (when other externality and travel costs are included).

From a NSW perspective the cost could be higher, because if Coolmore and Darley were forced relocate to Victoria the **net economic cost** would be between \$229 and \$368 million (Marsden Jacob, 2013).

Contact Details

Rod Carr Associate Director Marsden Jacob Associates M: 0418-765-393 E: <u>rcarr@marsdenjacob.com.au</u> W: <u>www.marsdenjacob.com.au</u>