

## Queensland Coal Mining Board of Inquiry

Your Ref:

In reply please quote: RK:RK-248

Mr James Hall  
Partner  
Ashurst Australia  
123 Eagle St  
BRISBANE QLD 4000

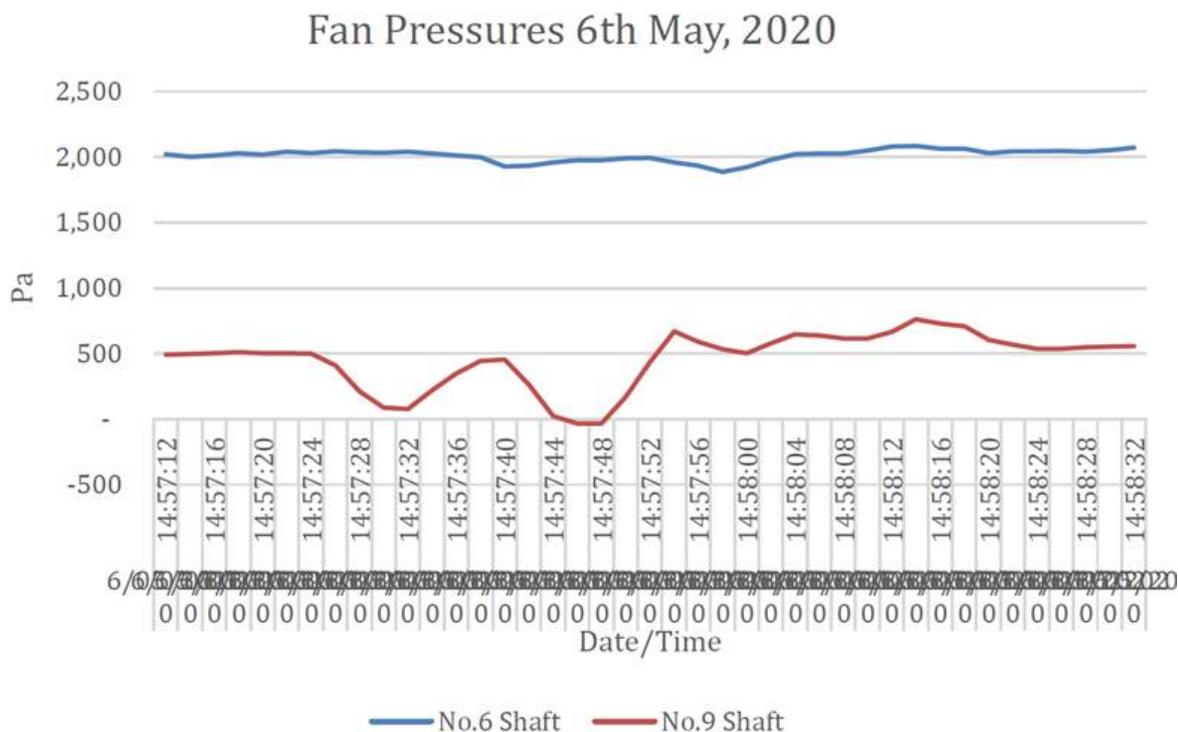
**By Email:** [james.hall@ashurst.com](mailto:james.hall@ashurst.com); [meredith.bennett@ashurst.com](mailto:meredith.bennett@ashurst.com)

15 April 2021

Dear Mr Hall,

### RE: QUESTION FOR DR BHARATH BELLE - FAN PRESSURES DIAGRAM

The image depicted below would be familiar to you as it has received attention in the course of the Inquiry (e.g. SAN.001.002.0001, .0049).



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GPO Box 1321, Brisbane QLD 4001

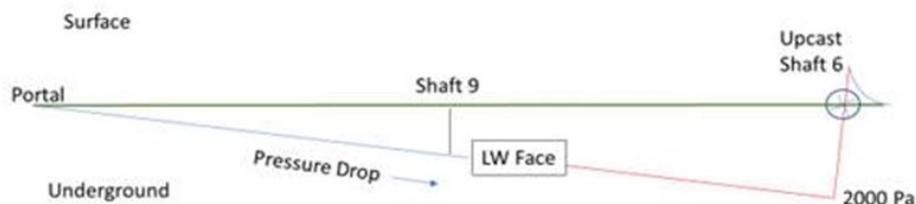
Phone: 07 3096 6454

[www.coalminesinquiry.qld.gov.au](http://www.coalminesinquiry.qld.gov.au)

To assist with a correct interpretation of the image, the Board would be grateful if Dr Belle were prepared to provide an answer to the following questions:

1. An explanation as to why the collar pressure on shaft 9 and the collar pressure on shaft 6 are both on the same (positive) side of the Y-Axis, given that shaft 9 has a forcing cooler installed and shaft 6 is the main exhausting fan?
2. Without prejudicing the answer to Question 1, whether the following model is valid as an explanation?

The following simplified diagram illustrates a 2000 pascal drop in pressure from the portal to the No. 6 upcast shaft.



If it is assumed that shaft 9 is located around halfway in the ventilation circuit (pressure drop wise) and if shaft 9 is capped, around -1000 Pa may be measured across the shaft collar.

If a forcing cooler is then installed onto shaft 9, which creates a positive 500 pascal pressure, then the resultant collar pressure is still negative 500 pascals.

The Board would appreciate your prompt attention to this request.

Should you have any questions regarding the above please contact Ms Renae Kirk, Special Counsel on 0477 312 075 or at [renae.kirk@coalminesinquiry.qld.gov.au](mailto:renae.kirk@coalminesinquiry.qld.gov.au).

Yours sincerely,



Renae Kirk  
**Special Counsel**  
**Queensland Coal Mining Board of Inquiry**