



queensland

# mining and energy

Summer 2010/11

bulletin

Your mining town: Gladstone.... pg 39

The use of waste coal as a resource recovery and environment management measure.... pg 72

The impact of government policies on the mining industry.... pg 87

# Jameson Cell for Retreating Coal Tailings

**T**he Jameson Cell has been used to treat coal fines in Coal Handling and Preparation Plants (CHPP) for over two decades. Currently there are more than a hundred cells installed in Australia, and close to 150 cells installed in coal worldwide. The rapid adoption and continued success of the Jameson Cell in the Australian coal industry can be attributed to its consistent performance, robust operation and high availability. Consistent fine bubble generation and high intensity mixing allows for fast and efficient flotation. This means cells can be designed to treat a large amount of material in a very small footprint. The cells use naturally induced air, so no compressors or blowers are required, nor are there any moving parts in the cell, making them simple to install, maintain and operate.

The key characteristics of Jameson Cells are their ability to achieve high selectivity, and their quick response to process changes. This results in the cells being able to reach steady state operation quickly, even with unsteady feed to the cells. All cells are installed with wash water systems that enable low ash products to be produced, while the design of the cells permits maintenance to be carried out without the need for a shutdown.

Continuous development and improvements of the technology has lead to the introduction of the Mark IV design which has the highest wearing components yet. Spare part requirements are minimal, with the highest wearing part, the slurry lens orifice, lasting in excess of five years. Tanks are fabricated to the highest standards in cell lining and paint specifications.

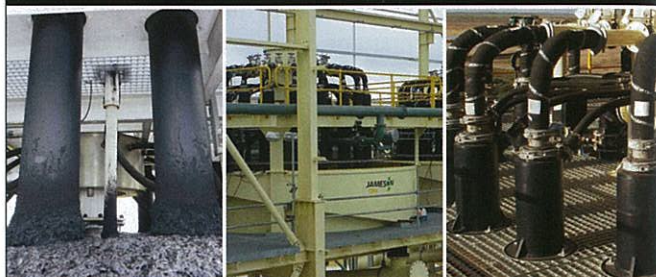
With its simplicity, high throughput capacity, small footprint, as well as being well established in the coal industry, Jameson Cells are well suited for recovering coal fines from tailings dams. Designs are flexible and are available in a wide range of cell sizes. Rectangular or circular cell designs are available which can be easily incorporated into modular units, as well as easily fitted into existing plants.

Xstrata Technology can provide accurate flotation cell sizing and scale up, circuit review and design, installation support, cell commissioning, operator site training and ongoing technical support from an experienced team of flotation, operating and engineering specialists.

**For more information: Xstrata Technology**  
**Phone: (07) 3833 8500**  
**Email: [Jamesoncell@xstratatech.com](mailto:Jamesoncell@xstratatech.com)**

## JAMESON CELL

RIISING TO THE CHALLENGE



FINE AIR BUBBLES • SMALL FOOTPRINT • EASY MAINTENANCE

Robust  
High throughput  
Cost effective  
Energy efficient

**Your competitive advantage  
in coal flotation**

**JAMESON  
CELL**

Xstrata Technology Australia  
Level 4, 307 Queen St  
Brisbane QLD 4000, Australia  
Tel +61 7 3833 8500  
[jamesoncell@xstratatech.com](mailto:jamesoncell@xstratatech.com)

  
xstrata  
technology

[www.jamesoncell.com](http://www.jamesoncell.com)