

E&MJ

ENGINEERING AND
MINING JOURNAL

INCORPORATING:

World Mining Equipment



Teaching Tire Awareness
— Handling haul truck
tires safely

Energy Efficient Comminution

**Ventilation Considerations
for Deep Mines**

*British Columbia Fast
Tracks Mining*

DECEMBER 2013 | www.mining-media.com

FEATURES

Teaching Tire Awareness
Properly trained techs service tires safely.....48

A Good Air Flow
As mines become deeper and hotter with more diesel-engine vehicles in use, ventilation systems need careful design and tuning. E&M looks at some of the opportunities—and the critical need for a responsible approach to fresh air supply.60

Didipio: A Philippines Success Story
After commissioning in April 2013, the gold-copper operation quickly achieved commercial production rates three months later72

Scaling-up Shaft Safety
New shaft inspection services and technology offer the prospect of quicker—but more effective—underground checks, with less risk to personnel80

Turkey's Mining Industry Comes of Age
Already Europe's largest gold producer, its miners are targeting \$15 billion in mineral exports by 2023—more than triple the current level86

Return on Sustainability: Workforce Housing for People, Plant and Profit
Well-organized workforce housing can be a valuable partner for companies pursuing their sustainable development goals, as well as a component of long-term profitability88

Pressurizing with Dust Collectors
Guidelines on how to apply a concept that is appropriate for mine and plant environments, where dust generated during crushing, screening, and conveying must be controlled to protect workers, office spaces and sensitive equipment92

New Blasting Technologies Challenge Customary Practices
Alternatives to conventional explosives and traditional loading methods offer the prospect of better blasting results in both surface and underground applications96

Best Practices for Bearing Protection
A simple method now allows VFD-induced electrical bearing damage to be prevented—not just repaired.....99

Energy and Cost Comparisons of HPGR-based Circuits
UBC researchers compare the cost of novel comminution techniques with the Huckleberry mill's existing circuit102

Special Report: British Columbia's Mining Industry & Vancouver, the World's Mining Barometer
In spite of adverse economic conditions, mining in British Columbia stands in great stead for growth, while Vancouver's myriad of mining companies continue to operate in all corners of the world113

LEADING DEVELOPMENTS

Nyrstar Investing to Increase its Smelting Returns4

Cliffs Shelves its Fire Chromite Project5

Bingham Canyon Beats Timetable to Open-pit Access After April Slope Failure5

Vale Sells its 22% Interest in Norsk Hydro.....6

AROUND THE WORLD

U.S. & Canada: Fort Hills Oil Sands Project Gets Go-ahead10

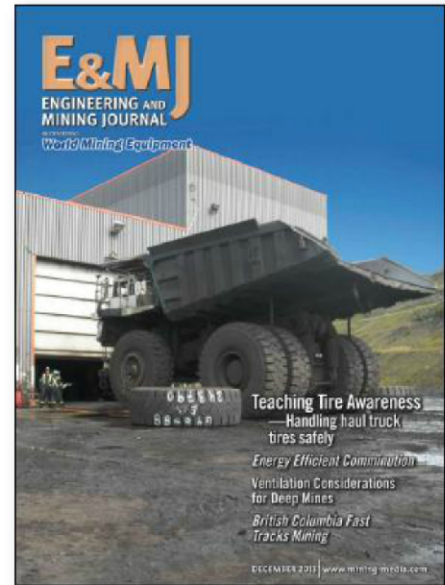
Latin America: Barrick Halts Pascua-Lama Construction20

Australia/Oceania: PanAust Buying Glencore Xstrata's Frieda River Interest....24

Africa: Ivanhoe Planning Two-phased Development for Kamao28

Asia: Alacer Plans Development of Çöpler Sulphides32

Exploration Roundup: Seabridge Seeing Major Copper Potential36



This month E&M offers several ideas to help mining engineers and metallurgists make wise decisions; they range from tire programs on the surface to ventilation strategies underground to economical grinding in the mill. On the cover, tire technicians prepare to change a tire on a Komatsu 830E haul truck at Teck's Greenhills operations near Sparwood, B.C.

DEPARTMENTS

Calendar44

Classified Advertisements158

CSR Watch142

Equipment Gallery.....154

From the Editor2

Markets160

Operating Strategies144

People16

Processing Solutions150

Suppliers Report146

This Month in Coal.....40