

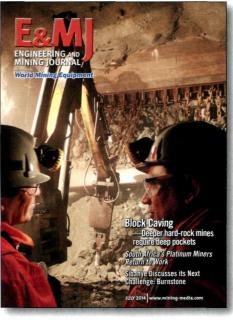


FEATURES
The Surveyor's 21st Century Tools  Laser-based scanners, GPS and sophisticated software are all available to today's mine survey office, supplementing more traditional instruments.  E&MJ reports on some of the more popular systems on the market28
Block Caving: Mining Specialization  While block caving is not a new concept, it needs the right combination of geology and technology to make it work successfully32
Diesel Technology Update 2014
Engine suppliers are nearing the final stage of compliance with increasingly strict diesel emissions standards. One of their remaining challenges is to assure equipment OEMs and owners that new, cleaner-burning engines don't come with a big bump in installation or ownership costs38
Copper Mining Arrives in Arica Chile's Minera Pampa Camarones and South Korea's Samsung have built a new copper production complex in a non-traditional mining area, using environmentally friendly water and power technology
Sibanye Sets its Sights on Burnstone
Sibanye Gold began this year with the enviable reputation as the world's lowest cost producer, but the recent acquisition of cash-burning Burnstone may change that
Special Report: Ontario's Mining Industry
Exploring new frontiers at home while expanding the limits of possibility on a global level
LEADING DEVELOPMENTS Five-month South Africa Platinum Strike Ends



PwC Assesses Tough Times in the Mining Industry ......4

First Quantum Acquiring Lumina Copper and its Taca Taca Copper Project ......**5**Augusta Agrees to Increased Hudbay Acquisition Offer ......**6** 



This month E&MJ offers comprehensive coverage of block-cave mining. Requiring a large initial investment in development work, the complex underground mining technique yields low-cost ore if properly executed. On the cover, a drawpoint at Codelco's El Teniente mine in Chile—one of the oldest and more famous block-cave mines. (Photo courtesy of Codelco)

## **DEPARTMENTS**

Calendar       26         Classified Advertisements       94         CSR Watch       78         Equipment Gallery       88         From the Editor       2         Markets       96         Operating Strategies       80         People       12
Equipment Gallery88From the Editor2Markets96Operating Strategies80People12
From the Editor
Markets 96 Operating Strategies 80 People 12
Operating Strategies
People12
Processing Solutions86
Suppliers Report82
This Month in Coal24







бюджетное учреждение науки
Центральная научная библ**уютех**а2014 • Е&М J 1

Уральского отделения
Российской академии наук (ЦНБ УрО РАН)