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102
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1912- 2014

ENVIRONMENTAL ISSUES IN IRON ORE MINING

KEEPING IRON ORE MINES PRODUCTIVE

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Chairman, President and CEO of ALLETE

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Skillings North American Mining Directory is your most authoritative source for current and historical information for those involved in the iron ore industry. The directory contains information for United States, Canada, Mexico and Trinidad.

NAMD 2014

NORTH AMERICAN
MINING DIRECTORY 2014

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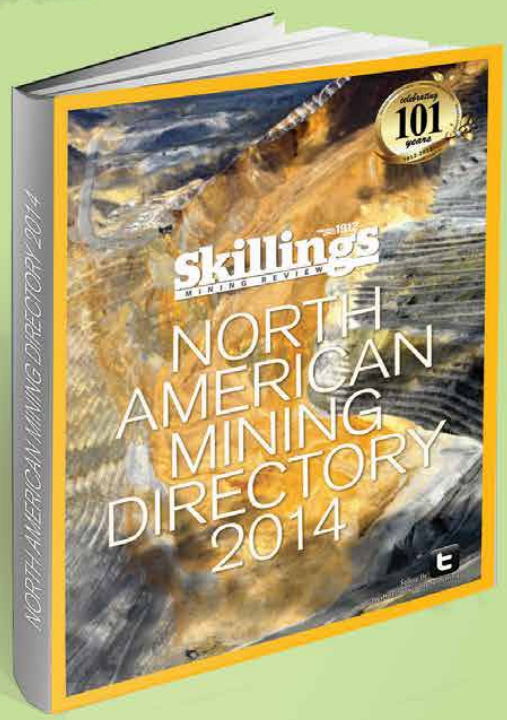
Skillings North American Mining Directory also contains a "Buyers' Guide", listing more than 200 companies that supply North America's mining industry. FREE listings and advertising opportunities are available to suppliers.



NAMD ORDER INFORMATION

Name .....
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Company.....
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Address .....
.....
.....Suite.....
City:.....State:.....Zip:.....
Phone..... Fax .....

E-Mail .....
☐ Amount Enclosed.....
☐ Please Bill Me
Card Number: .....
Exp. Date: .....
☐ Visa ☐ Master Card
☐ American Express:
CVS No. (Security Code): .....

Mr. Al Hodnik - Chairman, President and CEO of ALLETE

FOR THE AUGUST 2014 issue of *Skillings Mining Review*, we interviewed Mr. Al Hodnik - the chairman, president and CEO of ALLETE, an energy company headquartered in Duluth, MN, with operations in Wisconsin, North Dakota, Oregon, and Iowa. ALLETE's energy businesses include Minnesota Power, Superior Water, Light & Power Co., BNI Coal, and ALLETE Clean Energy.

Mr. Hodnik joined Minnesota Power in 1982 and moved up the ranks to hold several key leadership positions including vice president of Generation Operations and senior vice president of Minnesota Power Operations.

In 2007, he was was named Minnesota Power's chief operating officer and led transmission, distribution, generation and engineering for all aspects of the company as well as Superior Water, Light & Power and BNI Coal in North Dakota. He was promoted to ALLETE president and elected to the board in 2009, named CEO in 2010 and appointed chairman of the board in 2011.

A native of Aurora, MN and a graduate of the University of Minnesota-Minneapolis, Mr. Hodnik maintains strong working relationships with business, organized labor, political and education leaders in northeastern Minnesota.

He was mayor of Aurora from 1988-1997. He serves on the boards for Essentia Health Systems, PolyMet Mining, Edison Electric Institute and the Area Partnership for Economic Expansion (APEX).

Skillings Mining Review publishes comprehensive information on global mining, iron ore markets and critical industry issues via our monthly magazine, weekly E-newsletter, annual mining directory and real time website.

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"Low cost & reliable energy is a critical input into our natural resource economy"

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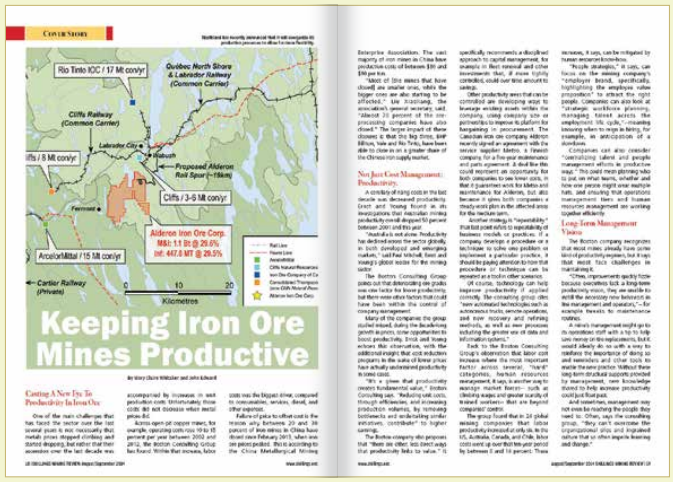


Copper Prices Expected To Pick Up

By Mary Claire Whitaker

THE TRADING PRICES OF copper dropped in July, to what some financial analysts belief is a bottoming out of the commodities prices following the last three years of decline, due to waning demand in Asia. The belief is not that demand will pick up, but rather that tightening supply will drive prices back up starting in 2016.

The supply drop is being spurred by a few factors. One, mining groups have cut back on investing in new projects.

"The lack of investment interest in new mining projects is sowing the seeds of the next supply shortage, and hence the next boom, that will take place merely because there is not enough supply," said Mike Elliott, of Ernst and Young's global mining and metals group.

"We think in late 2016 the copper shortage will start to bite and prices are going to have to rise to attract new mine development but that's not so easy. You can't just turn on the tap," Elliott to Reuters.

At current prices of around $7,140 per ton, investment in new copper production is not attractive. GFMS, the minerals investment data service, estimates that the metal needs to be at around $7,478 per ton for interest in new projects to be actionable.

Second, in terms of deposits that are high-grade or economical to mine, there have been fewer new copper discoveries. General production costs in copper have gone up, too, as they have across the industry.

Meanwhile, projects delayed by political risk, environmental issues, and lack of infrastructure and power are creating additional pressure on world supply.

Tighter supply comes in the face of what many see as increasing global demand as the world manufacturing sectors pick up. As China's consumption remains stable-to-increasing, provoked by a government stimulus plan there, the US's copper consumption is expected to drive global acceleration.

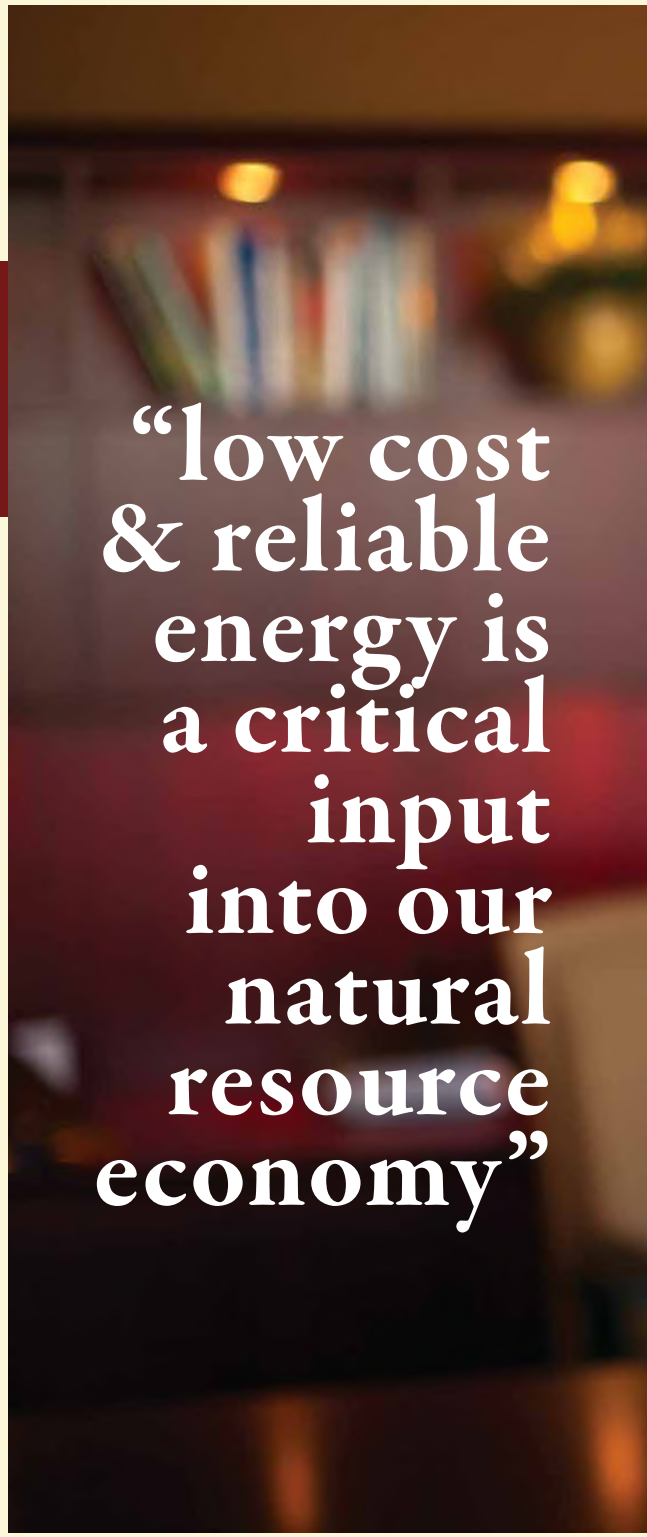
One investment officer with the company Fiduciary Trust told Barron's that that company has increased its exchange-traded fund, mutual fund, and partnerships to favor copper.

"We're on the precipice of another cycle," Michael Mullaney said, referring to copper. "One where the juggernaut of global growth will be the U.S."

World copper mines were at 86 percent utilization in 2013, with global production that year at 17.9 million tons. Demand was higher than supply by about 328 thousand tons, and the Chinese stockpile dropped by about 612 thousand tons.



Interview with **Mr. Al Hodnik** Chairman, President & Ceo of ALLETE



SMR: *You have publicly expressed your support for polymetallic mining and stated that (clean) copper is important in renewable energy. Can you please explain why that is and what do you mean by "clean" copper?*

AH: The urbanization of America has brought about a reduced sense of where things come over the decades namely, farming, drilling and mining before any "value add" occurs. There has been much talk about the need for a clean energy economy but little talk about the minerals required to bring it about. We drive along in hybrid vehicles failing to recognize where the metals that make up a Prius come from.

Our 500 megawatt carbon free BISON wind energy farm is comprised of more than 1000 tons of copper. Large and small scale solar is even more copper intense than wind. Finally storage, the holy grail of energy sector transformation, and the batteries needed to bring it about are laced with precious metals. Clean energy needs clean copper. While recycling is a part of the equation it is not sufficient to sustain a growing global context. Despite all benefitting from these minerals some have suggested that mining be done elsewhere regardless of lax permitting and environmental impacts. Beyond selfish it is irresponsible, especially when technology advancements and stricter environmental permitting mean it can safely be done in Minnesota.

Technology transformation has not somehow passed over the mining sector. Rather, PolyMet will be deploying the very latest technologies and recently received an EC-2 rating from the EPA, the highest given in the past 15 years. Simply stated, PolyMet is about producing the clean copper our clean energy economy requires.

SMR: *People who do not work in heavy industry may underestimate the fundamental importance of low-cost energy. Can you please elaborate on why that is such a big contribution to economies?*

AH: Minnesota's mining and paper industries need reliable and low cost energy to convert the region's raw materials into higher value products. Low cost energy drives the natural resource economy of northern MN making up 15% - 20% of the production cost of each ton of taconite or paper. These industries compete nationally and internationally for business, and any increase in energy prices challenges their competitive position.

We believe low cost and reliable energy is a critical input into our natural resource economy and are working to keep our energy prices competitive. Our 3rd lowest Edison Electric Institute-Investor Owned Utilities rates speak to that.



SMR: *In what ways do you think it is feasible for local voices on mining matters to outweigh state and national interests? i.e., Have you seen it before, how challenging do you think it is to achieve and what do you think is necessary for that to happen?*

AH: I am not sure local voices will ever outweigh State or National interests but they should at a minimum be heard. While permitting processes are by their nature designed to afford access to all, local voices are often muted due to their own apathy, fragmentation and lack of coordination.

Said differently, the people and resources often being deployed from elsewhere to effectuate local mining outcomes are highly focused and well resourced professionally and financially. There are a myriad of examples where something began as a "local" issue and gathered enough steam to result in leg-

islative or regulatory action in St. Paul or Washington DC. Entities may need to persist to get action or to the ultimate decision maker and must continuously refine public good or interest messaging against a sea of loss leaders tossed about to create doubt. But this is democracy at its core and I am strong believer in "average people" organizing to create and preserve economic vitality. In the case of PolyMet, the minerals are strategic in a National context for national defense, a clean energy future and everyday life. In Minnesota, mineral revenues have richly supported President Lincoln's original land grant "educate a nation" vision, at the University of Minnesota.

Thoughtful non-ferrous mineral extraction will continue that legacy and much more in a State hungry for new revenue sources and a region in need of economic stimulus. PolyMet in many ways can serve to harmonize Federal, State and Local interests but local voices must awaken, unite and better align quickly to meet the challenges all forms of mining face.

SMR: *How was ALLETE's Energy-Forward strategy developed and -going forward -to what end do you envision its impact on regional economic growth?*

AH: Our 1/3 renewable, 1/3 gas, 1/3 coal EnergyForward strategy was developed in classic Minnesota Power fashion, highly public, very transparent and in full partnership with all who have stake in our business. EnergyForward is principled in that it balances stewardship, reliability and affordability and is the means by which we are helping to answer our Nations call to transform its energy landscape.

Endeavors such as our award winning BISON wind energy center coupled with our Manitoba Hydro-MP 500kV Great Northern Transmission line provide clear evidence of both a Company and a Nation on the move. This while we have reduced mercury and other pollutants by 90% at our Boswell Energy Center, our multi-unit base load facility, built principally to cost effectively serve our high load factor-energy intensive mineral customers on the Iron Range. While energy transformation has created stimulus and jobs, reliable, low cost power is the single greatest contribution we can make to the regional economy.

SMR: *You have lauded Rep. Rick Nolan's public assertions that environmentally conscious mining is not an oxymoron. As someone in resources yourself, can you give us your own view on how it is possible for resources extraction to coexist with environmental stewardship?*

AH: Congressman Nolan has rejected the false premise that mining jobs and a good environment cannot co-exist and faced down that falsehood in a highly public and courageous way. First one must acknowledge the difference between preservation and conservation, though many in my opinion use the words interchangeably.

Preservation, whether it be in National Parks or elsewhere implies no development. Conservationists recognize that societies need various natural resources to function and in the context of mining, thoughtfully partner to assure that the design and development of mines minimizes environmental impacts.

Some of the best examples include the Eagle mine in Michigan which is utilizing best practice mining including Reverse Osmosis treatment technology for mercury. Likewise, Kennecott Copper in Utah which created a wetland mitigation project that created over 4000 acres of new and better quality wetland habitat while winning numerous environmental awards and recognition for its world class Inland Sea Shore Bird Reserve.

The Flambeau mine in Wisconsin operated its entire mine life without receiving a single citation. Certainly last but not least, our own BNI Coal Mining in North Dakota which like many western mines has utilized best practice reclamation processes while working in harmony with land owners, nature and while earning awards for environmental stewardship from regulators.

SMR: *ALLETE has invested heavily in energy infrastructure projects like the Great Northern Transmission Line and the energy corridor between North Dakota and Minnesota. How would you grade the current energy infrastructure in North America and what type of key energy linkages would you like to see?*

AH: Generally the US electric and gas/oil pipeline grid is in reasonable shape though it is fair to say we are currently benefitting from the over build of capacity in the 70's and 80's.

The electric side anticipates considerable investment on generation supply transformation, bulk delivery upgrades and modernizing the commercial/residential distribution network to facilitate two way energy delivery over the next decade. With regards to oil & gas, fracking has been a game changer with the US now contemplating energy independence by 2020. Rail capacity has taken up the excess production to date however clearly more pipeline capacity will be required should the expected manufacturing renaissance occur and as US generation supply shifts from coal to natural gas.

SMR: *As a PolyMet board member, in what ways does the company demonstrate the idea that mining industry operations can take beyond-adequate measures to protect the environment while maintaining, or improving, its expected level of economic prosperity?*

AH: There has been a significant change for the better in public company governance and attitudes over the past several decades brought about by shareholders and other stakeholders who increasingly expect stewardship of both their investment and the natural environment in which the enterprise conducts its affairs.

Twenty years ago the first line of questioning from investors was about economics and returns whereas today the first line of questioning is about conducting our business in a way that is socially and environmentally responsible. I would not be serving on the PolyMet Board if this ethos was absent. Working in partnership with the State of Minnesota, Federal regulators and other stakeholders these minerals can be safely produced. I and the full Board are holding

Jon Cherry and his team accountable for right results-right way outcomes and fully expects PolyMet to become a mining leader in the State.

Some examples of this Board accountability in action include the recruiting and hiring of Jon Cherry, a man of integrity and whose reputation with Federal and State agencies preceded him, to permit this project and "best practice" operate the mine. EPA recently granted our PolyMet project one of the highest ratings (EC-2) it has granted in the past 15 years which is a real testament to Jon and his team. The company has led solution finding initiatives around sulfate and wild rice by testing and demonstrating reverse osmosis on site.

This to treat sulfate laden wastewater while agreeing to meet a 10 mg/l standard ahead of conclusive research proof that 10 is the correct number to protect wild rice. PolyMet has incorporated into its mining and reclamation plans, designs to remediate surface and ground water impacted by historic mining activities prior to PolyMet. Working in partnership with the United States Forest Service, the USFS will receive over 6000 plus acres of high value habitat land and recreational property in exchange for several thousand acres of land impacted by historic mining activities.

Emblematically, our PolyMet endeavor demonstrates the investor-conservationist stewardship balance described by reusing the existing Erie mine milling facility and tailings basins versus disturbing additional virgin lands or adding capital costs to the project.

SMR: *Reports tell us that the Bison purchased turbines sooner than projected to take advantage of federal government subsidies for green energy projects. What role do you think subsidies like this should play going forward?*

AH: Subsidies litter the Federal tax code, code that most readily agree is in bad need of simplification. That agreement is often short-lived however when Congress or the IRS proposes to eliminate industry specific favorite sons! Given the worsening Federal deficit and debt, retaining all or adding new incentives seems implausible.

Energy sector transformation is not dissimilar to others in that PTC/ITC incentives, as well as, State imposed mandates brought about change. A policy, regulatory and tax framework that support effective markets, is predictable and resists picking winners and losers is the most desirable. The "all of the above" energy policy, tax and regulatory framework playing out in North Dakota speak to this as both carbon based and renewable energy forms flourish, unemployment is next to zero and the State is awash in new revenues.

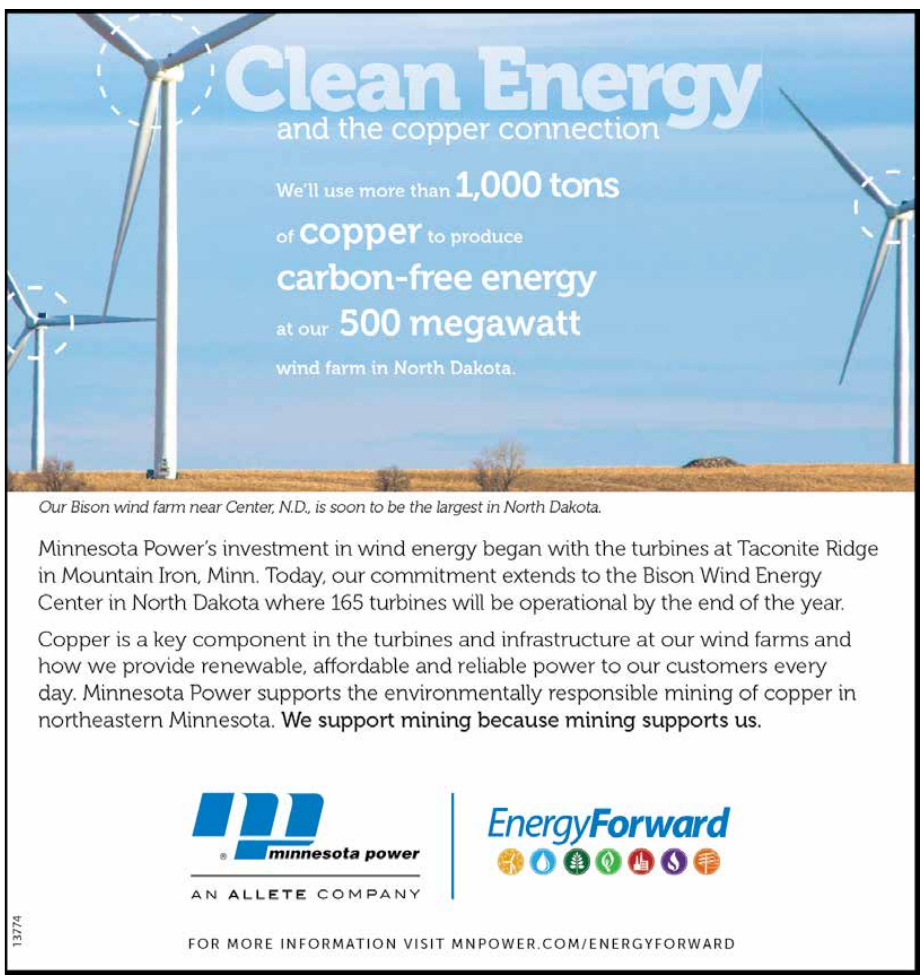
SMR: *What are the energy technologies you would like to see additional federal and private investments in?*

AH: With fuel diversity, domestic energy independence and the need for prudent climate change action as governing principles, it is important our Country continue to advance large and small scale carbon free nuclear, find solutions for coal based carbon capture and sequestration, further improve renewable generation capabilities and focus on conservation and efficiency.

SMR: *Can you update us regarding the Minnesota Power / Essar Steel relationship to provide power for mining and energy projects?*

AH: Minnesota Power has a long-term contract in place with the Nashwauk Public Utilities Commission (NPUC) for wholesale electric service, which is used by the City to provide power to their customer, Essar Steel. We've got a strong working relationship with the NPUC and Essar Steel, and Nashwauk has long been a customer of Minnesota Power.

We dialogue frequently with the NPUC and the Essar leadership team on their construction plans and their timeline – and we're ready to serve this important new customer with low-cost power when they're ready.



Credit Ratings For Iron Producers Examined



Rio Tinto's 'breakeven' sits at $43 USD a tonne, while BHP's is $45 USD a tonne. Photo: Ian Waldie

By Mary Claire Whitaker

Despite iron prices falling below $100 per ton, BHP Billiton was unsurprised at recent market fluctuations of iron ore. So far in 2014, the price has dropped 30 percent.

"The decline in iron ore prices wasn't unexpected for us... what we're seeing today in the marketplace is within the range of expectations that we've had," said Mike Henry, president of marketing for the company.

Henry predicted that prices would continue to drop. BHP Billiton breaks even on profitability for iron at $45 dollars per ton.

In view of a potential downtrend, credit agencies have begun reexamining iron ore producers. At $97 per ton at the time of writing of this article, if prices drop below $90, Standard & Poors has said that BHP Billiton, Rio Tinto, Anglo American, and Vale may see their credit ratings threatened.

Other producers with higher costs, such as Atlas Iron Ltd. and Cliffs Natural Resources, S&P said, would likely also face a credit downgrade.

"Mining companies with large iron ore exposures, but which are unable to cut costs and are saddled with debt, will face a severe deterioration in earnings and credit metrics if iron ore stagnates at this price threshold through 2015," said May Zhong, of S&P.

In June 2014, S&P revised its rating for Cliffs from negative to stable. The analyst in charge of that announcement, Amanda Buckland, commented, "We believe if iron ore prices remain less than $100 per ton for the remainder of 2014 and 2015 without further deleveraging or cost reduction measures, credit measures will weaken to aggressive levels."

The company said that it could revise its outlook if Cliffs reduced its debt or dropped its costs to $65 per ton if prices remained stable around $100, or if prices increased.

Moodys analysts noted that Fortescue Metals Group, Ausdrill Ltd., and Emeco Holdings Ltd. would also be exposed in the event of further price drops.

"Lower iron ore prices, steep discounts owing to the quality of iron ore produced and the persistently strong Australian dollar are curtailing iron ore producers' profit margins," Jason Lu wrote in a note accompanying the Moody's report.

Although Zhong noted that the big three would have more flexibility in dealing with a price drop, "they will have less flexibility at the current ratings to undertake debt-funded growth or capital-management initiatives," S&P said.

PolyMet, Twin Metals, Essar: Iron Range Update

By Mary Claire Whitaker



India's Essar Global Fund Ltd is selling the US operations of Aegis to Paris-based rival Teleperformance SA for $610 million. (Reuters)

PolyMet obtained "vocal" support from the Virginia, Minnesota council recently, through the council's resolution against a programmatic environmental impact statement requested for the Superior National Forest. The council members of Virginia said they "speak... as have other cities and townships, unanimously in favor of moving forward" with the mining projects in the region.

Meanwhile, PolyMet recently told local news that it was "humbled by the numerous applications and resumes we've received from men and women who want to work at PolyMet," and that it was keeping saving them for when they are ready to begin hiring.

Twin Metals in July announced board and management changes following Chilean partner Antofagasta's decision not to further expand its ownership in the joint venture with Duluth Metals, where it remains at 40 percent. Antofagasta also holds a 10 percent stake directly in Duluth Metals.

The Twin Metals board of directors has shuffled accordingly, with three Antofagasta members exiting and two new coming in, and a Duluth Metals director taking over the chairman position previously held by an Antofagasta director. Twin Metals also changed CEOs as of July 16, with Juan Andres Morel passing the position onto Kelly Osborne, who is also the head at Duluth Metals.

Although Twin Metals has not officially decided, it also recently said it now believes that it will plan its first phase of mining for its Maturi location, with the Dunka Pit brownfield site as the water source.

Finally, **Essar** announced it had secured an extension to seek the last remaining funding it needs for its $1.8 billion taconite plant. It has so far spent $990 million on the project.

"The extension will not alter the expected timetable to begin production by the middle of 2015," the company said.





Many mines leave local area water cleaner than prior to the project.

Environmental Issues In Iron Ore Mining

By Mary Claire Whitaker and John Edward

Industry Leadership in Environmental Responsibility

According to the United States National Mining Association (NMA), the organization founded as "U.S. mining's advocate in Washington and beyond," states that the organization and its members "are committed to ensuring that all mining policies reflect our country's environmental priorities in balance with economic, societal and security needs." The organization, in its guide to setting up environmental management systems for hardrock mining, treats compliance with environmental regulation as just part of the objectives for such systems.

Its definition of a "comprehensive" system asks not only whether a mine implements controls for regulatory guidelines; it also asks, "Do you have controls in place to manage potentially significant environmental risks, even if they are not regulated?"

The NMA guidebook, developed in cooperation with the Society for Mining, Metallurgy and Exploration, in this respect tacitly acknowledges the industry's environmental conscience. "Your environmental objectives," the book says, could be "compliance with environmental permits and regulations,



reducing environmental impacts, and controlling long-term and short-term environmental risks."

In this acknowledgement, the NMA assumes that mines' environmental objectives go beyond just doing what they have to to avoid fines. It is safe to say that most people in the mining industry agree, although most do not necessarily wear it on our sleeves. In its statement, however, the NMA also seems to suggest that environmental regulation in some ways may not fully address the minimization of environmental impact and that mines themselves have room, and possibly every intention, to do more than what is written in legal statute.

As mining equities research analyst Laurynas Vegys points out, social permits are one additional outside pressure on mining companies to do right by the environment. "Today's executives," he writes, "understand that good environmental stewardship is good business." The Mining Association of Canada (MAC), meanwhile, has a set of standards called Towards Sustainable Mining that was launched and adopted by its members in 2004. MAC views those adpoting the standards as adopting a worldwide leadership stance on responsible mining practices, which it sees as involving engagement with communities near mines and protect mine worker health and safety.

Community-focused Stewardship

Both Vegys and MAC point to community collaboration, an emerging area of corporate social responsibility especially interesting for mines, as a tool for environmental protection much as environmentalists point to courts and permitting procedures.

In fact, the first of the Towards Sustainable Mining's guiding principles is "involving communities of interest" not just in the implementation of its policy but involving them in development of guidelines as well. An additional point emphasizes "working with communities of interest" as part of the doctrine's strategy to address orphaned and abandoned mines, as well as other "legacy" issues.

While the mines control their environmental impact assessments and feasibility studies, under supervision of state, federal and local governments, the mines as well as the governments seeing win-win outcomes are those that involve the local communities.

Whether in town-hall meetings and public commentary periods, as the many that have been led by the Minnesota Department of Natural Resources surrounding the PolyMet proposals for NorthMet, or through the mines actively reaching out to communities, as Torex did for its Morelos project in the state of Guerrero, Mexico, to ensure it had the support-- and the necessary cooperation-- of the local community there before it entered development.

Fred Stanford, CEO of Torex, has described how to acquire land access the company went door to door in the community speaking individually with members at their homes, to ensure they were comfortable speaking openly about their views on the project, so that Torex could adequately address their concerns. Torex succeeded in securing the land rights it needed and has recently announced that it will up production in Guerrero in 2015.

In terms of environmental concerns, in foreign countries as well as in North America, the same strategies are being taken up, as seen by the increased adoption of the MAC principles, including by non-MAC companies, non-Canadian projects, and even non-Canadian companies. Excellon, which has no projects in Canada, signed onto the standard in 2013. In addition, the British Columbia and now the Quebec provincial mining associations have also adopted Towards Sustainable Mining, extending its reach to their members who are not already members of MAC.

"The TSM initiative will allow mining companies active in Quebec to always aim higher, while supporting a continuous improvement process, thanks to a precise set of performance indicators," Josée Méthot, president of the Quebec association said.

Although Towards Sustainable Mining was originally based on Quebecois best practices, its formal adoption by the Quebec association provides a difinitive procedure for implementation to the 12 companies that were not already using the system under MAC.

The Quebec companies covered, who all agreed to adoption of the standard, will have four years to implement it before their first evaluation. Mining companies participating conduct measurements at the actual mining facilities.

MAC says that even non-mining companies, financial investors, have looked to the standard to help asses risk in mining investment, another way in which Towards Sustainable Mining touches the greater community.

"TSM offers a unique tool for assessing some of the most challenging-to-quantify social and environmental risks that can, and should, factor into investment decisions," said MAC president Pierre Gratton.

Recent Points of Contention

As mining leadership on some fronts attempts to take responsibility for environmental results and to initiate and participate more actively in community conversations, mines continue to be challenged on environmental concerns.

Recently two open-pit mines have faced opposition from local communities. One Minnesota silica sand mine, the Nisbit mine in the county of Winona, was taken to the state appeals court by local citizens who believe Nisbit's permit was issued without the county performing due diligence on whether environmental impact studies would be necessary. The 19-acre mine was allowed to open in 2013 after a split vote from the county which deemed that a brief review provided by Nisbit was sufficient, and though it was subsequently challenged in court, it was allowed to remain in operation.

Says Minnesota Public Radio, "The county approved the mine with 40 conditions, including requirements to control dust, noise, erosion and protect water quality. But it didn't require a more detailed environmental impact statement because of the mine's size. Such studies are required for mines that are 160 acres or larger."

The owner of the Nisbit sands project believes that the opposition was stoked by the fact that the state had originally called for further study of the impact of mining silica sands, amidst the heat of public opposition related to the sands' use in the controversial practice of fracking. In addition there had been speculation that the Nisbit project was part of a phased series of projects, although that was never the case, he says. Another mining environmental debate currently muddled by speculation about intentions involves Mary Burke, running for governor of Wisconsin, who was recently questioned about whether she would attempt to stop the Gogebic mine if elected. Her political team has responded that she would not, but that if the mine is to go forward, she wants to see that it is held to environmental standards of a former law that was rewritten in 2013.

Potential Impact Of Nisbit Mine

The Minnesota Court of Appeals has upheld a Winona County decision that no environmental impact statement is needed for a controversial frac sand mining project already operating in Saratoga Township. Jay Squires, a Minneapolis lawyer representing the county, said the ruling could have implications for similar disputes in the state. Unlike Wisconsin, he said, "we've not had too many silica sand decisions."

In 2011, site owners David and Sherry Nisbit applied to the county board of commissioners for a conditional use permit for a 19.1-acre silica sand mining project to be located in the middle of 74 acres of farmland. It would excavate 700,000 cubic yards of soil and involve up to 280 truck trips daily. Sand would be washed and processed locally, and most of it would be shipped out of state for use as a proppant for hydraulic fracturing.

There are now six active silica sand washing and/or load out facilities in the county that buy sand from approved and active mines in Wisconsin, the court said in a unanimous ruling. Winona County, in the southeastern part of the state, borders Wisconsin. Mining would end after two to three years and the site reclaimed and restored as grassland.

Some local residents concerned about potential environmental effects of the proposed silica sand mining project sued the board, the Nisbits and the chief operating officer of IT Sands LLC. They challenged the board's decisions not to order an environmental impact statement and to grant the permit as arbitrary, capricious and unsupported by evidence. The challengers contended that the project could cause significant environmental effects because increased traffic will result in more noise, dust, emission, and adverse health effects for residents along the trucking route. In rejecting the challenge, the appeals court said the board properly considered the type, extent and reversibility of potential environmental effects before making a negative declaration on the need for an environmental impact statement.

Mary Burke Clarifies Stance On Gogebic Taconite Mine

While Gov. Scott Walker is full speed ahead on the proposed iron ore mine in the Penokee Range of northern Wisconsin, his Democratic challenger Mary Burke wants to put on the brakes.

Officials with Gogebic Taconite (GTAC) said the $1.5-billion project will create 600 jobs at what would be the largest open pit iron ore mine in North America. Although opponents dispute the numbers, Walker said that GTAC's investment will become an economic engine in an area that has some of the highest unemployment numbers in Wisconsin. Burke, however, said she is aware of Iron County's double-digits jobless rates and Ashland County's figures at 8.5 percent in May. But, she said this mine, with newly-passed legislation backed by Walker, would threaten public health and destroy the environment. "I will certainly look at every tool that I have and to make sure that we are protecting our natural resources. Our air, our water are so important not only to the people who live in the community, but to the tourism industry as well," said Burke.

The Democrat's position has evolved since last year when she endorsed environmentally responsible mining. Burke also said she thinks GTAC should pay impact fees to surrounding towns that incur costs because of the 4½-mile-long mine. "They need to be fairer, particularly in the communities that they're operating in and that those communities should see the benefits," she said. Bruke said an economic development fund should be started to create other jobs.

"We have to look at the assets and the opportunities across the northern part of the state and understand how we can have a more vibrant economy because I take very seriously the loss of jobs there," she said.

Quebec Mining Association To Adopt Canadian Environmental Standards

The Quebec Mining Association (QMA) said on June 18, 2014 that it will adopt the Mining Association of Canada's Towards Sustainable Mining initiative designed to improve environmental and social practices. It plans on phasing in the initiative over four years. The Mining Association of Canada launched the program a decade ago, and only one province, British Columbia, has signed on to it so far. André Lavoie, spokesman for the QMA, said Quebec didn't latch on to it before because it followed Quebec's own BNQ21000 program. BNQ stands for Bureau de normalisation du Québec, which aims at setting standards and norms for industry. But the BNQ criteria did not prove to be as rigorous as hoped for, Lavoie added. Ramsey Hart of advocacy group MiningWatch Canada said from Ottawa that Quebec's adoption of TSM changes little.

The initiative does not set standards and hard targets for tailings ponds and air quality emissions, for instance, but rather engages companies to commit to improve their best environmental practices. Furthermore, the regulations affect only member companies. Most large Quebec companies belong to the Canadian association, so they were already bound by the initiative. And those that aren't members of the Quebec association, like junior companies, are still not bound by the new measures. Environmental groups say mining companies have been lax in enforcing sustainable development practices.

Pierre Gratton, president of the MAC, said in a statement "we commend the QMA for adopting the TSM initiative, which reflects the Quebec mining industry's commitment to raising the bar for corporate responsibility and to provide communities with a transparent view of their performance in critical environmental and social practices. This is a milestone for the TSM initiative, helping to expand its reach within Canada and adds to its credibility as an effective mining standard."

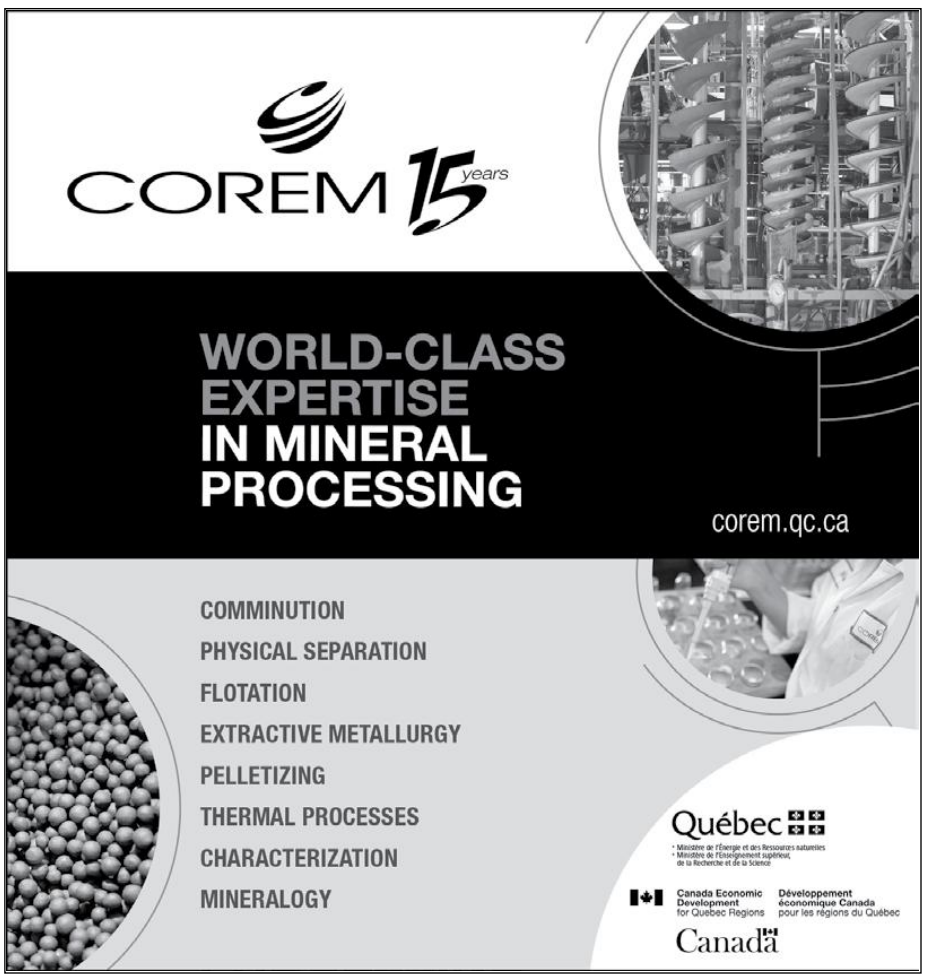
Avanti Mining Gets Canada's Approval For $752M Mine Project

Avanti Mining has received environmental approval from the Canadian federal government for its Kitsault molybdenum mining project. The decision comes after an environmental review by the Canadian Environmental Assessment Agency found there would be no significant adverse effects as a result of the project. "We can now concentrate on the construction phase of the mine, our efforts on our project debt negotiations with our banking syndicate and the exploration of other financial options including a sale of silver stream and/or investment by a strategic partner," said Avanti president and CEO Gordon Bogden.

The assessment also found that First Nations had been adequately consulted with regard to the project. Earlier in June, the company announced that it had entered into an agreement with the Nisga'a Nation. The enterprise said that the project, which is located in northwestern British Columbia's Nass region, would begin operations in 2014 and have a 14-year lifespan, supporting up to 300 full-time jobs. Avanti had announced in January that it would be exploring a development of the Kitsault molybdenum metal mine located north of Prince Rupert, British Columbia, hiring BMO Capital Markets for consultation.

The Kitsault mine project received an environmental assessment certificate from British Columbia in March of 2013 and an amended Mines Act permit on June 16. The company first test-drilled the site in 2008 when it bought the property.

In late 2010, it completed a feasibility study that showed a probable 256-million-ton reserve of molybdenum, a rare earth metal that is used to make steel and tungsten alloys in heavy industry. Based on 2012 estimates, the mine now has 226 million tons of proven and provable molybdenum reserves, Avanti said.



Exploration Permits Under Fire In Washington State

By Mary Claire Whitaker

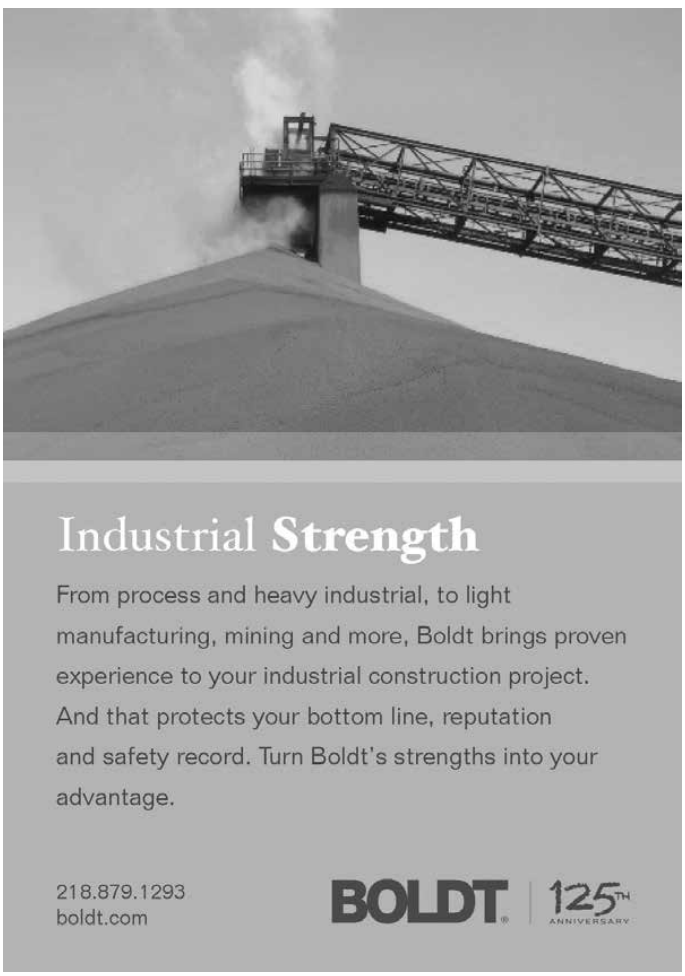


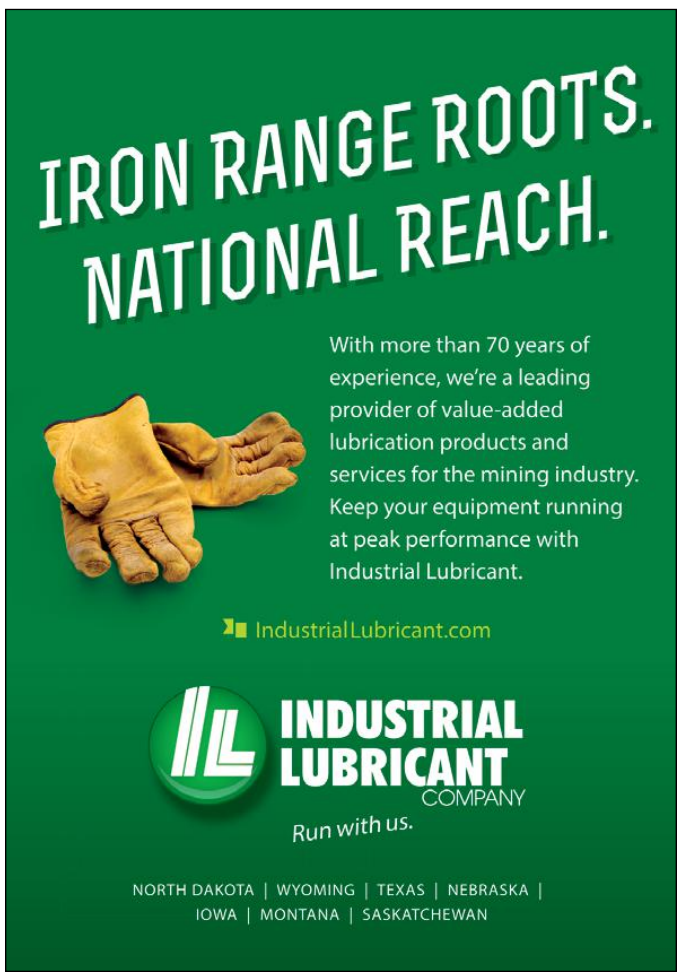
Site of proposed mining site near Mount St. Helens

As Vancouver-based Blue River Resources seeks to begin exploration drilling in a US national forest in Washington State, the Federal District Court in Portland, Oregon has invalidated permits for another exploration project further south in the state proposed by Ascot Resources, also Canadian.

Ascot's exploration near the Mount St. Helens National Volcanic Monument was approved in 2012 by the US Forest Service and the US Bureau of Land Management, but was stayed by a lawsuit filed in 2013, through a regional environmental group. The federal district judge weighing the lawsuit found in July that the federal agencies that issued Ascot's permit had failed to follow three federal environment laws. The judge also found that the agencies had been "arbitrary and capricious" in awarding permission to Ascot to explore.

The Blue River exploration proposal, also in a recreational area, will face similar opposition from environmental groups as well as local tourism businesses. One local business owner, for example, owns an inn near the exploration site, but also sits on the boards for the Washington Conservation Voters, Earthjustice, and the Nature Conservancy of Washington. He has doubts about even allowing exploration drilling to go ahead.





US Highway 53 Reroute Now In Study Phase

By Mary Claire Whitaker

In 1960 Minnesota struck a deal with US Steel, an easement agreement for US Highway 53 to cut across US Steel's property, now owned by RGGS Land and Minerals and leased to Cliffs Natural Resources. According to easement terms, the highway could be built where it currently lies, but that the holder of the mineral rights could request the state move the highway if needed.

Cliffs, via United Taconite, notified the state of Minnesota in 2010 that it would like to begin mining the ore that lies under the highway. To be able to expand its Thunderbird Mine, it would like the highway moved by May of 2017.

"If United Taconite does not mine the ore body under the current highway, it would reduce the life of mine," said Cliffs spokeswoman Sandy Karnowski.

The Minnesota Department of Transportation (MnDOT) is evaluating building an elevated highway that crosses the abandoned Rouchleau Pit.

"This would be unique to Minnesota. A very similar bridge would be something like the bridge at Hoover Dam," said Roberta Dwyer, of the MnDOT.

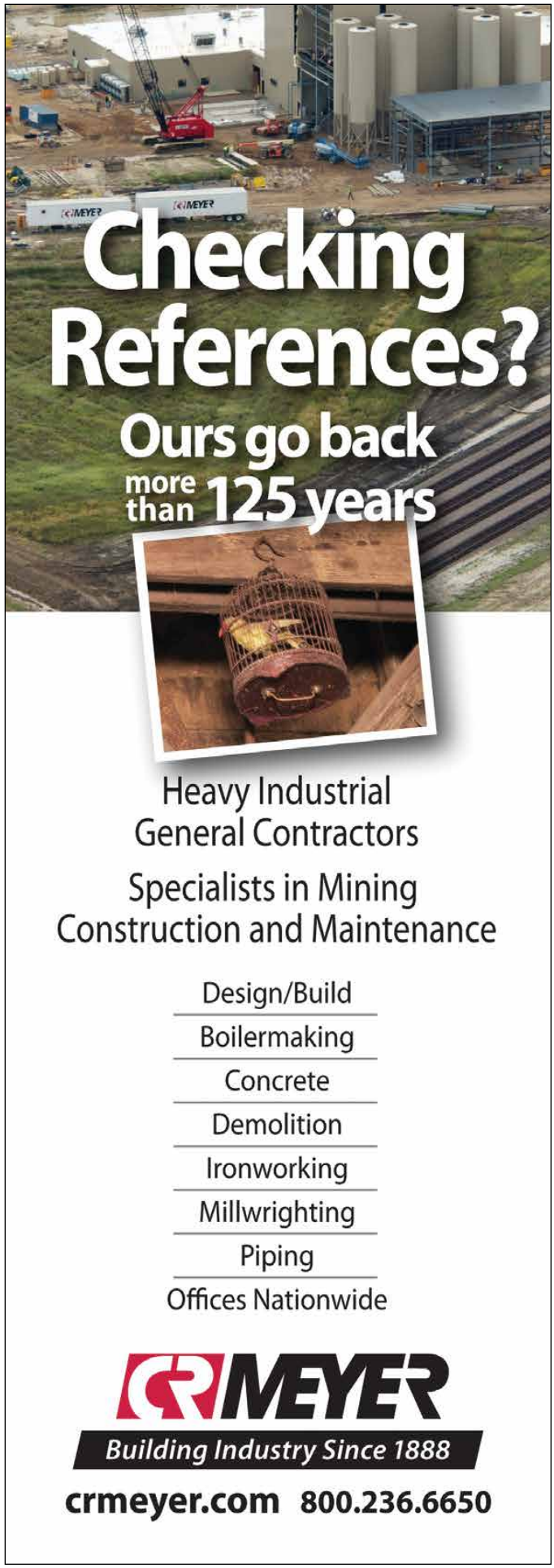
This option is likely to be the most costly in terms of works and engineering. The Rouchleau Pit is partially filled with water and the bottom is comprised of backfill from the former mine. Rocks in the pit are various sizes, from "the size of Volkswagens to small pebbles," from 40 to 140 feet thick, Dwyer said.

The testing being performed to look at the feasibility of a highway bridge-- basically to determine whether the rocks can support 8-foot-diameter highway supports—is to cost $4 million.

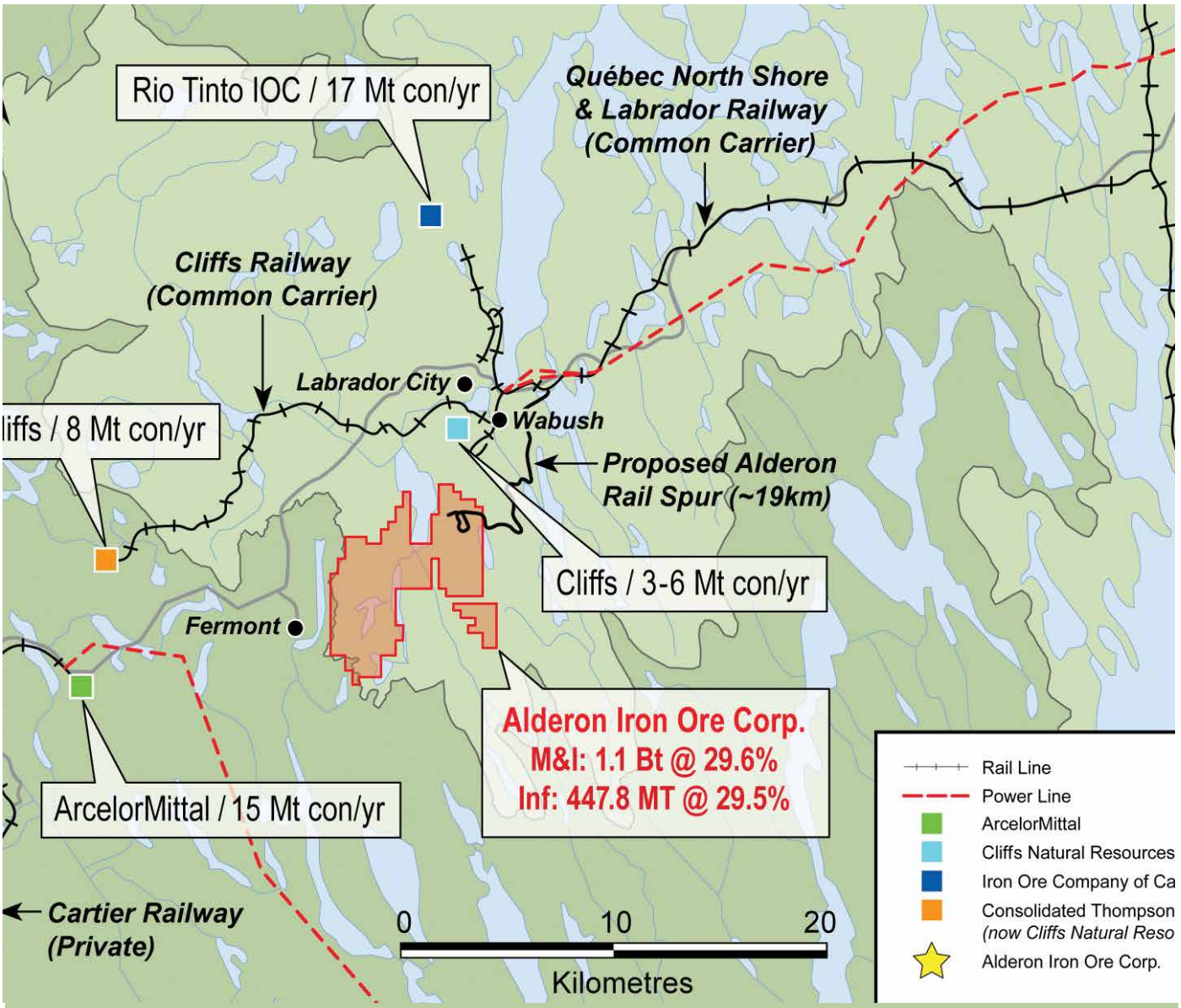
"We aren't going to get a route until we get these tests completed and analyzed," Dwyer said. "These tests are going to go a long way in determine the future of this project."

Even if the state settles on this preferred option without having to look further at others, MnDOT has stated that it will not be likely to meet the deadline requested by Cliffs of 2017.

"It's a very, very complicated project from an engineering standpoint ... and we're saying it's going to be very difficult now to meet that deadline," said Kevin Gutknecht, MnDOT communications director. MnDOT previously estimated that the proposed highway reroute itself could cost about $160 million, though the state has currently designated just $90 million for the move.



Northland has recently announced that it will reorganize its production processes to allow for more flexibility.



Keeping Iron Ore Mines Productive

By Mary Claire Whitaker and John Edward

Casting A New Eye To Productivity In Iron Ore

One of the main challenges that has faced the sector over the last several years is not necessarily that metals prices stopped climbing and started dropping, but rather that their ascension over the last decade was accompanied by increases in unit production costs. Unfortunately, those costs did not decrease when metal prices did.

Across open-pit copper mines, for example, operating costs rose 10 to 15 percent per year between 2002 and 2012, the Boston Consulting Group has found. Within that increase, labor costs was the biggest driver, compared to consumables, services, diesel, and other expenses.

Failure of price to offset cost is the reason why between 20 and 30 percent of iron mines in China have closed since February 2013, when iron ore prices peaked. This is according to the China Metallurgical Mining

Enterprise Association. The vast majority of iron mines in China have production costs of between $80 and $90 per ton.

"Most of [the mines that have closed] are smaller ones, while the bigger ones are also starting to be affected," Liu Xiaoliang, the association's general secretary, said. "Almost 70 percent of the ore-processing companies have also closed." The larger impact of these closures is that the big three, BHP Billiton, Vale and Rio Tinto, have been able to close in on a greater share of the Chinese iron supply market.

Not Just Cost Management; Productivity

A corollary of rising costs in the last decade was decreased productivity. Ernst and Young found in its investigations that Australian mining productivity overall dropped 50 percent between 2001 and this year.

"Australia is not alone. Productivity has declined across the sector globally, in both developed and emerging markets," said Paul Mitchell, Ernst and Young's global leader for the mining sector.

The Boston Consulting Group points out that deteriorating ore grades was one factor for lower productivity, but there were other factors that could have been within the control of company management.

Many of the companies the group studied missed, during the decade-long growth in prices, some opportunities to boost productivity. Ernst and Young echoes this observation, with the additional insight that cost reduction programs in the wake of lower prices have actually undermined productivity in some cases.

"It's a given that productivity creates fundamental value," Boston Consulting says. "Reducing unit costs, through efficiencies, and increasing production volumes, by removing bottlenecks and undertaking similar initiatives, contribute" to higher earnings.

The Boston company also proposes that "there are other, less direct ways that productivity links to value." It specifically recommends a disciplined approach to capital management, for example in fleet renewal and other investments that, if more tightly controlled, could over time amount to savings.

Other productivity areas that can be controlled are developing ways to leverage existing assets within the company, using company size or partnerships to improve its platform for bargaining in procurement. The Canadian iron ore company Alderon recently signed an agreement with the service supplier Metso, a Finnish company, for a five-year maintenance and parts agreement. A deal like this could represent an opportunity for both companies to see lower costs, in that it guarantees work for Metso and maintenance for Alderon, but also because it gives both companies a steady work plan in the affected areas for the medium term.

Another strategy is "repeatability." That last point refers to repeatability of business models or practices. If a company develops a procedure or a technique to solve one problem or implement a particular practice, it should be paying attention to how that procedure or technique can be repeated as a tool in other scenarios.

Of course, technology can help improve productivity if applied correctly. The consulting group cites "new automated technologies such as autonomous trucks, remote operations, and new recovery and refining methods, as well as new processes including the greater use of data and information systems."

Back to the Boston Consulting Group's observation that labor cost increase where the most important factor across several, "hard" categories, human resources management, it says, is another way to manage market forces-- such as climbing wages and greater scarcity of trained workers-- that are beyond companies' control.

The group found that in 24 global mining companies that labor productivity increased at only six. In the US, Australia, Canada, and Chile, labor costs went up over that ten-year period by between 6 and 14 percent. These increases, it says, can be mitigated by human resources know-how.

"People strategies," it says, can focus on the mining company's "employer brand, specifically, highlighting the employee value proposition" to attract the right people. Companies can also look at "strategic workforce planning, managing talent across the employment life cycle,"--meaning knowing when to reign in hiring, for example, in anticipation of a slowdown.

Companies can also consider "centralizing talent and people management efforts in productive ways." This could mean planning who to put on what teams, whether and how one person might wear multiple hats, and ensuring that operations management tiers and human resources management are working together efficiently.

Long-Term Management Vision

The Boston company recognizes that most mines already have some kind of productivity regimen, but it says that most face challenges in maintaining it.

"Often, improvements quickly fizzle because executives lack a long-term productivity vision, they are unable to instill the necessary new behaviors in line management and operators,"-- for example tweaks to maintenance routines.

A mine's management might go to its operations staff with a tip to help save money on tire replacements, but it would ideally do so with a way to reinforce the importance of doing so and reminders and other tools to enable the new practice. Without these long-term structural supports provided by management, new knowledge shared to help increase productivity could just float past.

And sometimes, management may not even be reaching the people they need to. Often, says the consulting group, "they can't overcome the organizational silos and ingrained culture that so often impede learning and change."

Mitchell of Ernst and Young also weighs in that companies will really benefit from holistic approaches that take into account metrics, the measurement and verification of results.

"The size of the problem is too large for conventional solutions to work. Real productivity gains will only come from a whole-of-business, end-to-end transformation. A narrow focus on point solutions or continuous improvement won't solve the problem and could even be counterproductive," Mitchell said.

Real change, he believes, will come from changes to mine plans, reassessed mining methods, and fleet configuration adjustments, for example. Among the "cost reduction exercises," Mitchell has seen, most of these ideas have not been considered. "In some cases," he added, even "reducing production may be beneficial."

One company that has announced an overhaul in its approach is Northland, the Luxembourg company with iron ore operations in Sweden and Finland. That company's "new strategy," it said in its press release, "is based on reaching maximal flexibility in operations and cost structure, to be able to cope with the high volatility of world iron ore prices."

"The quest needs to be long-term and requires a change across the organization from the boardroom to the pit," said Mitchell.

Productivity Still Down in Mining: EY report

Miners will need to drastically transform their business models if they want to reverse the decade-long decline in productivity, according to a new EY report titled "Productivity in mining: A case for broad transformation" produced in collaboration with the University of Queensland. The report describes the drop-off in productivity, on both a volume and cost basis, as a result of companies choosing to pursue production growth and headline revenue during the commodity price boom. "Companies caught in the race to capitalize on high commodity prices are now facing a number of business model challenges," says Bruce Sprague, EY's Canadian mining and metals leader.

"Operation expansion and inefficient use of labor and equipment are all compromising productivity." Many companies adapted processes, performance measures and corporate culture solely toward growth during the supercycle and are now paying the price. "There's no easy solution to solving these challenges," added Sprague. "Cost-cutting exercises and minimal process and technology improvements aren't enough."

A narrow focus on continuous improvement will not solve the problem and could even be counterproductive by simply moving the problem along the supply chain, the report emphasizes. "Creating sustainable change requires broad business model transformation," says Sprague. "That means looking closely at mine plans, reassessing mining methods, making changes to equipment and considering opportunities for automation."

In the US coal sector, labor productivity declined by nearly 30% from 2009 to 2012, while in the South African gold sector labor productivity is estimated to have declined 35% since 2007. EY Global Mining & Metals Advisory Leader, Paul Mitchell, said that an indication of the scale of the issue is evident in Australian Bureau of Statistics multi factor productivity measure which includes common factors such as labor, capital and materials.

This shows that mining productivity in Australia has declined by about 50% since 2001, according to Ernst & Young Global Limited. "Australia is not alone. Productivity has declined across the sector globally, in both developed and emerging markets. The issue has been escalated to the CEO agenda of mining companies globally," said Mitchell. Despite massive investment in new equipment and automation, capital productivity has also fallen over the last decade. In Australia alone capital productivity has declined by 45% since 2000 (versus 22% in all industries), according to Ernst & Young Global Limited. "The supercycle lasted for so long it had the impact of altering the DNA of mining companies to adapt the processes, performance measures and culture solely toward growth. This transformation has occurred by stealth and the counter-transformation will need to be far more radical," he said.

EY said a good productivity strategy was based on a broad set of value drivers and looked to integrate and align the whole supply chain.

The approach includes standardization of work procedures and aligned planning, budgeting and performance measurement. In other areas, EY said the mining industry spent very little on research and development compared to other sectors, with spending on developing key mining and processing methods particularly low.

An inadequate skills mix brought on by boom-time shortages was also blamed for a decline in labour productivity.

At the top end of the market, Rio Tinto's mine of the future program was highlighted as one of the best initiatives, along with its move to divest non-core assets. BHP Billiton was also recognised for some of its strategies, including placing all operations on a common information management program to replicate best practices across the group.

EY said the best companies made bold rather than incremental changes and had a long-term vision and plan. It said good companies eliminated silos, looked for broad solutions and set consistent performance measures.

Alderon To Begin Construction At Kami Iron Ore Project

Alderon Iron Ore will begin construction at the Kami project in western Labrador, Canada, as soon as a financing plan is finalized. The company has completed pre-construction work and is awaiting a project sanction from the board of directors. The Kami iron ore project is a 75-25 joint venture between Alderon and Hebei Iron & Steel Group.

Alderon president and CEO Tayfun Eldem said: "While all our requisite pre-construction engineering work, permits and agreements are now completed in preparation for the start of construction, we continue to work on finalizing our financing plan."

Following the completion of engineering works, Alderon has suspended further work by contractor WorleyParsons Canada Services. WorleyParsons was awarded the engineering, procurement and construction management contract worth $92.5m for the Kami project in May 2013.

"We have the in-house experience and expertise to continue with the next steps, but expect WorleyParsons to resume its role as the EPCM contractor for the Kami project once a decision to commence construction is reached," Eldem added. Meanwhile, the company has signed a five-year life-cycle services agreement with Finland's Metso for the Kami project. Metso will deliver spare and wear parts including its Megaliner mill linings by the fourth quarter.

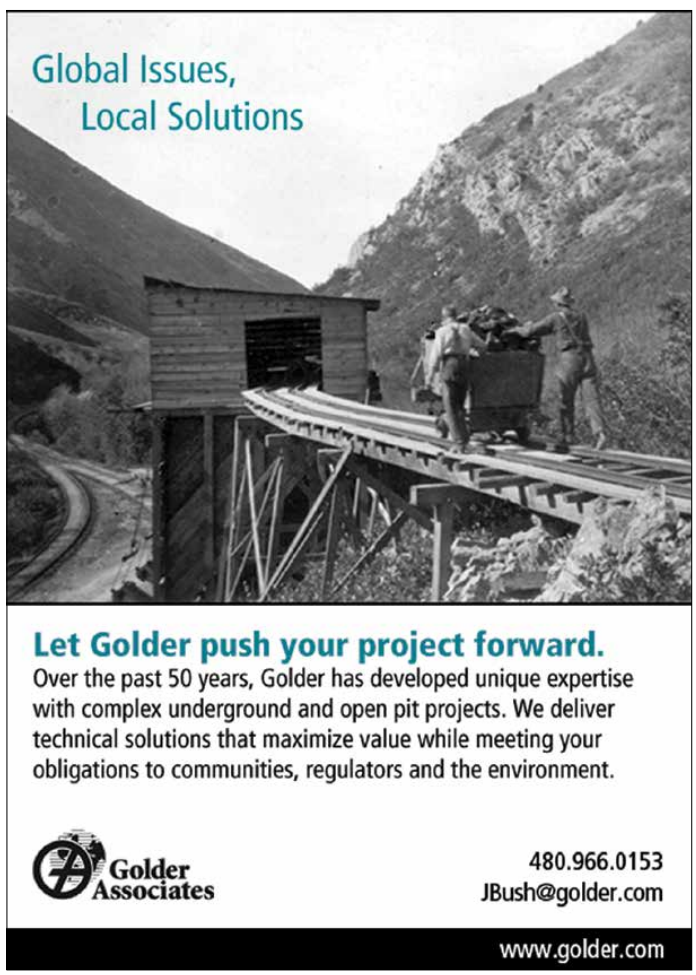
The company will also provide planning, supervision, labour, hand tools and consumables to perform preventative maintenance, normal course and peak mechanical maintenance, wear part replacements, parts management and other identified maintenance services for the equipment.

Production at the Kami iron ore mine is expected to begin in 2016. Metso has agreed to a five year life-cycle services contract with The Kami Mine Limited Partnership to develop the Kami iron ore project.

The contract encompasses the ongoing maintenance services with respect to all the equipment in the processing area. Within this agreement Metso will also be providing spare and wear parts including Metso's patented MegalinerTM mill linings. "We have chosen Metso to improve overall equipment reliability, to enable a rapid ramp-up to nameplate capacity and to secure the aggressive maintenance cost targets from our feasibility study," says Tayfun Eldem, Alderon President and CEO.

"This agreement presents a platform for achieving this goal and at the same time reduces capital outlay." Metso is also the supplier of the Kami Project's most significant equipment including the AG mill, ball mill, car dumper and the primary gyratory crusher. The delivery of the production equipment is scheduled for Q4 2014.





Tanzania Phases Out Mercury

By Mary Claire Whitaker

The Tanzanian goverment recently announced seminars for small-scale miners in the country to introduce proper usage of cyanide as an alternative to mercury in gold processing. The first seminar took place in July and was available to 200 miners in or near Buhemba, in the Tarime District.

"We have decided to introduce this technology because the mercury we used before has resulted into a lot of environmental hazards," said Denis Silas, a geophysicist at the Tanzania State Mining Corporation.

"The mercury chemical not only destroys the environment, but it causes several health problems to miners and they are subsequently unable to afford health expenses," he added.



courtesy: www. businessinsider.com

Mercury in gold extraction is mixed with crushed ore and then burned, releasing the gold in a process known as amalgamation. The process releases toxic mercury fumes which can cause central nervous system damage. According to the Fraser Institute, mercury use by the artesanal and small-scale mining sector is a growing environmental concern in developing nations.

Tanzania has worked with the UN in the past on regulating its informal mining sector, as well as on mercury evaluation and safety outreach. In a 2012 report, the UN describes that the United Nations Industrial Development Organization worked with the Tanzanian government to develop training manuals for miners, including booklets in Swahili on mercury and health and a booklet on how to use and re-use mercury, as well as "How to Protect Your Water" and "How to Get More Gold."

The Tanzanian goverment was planning to conduct another seminar on cyanide in Geita, Mwanza. That program would also include instruction on obtaining capital. The government in April provided small-scale miners in the country with exploration equipment, and later on in the summer it will begin conducting a geological survey to help identify mineral deposits.



Safeguarding Pump Integrity In Mining

By John Edward

Centrifugal pumps are widely utilized in the mining industry, primarily for the removal of slurry as well as for other tasks such as water removal. Rapid increase in pressure can lead to the failure of a pump and, even worse, a pump explosion with the potential for severe injury or even death to operatives working nearby.

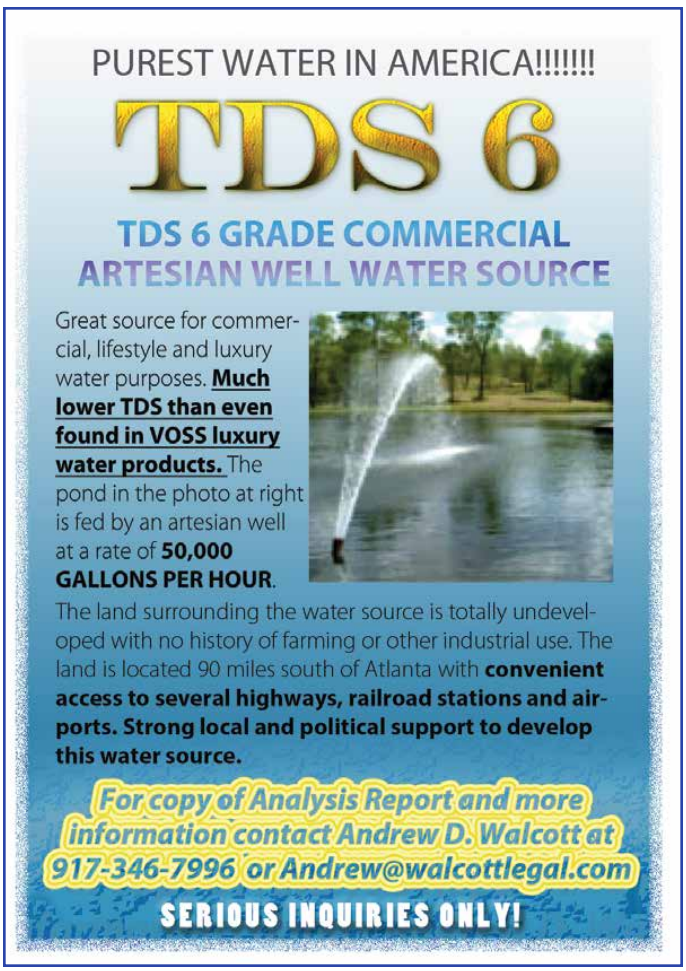
To help maximize pump life and minimize risk to life and property on the mine site, a variety of technologies have been developed over the years designed to shut off operation before pressure within the pump reaches dangerous levels. Concerns over the effectiveness and cost of these technologies, as well as the need for a truly maintenance-free solution led to the development of the first bursting discs or rupture discs.

A rupture disc is a sacrificial part containing a domed membrane, which fails instantly within milliseconds at a pre-determined pressure and cannot reseal itself.

First introduced in the market in the late 1980s, graphite discs are designed to fit between the bolts within the standard ANSI flanges found on most pumps, eliminating the need for a separate holder and simplifying installation. These discs can withstand a certain amount of scratching with no compromise to their burst pressure, and can operate at a broad range of temperatures between -50°C and +250°C.

The use of a PTFE material bonded to the disc optimizes resistance to any alkalis present and ensures their presence does not impact on the disc's service life or performance.

The flexibility and versatility of graphite allow the production of discs to very precise customer parameters. The sophistication of modern manufacturing techniques even allows the production of discs that can cope with negative or vacuum pressure.





Miners Lock In Shipping Costs Amidst Recovering Freight Market

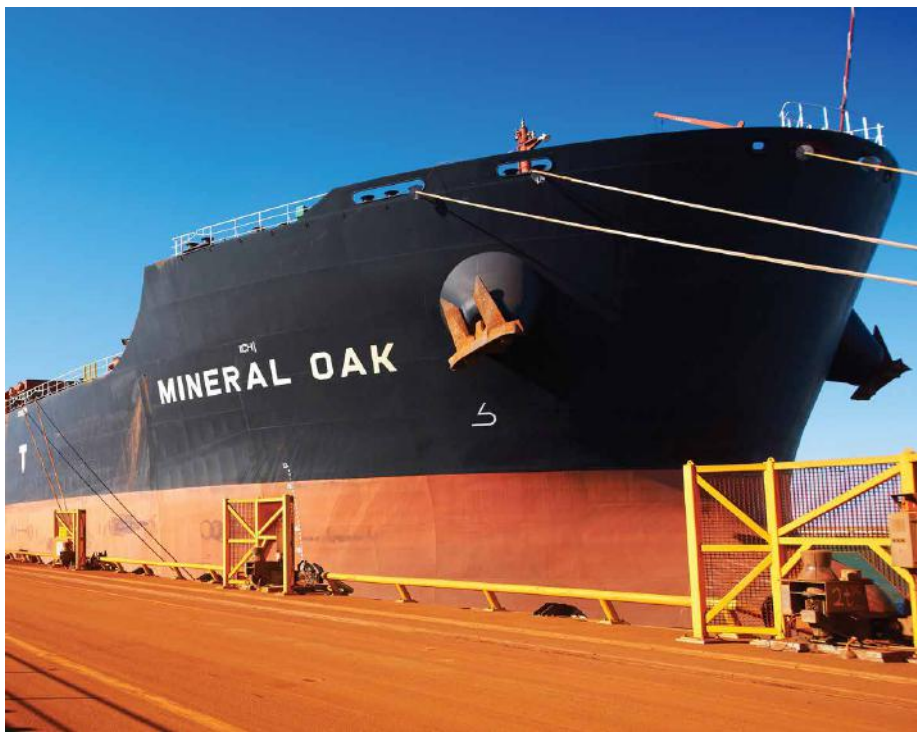
By John Edward

Global miners and commodity traders are using multiple strategies to lock in favorable rates for shipping costs, anticipating a freight market recovery after years of turmoil. Ship owners ordered large numbers of vessels between 2007 and 2009, just as the global economy sank into crisis.

Prospects have brightened in recent months, with a pickup in global trade helping to absorb the ship glut. Iron ore deliveries to top consumer China are up 21 percent in the first four months of 2014 against the same period last year and are expected to rise further as major suppliers boost output and Chinese mills switch from lower quality domestic ore to higher grade and less polluting imports.

This is likely to bolster demand for larger capsize ships. Dry bulk shipping activity, involving the transport of major commodities such as coal and iron ore, is often taken as a leading indicator of overall global economic health.

Anglo American, the world's fifth largest diversified miner, is among mining companies and trade houses adapting their shipping strategies including hiring capsize ships for longer periods, known as time charters.



Western Australia is one of the world's premier suppliers of iron ore. Image (c) BHP Billiton

Last year Anglo created a shipping division for iron ore, coal and metal products as part of its new commercial hub in Singapore, aiming to take more control of its logistics.

The group is also trading third-party materials, to make sure every vessel is filled and utilized more efficiently.

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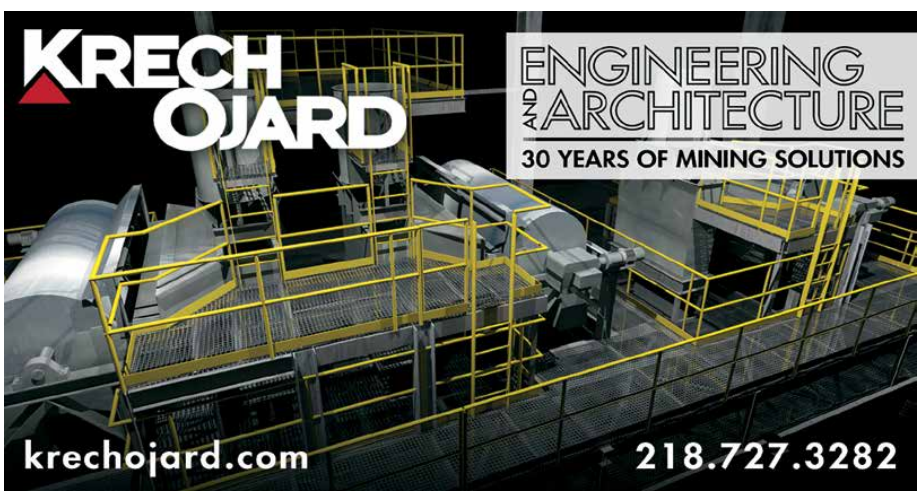

BHP Billiton looks to catch up to Rio Tinto in ironman contest

Miner BHP Billiton is confident it can ''close the gap'' with iron ore arch-rival Rio Tinto on margin per tonne within a few years. And it is likely to develop the $20 billion outer-harbour project at Port Hedland rather than expand its inner-harbour operation if it moves to produce beyond its current annual run rate target of 270 million tonnes.

BHP president of iron ore Jimmy Wilson says the miner is trailing Rio on margin per tonne, and ''our desire absolutely is to close that gap''.

Jimmy Wilson.

BHP's Jimmy Wilson says the miner wants to 'close the gap' on Rio Tinto in iron ore. He said the miner would never be in a competition with Rio on volumes but stressed ''where we would like to compete is on the cost of production side, more importantly, the margin per tonne that we make''.

''While we are marginally behind Rio at the moment, we've got to back the fact that we are going to eliminate that gap in the foreseeable future,'' he says.

''What is the foreseeable future? I'd be disappointed if it took more than a couple of years. ''I do respect our competitors - Rio, Fortescue, Vale - [and] none of them is standing still either. So, I think, at the end of the day, you are going to see an improvement come through for all of those businesses.''

Deutsche Bank mining analyst Paul Young puts BHP's all-in cash costs at $US51 a tonne, against Rio's $US45 a tonne, based on the last December-half results.

Mr Young says the two miners are neck and neck on most key cost-of-production metrics, but noted a $US10-a-tonne differential in so-called C1 costs.

''I don't think they can fully close the gap but I think they can reduce the gap by at least half, or about $US5 a tonne,'' Mr Young said. The C1 cost measure usually reported by miners, refers to the basic production costs excluding one-time charges, such as royalties, depreciation or exploration costs.

Mr Young says C1 costs were about $US18.70 a tonne for Rio and $US29.30 a tonne for BHP. He attributes about $US5 per tonne of the difference to BHP's spike in strip ratios at Newman and the recently opened Jimblebar ($US1 to $US2 a tonne), the use of mobile crushers during the period ($US1 to $US2 a tonne) and full expensing of expansion costs ($US1 a tonne).

''We think BHP can close the gap by $US3 to $US5 a tonne by reversing these items, and can lower unit cost further as its average strip ratio is lower, it has fewer mines and has no wet processing,'' Mr Young said. ''But, we think Rio can drive costs down at least another $US2 to $US3 a tonne ($US600 million to $US900 million benefit) through automation, and further benefits from economies of scale, blending and newer mines.''

Mr Young puts the other $US5 of the unit cost differential down in the main to Rio's greater economies of scale, shorter haul distances, lower mining costs and its blending facilities at port, which means no double-handling at mining hubs.

''Also Rio is three to five years ahead on automation, its ports are not tidal constrained and it has a superior product with the Pilbara blend,'' Mr Young says.





Caterpillar Posts Four Percent Profit Increase

By John Edward

A solid performance in construction equipment production enabled Caterpillar Inc. to overcome another weak performance in its mining sector and clock a 4 percent profit increase to $999 million for the second quarter on July 24, 2014. Caterpillar plans to repurchase $2.5 billion worth of company stock during the third quarter. It is part of a $10 billion program authorized by the board of directors.

Caterpillar already has bought $1.7 billion worth of stock through the program. "With a strong balance sheet, positive cash flow, sufficient cash on hand and more modest needs for capital expenditures, it makes sense to continue to reward stockholders," Doug Oberhelman, Caterpillar's chairman and chief executive, said in a statement.

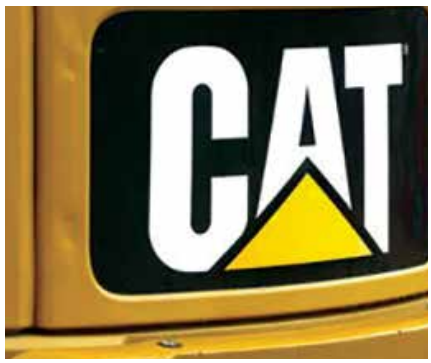

Image courtesy: AP Photo

Oberhelman said the company was lifted during the quarter by sales increases in its construction industries, and energy and transportation sectors. The company has reduced overall expenses by nearly $500 million so far this year.

"We understand that we don't control the economy or the timing of a turnaround in mining," Oberhelman added. Andrew Casey, a senior analyst with Wells Fargo Securities, said that although another round of share repurchases "is positive, spreading end-market weakness from resource industries to developing market construction equipment demand is disconcerting."

Caterpillar tightened its financial forecasts for the full year based on Oberhelman's projections of a flat sales year. It expects to have fiscal sales in the range of $54 billion to $56 billion, compared with the previous range of $53.2 billion to $58.8 billion.

MINING INDUSTRY PEOPLE

Hecla Mining Company appointed **Mr. Mark Board** to the position of Vice President – Technology & Innovation with immediate effect on July 22, 2014. Mr. Board was previously Hecla's Corporate Director of Geotechnical Engineering. Prior to joining Hecla two years ago, Mr. Board worked at Itasca Consulting Group for 25 years as a mining and rock mechanics consultant to mining companies worldwide.

U.S. Rare Earth Minerals, Inc., announced on July 22, 2014 that - at a Board of Directors meeting held on July 18, 2014 - the Board accepted the resignation of **Mr. Dennis Cullison** as President and Treasurer of USMN. Mr. Cullison will remain as Chairman. **Mr. Michael Herod**, a director of Company, was appointed as President and Chief Operating Officer to succeed Mr. Cullison. Furthermore, Mr. Larry Bonafide, a director who is the secretary and chief financial officer of USMN, was appointed Treasurer.

Cancana Resources Corp. appointed **Mr. Anthony Julien** as interim President and CEO. This appointment reflects the transition of the Corporation from a mining exploration company into a producing mining company with assets and operations in Brazil.

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Explosives Company Reports Profit "Boom"

By Mary Claire Whitaker

The South African company Omnia, which produces chemicals for minerals processing and explosives, has reported an increase in its annual profits of 13 percent this year, reaching a record high.

The holding company sells explosives under the BME brand name, and chemicals as Protea Mining Chemicals.

The company attributes the success in its mining divisions to good demand for mining and minerals from Africa, good growth in mining volumes from African economies, and the weaker South African rand, which drove demand for its products among its foreign customers. The company reported that its revenue derived from outside of South Africa was 35 percent, compared to 24 percent five years ago. Its main international markets were Australia, Brazil, and other African countries. Omnia saw record profits despite increased margins.

"Margins came under pressure from increased competitor pricing, the high cost of bought-in replacement product after an illegal strike at the Losberg cartridge production facility… and abnormally high cash-settled long-term incentive plan expenses," said Noel Fitz-Gibbon, the financial director for the group.

"The macro environment for next year appears positive and will be strongly influenced by the direction of the rand," the company said.

"Our mining division anticipates further volume growth across its entire product range at growth rates similar to that of" last year, it said.

The company has in the medium term attributed its domestic succes to increasing power infrastructure. South Africa has expanded coal power generation by 25 percent in the last few years.



CRUDE STEEL PRODUCTION, JUNE 2014

Monthly Crude Steel Production in the 65 Countries included in the report, in thousands of metric tons Source – World Steel Association

COUNTRY	JUNE 2014	APRIL 2014	JUNE 2013	% CHANGE JUNE- 14/13
Canada	1,060 e	1,015 e	931	13.9
Cuba	25 e	25 e	25	1.5
El Salvador	10 e	10 e	9	12.3
Guatemala	30 e	25 e	29	3.6
Mexico	1,580 e	1,590 e	1,492	5.9
Trinidad and Tobago	46	39	42	11.5
United States	7,465	7,027	7,364	1.4
Total - North America	**10,216**	**9,731**	**9,891**	**3.3**
Argentina	483	486	449	7.6
Brazil	2,878	2,767	3,007	-4.3
Chile	100 e	105 e	95	5.2
Colombia	115 e	100 e	112	2.8
Ecuador	45 e	45 e	46	-1.3
Paraguay	5 e	3 e	4	38.6
Peru	95 e	85 e	90	5.1
Uruguay	10 e	7 e	7	35.0
Venezuela	155 e	105 e	246	-37.0
Total - South America	**3,886**	**3,703**	**4,056**	**-4.2**
Algeria	35 e	35 e	60	-41.9
Egypt	592	520 e	557	6.2
Morocco	42	51	52	-19.2
South Africa	615 e	595 e	711	-13.5
Total - Africa	**1,366**	**1,273**	**1,453**	**-6.0**
Iran	1,330 e	1,285 e	1,287	3.3
Qatar	254	254	192	32.3
Saudi Arabia	540 e	505	479	12.8
Total - Middle East	**2,392**	**2,290**	**2,229**	**7.3**
China	70,432	68,835	68,675	2.6
India	7,080 e	7,015 e	6,966	1.6
Japan	9,595	8,939	9,625	-0.3
South Korea	6,164	6,098	5,534	11.4
Taiwan, China	1,875 e	1,890 e	1,952	-3.9
Total - Asia	**95,146**	**92,777**	**92,751**	**2.6**
Australia	372	342	406	-8.5
New Zealand	65	71	79	-18.2
Total - Oceania	**437**	**413**	**485**	**-10.0**
Total - European Union (28)	**15,042**	**14,612**	**14,640**	**2.7**
Total - Other Europe	**3,173**	**2,802**	**3,225**	**-1.6**
Total - C.I.S. (6)	**9,526**	**9,025**	**9,348**	**1.9**

CRUDE STEEL PRODUCTION, JUNE 2014

Monthly Crude Steel Production in the 65 Countries included in the report, in thousands of metric tons Source – World Steel Association

Total (65 countries)	**141,184**	**136,626**	**138,079**	**2.2**

e – estimate. r – revised. The 65 countries included in this table accounted for approximately 98% of total world crude steel production in 2011.

IRON ORE PRICE REPORT

NORTH AMERICAN MARKET (LTU).
Source: CLIFFS NATURAL RESOURCES INC.

COMPANY	ORE TYPE	PER IRON UNIT	PER GROSS TON AT 64%	PER TON AT 64% REPORTING DATE
Cliffs Natural Resources Inc	Pellets, FOB Michigan Mines	$ 2.01	128.64	12/31/13
Cliffs Natural Resources Inc	Pellets, FOB Minnesota Upper Lakes Port	$1.62	$103.68	12/31/13

WEEKLY U.S. RAW STEEL PRODUCTION BY DISTRICT

In thousands of Net Tons – Source – American Iron and Steel Institute

DISTRICT	WEEK ENDING			
	7/12	**7/5**	**6/28**	**6/21**
North East	238	239	237	226
Great Lakes	677	654	652	665
Midwest	238	234	240	243
Southern	660	640	651	657
Western	90	86	83	89
Total	**1,903**	**1,853**	**1,863**	**1,880**

U.S. RAW STEEL PRODUCTION

In thousands of Net Tons – Source - American Iron and Steel Institute

WEEK ENDING	WEEKLY PRODUCTION			YEAR-TO-DATE PRODUCTION		
	PRODUC-TION	PERCENT CHANGE*	CAPABILITY UTILIZATION RATE	PRODUC-TION	PERCENT CHANGE	
July 12, 2014	1,903	2.7	79.1	50,734	0.1	76.6
Previous Year	1,852	2.8	77.3	50,683	-	76.8
July 5, 2014	1,853	- 0.5	77.0	48,831	0.0	76.5
Previous Year	1,844	0.5	77.0	48,831	-	76.8
June 28, 2014	1,863	- 0.9	77.5	46,978	0.0	76.5
Previous Year	1,824	2.1	76.1	46,987	-	76.7
June 21, 2014	1,880	1.6	78.2	45,115	0.1	76.4
Previous Year	1,824	3.1	76.1	45,163	-	76.7

* Percent Change is a comparison between a given week and the previous week. The % change figure in the previous year row refers to the change from a given week compared with the corresponding week of the previous year.
AISI's estimates are based on reports from companies representing about 50% of the Industry's Raw Steel Capability and include revisions for previous months.

May 2014 Crude Steel Production

By John Edward

World crude steel production for the 65 countries reporting to the World Steel Association (worldsteel) was 141 million tonnes (Mt) in May 2014, an increase of 2.2% compared to May 2013. The crude steel capacity utilisation ratio for the 65 countries in May 2014 was 78.5% and it is 0.7 percentage points lower than May 2013. Compared to April 2014, it is 0.2 percentage points lower. The US produced 7.5 Mt of crude steel in May 2014, an increase of 1.4% compared to May 2013. China's crude steel production for May 2014 was 70.4 Mt, up by 2.6% compared to May 2013.

Elsewhere in Asia, Japan produced 9.6 Mt of crude steel in May 2014, a decrease of -0.3% over May 2013. South Korea's crude steel production was 6.2 Mt in May 2014, up by 11.4% on May 2013. In the EU, Germany produced 3.9 Mt of crude steel in May 2014, an increase of 7.3% compared to May 2013. Italy produced 2.3 Mt of crude steel, down by -0.8% compared to May 2013. France's crude steel production was 1.4 Mt, a decrease of -4.0% on May 2013. Spain produced 1.3 Mt of crude steel, down by -2.9% compared to May 2013.

In May 2014, Russia produced 6.1 Mt of crude steel, an increase of 0.6% compared to the same month 2013. Ukraine's production was 2.8 Mt in May 2014, up by 2.2% on May 2013.

Statistics based on World Steel Association Report released on June 20, 2013

Preliminary USGS Iron Ore Statistics for January 2014

By John Edward

According to the U.S. Geological Survey (USGS) report by Mineral Commodity Specialist Christopher A. Tuck, average daily U.S. mine production of iron ore in January 2014 was 126,000 metric tons (t) (Table 1), slightly higher than that of December 2013 and 7% less than that of January 2013. Average daily U.S. iron ore shipments were 77,000 t, 49% less than those of December 2013 and 23% less than those of January 2013. Mine stocks at the end of January 2014 were 41% more than those held at the end of December 2013 and 58% greater than those of January 2013 (Table 1). U.S. imports of iron ore were 456,000 t in January 2014, 164% greater than those in December 2013 and 463% greater than those in January 2013. Imports increased in January owing to startup of Nucor's DRI plant in Louisiana in late December. U.S. exports of iron ore were 778,000 t in January 2014, 30% less than those in December 2013 and 24% less than those of January 2013.



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Labrador Iron Halts Mines

By John Edward

Labrador Iron Mines Holdings Ltd. says it has suspended all operations at its mines for the year, due to the low price of iron ore and a refocus by the company to cut costs. The company said 2014 will be a "development year" as it concentrates its efforts on developing its Houston Mine, located near Schefferville in northern Quebec.

The project is slated to begin production in April 2015, pending the completion of financing. Labrador Iron said it is also looking to lower costs by renegotiating with major contractors and suppliers, and has already put in place savings initiatives in various areas including mining equipment rates, rail car leasing rates and corporate and administration costs.

It said it has enough cash to continue operations over the next year, but is looking to obtain financing if the price of iron ore continues to decline. "However, there are no assurances that LIM will be successful in obtaining any required financing, or in obtaining financing on a timely basis or on reasonable or acceptable terms," it warned in a statement.

"If LIM is unable to obtain adequate additional financing on a timely basis, the company would be required to curtail all operations and development activities."

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Dayton Calls For An End To Illegal Steel Dumping

By John Edward

DFL Gov. Mark Dayton urged iron miners to step up the fight against foreign countries illegally dumping steel in the U.S. and threatening the local mining industry. "The story of the Iron Range is one of standing strong against exploitation and oppression, and too often of a government that will not stand with them," Dayton said. "Today's enemies are not the companies, but the countries that dump their steel in the U.S. market, depress the prices and take away your jobs... "It's essential that our government stand up for the American worker.

The Iron Range miners were rallying against alleged illegal steel dumping from Asian countries, and pressed for the federal government to impose tariffs on steel from those counties. The issue is particularly raw on the Iron Range, where the steel mining industry has been socked with more than a decade of mine closures and bankruptcies, in part due to pressure from low-cost foreign competitors. It's the same problem as in the early 2000's, rally supporters say. Much of the focus this time is on South Korean steel pipe headed for the growing U.S. oil and gas industry.

Imports of that pipe doubled from 850,000 tons in 2010 to 1.8 million tons by 2012 as foreign steelmakers rushed to cash in on the oil and gas industry boom in the United States. South Korea sent about 1.2 million tons of that steel pipe to the U.S. last year, the largest amount of any of the nine nations critics say were illegally dumping below-cost steel into the U.S. The U.S. Commerce Department is expected to rule on possible sanctions in July, and union workers, industry officials and Minnesota politicians are trying to ramp up the pressure until then.



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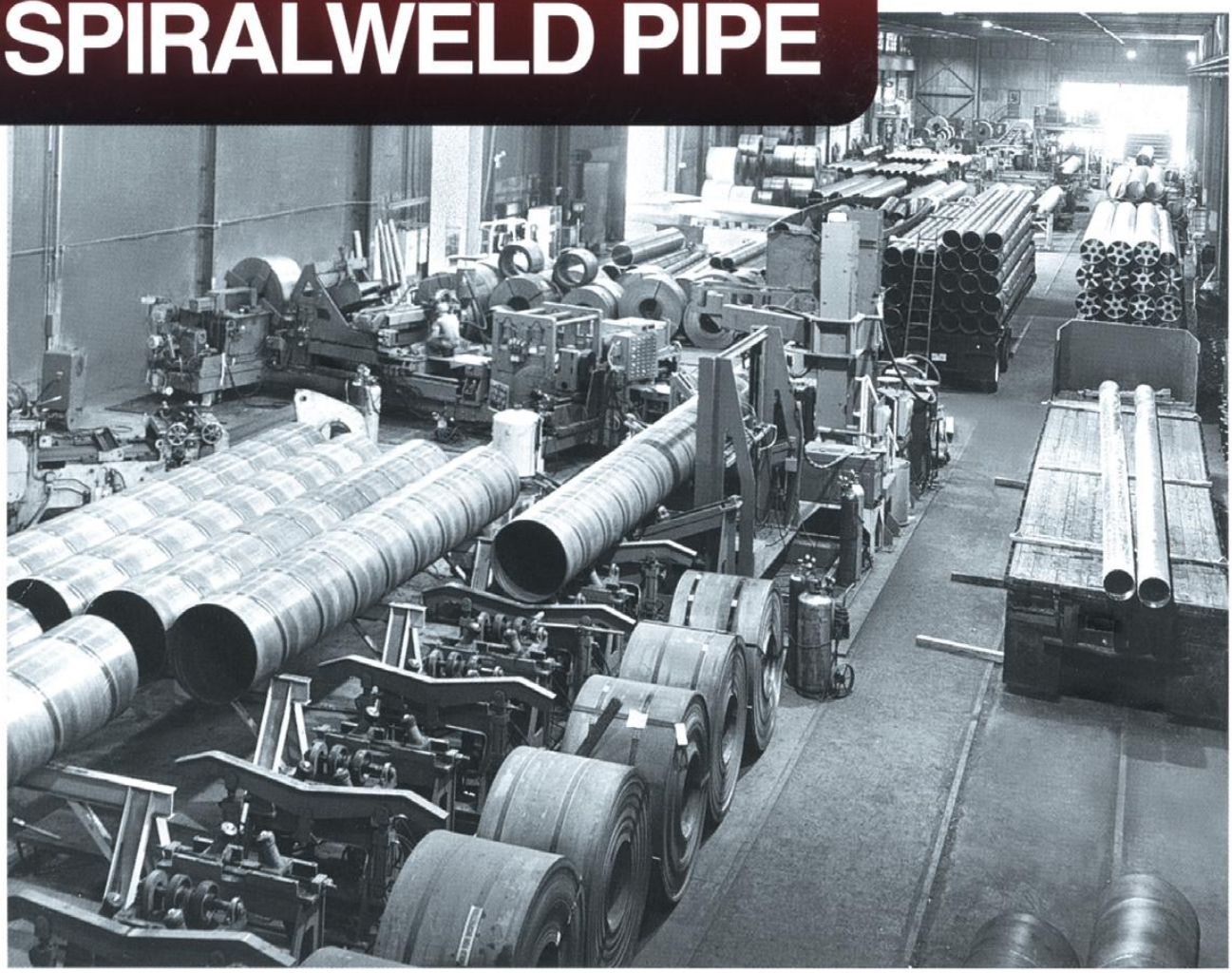

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