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## ...From the Editorial Desk

The issue facing this industry is not distinctive: Automation is rapidly reducing employment in mining and manufacturing. Occupational shortages will be different depending on the precise sector and the kind of jobs to be addressed, say market observers, which includes a gap "sensitivity index".

The metric indicates the area to which mining employers are slow to adapt to the influx of new workers, specifically occupations, concluding that technicians, engineers and managers continue to be essentially the most sensitive positions, even in an business dynamic scenario.

As a consequence, mining employers face a cumulative hiring requirement of virtually 86,000 workers within an industry reduction state of affairs. The figure consists of replacing about 49,000 employees over the subsequent decade on account of retirement. Industry reports warn that now, greater than ever, in particular, the mining industry must be looking at its future labor market needs and put in place collaborative methods to make sure it has a robust, appropriately expert source of employees — starting now and within the coming decade.

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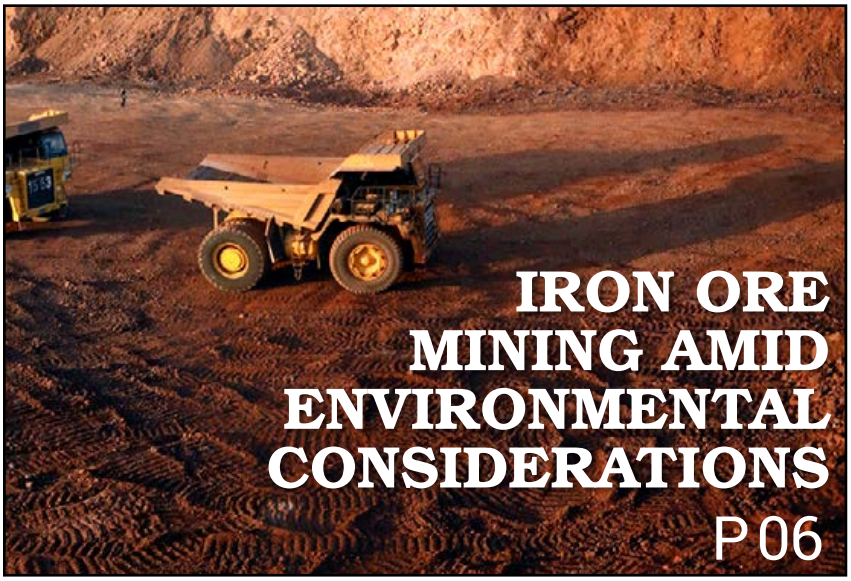
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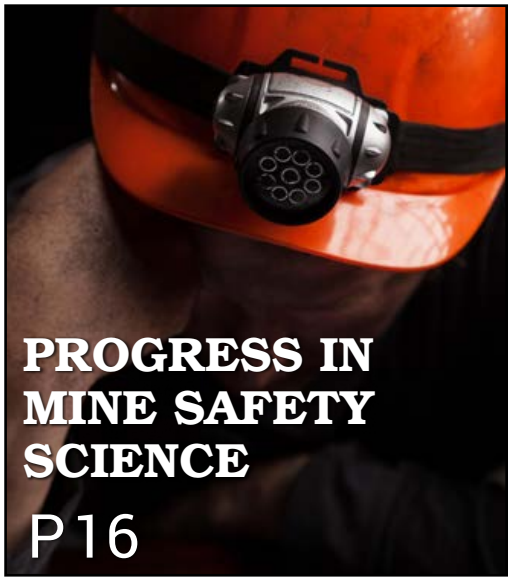
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# Iron Ore Highway

Cliffs Natural Resources corporation, operator of iron ore mines in Minnesota and Michigan, will assemble a $700m facility on the Ironville Terminal on Front Street in East Toledo, Ohio.

The land is a part of 180 acres straddling Front Street, which the port authority developed at a value of $18 million. The hot briquetted iron operation will include development of an extensive tower, which can be seen from downtown.

The newly formed enterprise, that may employ at least 130 local folks making iron for the manufacture of metal, will be located on a vacant former industrial site at one time supported oil refineries.

Pete Gerken, president of the Lucas County Commission, confirmed the project vindicates the region's patience in bringing previous industrial sites back into viable use, reminiscent of the former Jeep assembly plant that is now Overland Industrial Park.

James Tuschman, chairman of the Port Authority Board of Trustees, stated the location was chosen due to the supply of land, rail and highway entry, a port, pure fuel, and water. Mr. Goncalves of Cliffs met with Ohio Gov. John Kasich in Columbus to finalize the deal that includes $30 million in state incentives.

"A giant Toledo welcome to Cleveland-based Cliffs Pure Resources as it embarks on new corporate funding to serve the American steel making market," stated Ohio Congresswoman, Marcy Kaptur.






## IRON ORE MINING

# Amid Environmental Considerations

The extreme environmental contingents are slowly backing away from claims that all mining is responsible for land erosion, formation of sinkholes, loss of biodiversity, and contamination of soil. Fortunately, today, smelting operations, mixed with environmental controls, are implemented to prevent potential environmental and exploitable issues associated to emissions.

A RECENT STUDY WAS ESTABLISHED TO INVESTIGATE THE EFFECTS OF IRON-ORE MINING AND PROCESSING ON STEEL BIOAVAILABILITY IN TROPICAL COASTAL LAGOONS, WHICH UNTIL RECENTLY, REMAINED UNSTUDIED.

By way of an integrated characterization of basic water chemistry, geochemical composition of the sediments, acid volatile sulfide (AVS), metallic concentrations in sediments, water, and invertebrates, researchers investigated the potential sources of metals, the links among metallic levels in several areas, and the contrasting effects on metal speciation and bioavailability.

These findings are believed to be useful for evaluating metallic publicity in an advanced integrated way, figuring out not solely the sources of pollution but additionally how they will affect the parts involved in steel speciation and bioavailability in water programs, which are leading to new insights.

The chemical processes that happen in the weathering of iron sulphides are principally dependent on the supply of oxygen, and the absence of oxygen will restrict oxidation. The most typical strategies for stopping the emergence




of acidic and steel-wealthy leachate is due to this fact to cowl the mining waste with earth or water.

Amongst industrial iron ores (magnetite, hematite, limonite and siderite), excessive-grade ores comprise more than 55 % iron, while ores with iron contents under 25 % are thought-about economically non-exploitable (reduce-off grade).

The results of the iron grade are more evident in the power consumption of mining than the alternatives misplaced when a better grade ore just isn't used (not to point out the improvement in product worth and, approved break even iron grade, and the better provider differentiation).

Completely different methodologies can be used to evaluate the environmental impact of a life-cycle (CML 2001, Cumulative Vitality Demand, Ecological Footprint, Ecological Scarcity 1997, Eco-indicator 99, EPS 2000, Influence 2002+, IPCC 2001, BEES, etc.). Eco-indicator 99 (method for Life Cycle Impact Assessment) applies weighting factors to quantify the relevance of the impression of every product on the setting. These weights denote the views of society or a group of stakeholders, and are divided amongst fundamental questions comparable to human well being, sources and ecosystem high quality.

A panel of experts was divided into three groups including individualists and egalitarians, which rate ecosystem high quality and human well being as 80% and sources as 20%.

Reaching Life cycle assessment (LCA) for the first time in mining is a significant accomplishment because it paves the way for constructing a whole environmental profile of steel merchandise and how mining operations apply to this - something the market and public will want to know more about. Therefore,



energy consumption, CO2 emissions and processes that rework ore into blast furnace feedstock are the primary characteristics affecting the sustainability of iron ore and mineral deposit mining.

The proposed distribution originates from human considerations on global warming, which led to a better weight for CO2 emissions than power consumption, industrial emissions accounted for 14% of human manufacturing, not contemplating a change in land use, agriculture and waste. Of that proportion, 4% was attributed to mining. Moreover, from the worldwide mining share, 2 % was derived from iron ore extraction; nonetheless, with power consumption, the biggest problem could be the depletion and substitution of fossil fuels.

The management of mining waste, additionally referred to as extractive waste, is a key factor for the longer term mining business of Sweden.

Mines are extremely waste intensive, and the quantity of mining waste produced in Sweden each year is much larger than all other forms of waste combined. For example, in line with the Swedish Environmental Safety Company, a total of 117.6 million tons of waste was produced in 2010. Of this, a 115.1 million tons was categorized as non-hazardous waste, and the largest a part of that waste stream consisted of 89 million tons of mining waste.

In a recent ninety seven-page Minnesota Department of Natural Resources report, the DNR doesn't withhold judgment on a controversial $1.5 billion undertaking.

The DNR is offering its strongest analysis to date on the potential results of an iron mine on a watershed composed of 600 lakes and 200 streams that flow to Lake Superior. Within the current analysis, a new device to find out environmental sustainability, the power affect index (EII), was developed to classify different iron mine initiatives in accordance with two principal parameters together with vitality consumption and CO2 emissions.

The EII considers the traits of the mineral (such as the quality, size, hardness, iron ore grade, reducibility, mineral/waste charge, and type of deposit), mining processes (kind of exploitation, ore processing, accessible technology), and transportation (distance to cowl).

**The results of the iron grade are more evident in the power consumption of mining than the alternatives misplaced when a better grade ore just isn't used (not to point out the improvement in product worth and, approved break even iron grade, and the better provider differentiation).**

## The Iron Range needs the federal authorities to let the sunshine in - or at least Canadian solar panels



Demand for solar energy is rising, but U.S. solar panel producers are struggling to compete with low-cost operations in Asia. Suniva, a Georgia photo voltaic-panel and solar-cell maker, filed for bankruptcy in April, and then petitioned the ITC — an unbiased federal agency with broad duties on commerce matters — to slap tariffs on photo-voltaic imports.

Another bankrupt solar-panel maker, SolarWorld of Oregon, joined the suit. These corporations are primarily based in the United States however many have overseas owners: Suniva is majority-owned by a company in Hong Kong and SolarWorld's house owners are German.

The threat to Canadian producer Heliene Inc. is bringing a bipartisan delegation of state lawmakers to Washington to plead with the International Trade Fee to not impose new tariffs on photo-voltaic panel imports.

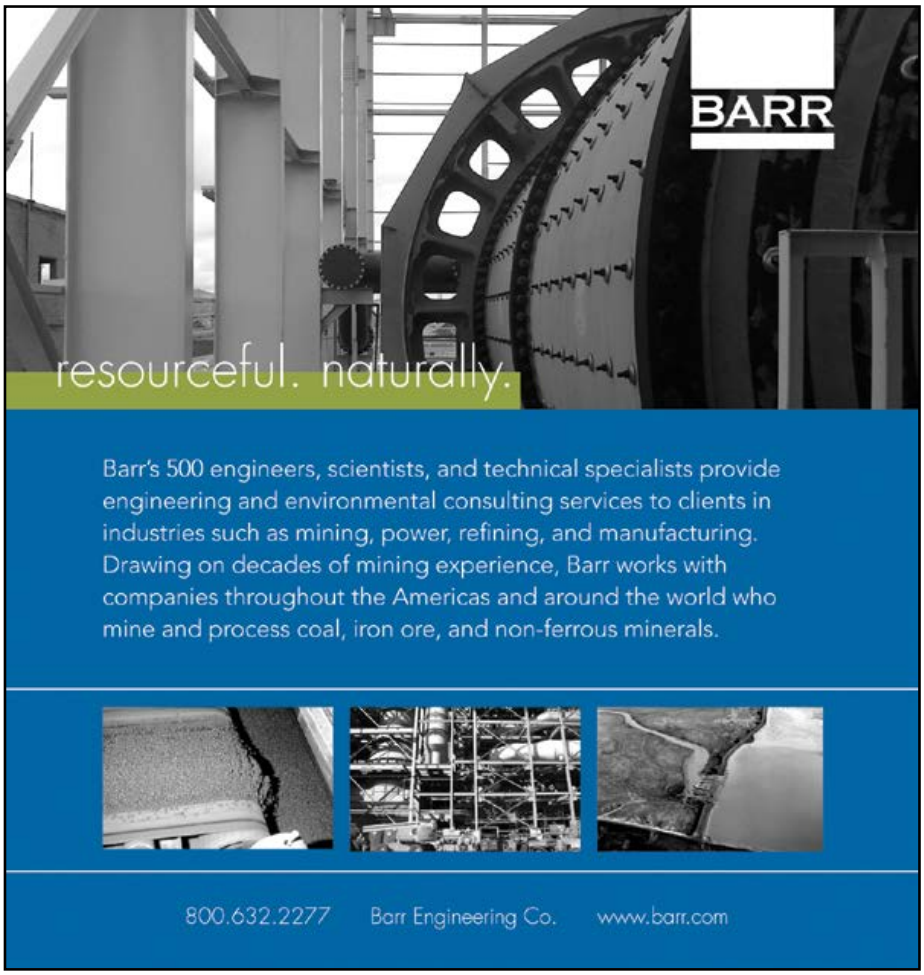
# Cliffs Longer Term Bond Decision








Issuing longer-term bonds seems to be a viable option to issuing equity to finance debt discount. Judging by responses within the feedback sections of Cliffs-associated articles, some traders are nervous that Cliffs will choose the dilution route as a way to deal with debt and finance the HBI (Hot Briquetted Iron) plant construction.




In the matter that Cliffs is able to present solid results in the approaching quarters, and would expect so, it shouldn't have much a problem with refinancing, calming dilution worries.

The beginning of the second half of this 12 months may be very sturdy for iron ore, which efficiently defies bearish predictions of many analysts. Latest data from China, supports continuing development momentum and it appears as if the iron ore industry can count on on-going significant demand from China.

Cliffs' product from Australia is shipped at significant discount to IODEX, however improvements in the IODEX value ought to nonetheless help the corporate's backend line.

In the course of the recent earnings call, Cliffs' CEO stated that there has been three years of manufacturing left for Cliffs in Australia, so the iron ore price will remain a catalyst for Cliffs for one more contract, after which the company will be absolutely focused on its own home for manufacturing.

# China's Steel Output Surges, Spurring Slide

China's rebar futures prices surged to a 4-year high as the federal government cut overcapacity and halted output of low-quality metal. For the American metal industry, this is an odd turn of events. For years, American metal companies have portrayed China as a villain. They've lobbied both Republican and Democratic presidents to fight against Chinese steel.



There are already several tariffs in place on some metal merchandise. These have also helped enhance prices, metal companies say.

Much of the current state of the metal business could be tied to the rate of Chinese expansion. Because of China's massive infrastructure needs, it has significantly ramped up production for the past decade.

The increased production and ensuing low prices have harmed the steel trade in different parts of the world, together with the United States, the U.K. and Japan. But Chinese officers have acknowledged that they will decrease steel manufacturing by greater than one hundred sixty five million tons by 2020. That's a 20% lower in manufacturing for the world's leading metal producer. This decrease coincides with a extreme depression in building expansion as well as a total financial slowdown in China.

Earlier this year the Chinese government ordered steel producers in 28 cities to slash output during winter in an attempt to enhance air quality, including in the key metal producing space of Tangshan.

Steel prices reached an all-time low in March 2016, but costs have elevated steadily starting in June and earlier than leveling off in October of the same year. The last time costs leveled out in 2016 there was a major drop in metal prices. Can we anticipate to see the identical pattern in 2018? Most economists say one other drop could be very unlikely in a 2018 forecast.

Some consultants say if U.S. President Trump puts a tariff on Chinese language metal, it won't have much impact on costs. Out of all the steel the United States uses, China only provides about 1% of it.

Considering also China is promoting so much less metal on world markets as of late since it needs extra steel in country. Exports are down a couple of quarters from the previous year.






# Bold Undertaking Could Lead To New Mining

It was first reported in early 2016 that ilmenite, a iron-titanium compound, had been confirmed in giant deposits in the Iron Range region. Scientists now say the Minnesota mineral might be successfully processed into titanium dioxide, which is utilized in dozens of client merchandise comparable to paints, and which may be additionally refined into titanium steel, one of many strongest substances on Earth.



Bill Ulland

The ilmenite was mined from the Longnose deposit just northeast of Hoyt Lakes that's owned by Bill Ulland, Duluth geologist and entrepreneur. Some 10 tons of ilmenite was processed in Minnesota and Ontario. "I consider we are on the cusp of a brand new mining business here in northeastern Minnesota," Ulland stated.

Titanium dioxide is even used as white pigment in many packaged food merchandise, including confections, soups, fillings, sauces, pet food and powdered drinks, though the product has been lately criticized in Europe as a questionable unsafe food additive.

Others in contrast see the titanium breakthrough tantamount to the research during the mid-20th century by E.W. Davis on the University of Minnesota that led to the method of converting low-grade taconite iron ore into a usable concentrate for metal mills, an achievement that has sustained the Iron Ore range producing iron a half-century after a lot of the state's more pure iron ore had run out.

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# Coal Mining Jobs Again, Tough Call

The Appalachian coal sector has been shrinking for years as companies are compelled to spend more money to access tougher-to-reach seams of the fossil resource. In the meantime, competitors in areas together with the Illinois Basin, Powder River Basin of Wyoming and Montana have much thicker coal seams which are cheaper to get to.



Pressured by low cost and abundant natural fuel, coal is in a precipitous decline, now making up just a third of the electrical energy market within the United States. Renewables are fast turning competitive with coal on value.

Electrical energy gross sales are trending downward, and coal exports are falling. So went a White House level discussion with, amongst others, Division of Energy Secretary Rick Perry, Vice President Mike Pence and Jared Kushner, Trump's senior adviser and son-in-law.

In 1980, the trade employed about 242,000 individuals. By 2015, that figure had plunged 60%, to fewer than a 100,000, at the same time as coal manufacturing edged up 8%.

Helped by automation, employee productivity greater than tripled over the identical interval, in keeping with data from the federal Energy Info Administration and the Brookings Institution.

The U.S. Chamber of Commerce, which has opposed carbon rules, warned that former President Barack Obama's signature Clear Energy Plan would result in a median loss of more than 200,000 American jobs each year by means of 2030 — a wildly overstated projection, energy and labor specialists say. While it's official to fret concerning the reliability of the U.S. power grid, the decline of the coal trade isn't elevating much of a threat at a time of cheap and ample gasoline and quick-rising wind and solar power, stated Jason Bordoff, director of Columbia College's Middle on International Energy Coverage.

# Mineral Resources of North Korea

The mining sector remains essential for North Korea's financial system and many experts believe this is the way it manages to support its military spending.

North Korea expert Leonid Petrov stated estimates of $6 trillion of minerals is not unrealistic, however admitted an exact value has not been confirmed. "China is considering protecting North Korea as a closed market for treasured metals," Petrov stated.

Necessary to the nation's economy, North Korea is of course considerable in metals akin to magnesite, zinc, tungsten, and iron; with



magnesite sources of 6 billion tons (second largest on this planet), significantly in the Hamgyeong-do and Jagang-do provinces. In addition to its steel assets, North Korea could be abundant in coal and limestone (with 100 billion metric tons), valued at some $9.7 trillion dollars. Particularly the purest form of coal, anthracite, is extremely prevalent, with reserves of over 4.5 billion tons, one which at $143/ton would be priced at $644.8 billion.

Powerful worldwide sanctions additionally means dealing with North Korea on a financial level remains extremely troublesome. Pyongyang has exported minerals to allies of China and Russia for decades but worldwide sanctions had curtailed its export talents in recent instances.

**IRON ORE PRICE REPORT**

NORTH AMERICAN MARKET (LTU)

| 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 | $1.29 | $82.56 | 12/31/16 |
| Cliffs Natural Resources Inc. | Pellets, FOB Minnesota Upper Lakes Port | $1.13 | $72.32 | 12/31/16 |

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# Manufacturing Too Sluggish?

The slowdown in commodities demand development since 2011 has launched a general mood of austerity across the industry for the last 10 years. In response, Australian mining corporations have seemed to cut prices, tempered capital spending, and trim head counts, to preserve cash reserves and restore balance sheets damaged by impairments from acquisitions and projects that had gone wrong.

Developed now is an intensive "knowledge set" to conduct analyses utilizing the MineLens Productivity Index (MPI). It covers mines throughout all major mining geographies, commodities, and mining players.

The data set goes back ten years; for every mine, detailed knowledge has been gathered from publicly accessible sources for each of MPI's 4 components: production quantity, web belongings, number of workers, and non-labor-related prices.

There is intense curiosity throughout the industry in reversing the excesses of the 2000s. Miners are searching for more methods to cut prices incurred to produce mining output, or to extend output at no additional cost—in other words, to raise productivity without spending more. CEOs have been acknowledging to investors that poor productivity performance must be addressed.

Meantime, governments in major mining countries are additionally making an attempt to understand the productiveness challenge, with publicly funded research estab-

**Mining companies worldwide largely overpassed productivity objectives that had underpinned working self-discipline within the lean years of the 1980s and 90's, when elements of the business had set a wholesome record in productivity.**

lishments studying the issue intently. There are two important variants of the tight-fist approach. The first is proven by an Asia-Pacific coal producer. This mine elevated its output by 15% while additionally specializing in controlling and decreasing operating expenses and labor costs (indicated by the discount in its size); its capital-spending-to-asset worth remained rather flat. Via this strategy, the mine achieved an MPI enhancement of well above 10%.

The surge in demand for metals and minerals in the early 2000s quickly translated into greater prices and, with it, increased miners' profitability. Boosting production volumes became the trade's precedence.

Mining companies worldwide largely overpassed productivity objectives that had underpinned working self-discipline within the lean years of the 1980s and 90's, when elements of the business had set a wholesome record in productivity. As the demand growth gathered pace, cost increases related to expanding manufacturing badly went out of uncontrol.

An examination of individual-mine information can provide useful insights to mine management about their progress on the path towards greater productivity. A South American copper mine made vital capital expenditures to boost its production and noticed output rise 3.9 % per year.

Nonetheless, while productivity has started to extend up to now four years, helped by the higher output, the increased outlays on labor and, particularly, on operating prices throughout the full 2005-2013 interval resulted in productiveness declining nearly 2 percent per 12 months on average over the period.

Why does productiveness matter so much? It is useful to go back to basics: doing more with less is the foundation of improving efficiency in mining and leads on to elevating shareholder returns.  Iron ore futures in China this year climbed to their highest in almost three years, supported by stronger costs of steel. Companies seek to fulfill criterias to extend percentual output. As mining-company leaders work to rebuild profitability, improving productiveness still remains high on the agenda.

Overall, worldwide mining operations are 28% less productive as we speak than a decade in the past, in accordance with new McKinsey research. The outcomes from declining ore grades and mine cost inflation, indicate the pronounced decline in productivity is obvious throughout totally different commodities and is seen in most mining players and geographies.





# Progress In Mine Safety Science

When hazard strikes, a speedy and secure rescue effort can mean the distinction between life and dying for trapped miners. Since its creation in 1929, Ontario Mine Rescue has established a reputation for top requirements in training, tools and emergency response, in addition to the development of secure, efficient mine rescue practices.

The Canadian Mine Act requires that every operator of an underground mine assure the availability of mine rescue teams for purposes of emergency rescue and recovery of trapped or injured miners.

Rescue teams must obtain ample coaching in accordance with 30 CFR Part 49.8 for underground steel and nonmetal mines, and 30 CFR Part forty 49.18 for underground coal mines. Mine rescue contests and simulations are a vital a part of the coaching course and groups gain exposure to a variety of potential hazards and mine emergency scenarios.

Jeff Farquharson, a mine rescue volunteer since 2011, holds Technician and Advanced Mine Rescue Certifications, and is an energetic volunteer firefighter with the Better Sudbury Fireplace Service. He was captain of the Vale Canada mine rescue group at 2017 provincial competition, and a member of the 2015 provincial championship team.

Ontario Mine Rescue, part of Workplace Safety North (WSN), has educated and outfitted thousands of volunteers who have fought fires, rescued injured personnel, and responded professionally to a wide array of incidents within the province's mines.

Work Safety North (WSN) maintains a Mine Rescue Technical Advisory Committee (TAC) that gives recommendation and steering to Ontario Mine Rescue. Rank and file, beneath the leadership of the committee, remain dedicated to continuous improvement, ensuring the mining industry's mine rescue needs are met.

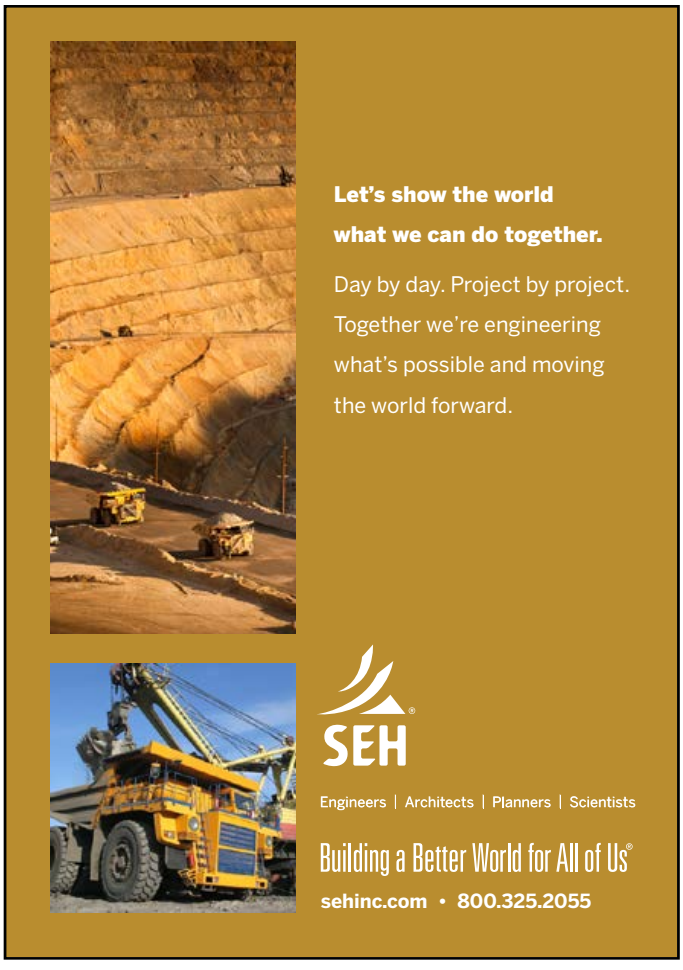
# CEO: Glencore's Lead Into Profit

The chief architect of the Glencore empire is Ivan Glasenberg, 59, billionaire CEO—a laser-centered South African who is a marathon bicycle owner and onetime competitive racewalker. Since taking control at Glencore in 2002, Glasenberg has quietly expanded the company's footprint so that it now stretches from the Arctic Circle to the Australian desert and each region in between.

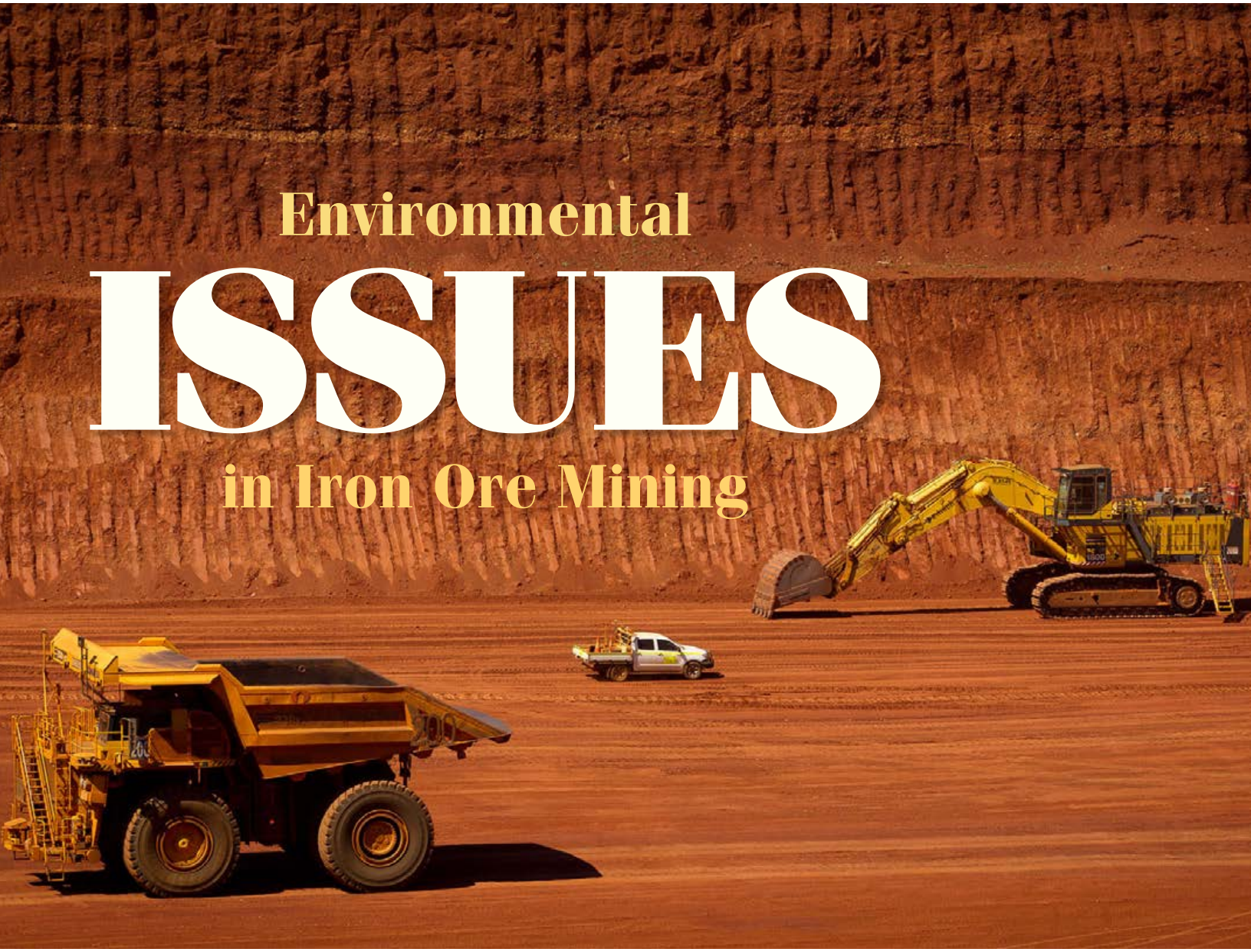
In truth, the commodities that Glencore mines and moves now touch virtually every element of wired and network market.

Cell phone, flip on the computer, drive your automotive, take a flight, eat a bowl of cereal or a plate of sushi, or drink some sugared espresso—Glencore could have had a hand in all of that. The corporation makes use of warehouses and port facilities in Colombia, Australia, Peru, the Netherlands, and elsewhere, and just last month, its fleet of seven hundred vessels (mostly chartered) outnumbered the U.S.

Navy's. Glencore is the only sizable firm of its sort that mines, ships, and trades numerous commodities in dozens of nations; its competitors, for example, Cargill, Rio Tinto, and BHP Billiton, are only in some of these markets. Glencore's gargantuan size makes it an inevitable target of suspicion. And for years the company's critics—largely activists and NGOs—have claimed that Glencore has profited by nurturing political connections in troubled, usually corrupt nations. Glasenberg has vehemently rejected the claims, and he says that Glencore makes a crucial contribution within the nations where it operates.



# Environmental ISSUES in Iron Ore Mining

The recent collapse of a mining dam at the Samarco iron ore mine in Brazil is one of the biggest environmental disasters in the country's history. Making  all mining companies are aware of the importance of environmental issues in this industry.

Besides global impacts, countries that consume very large amounts of coal, such as China, have to deal with the heavy environmental and public health effects from coal mining and coal burning (World Bank, 2007; IEA, 2017).

China buys half the ore that Vale produces, much of which comes from the world's biggest iron ore mining complex, situated nearby in the same minerals-rich forest reserve.

Just recently, a high level delegation of Latin American policy makers visited mining areas in Australia to learn how responsible mining companies have been able to successfully engage with host communities and affected indigenous peoples (IPs). Iron ore miners from Australia and Brazil have embarked on massive expansion

programs in recent years to supply the Chinese market. There's land ownership chaos in the Amazon; no one knows who owns what land. Australia, the world's second largest iron ore exporter, now expects 2017 iron ore shipments to be at the low end of its previous guidance of between 330 and 340 million tons.

In 2015-16 land accounted for 83% of the value of Australia's environmental assets, down from 92% in 2005-06. POSCO, a multinational steel-making company headquartered in Pohang, South Korea, currently sources most of its iron ore from Australia and Brazil.

Mining laws and legal and technical capacity in many countries still need to be enhanced in order to include new internationally recommended best mining practices (ALSF, 2017 ; AMLA, 2017 ).

The positive signs about this are that responsible mining companies tend to adopt everywhere good mining procedures according to the best international standards, however this might be far from being the general norm yet.

Although current U.S. mining and reclamation practices guided by environmental regulations minimize or prevent waste rock erosion into streams, disposal of waste rock in places where it could erode into surface drainages has occurred historically.

Global Minerals Engineering is a leader in working with environmental issues related to iron ore and taconite mining, including waste characterization, waste and water management, water treatment, environmental compliance, and the development of a new best management practice for cost effective reclamation of coarse taconite tailings, project closure and mineland reclamation. Mining will also be a major issue in the Maine Legislature in 2017.

## THE MANAGEMENT OF MINING ENVIRONMENTAL CONCERNS

Steel companies are rushing to invest in India to tap the country's rich iron ore deposits, but have faced a series of obstacles such as land acquisition problems, environmental clearance and regulatory issues. For existing companies, operating profit was also reduced by $134 million as a result of iron ore mining bans in the Indian states of Goa and Karnataka due to environmental issues. The local environmental watchdog advised that two proposals to mine significant banded iron formations (BIF) would cause permanent and irreversible environmental impacts, leading it to recommend against their approval.

The efforts made by governments to address issues of environmental management and sustainable development are expressed in national and international frameworks, as well as some of the environmental challenges in the mining sector. The management of mining water is a critical environmental concern.

Two proposals to mine iron ore in Western Australia have been rejected by the Environmental Protection Authority, which says the projects

**The management of mining waste, additionally referred to as extractive waste, is a key factor for the longer term mining business of Sweden. Mines are extremely waste intensive, and the quantity of mining waste produced in Sweden each year is much larger than all other forms of waste combined.**



will cause irreversible environmental impacts. However, the adoption of the environmental management tools such as Environmental Impact Assessment (EIA), Environmental Impact Statement (EIS), and the harnessing of best practices valorizing local knowledge are still lacking.

## MINING ACTIVITIES ARE DIVERSE AND HAVE DIFFERENT FOOTPRINTS.

As in many parts of the Unite States, decades of hard rock mining left a dire legacy in the iron ranges of the Upper Midwest. Until very recently, environmental impacts on nature and on populations at large were not duly considered either, however now regulations and concerns with environmental resources lead to mitigation of pollution and remediation of the environmental impact.

Thanks to advances in mining technology, the time has long past when we had to choose between mining and the environment. Midwest Environmental Advocates works to protect Wisconsin's environmental heritage and economic opportunities by promoting sound, science-based mining regulations.

However, there has been increased interest in U.P. ferrous metal mining in recent years that has brought the industry into conflict with environmental groups and Native American tribes. Some actions, here and abroad, lessens a mining company's environmental liability by removing irrevocable trust requirements, which require mining companies to set aside money to pay for future environmental issues that may arise such as contamination.

This in part could be attributed the government model that relies on mining companies to commission and produce the independent" Environmental Impact Assessments that are used to gauge a proposed mining project's likely environmental, social, and human rights impacts.



## MINING INDUSTRY PEOPLE

Great Panther Silver Limited appointed **Matthew Wunder** as Vice President Exploration and **Brian Peer** as Vice President Operations, Mexico. While Mr. Wunder has already joined the Company, Mr. Peer's appointment will be effective on August 20. Matt Wunder has 30 years of experience in the mining industry, including 15 years with Noranda Inc. and more than 10 years as a senior executive for several junior and mid-size companies. Brian Peer has more than 30 years of mining experience including 19 years in senior management. Most recently, he was General Manager with Red Eagle Mining in Colombia, responsible for implementing new narrow vein mining methods.

Wallbridge Mining Company Limited announced that **Shawn Day** has joined the Company's Board of Directors. Mr. Day is the General Manager and one of the principals of William Day Construction Limited, a large diversified surface and mining contracting company in Northern Ontario. Wallbridge is currently preparing to develop its 100%-owned high-grade gold Fenelon Gold Property in Quebec with exploration underway and a bulk sample targeted for 2017.

Zinc and gold exploration company Connemara Mining appointed **Patrick Cullen** as its new chief executive. Mr Cullen brings more than 20 years' experience in the mining and exploration sector  along with extensive knowledge of capital markets to the role Most recently, he was a director of Kodal Norway (UK), a phosphate and iron mining company. He also held the position of exploration manager for African Energy Resources. ■

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# June 2017 Crude Steel Production

**By John Edward, Associate Publisher**

World crude steel production for the 67 countries reporting to the World Steel Association (worldsteel) was 141.0 million tonnes (Mt) in June 2017, a 3.2% increase compared to June 2016. The crude steel capacity utilisation ratio of the 67 countries in June 2017 was 73.0%.

This is 1.4 percentage points higher than June 2016. Compared to May 2017, it is 1.3 percentage points higher.

China's crude steel production for June 2017 was 73.2 Mt, an increase of 5.7% compared to June 2016.

Japan produced 8.4 Mt of crude steel in June 2017, a decrease of -4.3% compared to June 2016. South Korea produced 5.9 Mt of crude steel in June 2017, an increase of 7.7% compared to June 2016.

In the EU, Germany produced 3.6 Mt of crude steel in June 2017, a decrease of -1.7% compared to June 2016. Italy produced 2.1 Mt of crude steel, up by 1.8% on June 2016. France produced 1.3 Mt of crude steel, up by 1.3% compared to June 2016. Spain produced 1.3 Mt of crude steel, up by 8.1% on June 2016.

Turkey's crude steel production for June 2017 was 3.0 Mt, up by 7.1% on June 2016. The US produced 6.7 Mt of crude steel in June 2017, a decrease of -1.7% compared to June 2016.

Brazil's crude steel production for June 2017 was 2.6 Mt, up by 4.0% on June 2016.

*Statistics based on World Steel Association Report released on July 20, 2017.*■

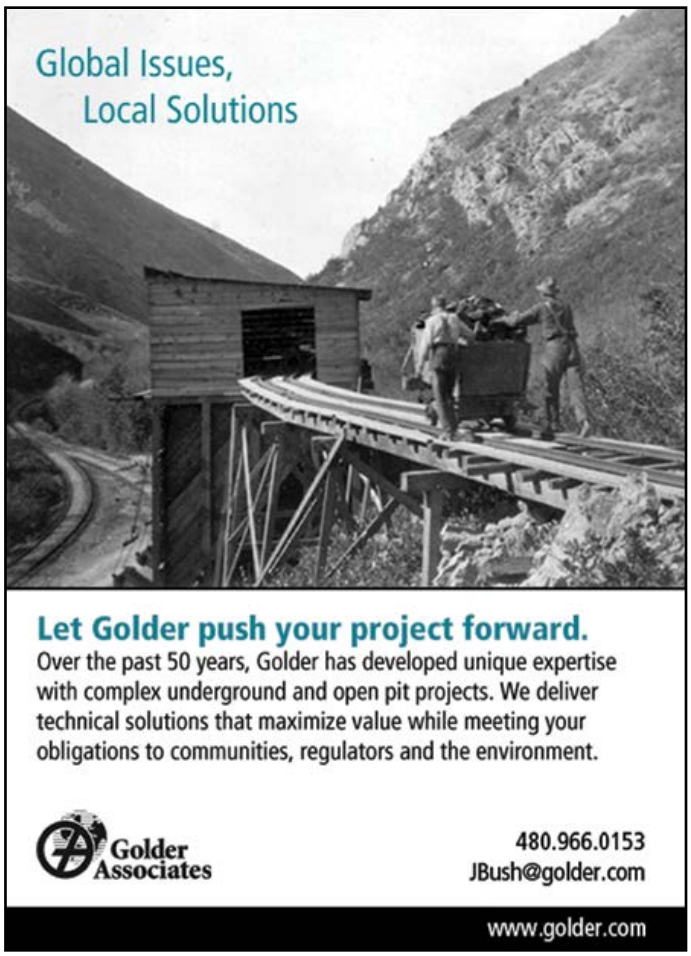
# Preliminary USGS Iron Ore Statistics for March 2017

**By John Edward, Associate Publisher**

According to the U.S. Geological Survey (USGS) report by Mineral Commodity Specialist Christopher A. Tuck, U.S. mine production and shipments of iron ore in March 2017 were 3.76 million metric tons (Mt) and 1.34 Mt, respectively.

Average daily production of iron ore was 121,000 metric tons (t), slightly less than that of February and 20% greater than that of March 2016. Average daily shipments of iron ore were 43,200 t, nearly seven times those in February and slightly greater than those in March 2016. Mine stocks at the end of March 2017 were 24% greater than those held at the end of February and 9% less than those held at the end of March 2016.

U.S. exports of iron ore totaled 388,000 t in March 2017, more than double those in February 2017 and March 2016. U.S. imports of iron ore totaled 11,000 t in March 2017, less than 10% of those in February and 3% of those in March 2016.■



## CRUDE STEEL PRODUCTION, JUNE 2017. *Source – World Steel Association*

| COUNTRY | JUNE 2017 | MAY 2017 | JUNE 2017 | % CHANGE JUNE – 17/16 |
|---|---|---|---|---|
| Canada | 970 e | 1,080 e | 1 096 | -11.5 |
| Cuba | 15 e | 20 e | 20 | -25.9 |
| El Salvador | 10 e | 10 e | 9 | 16.3 |
| Guatemala | 25 e | 25 e | 27 | -7.4 |
| Mexico | 1,685 e | 1,630 | 1,668 | 1.0 |
| Trinidad and Tobago | 0 | 0 | 0 | .. |
| United States | 6,707 | 6,995 | 6,824 | -1.7 |
| Total - North America | 9,412 | 9,760 | 9,644 | -2.4 |
| Argentina | 372 | 394 | 372 | -0.1 |
| Brazil | 2,649 | 2,931 | 2,546 | 4.0 |
| Chile | 95 e | 95 e | 93 | 1.7 |
| Colombia | 100 e | 110 e | 111 | -9.6 |
| Ecuador | 45 e | 45 e | 45 | 0.0 |
| Paraguay | 1 e | 1 e | 4 | -75.0 |
| Peru | 100 e | 100 e | 97 | 2.9 |
| Uruguay | 5 e | 5 e | 6 | -13.8 |
| Venezuela | 45 e | 10 e | 26 | 71.9 |
| Total - South America | 3,412 | 3,691 | 3,301 | 3.4 |
| Egypt | 531 | 530 e | 377 | 40.9 |
| Libya | 17 | 39 | 29 | -42.7 |
| Morocco | 45 e | 45 e | 45 | 0.0 |
| South Africa | 458 e | 561 e | 545 | -15.9 |
| Total - Africa | 1,051 | 1,175 | 996 | 5.5 |
| Iran | 1,785 | 1,790 e | 1,534 | 16.4 |
| Qatar | 207 | 195 | 178 | 16.3 |
| Saudi Arabia (HADEED only) | 401 | 324 | 507 | -20.9 |
| Total - Middle East | 2,662 | 2,597 | 2,433 | 9.4 |
| China | 73,231 | 72,259 | 69,299 | 5.7 |
| India | 7,950 e | 8,500 e | 8,036 | -1.1 |
| Japan | 8,391 | 8,951 | 8,769 | -4.3 |
| South Korea | 5,906 | 5,665 e | 5,482 | 7.7 |
| Taiwan, China | 1,930 e | 1,900 e | 1,828 | 5.6 |
| Total - Asia | 98,719 | 98,931 | 94,427 | 4.5 |
| Australia | 449 e | 432 | 535 | -16.1 |
| New Zealand | 55 | 61 | 46 | 20.6 |
| Total - Oceania | 504 | 492 | 581 | -13.2 |

| COUNTRY | JUNE 2017 | MAY 2017 | JUNE 2017 | % CHANGE JUNE – 17/16 |
|---|---|---|---|---|
| **Total - European Union (28)** | **14,387** | **14,758** | **13,845** | **3.9** |
| **Total - Other Europe** | **3,261** | **3,558** | **3,100** | **5.2** |
| **Total - C.I.S. (6)** | **7,639** | **8,363** | **8,307** | **-8.0** |
| **Total (67 countries)** | **141,046** | **143,325** | **136,633** | **3.2** |

e – estimate | r – revised

Monthly Crude Steel Production in the 67 Countries included in the report, in thousands of metric tons. The 67 countries included in this table accounted for approximately 99% of total world crude steel production in 2016.

## U.S. RAW STEEL PRODUCTION

| WEEK ENDING | Weekly Production | | | Year-to-Date Production | | |
|---|---|---|---|---|---|---|
| | Production | Percent Change* | Capability Utilization Rate | Production | Percent Change* | |
| August 12, 2017 | 1,780 | 1.0 | 76.4 | 55,650 | 2.9 | 74.6 |
| Previous Year | 1,655 | 7.6 | 70.8 | 54,106 | - | 72.4 |
| August 5, 2017 | 1,762 | - 0.4 | 75.6 | 53,870 | 2.7 | 74.5 |
| Previous Year | 1,658 | 6.3 | 70.9 | 52,451 | - | 72.4 |
| July 29, 2017 | 1,769 | - 0.2 | 75.9 | 52,108 | 2.6 | 74.5 |
| Previous Year | 1,667 | 6.1 | 71.3 | 50,793 | - | 72.4 |
| July 22, 2017 | 1,773 | 0.6 | 76.1 | 50,339 | 2.5 | 74.5 |
| Previous Year | 1,667 | 6.4 | 71.3 | 49,126 | - | 72.4 |

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

* 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.

## WEEKLY U.S. RAW STEEL PRODUCTION BY DISTRICT

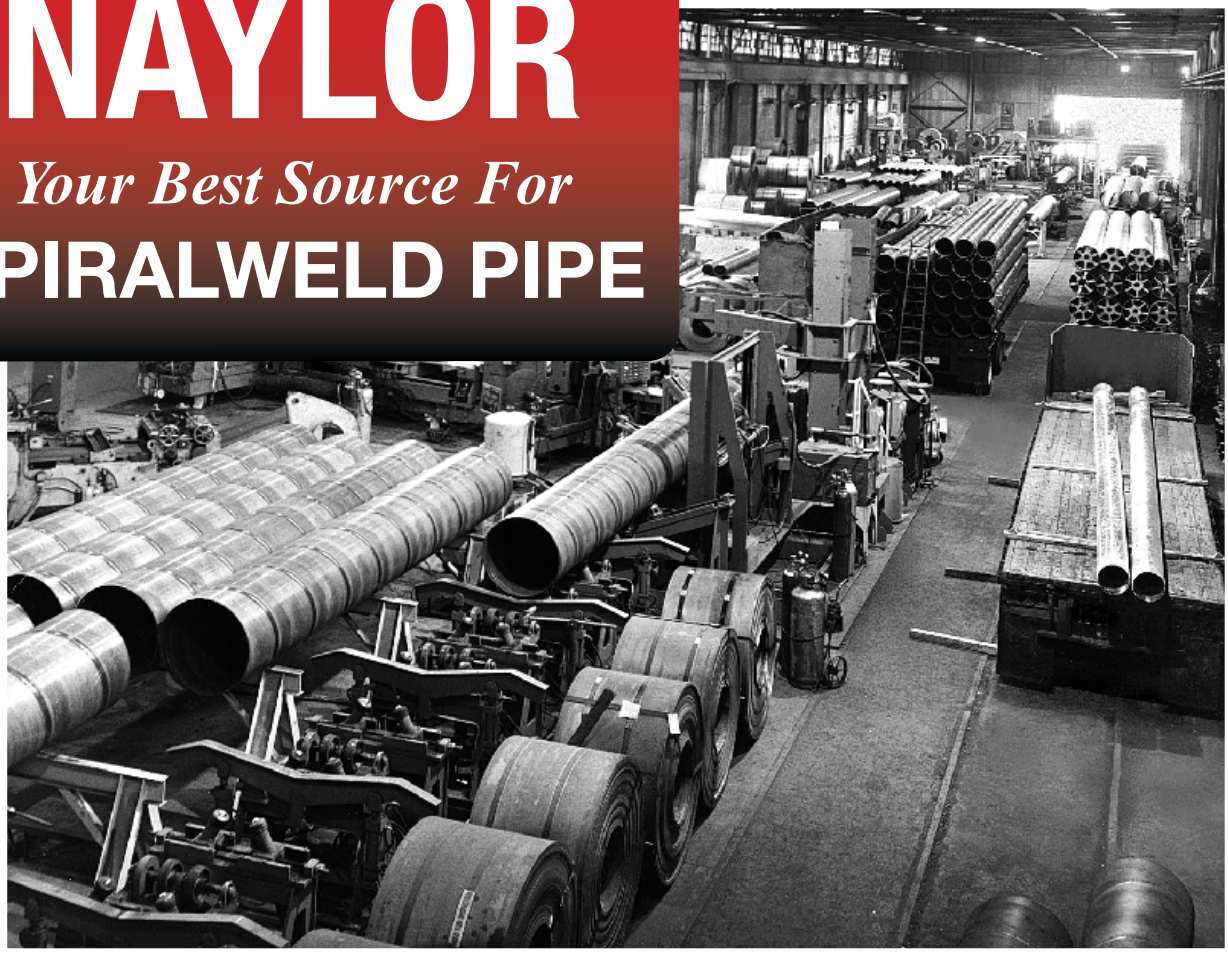
| DISTRICT | WEEK ENDING | | | |
|---|---|---|---|---|
| | 8/12 | 8/5 | 7/29 | 7/22 |
| North East | 211 | 215 | 213 | 214 |
| Great Lakes | 678 | 662 | 672 | 677 |
| Midwest | 166 | 164 | 168 | 166 |
| Southern | 650 | 642 | 640 | 637 |
| Western | 75 | 79 | 76 | 79 |
| Total | **1,780** | **1,762** | **1,769** | **1,773** |

In thousands of Net Tons – Source – American Iron & Steel Institute.

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