

## **Wyoming Business Council, JR Simplot Company to assess feasibility of pig iron production in Atlantic City, Wyo**

The JR Simplot Company, one of the largest privately held food and agribusinesses companies in the nation, owns an iron ore mine in Atlantic City, Wyo., left vacant since it was leased by U.S. Steel (USS) from the early 1960s to 1983.

In its heyday, the mine created concentrated pellets, which were shipped to USS Geneva Works near Salt Lake City for production of steel sheet products for demanding applications. The process consumed about 60 million tons from the site.

The Wyoming Business Council is leading an effort to get this once-booming mine running again in the central part of the state. The plan is to use abundant low-cost natural gas to add value to the iron ore in the production of pig iron for domestic consumption.

It might seem counterintuitive to launch such a project during the downside of the commodity cycle, but the state believes such times don't last forever. Now is the time to conduct detailed process and financial analyses in order to be ready with a plan for implementation during the next wave of steel investment.

The Wyoming Business Council and Peter Wright, a Dallas-based consultant, are developing plans to help secure a new partner for Simplot.

An estimated 150 million to 200 million tons of reserves lay in the shuttered mine between Lander and Rock Springs. Additionally, mill tailings from 20 years of operation offer the opportunity for reprocessing.

"Today's technology may be able to turn these tailings into a marketable product," Rex Lewis, co-chairman of the Wyoming Business Council Board of Directors, said.

The estimated reserves will support a minimum project life of 40 to 50 years considering a conceptual pig iron production volume of 1 million tons per year.

Lewis said a Wyoming operation offers many advantages including access to low-cost power and low-cost natural gas served by a 30-mile-long, eight-inch line that dead ends at the mine site. A mine operator would also benefit from excellent rail service from Rock Springs and Shoshoni using BNSF, UPSP, or both, for product shipment to the steel-producing regions in the East.

“There’s also the attraction of having the state working for you rather than against you,” Lewis said.

Wyoming ranked first in the United States and fifth among the top 10-ranked jurisdictions in the world for Policy Perception Index (PPI) in the Fraser Institute’s 2013 Survey of Mining Companies. The annual PPI measures the overall policy attractiveness of the 112 jurisdictions in the survey of approximately 4,100 exploration, development and other mining-related companies around the world.

From Wyoming’s point of view, a mining operation followed by downstream concentration, pelletization, direct reduction, induction furnace melting for gangue removal and the casting of pig iron would create a value-added product with lower transportation costs than the shipment of raw materials for production elsewhere. The prospect of a mine and mill operation falls in line with the state’s efforts to diversify its economy and tax base, and generate even more good-paying Wyoming jobs.

“Global steel growth will continue, driven particularly by infrastructure needs, and it looks as though global political instability isn’t getting any better, which plays into the preference for domestic raw materials,” Wright, the consultant, said. “The transition from integrated steel manufacture to electric arc furnace (EAF) melting has proceeded from 23.9 percent in 1970 to 60.6 percent in 2013. Imports of pig iron into the U.S. in 2013 were 4.5 million tons, with 81 percent of that volume equally split between Brazil and Russia. Nucor’s DRI plant will tend to reduce that volume but the transition away from blast furnace to EAF production will continue and will increase the demand for low residual iron units.

“Of immediate significance is the entrance of Big River Steel to the market, the plan to replace the U.S. Steel Fairfield blast furnace with an EAF and the consideration by Arcelor Mittal to add an EAF to its newly acquired Calvert mill will continue that trend,” Wright continued.

“The process revolution underway in the U.S. for over 40 years will continue to pressure the scrap market, and there will be an increasing need for low-residual iron units in the future. Pig iron is highly preferable to DRI as an EAF raw material.”

The Wyoming Business Council will soon approach design engineering service providers for quotes for an economic feasibility study and process and equipment supplier recommendations.

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