

# Mineral Industry Surveys

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## IRON ORE IN FEBRUARY 2013

U.S. mine production of iron ore was 3.90 million metric tons (Mt) in February 2013, averaging 139,000 metric tons (t) on a daily basis; monthly production was 7% less than that of January and 5% less than that of February 2012.

U.S. iron ore shipments were 611,000 t in February 2013, averaging 22,000 t on a daily basis; monthly shipments were 78% less than those of January and 13% less than those of February 2012. Mine stocks at the end of February 2013 were 3.29 Mt more than those held on January 31. U.S. exports of iron ore were 483,000 t and U.S. imports were 84,000 t.

China's average import prices for iron ore fines at 62% iron content spot price (cost and freight Tianjin port) rose to \$154.64 per dry metric ton in February 2013, a 2.76% increase from that of January 2013 (Index Mundi, undated).

Legislation aimed at reducing the time involved in permitting for iron ore mines passed the Wisconsin Senate on February 27. Gogebic Taconite LLC, a subsidiary of the Cline Resource and Development Group which publicly supported the legislation, indicated they would file permits for an iron ore mine and processing plant along the Penokee Range in Ashland and Iron Counties, WI. The permitting process was expected to take more than 3 years. The cost estimate was \$20 to \$30 million dollars to begin the initial phase of production, and production was expected to continue for 35 years (Miller and Peters, 2013).

Essar Steel Minnesota LLC entered into a 10-year agreement with ArcelorMittal USA, expected to begin March 2014. According to the agreement, Essar Steel would supply 3.5 Mt of standard and fluxed pellets to ArcelorMittal's North America operations for 10 years. Essar Steel's planned facility in Nashwauk, MN, would be capable of producing direct-reduced-grade pellets as well, with production scheduled to begin in the second quarter of 2014. Magnetite reserves of 1.7 billion metric tons in the proven and probable category will supply the 7 Mt-per-year processing and pelletizing facility for an investment of \$1.7 billion (Essar Steel Minnesota LLC, 2013).

Cliffs Natural Resources Inc. announced the successful test production of low-silica iron ore pellets, which could be used to create direct-reduced iron at United Taconite in Eveleth, MN, and Northshore Mining in Silver Bay, MN (Kraker, 2013).

Metamining Nevada Inc., a subsidiary of Linkwell Corp., expected to begin transportation from Mobile, AL, of 5 Mt of iron ore at 62% Fe content and 25% moisture. Plans were to reduce the total moisture content to less than 10% for shipping to consumers in China during the next 4 years beginning in the second quarter of 2013 (Linkwell Corp., 2013).

United States Steel Corp. entered into a joint initiative with the United Steelworkers union to form the Iron Ore Alliance, a group focused on promoting mining issues and economic growth related to U.S. Steel's Minnesota iron ore operations and its 1,864 employees. Efforts were focused on illustrating the impact that the taconite mines have in supplying about two-thirds of the feed for domestic blast furnace production (Kimball, 2013).

## References Cited

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TABLE 1  
U.S. PRODUCTION AND SHIPMENTS OF IRON ORE<sup>1,2</sup>  
(Exclusive of ore containing 5% or more of manganese)

(Thousand metric tons)

Period	Production		Shipments	
	Monthly	Year to date	Monthly	Year to date
2012:				
February	4,270	8,450	725	4,560
March	4,290	12,700	2,130	6,690
April	3,980	16,700	5,150	11,800
May	4,430	21,100	5,750	17,600
June	4,200	25,300	5,270	22,900
July	4,250	29,600	5,730	28,600
August	4,350	33,900	5,220	33,800
September	4,340	38,300	4,670	38,500
October	4,750	43,000	4,460	42,900
November	4,580	47,600	4,530	47,500
December	4,650	52,200	5,500	53,000
2013:				
January	4,200	4,200	3,110	3,110
February	3,900	8,100	611	3,720

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>Excludes byproduct ores.

TABLE 2  
U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE IN FEBRUARY<sup>1,2</sup>

(Thousand metric tons)

State	Production		Shipments <sup>3</sup>		Stocks <sup>4</sup>	
	2012	2013	2012	2013	2012	2013
Michigan	1,010	884	203	144	1,470	2,170
Minnesota	3,270	3,020	522	467	5,270	4,400
Total	4,270	3,900	725	611	6,750	6,580

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Excludes byproduct ore.

<sup>3</sup>Includes rail and vessel.

<sup>4</sup>Includes usable (marketable) material at mines, concentrators, pelletizing plants, and loading docks. Excludes stocks of crude ore at mine and concentrates at agglomerating complexes.

TABLE 3  
CANADA: SHIPMENTS OF IRON ORE<sup>1,2</sup>

(Thousand dry metric tons)

Period	Newfoundland and Labrador	Quebec	British Columbia	Total
2012:				
February	1,400	1,150	1	2,550
March	1,030	1,880	(3)	2,910
April	1,460	1,450	4	2,900
May	1,320	1,780	3	3,100
June	1,320	2,290	3	3,620
July	1,390	1,550	3	2,940
August	1,410	1,620	2	3,030
September	1,280	2,040	4	3,330
October	1,210	1,430	3	2,650
November	1,460	1,800	5	3,260
December	1,410	1,970	3	3,380
January–December	15,900	20,400	34	36,300
2013:				
January	1,310	1,350	--	2,660
February	NA	NA	NA	NA

NA Not available. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes production from steel plant waste oxides.

<sup>3</sup>Less than ½ unit.

Source: Natural Resources Canada.

TABLE 4  
U.S. PRODUCTION OF PIG IRON AND RAW STEEL, BY TYPE OF FURNACE<sup>1</sup>

(Thousand metric tons)

Period	Pig iron production, blast furnace		Raw steel production			
	Monthly	Year to date	Basic oxygen furnace		Electric furnace	
			Monthly	Year to date	Monthly	Year to date
2012:						
February	3,050	6,130	2,660	5,440	4,490	9,120
March	3,430	9,560	3,060	8,500	4,530	13,700
April	2,920	12,500	3,190	11,700	4,640	18,300
May	3,320	15,800	2,900	14,600	4,590	22,900
June	2,970	18,800	2,570	17,200	4,270	27,200
July	2,930	21,700	2,580	19,700	4,390	31,500
August	2,860	24,600	3,180	22,900	4,450	36,000
September	2,440	27,000	2,720	25,600	4,090	40,100
October	2,260	29,300	2,700	28,300	4,090	44,200
November	2,820	32,100	2,480	30,800	3,960	48,100
December	2,900	35,000	2,550	33,400	4,270	52,400
2013:						
January	3,060	3,060	2,740	2,740	4,300	4,300
February	2,760	5,820	2,530	5,280	4,050	8,350

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: American Iron and Steel Institute.

TABLE 5  
U.S. EXPORTS OF IRON ORE, BY COUNTRY OF DESTINATION AND TYPE<sup>1,2</sup>

(Thousand metric tons)

Country of destination and type of product	2012					2013	
	1st quarter	2d quarter	3d quarter	4th quarter	1st quarter– 4th quarter	January	February
Canada	1,290	1,850	1,590	1,640	6,370	832	331
China	814	1,820	1,020	458	4,110	47	50
Colombia	1	--	--	--	1	(3)	--
Germany	--	--	--	3	3	--	--
Japan	--	--	--	37	37	--	--
Mexico	48	98	240	255	641	121	103
Spain	--	--	(3)	--	(3)	--	--
United Kingdom	--	--	--	--	--	23	--
Other	5	1	(3)	6	12	1	(3)
Total	2,160	3,770	2,860	2,400	11,200	1,020	483
Concentrates	148	449	411	320	1,330	120	102
Coarse ores	554	499	123	148	1,330	71	49
Fine ores	114	10	87	38	249	(3)	1
Pellets	1,340	2,810	2,240	1,870	8,260	833	331
Briquettes	(3)	(3)	--	--	(3)	--	--
Other agglomerates	(3)	1	(3)	23	23	--	--
Roasted pyrites	1	1	(3)	(3)	3	--	(3)
Total	2,160	3,770	2,860	2,400	11,200	1,020	483

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY AND TYPE<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

Country of origin and type of product	2012	2013				
	January–February	February		January–February		
	Thousand metric tons	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Thousand metric tons	Value <sup>3</sup> (thousand dollars)	Value <sup>3</sup> (dollars per ton)
Brazil	68	--	--	--	--	--
Canada	673	84	11,200	165	21,600	130.85
China	(4)	--	--	--	--	--
Norway	(4)	(4)	14	(4)	14	300.00
Peru	8	(4)	4	(4)	7	1,640.00
South Africa	39	--	--	--	--	--
Sweden	--	(4)	7	(4)	7	330.90
Ukraine	(4)	--	--	--	--	--
Venezuela	33	--	--	--	--	--
Total	819	84	11,200	166	21,600	130.22
Concentrates	68	--	--	--	--	--
Coarse ores	(4)	--	--	3	50	16.67
Fine ores	79	84	11,200	84	11,200	133.43
Pellets	673	--	--	78	10,400	132.72
Briquettes	--	--	--	--	--	--
Other agglomerates	(4)	--	--	--	--	--
Roasted pyrites	--	(4)	2	(4)	7	1,640.00
Total	819	84	11,200	166	21,600	130.22

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Customs value. Excludes international freight and insurance charges.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE IN FEBRUARY 2013<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Country of origin	Type of product						Total
	Concentrates	Coarse ores	Fine ores	Pellets	Briquettes and other agglomerates	Roasted pyrites	
Canada	--	--	84	--	--	--	84
Norway	--	--	(3)	--	--	--	(3)
Peru	--	--	--	--	--	(3)	(3)
Sweden	--	--	(3)	--	--	--	(3)
Total	--	--	84	--	--	(3)	84

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE PELLETS, BY COUNTRY<sup>1</sup>

Country of origin	2012	2013				
	January–February	February		January–February		
	Thousand metric tons	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Thousand metric tons	Value <sup>2</sup> (thousand dollars)	Value <sup>2</sup> (dollars per ton)
Canada, total	673	--	--	78	10,400	132.72

-- Zero.

<sup>1</sup>Data, with the exception of the dollars per ton column, are rounded to no more than three significant digits.

<sup>2</sup>Customs value. Excludes international freight and insurance charges.

Source: U.S. Census Bureau.

TABLE 9  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE,  
BY CUSTOMS DISTRICT<sup>1,2</sup>  
(Exclusive of ore containing 20% or more manganese)

(Thousand metric tons)

Customs district (code no.)	January–February		February
	2012	2013	2013
Baltimore, MD (13)	536	--	--
Charleston, SC (16)	(3)	--	--
Chicago, IL (39)	(3)	--	--
Cleveland, OH (41)	(3)	(3)	(3)
Detroit, MI (38)	(3)	--	--
Los Angeles, CA (27)	--	(3)	(3)
New Orleans, LA (20)	283	162	84
New York, NY (10)	--	(3)	(3)
Nogales, AZ (26)	--	(3)	--
St. Albans, VT (02)	--	3	--
Total	819	166	84

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes agglomerates.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 10  
U.S. IMPORTS FOR CONSUMPTION OF IRON ORE PELLETS,  
BY CUSTOMS DISTRICT<sup>1</sup>

(Thousand metric tons)

Customs district (code no.)	January–February		February
	2012	2013	2013
Baltimore, MD (13)	469	--	--
New Orleans, LA (20)	204	78	--
Total	673	78	--

-- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

Source: U.S. Census Bureau.