

Mineral Industry Surveys

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IRON ORE IN APRIL 2023

Data are reported as gross weight unless otherwise noted and do not include iron metallics such as direct-reduced iron, hot-briquetted iron, iron nuggets, or pig iron. Production, shipments, and trade were impacted from January through March owing to seasonal closures of the Soo Locks, the primary shipping route for iron ore in the Great Lakes region.

U.S. mine production and shipments of iron ore in April 2023 were estimated to be 3.69 million metric tons (Mt) and 3.71 Mt, respectively (fig. 1, table 1). Average daily production of iron ore was 123,000 metric tons (t), a 7% increase from that in March and a 17% increase from that in April 2022. Average daily shipments of iron ore were 124,000 t, nearly triple those in March and a 35% increase from those in April 2022.

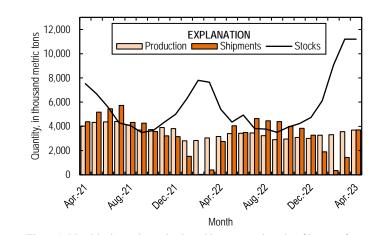


Figure 1. Monthly domestic production, shipments, and stocks of iron ore from April 2020 through April 2023.

Mine stocks were estimated to be 11.2 Mt at the end of April 2023, unchanged from those held at the end of March, and more than double those held at the end of April 2022 (fig. 1, table 1).

U.S. exports of iron ore were 1.03 Mt in April 2023, nearly triple those in March and a slight increase from those in April 2022 (fig. 2, tables 3, 6). U.S. imports of iron ore were 177,000 t in April 2023, a 41% decrease from those in March and a 26% decrease from those in April 2022 (fig. 2, tables 4, 6).

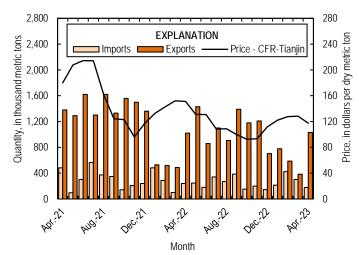


Figure 2. Monthly domestic imports and exports of iron ore and spot prices for imported iron ore fines, 62% iron content, cost and freight (CFR), at Tianjin Port, China, from April 2020 through April 2023. Source: U.S. Census Bureau and IndexMundi, undated.

The spot price for imported iron ore fines, 62% iron content, cost and freight, at Tianjin Port, China, was \$117.39 per dry metric ton in April 2023, a 9% decrease from \$128.37 per dry metric ton in March (fig. 2).

Industry News

In April, Northshore Mining restarted production in Minnesota which had been idled since May 2022, at a limited capacity, owing to increased domestic steel consumption. Cleveland-Cliffs Inc. attributed the partial restart to Northshore serving as a "swing operation" to fill needed capacity, with an expectation the facility would not run at full capacity in 2023. Disputes with Mesabi Trust on royalty payments for ore sourced by Northshore from Babbitt were also cited as a potential underlying issue causing the closure (Hughlett, 2023).

Hibbing Taconite Co. received approval for two minerals leases and the extension of a third by the Minnesota Executive Council, extending operations by nine months through 2026 with an additional 8.5 Mt of taconite. The mine was previously expected to deplete the existing ore body in 2025. Both U.S. Steel Corp. and Cleveland-Cliffs Inc. expressed interest in additional leases from the nearby Nashwuak deposit,

approximately 66 parcels formerly owned by Mesabi Metallics, which could extend mine life by decades (Bloomquist, 2023).

References Cited

Bloomquist, Lee, 2023, New minerals leases gives Hibbing Taconite a short-term lift: Business North, March 7. (Accessed August 14, 2023, at http://www.businessnorth.com/daily_briefing/new-mineral-leases-give-hibbing-taconite-a-short-term-lift/article_c03b4cf4-bd11-11ed-aa7e-43647ba72c7c.html).

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https://www.startribune.com/northshore-mining-on-iron-range-open-again-after-a-year-of-idling/600270008/?refresh=true.)

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 $\label{eq:table 1} \text{U.S. PRODUCTION, SHIPMENTS, AND STOCKS OF IRON ORE}^{1,\,2}$

(Thousand metric tons, usable ore)

	Pro	duction	Ship	ments ³ Stocks		
Period	Monthly	Year to date	Monthly	Year to date	End of Month	
2022:						
April	3,160	11,900	2,750	4,730	5,410	
May	3,400	15,300	4,050	8,780	4,350	
June	3,430	18,700	3,500	12,300	4,930	
July	3,460	22,100	4,640	16,900	3,820	
August	3,230	25,400	4,460	21,400	3,770	
September	2,900	28,300	4,390	25,800	3,510	
October	2,950	31,200	4,000	29,800	3,950	
November	3,080	34,300	3,840	33,600	4,240	
December	3,010	37,300	3,270	36,900	4,740	
2023:						
January	3,270	3,270	1,900	1,900	6,110	
February	3,310	6,580	350	2,250	9,070	
March	3,560	10,100	1,430	3,680	11,200	
April	3,690	13,800	3,710	7,390	11,200	

¹Data are rounded to no more than three significant digits.

²Data are estimated based on publicly reported data, employment hours, and historical ratios. Excludes byproduct ores and iron metallics.

³Includes rail and vessel.

 $\label{eq:table 2} \textbf{U.S. PRODUCTION OF PIG IRON AND RAW STEEL}^1$

(Thousand metric tons)

	Pig iron	production ²	Raw steel	el production	
Period	Monthly	Year to date	Monthly	Year to date	
2022:					
April	1,910	7,470	6,950	27,200	
May	1,960	9,430	7,120	34,300	
June	1,860	11,300	6,760	41,000	
July	1,900	13,200	6,910	47,900	
August	1,900	15,100	6,910	54,900	
September	1,800	16,900	6,550	61,400	
October	1,820	18,700	6,610	68,000	
November	1,700	20,400	6,200	74,200	
December	1,740	22,200	6,330	80,500	
2023:					
January	1,800	1,800	6,550	6,550	
February	1,770	3,570	6,120	12,700	
March ³	1,800	5,370	6,800	19,500	
April	1,810	7,180	6,690	26,200	

rRevised.

Source: American Iron and Steel Institute, U.S. Geological Survey estimates.

¹Data are rounded to no more than three significant digits.

²Pig iron data are estimated based on historical ratios.

³Pig iron data production reported by the American Iron and Steel Institute for the reported month.

 $\label{eq:table 3} \text{U.S. EXPORTS OF IRON ORE, BY COUNTRY OR LOCALITY AND TYPE} \ ^{1,2}$

	2022			2023		
	January-April	Apr	April		January–April	
	Quantity	Quantity	Value ³	Quantity	Value ³	Value ³
Country or locality	(thousand	(thousand	(thousand	(thousand	(thousand	(dollars
and type of product	metric tons)	metric tons)	dollars)	metric tons)	dollars)	per ton)
Canada	1,200	735	72,900	1,600	150,000	93.84
Japan	209 r	158	14,500	184	17,000	92.45
Spain	202	141	9,730	141	9,730	69.04
Other	1,020 ^r	(4)	154	860	82,800	96.24
Total	2,630 r	1,030	97,300	2,780	259,000	93.23
Concentrates	617	64	5,050	513	56,900	110.93
Fine ores	1	(4)	13	(4)	140	(5)
Pellets	1,930 ^r	970	92,100	2,170	199,000	91.63
Other	88	(4)	117	100	3,680	36.75
Total	2,630 r	1,030	97,300	2,780	259,000	93.23

rRevised.

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

²All countries with quantities less than 5,000 metric tons for the month included in "Other."

³Free alongside ship (FAS) value.

⁴Less than ¹/₂ unit.

⁵Value thought to be erroneous based on individual country value(s) in excess of normal value range, included in "Total."

TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY COUNTRY OR LOCALITY AND $\mathsf{TYPE}^{1,2}$

	2022	2023						
	January-April	April		January-April				
	Quantity	Quantity	Value ³	Quantity	Value ³	Value ³		
Country or locality of origin	(thousand	(thousand	(thousand	(thousand	(thousand	(dollars		
and type of product	metric tons)	metric tons)	dollars)	metric tons)	dollars)	per ton)		
Brazil	554	79	13,500	671	112,000	166.48		
Canada	310	76	12,000	244	41,100	168.50		
Sweden	77	22	2,110	141	21,800	154.88		
Other	168 ^r	(4)	67	62	5,900	95.23		
Total	1,110	177	27,700	1,120	181,000	161.80		
Concentrates	61			61	5,590	91.59		
Fine Ores	28	22	2,180	23	2,500	108.65		
Pellets	1,020	155	25,500	1,030	172,000	167.13		
Other	1							
Total	1,110	177	27,700	1,120	181,000	161.80		

Revised. -- Zero.

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

²All countries with quantities less than 5,000 metric tons for the month included in "Other." ³Customs value. Excludes international freight and insurance charges.

⁴Less than ½ unit.

 ${\it TABLE~5}$ U.S. IMPORTS FOR CONSUMPTION OF IRON ORE, BY CUSTOMS DISTRICT $^{1,\,2}$

(Thousand metric tons)

	P	ellets		Tota	icts	
	January–April		April	January	January-April	
Customs district (code no.)	2022	2023	2023	2022	2023	2023
Houston-Galveston, TX (53)	38	60	5	38	60	5
New Orleans, LA (20)	982	973	150	1,070	1,060	172
Other	r	(3)	(3)	1	1	(3)
Total	1,020	1,030	155	1,110	1,120	177

Revised. -- Zero.

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

²Customs Districts with less than 5,000 metric tons of imports per month included in "Other."

³Less than ½ unit.

 $\label{eq:table 6} \text{U.S. IRON ORE TRADE SUMMARY}^1$

(Thousand metric tons and thousand dollars)

	Expo	orts	Imports		
Period	Quantity	Value ²	Quantity	Value ³	
2022:					
January–April	2,630 ^r	254,000 r	1,110	231,000	
April	1,020 ^r	85,000 ^r	239	41,500	
May	1,430 ^r	128,000 ^r	248	47,500	
June	860	92,100	181	36,700	
July	1,100	124,000	342	64,400	
August	908 ^r	94,700 ^r	270	57,200	
September	1,390	141,000 ^r	387	84,500	
October	1,180	115,000	154	34,300	
November	1,210	122,000	199	31,900	
December	704	72,200 ^r	145	25,400	
January-December	11,400 ^r	1,140,000 ^r	3,040	613,000	
2023:					
January	779	68,400	214	32,400	
February	586	57,400	423	69,300	
March	383	36,300	302	51,200	
April	1,030	97,300	177	27,700	
January-April	2,780	259,000	1,120	181,000	

rRevised.

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

²Free alongside ship (FAS) value.

³Customs value. Excludes international freight and insurance charges.