



# MINERAL INDUSTRY SURVEYS

U. S. DEPARTMENT OF THE INTERIOR  
BUREAU OF MINES  
WASHINGTON, D. C. 20241



William P. Clark, Secretary

Robert C. Horton, Director

For information call F. L. Klinger  
or William I. Spinrad, Jr.  
Telephone: (202) 634-1023

Iron Ore, Monthly

## IRON ORE IN JUNE 1984

U.S. mine production and shipments of iron ore decreased 4% and 2%, respectively, in June compared with that of the previous month, according to the Bureau of Mines, U.S. Department of the Interior. U.S. imports of iron ore also increased 12% in June, while exports decreased 33%. Stocks at consuming plants increased 18% to 14.6 million tons, stocks at receiving/transfer docks increased 8% to 2.0 million tons, and stocks at mines decreased 4% to 12.6 million tons compared with those at the end of May. Fifty-five blast furnaces were in operation at the end of June, a decrease of three from that of the previous month.

Data for the first six months of the year indicate that iron ore production and shipments increased 57% and 30%, respectively, and U.S. imports and U.S. exports of iron ore increased 46% and 30% respectively, compared with the same period in 1983. Combined stocks at mines, consuming plants, and U.S. docks at the end of June were 8.2 million tons lower than the corresponding period last year.

Note: Selected tables of iron ore statistics, to be published in Volume I of the 1983 Minerals Yearbook, are included with this issue of Mineral Industry Surveys.

Table 1.--U.S. production and shipments of iron ore, by districts 1/  
 (Exclusive of ore containing 5% or more manganese)  
 (Thousand long tons)

	Lake Superior	Other U.S.	Total <u>2/</u>	
			1984	1983
Production:				
1983 p/-----	36,257	1,715	---	37,969
1984:				
1st Quarter-----	11,838	487	12,325	6,747
April-----	4,827	119	4,946	3,165
May-----	5,609	124	5,733	3,991
June-----	5,399	113	5,513	4,260
Shipments:				
1983 p/-----	42,269	2,479	---	44,748
1984:				
1st Quarter-----	3,331	539	3,870	1,494
April-----	3,533	122	3,655	2,876
May-----	6,111	137	6,248	5,323
June-----	5,923	171	6,095	5,592

p/ Preliminary.

1/ Excludes byproduct ore.

2/ Data may not add to totals shown because of independent rounding.

Table 2.--U.S. mine production, shipments, and stocks of iron ore 1/  
 (Exclusive of ore containing 5% or more manganese)  
 (Thousand long tons)

	Production June		Shipments June		Mine Stocks June 30	
	1984	1983	1984	1983	1984	1983
Lake Superior:						
Michigan-----	1,567	907	1,383	1,285	3,937	4,113
Minnesota-----	3,832	3,176	4,540	4,049	8,381	9,114
Wisconsin-----	--	--	--	--	--	--
Other U.S.-----	113	177	171	257	289	605
Total <u>2/</u> -----	5,513	4,260	6,095	5,592	12,608	13,832

1/ Excludes byproduct ore.

2/ Data may not add to totals shown because of independent rounding.

Table 3.--U.S. exports of iron ore  
 (Thousand long tons)

	Canada	Other	Total <u>1/</u>	
			1984	1983
1983 p/-----	3,780	2	--	3,781
1984:				
1st Quarter-----	314	( <u>2/</u> )	314	3
April-----	169	( <u>2/</u> )	169	304
May-----	701	--	701	617
June-----	470	( <u>2/</u> )	470	345
			<u>1654</u>	<u>1269</u>

p/ Preliminary.

1/ Data may not add to totals shown because of independent rounding.

2/ Less than one-half unit.

Source: U.S. Bureau of the Census.

Table 4.--Canada: Shipments of iron ore  
(Thousand long tons)

	Newfound- land	Quebec	Ontario	British Columbia	1984 Total <u>1/</u>	1983 Total <u>1/</u>
1983-----	14,869	9,299	47	389	--	24,604
1984:						
1st Quarter---	1,536	2,272	790	94	4,692	3,189
April-----	1,696	641	378	2	2,718	3,256
May-----	2,487	1,335	411	4	4,237	<u>r/</u> 2,937
June-----	NA	NA	NA	NA	NA	3,016

r/ Revised.

NA Not available.

1/ Data may not add to totals shown because of independent rounding.

Source: Statistics Canada - Energy, Mines and Resources Canada.

Table 5.--U.S. imports for consumption of iron ore by countries  
(Exclusive of ore containing 10% or more manganese)

	June 1984		Year to date 1984			Year to date 1983 (thousand long tons)
	Thousand long tons	Value <u>1/</u> (thousand dollars)	Thousand long tons	Value <u>1/</u> (thousand dollars)	Value <u>1/</u> (dollars per ton)	
Brazil-----	331	7,537	1,385	30,681	22.15	325
Canada-----	1,144	47,263	3,371	146,252	43.39	2,592
Liberia-----	--	--	691	11,026	15.96	1,040
Peru-----	--	--	7	72	10.29	( <u>2/</u> )
Sweden-----	--	--	27	405	15.00	22
Venezuela <u>3/</u> ---	153	3,339	669	18,084	27.03	227
Other-----	--	--	( <u>2/</u> )	( <u>2/</u> )	--	5
Total <u>4/</u> -----	1,627	58,139	6,151	206,521	33.58	4,212

1/ Customs value. Excludes international freight, insurance, and other c.i.f. charges.

2/ Less than one-half unit.

3/ Data for Venezuela in 1984 and 1983 may include some shipments of direct-reduced iron reported as iron ore. Verification has been requested.

4/ Data may not add to totals shown because of independent rounding.

Source: U.S. Bureau of the Census data reported under item 601.24 of the Tariff Schedules of the United States.

Table 6.--U.S. consumption and stocks of iron ore and agglomerates  
at consuming plants and production of pig iron  
(Thousand long tons)

	Consumption			Stocks June 30	
	June 1984	Year to date		1984	1983
		1984	1983		
Alabama, Kentucky, Tennessee, Texas, Missouri-----	511	2,629	1,345	1,196	1,869
California, Colorado, Utah---	186	1,119	835	228	519
Delaware, Maryland, West Virginia-----	641	3,504	2,718	1,382	1,806
Illinois, Indiana-----	1,912	12,946	11,180	5,220	6,761
Michigan, Minnesota-----	506	3,155	2,936	1,501	1,313
New York, Ohio, Pennsylvania, New Jersey, Rhode Island---	1,876	12,761	10,282	5,082	8,240
<b>Total <u>1/</u>-----</b>	<b>5,632</b>	<b>36,115</b>	<b>29,295</b>	<b>14,610</b>	<b>20,508</b>
Stocks at U.S. receiving/transfer docks-----				1,959	3,045

  

	Consumption by process			Pig iron produced		
	June 1984	Year to date		June 1984	Year to date	
		1984	1983		June 1984	June 1983
Blast furnaces-----	4,678	30,198	24,763	4,076	25,711	20,947
Steel furnaces-----	16	287	78	--	--	--
Agglomerating plants <u>2/</u> ---	933	5,536	4,358	--	--	--
Miscellaneous <u>3/</u> -----	4	94	96	--	--	--
<b>Total <u>1/</u>-----</b>	<b>5,632</b>	<b>36,115</b>	<b>29,295</b>	<b>4,076</b>	<b>25,711</b>	<b>20,947</b>

1/ Data may not add to totals shown because of independent rounding.

2/ Iron ore and iron ore concentrates consumed in agglomerating plants not located at the mine site.

3/ Sold to nonreporting companies or used for purposes not listed.

Source: American Iron Ore Association (consumption of iron ore).  
American Iron and Steel Institute (production of pig iron).

Table 7.--U.S. imports for consumption of iron ore, by customs districts  
 (Exclusive of ore containing 10% or more manganese)  
 (Thousand long tons)

Customs district	June 1984	Year to date	
		1984	1983
Baltimore-----	472	2,382	1,324
Buffalo-----	--	1	--
Charleston-----	--	5	--
Chicago-----	50	397	413
Cleveland-----	261	791	1,309
Detroit-----	1	1	1
Houston-----	--	61	15
Mobile-----	234	524	43
New Orleans-----	103	327	204
Philadelphia-----	506	1,577	874
Portland, Oreg.-----	--	--	22
Other-----	--	85	7
Total <u>1/</u> -----	1,627	6,151	4,212

1/ Data may not add to totals shown because of independent rounding.

Table 8. - Salient iron ore statistics  
(Thousand long tons and thousand dollars)

	1979	1980	1981	1982	1983
<b>United States:</b>					
Iron ore (usable, <sup>1/</sup> less than 5% manganese):					
Production-----	85,716	69,613	73,174	35,433	37,562
Shipments <sup>2/</sup> -----	86,218	69,594	72,181	35,756	44,596
Value <sup>2/</sup> -----	\$2,814,440	\$2,544,121	\$2,915,239	\$1,491,809	\$1,944,988
Average value at mines per ton-----	\$32.64	\$36.56	\$40.39	\$41.72	\$43.61
Exports-----	5,148	5,689	5,546	3,178	3,781
Value-----	\$178,749	\$230,568	\$244,685	\$150,522	\$182,744
Imports for consumption-----	33,776	25,058	28,328	14,501	13,246
Value-----	\$923,426	\$772,844	\$947,977	\$470,847	\$445,731
Consumption (iron ore and agglomerates)-----	125,431	98,879	104,385	63,916	70,629
Stocks, Dec. 31:					
At mines <sup>3/</sup> -----	11,266	11,725	12,734	12,129	3,209
At consuming plants-----	38,969	35,706	36,203	29,923	25,494
At U.S. docks-----	5,416	6,095	6,571	5,750	3,174
Manganiferous iron ore (5% to 35% manganese):					
Shipments-----	215	155	156	28	30
World: Production-----	<u>1/888,789</u>	<u>1/876,894</u>	<u>1/841,579</u>	<u>1/769,149</u>	<u>1/730,080</u>

<sup>1/</sup> Revised.

<sup>2/</sup> Preliminary.

<sup>e/</sup> Estimated.

<sup>1/</sup> Direct shipping ore, concentrates, agglomerates and byproduct ore.

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

<sup>3/</sup> Excludes byproduct ore. See text for change in 1983 (Section on Stocks).

PRELIMINARY

Table 9. - Crude iron ore mined in the United States in 1983, by district, State, and variety/  
(Thousand long tons and exclusive of ore containing 5% or more manganese)

District and State	Number of mines	Hematite	Limonite <sup>2/</sup>	Magnetite	Total quantity <sup>3/</sup>
<b>Lake Superior:</b>					
Michigan-----	2	11,121	--	16,033	27,154
Minnesota-----	9	1,462	--	82,954	84,416
Total-----	11	12,583	--	98,987	111,570
<b>Other States:</b>					
Missouri-----	1	--	--	1,288	1,288
Other <sup>4/</sup> -----	8	429	5/W	2,246	2,676
Total <sup>3/</sup> -----	9	429	5/W	3,534	3,963
Grand total <sup>3/</sup> -----	20	13,013	5/W	102,521	115,534

<sup>W</sup> Withheld to avoid disclosing company proprietary data.

<sup>1/</sup> Excludes byproduct ore.

<sup>2/</sup> Includes siderite ore.

<sup>3/</sup> Data may not add to totals shown because of independent rounding.

<sup>4/</sup> Includes California, Montana, Nevada, Texas, and Wyoming.

<sup>5/</sup> Included with hematite ore.

PRELIMINARY



Table 10. - Usable iron ore produced in the United States in 1983,  
by district, State, and type of product<sup>1/</sup>  
(Thousand long tons and exclusive of ore containing 5% or more manganese)

District and State	Direct shipping ore	Concentrates	Agglomerates	Average Iron content (natural), percent
<b>Lake Superior:</b>				
Michigan-----	--	--	9,339	64.5
Minnesota-----	--	865	25,390	64.4
Total reportable-	--	865	34,729	64.4
<b>Other States:</b>				
Missouri-----	--	58	742	65.5
Other <sup>2/</sup> -----	41	276	850	60.3
Total reportable-	41	334	1,592	62.4
Grand total-----	41	1,199	36,321	64.3

<sup>1/</sup> Includes byproduct ore.

<sup>2/</sup> Includes California, Montana, Nevada, New York, Texas, and Wyoming.

PRELIMINARY

Table 11. - Shipments of usable iron ore from mines in the United States in 1983 1/  
(Thousand long tons and thousand dollars exclusive of ore containing 5% or more manganese)

District and State	Gross weight of ore shipped			Iron content of ore shipped			Total value
	Direct- shipping ore	Concen- trates	Agglom- erates	Direct- shipping ore	Concen- trates	Agglom- erates	
	quantity <sup>2/</sup>	quantity <sup>2/</sup>	quantity <sup>2/</sup>	quantity <sup>2/</sup>	quantity <sup>2/</sup>	quantity <sup>2/</sup>	
Lake Superior:							
Michigan-----	28	--	10,685	14	--	6,762	W
Minnesota-----	--	1,113	29,586	--	580	18,981	1,342,455
Total reportable-----	28	1,113	40,271	14	580	25,743	1,342,455
Other States:							
Missouri-----	--	58	819	--	37	528	27,054
Other <sup>3/</sup> -----	137	980	1,189	74	544	754	W
Total reportable-----	137	1,038	2,008	74	581	1,282	1,937
Total withheld-----	--	--	--	--	--	--	575,479
Grand total <sup>2/</sup> -----	166	2,151	42,279	88	1,161	27,025	1,944,988

W Withheld to avoid disclosing company proprietary data; included with "Total withheld."

1/ Includes byproduct ore.

2/ Data may not add to totals shown because of independent rounding.

3/ Includes California, Colorado, Nevada, New Mexico, New York, Texas, Utah, and Wyoming.

PRELIMINARY

Table 12. - Consumption of iron ore and agglomerates in the United States in 1983  
(Thousand long tons and exclusive of ore containing 5% or more manganese)

State	Iron ore and concentrates 1/		Agglomerates 2/			Miscellaneous 3/	Total reportable
	Blast furnaces	Steel furnaces	Blast furnaces	Steel furnaces			
Alabama, Kentucky, Texas-----	W	W	W	W	W	W	W
California, Colorado, Utah-----	W	W	W	--	W	W	W
Ohio and West Virginia-----	1,794	W	14,334	W	W	W	16,128
Illinois, Indiana, Michigan-----	56	--	33,082	W	W	W	33,138
Maryland, New York, Pennsylvania--	1,543	82	13,389	91	W	W	15,107
Undistributed-----	482	11	4,923	4	835		6,256
Total 4/-----	3,876	94	65,727	96	835		70,629

W Withheld to avoid disclosing company proprietary data; included in "Undistributed."

1/ Not including pellets or other agglomerated products.

2/ Includes 43,849,216 tons of pellets produced at U.S. mines and 5,737,369 tons of foreign pellets and other agglomerates.

3/ Includes iron ore consumed in production of cement, direct-reduced iron, and iron ore shipped for use in manufacture of paint, ferrites, heavy media, cattle feed, refractory and weighting materials, and in lead blast furnaces.

4/ Data may not add to totals shown because of independent rounding.

PRELIMINARY

Table 13. - Iron ore consumed in production of sinter at  
iron and steel plants in 1983, by State  
(Thousand long tons)

State	Iron ore consumed <u>1/</u>	Sinter produced
Alabama, Kentucky, and Texas-----	W	W
California, Colorado, and Utah-----	W	W
Ohio and West Virginia-----	898	1,618
Illinois, Indiana, and Michigan-----	3,501	7,364
Maryland, New York, and Pennsylvania-----	4,250	5,731
Undistributed-----	968	1,147
<b>Total <u>2/</u>-----</b>	<b>9,616</b>	<b>15,859</b>

W Withheld to avoid disclosing company proprietary data.

1/ Includes domestic and foreign ores.

2/ Data may not add to totals shown because of independent rounding.

PRELIMINARY

Table 14. - Production of iron ore agglomerates <sup>1/</sup>  
in the United States, by type  
(Thousand long tons)

Type	Agglomerates produced	
	1982	1983
Sinter-----	2/16,200	3/15,859
Pellets-----	32,775	36,291
Total <sup>4/</sup> -----	48,975	52,151

<sup>1/</sup> Production at mines and consuming plants.

<sup>2/</sup> Includes 7,536,459 tons of self-fluxing sinter.

<sup>3/</sup> Includes 7,982,969 tons of self-fluxing sinter.

<sup>4/</sup> Data may not add to totals shown due to independent rounding.

PRELIMINARY

Table 15. - U.S. exports of iron ore, by country  
(Thousand long tons and thousand dollars)

Country	1981		1982		1983	
	Quantity	Value	Quantity	Value	Quantity	Value
Canada-----	5,529	243,527	3,173	150,200	3,780	182,490
France-----	(1/)	2	(1/)	6	(1/)	6
Germany, Fed. Republic of--	(1/)	3	--	--	(1/)	1
Japan-----	(1/)	2	--	--	--	--
Mexico-----	11	720	1	67	(1/)	4
Norway-----	(1/)	59	--	--	--	--
Taiwan-----	--	--	(1/)	1	--	--
United Kingdom-----	(1/)	21	(1/)	21	(1/)	5
Other-----	5	351	3	227	1	239
Total 2/-----	5,546	244,685	3,178	150,522	3,781	182,744

1/ Less than one-half unit.

2/ Data may not add to totals shown because of independent rounding.

PRELIMINARY

Table 16. - U.S. imports for consumption of iron ore, by country  
(Thousand long tons and thousand dollars)

Country	1981		1982		1983	
	Quantity	Value	Quantity	Value	Quantity	Value
Australia	--	--	(1/)	4	--	--
Brazil	1,738	52,267	972	26,339	1,276	30,192
Canada	18,845	707,974	9,281	359,708	8,832	339,472
Chile	342	6,329	47	673	--	--
Liberia	2,160	35,505	2,399	43,036	15,732	31,487
Peru	77	2,402	35	1,057	(1/)	5
South Africa, Republic of	--	--	52	1,083	--	--
Sweden	87	2,318	71	2,171	68	1,540
Venezuela	5,071	140,931	2/1,643	2/36,768	3/1,333	3/42,934
Other	8	251	(1/)	7	5	102
Total 4/	28,328	947,977	14,501	470,847	13,246	445,731

1/ Less than one-half unit.

2/ Excludes approximately 175,000 long tons of direct-reduced iron valued at \$24,000,000, originally reported as iron ore.

3/ Excludes approximately 82,000 long tons of sponge iron valued at \$6,516,000 originally reported as iron ore.

4/ Data may not add to totals shown because of independent rounding.

PRELIMINARY

Table 17. - U.S. imports for consumption of iron ore, by customs district  
(Thousand long tons and thousand dollars)

Customs District	1981		1982		1983	
	Quantity	Value	Quantity	Value	Quantity	Value
Baltimore-----	5,421	212,960	3,451	118,425	3,062	63,216
Buffalo-----	629	13,096	299	5,791	195	8,862
Chicago-----	3,854	128,320	2,667	91,454	1,625	52,357
Cleveland-----	4,995	179,616	2,087	77,001	4,491	179,771
Detroit-----	765	25,303	228	4,873	182	4,480
Galveston-----	123	2,579	--	--	--	--
Houston-----	775	30,809	376	14,654	37	1,169
Mobile-----	3,847	131,445	1,278	49,584	525	25,778
New Orleans-----	237	5,177	423	9,915	573	12,369
Philadelphia-----	7,218	203,969	3,497	92,002	2,463	93,963
Wilmington, N.C.-----	425	13,428	76	2,949	--	--
Other-----	38	1,275	118	4,198	91	3,768
Total 1/-----	28,328	947,977	14,501	470,847	13,246	445,731

1/ Data may not add to totals shown because of independent rounding.

PRELIMINARY