Mineral Industry Surveys

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CHROMIUM IN NOVEMBER 1999

Included in this Mineral Industry Surveys are U.S. salient chromium statistics; U.S. Government stockpile inventory of chromium materials for November 1999; and U.S. foreign trade data for October 1999. Consumption data for November were not available at time of publication and are planned to be published in a subsequent issue.

Update

The 1998 Chromium Mineral Industry Surveys Annual Review is now available from the USGS MINES FaxBack service (phone number above). On MINES FaxBack, the document number of the report is 180498. The report is 36 pages long.

In December, the Defense National Stockpile Center (DNSC) awarded 9,072 metric tons of chemical-grade chromite ore under Solicitation of Offers DLA-CHROMITE-002 to Harbison-Walker Refractories, a subsidiary of Global Industrial Technology, Pittsburgh, Pennsylvania. The material was valued at $250,000. Chemical- and refractory-grade chromite ore are offered for sale on the second Tuesday of each month. For further information, contact Rick Talbott at (703) 767-5497.

Also in December, the DNSC published Solicitation of Offers DLA-Ferrochromium-003. The Solicitation is an 85-page document that describes quantity, location, and chemical specifications for 63,600 tons of high-carbon ferrochromium, 4,650 tons of low-carbon ferrochromium, and 37,400 tons of ferrochromium silicon being offered for sale. For further information contact the DNSC at (703) 767-5402.

In October, the DNSC announced the revised fiscal year 2000 (October 1, 1999 through September 30, 2000) annual materials plan. The plan made available for sale quantities of chromium materials (measured in metric tons, gross weight) indicated below:

Material	Fiscal year 1999 Authorized for disposal (Oct. 1, 1998 - Sept. 30, 1999)	Fiscal year 1999 Actual disposal (Oct. 1, 1998 - Sept. 30, 1999)	Proposed fiscal year 2000 Authorized for disposal (Oct. 1, 1999 - Sept. 30, 2000)	Revised fiscal year 2000 Authorized for disposal (Oct. 1, 1999 - Sept. 30, 2000)
Chromite ore:				
Chemical	90,700	0	90,700	90,700
Metallurgical	227,000	174,000	227,000	227,000
Refractory	90,700	0	90,700	90,700
Ferrochromium	45,400	22,700	136,000	136,000
Chromium metal	0	0	0	0

None of the chromium material quantities were changed from fiscal year 2000 to the revised fiscal year 2000 plans. For further information, contact Peter Mory at (703) 767-6485.

Note

With the exception of prices, data in this report have been rounded to not more than three significant digits. Totals and percentages were calculated using unrounded data.

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS 1/

(Metric tons, gross weight)

	1998	1999					
	January-December	August	September	Third quarter	October	November	January-October 2/
Production:							
Stainless steel production 3/	1,980,000	(4/)	(4/)	520,000	(4/)	(4/)	1,610,000 5/
Components of U.S. supply:							
Stainless steel scrap receipts	616,000	57,700	70,100	177,000	60,400	78,900	618,000 6/
Stainless steel scrap consumption	1,030,000	84,500	106,000	270,000	94,500	144,000	1,030,000 6/
Imports for consumption:							
Chromite ore	358,000	22,800	429	100,000	29,400	NA	214,000
Chromium ferroalloys:							
High-carbon ferrochromium	366,000	24,600	48,300	119,000	45,400	NA	487,000
Medium-carbon ferrochromium	1,370	--	--	--	--	NA	3,000
Low-carbon ferrochromium	53,800	1,940	477	4,400	3,340	NA	31,400
Ferrochromium silicon	20,000	385	5,680	7,220	4,370	NA	28,800
Total ferroalloy imports	441,000	26,900	54,500	130,000	53,100	NA	550,000
Chromium metal 7/	9,530	607	577	2,280	833	NA	7,120
Stainless steel	862,000	73,900	78,500	229,000	89,400	NA	758,000
Stainless steel scrap	57,000	3,500	3,600	10,300	4,470	NA	34,100
Distribution of U.S. supply:							
Consumption:							
Chromite ore	269,000	W	W	W	W	W	W
Chromium ferroalloys & metal	434,000	29,000	32,400	91,500	29,400	NA	300,000
Exports:							
Chromite ore	121,000	1,700	879	18,700	32,600	NA	87,600
Chromium ferroalloys:							
High-carbon ferrochromium	4,840	152	699	1,260	380	NA	3,660
Low-carbon ferrochromium	1,380	117	95	281	120	NA	1,030
Ferrochromium silicon	387	--	--	5	19	NA	240
Total ferroalloy exports	6,610	268	794	1,550	519	NA	4,930
Chromium metal	1,040	293	333	878	330	NA	1,980
Stainless steel	206,000	17,900	19,200	52,800	20,800	NA	177,000
Stainless steel scrap	298,000	17,100	24,300	58,900	30,500	NA	213,000
Stocks at end of period:							
Industry:							
Chromite ore	159,000	153,000	142,000	XX	W	W	XX
Chromium ferroalloys and metal, consumer	18,600	26,200	26,700	XX	25,800	NA	XX
Government stockpile:							
Chromite ore	885,000	851,000	820,000	XX	820,000	820,000	XX
Chromium ferroalloys	974,000	973,000	973,000	XX	973,000	973,000	XX
Chromium metal	7,720	7,720	7,720	XX	7,720	7,720	XX

r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.
1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Includes revised data from previous months.
3/ Data on stainless steel production from American Iron and Steel Institute, quarterly production of stainless and heat-resisting raw steel.
4/ Data not reported monthly.
5/ Includes data for January through September.
6/ Includes data for January through November.
7/ Includes waste and scrap and other.

TABLE 2
U.S. GOVERNMENT STOCKPILE INVENTORY 1/ OF CHROMIUM MATERIALS 2/

(Metric tons)

Period	Chromite ore			Chromium ferroalloys			Chromium metal	
	Chemical	Metal-lurgical	Refractory	High-carbon ferro-chromium	Low-carbon ferro-chromium	Ferro-chromium silicon	Alumino-thermic	Electrolytic
1998:								
November	211,000	402,000	287,000	645,000	279,000	51,200	2,670	5,050
December	211,000	387,000	287,000	645,000	278,000	51,200	2,670	5,050
1999:								
January	211,000	387,000	287,000	645,000	278,000	51,200	2,670	5,050
February	211,000	387,000	287,000	645,000	278,000	50,700	2,670	5,050
March	211,000	387,000	287,000	645,000	278,000	50,700	2,670	5,050
April	211,000	387,000	287,000	645,000	278,000	50,700	2,670	5,050
May	211,000	387,000	287,000	645,000	278,000	50,700	2,670	5,050
June	211,000	387,000	287,000	645,000	278,000	50,700	2,670	5,050
July	206,000	360,000	285,000	645,000	278,000	50,700	2,670	5,050
August	206,000	360,000	285,000	645,000	278,000	50,700	2,670	5,050
September	205,000	340,000	274,000	645,000	278,000	50,700	2,670	5,050
October	205,000	340,000	274,000	645,000	278,000	50,700	2,670	5,050
November	205,000	340,000	274,000	645,000	278,000	50,700	2,670	5,050

1/ Includes specification and non-specification grade materials and materials set aside for disposal but not yet shipped.
2/ Data are rounded to three significant digits.

Source: Defense National Stockpile Center.

TABLE 3
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS AND METAL 1/

Period	Chromite ore		Chromium ferroalloys 2/			Chromium metal 3/	
	Gross weight (metric tons)	Value (thousands)	Gross weight (metric tons)	Chromium content (metric tons)	Value (thousands)	Gross weight (metric tons)	Value (thousands)
1998:							
October	16,500	$1,140	656	396	$636	106	$1,090
November	16,600	1,330	388	231	417	34	594
December	1,240	267	231	130	237	89	1,670
January-December	121,000	9,230	6,610	3,960	6,710	1,040	13,000
1999:							
January	736	239	491	274	405	97	771
February	403	126	364	209	350	117	1,240
March	1,600	629	482	290	493	55	691
April	16,800	1,100	462	290	391	190	2,020
May	1,210	522	503	296	564	183	1,310
June	15,600	873	560	330	451	128	1,370
July	16,100	845	487	294	366	252	1,830
August	1,700	1,180	268	161	276	293	1,250
September	879	521	794	479	546	333	1,720
October	32,600	1,360	519	278	464	330	2,040
January-October	87,600	7,380	4,930	2,900	4,310	1,980	14,200

1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Includes low-, medium-, and high-carbon ferrochromium, and ferrochromium-silicon.
3/ Includes wrought and unwrought and waste and scrap.

Source: Bureau of the Census.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND CHROMIUM METAL 1/

(Metric tons)

	1998	1999			
	January-December	August	September	October	January-October
Chromite ore:					
Not more than 40% chromic oxide:					
Gross weight	5,310	21,000	--	4,020	25,200
Chromic oxide content	2,120	2,910	--	1,330	4,300
More than 40% but less than 46% chromic oxide:					
Gross weight	89	--	--	16	38
Chromic oxide content	40	--	--	7	16
46% or more chromic oxide:					
Gross weight	352,000	1,780	429	25,400	189,000
Chromic oxide content	170,000	830	210	11,700	99,900
Total, all grades:					
Gross weight	358,000	22,800	429	29,400	214,000
Chromic oxide content	172,000	3,740	210	13,000	104,000
Ferrochromium:					
Low-carbon: 2/					
Gross weight	53,800	1,940	477	3,340	31,400
Chromium content	35,400	1,240	328	2,310	21,200
Medium-carbon: 3/					
Gross weight	1,370	--	--	--	3,000
Chromium content	858	--	--	--	1,950
High-carbon: 4/					
Gross weight	366,000	24,600	48,300	45,400	487,000
Chromium content	206,000	10,600	28,700	27,700	287,000
Total, all grades					
Gross weight	421,000	26,500	48,800	48,700	521,000
Chromium content	242,000	11,800	29,100	30,100	311,000
Chromium metal:					
Other than waste and scrap	9,520	605	577	831	7,100
Waste and scrap	6	2	--	2	18
Total, all grades	9,530	607	577	833	7,120

1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Ferrochromium containing not more than 3% carbon.
3/ Ferrochromium containing more than 3% carbon but not more than 4% carbon.
4/ Ferrochromium containing more than 4% carbon.
5/ Less than 1/2 unit.

Source: Bureau of the Census.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE IN OCTOBER 1999, BY GRADE AND BY COUNTRY 1/

	October			January-October		
Grade and country	Gross weight (metric tons)	Cr_2O_3 (metric tons)	Value 2/ (thousands)	Gross weight (metric tons)	Cr_2O_3 (metric tons)	Value 2/ (thousands)
Not more than 40% chromic oxide:						
Canada	20	8	$10	92	34	$40
Philippines	4,000	1,320	456	4,000	1,320	456
South Africa	--	--	--	21,100	2,950	1,020
Total	4,020	1,330	467	25,200	4,300	1,520
More than 40% but less than 46% chromic oxide:						
Canada	16	7	6	16	7	6
South Africa	--	--	--	22	9	9
Total	16	7	6	38	16	14
46% or more chromic oxide:						
Canada	--	--	--	89	45	33
South Africa	25,400	11,700	1380	189,000	99,800	11,900
Total	25,400	11,700	1,380	189,000	99,900	12,000
Total, all grades:						
Canada	36	15	16	197	86	79
Philippines	4,000	1,320	456	4,000	1,320	456
South Africa	25,400	11,700	1,380	210,000	103,000	13,000
Total	29,400	13,000	1,850	214,000	104,000	13,500

1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

Source: Bureau of the Census.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN OCTOBER 1999,
BY GRADE AND BY COUNTRY 1/

Grade and country	October Gross weight (metric tons)	October Chromium content (metric tons)	October Value 2/ (thousands)	January-October Gross weight (metric tons)	January-October Chromium content (metric tons)	January-October Value 2/ (thousands)
High-carbon ferrochromium: 3/						
Albania	--	--	--	3,750	2,360	$1,780
Armenia	--	--	--	4	4	8
Canada	--	--	--	20	9	13
China	34	23	$27	4,320	2,570	2,360
France	--	--	--	6	4	7
India	--	--	--	5,010	3,090	1,930
Kazakhstan	14,900	10,200	6,410	136,000	93,300	60,500
Netherlands	--	--	--	43	29	36
Russia	--	--	--	7,620	5,080	4,820
South Africa	12,800	6,420	3,790	192,000	95,300	57,500
Turkey	17,700	11,100	7,430	83,700	52,500	31,900
United Kingdom	--	--	--	2	1	2
Zimbabwe	--	--	--	53,500	33,200	27,000
Total	45,400	27,700	17,600	487,000	287,000	188,000
Medium-carbon ferrochromium: 4/						
United Kingdom	--	--	--	3,000	1,950	1,120
Low-carbon ferrochromium: 5/						
China	--	--	--	700	471	857
Germany	981	688	1,900	5,620	3,930	11,500
Japan	--	--	--	671	463	1,590
Kazakhstan	--	--	--	3,960	2,770	3,060
Russia	2,220	1,530	1,890	13,200	9,070	10,600
South Africa	136	87	133	3,490	2,050	2,750
Sweden	--	--	--	19	13	42
United Kingdom	--	--	--	61	43	131
Zimbabwe	--	--	--	3,590	2,380	2,900
Total	3,340	2,310	3,920	31,400	21,200	33,500
Total, all grades:						
Albania	--	--	--	3,750	2,360	1,780
Armenia	--	--	--	4	4	8
Canada	--	--	--	20	9	13
China	34	23	27	5,020	3,040	3,210
France	--	--	--	6	4	7
Germany	981	688	1,900	5,620	3,930	11,500
India	--	--	--	5,010	3,090	1,930
Japan	--	--	--	671	463	1,590
Kazakhstan	14,900	10,200	6,410	140,000	96,100	63,500
Netherlands	--	--	--	43	29	36
Russia	2,220	1,530	1,890	20,900	14,200	15,400
South Africa	12,900	6,510	3,920	196,000	97,300	60,300
Sweden	--	--	--	19	13	42
Turkey	17,700	11,100	7,430	83,700	52,500	31,900
United Kingdom	--	--	--	3,060	1,990	1,250
Zimbabwe	--	--	--	57,100	35,500	29,900
Total	48,700	30,100	21,600	521,000	311,000	222,000

1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.
3/ Ferrochromium containing more than 4% carbon.
4/ Ferrochromium containing more than 3% but not more than 4% carbon.
5/ Ferrochromium containing not more than 3% carbon.

Source: Bureau of the Census.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN
OCTOBER 1999, BY GRADE AND BY COUNTRY 1/

Grade and country	October Gross weight (metric tons)	October Value 2/ (thousands)	January-October Gross weight (metric tons)	January-October Value 2/ (thousands)
Waste and scrap:				
Germany	--	--	(3/)	$7
Japan	2	$10	2	10
Russia	--	--	14	111
Singapore	--	--	1	5
United Kingdom	--	--	(3/)	17
Total	2	10	18	150
Other than waste and scrap:				
Austria	--	--	(3/)	45
Brazil	20	61	20	61
Canada	--	--	(3/)	45
China	255	1,180	1,870	8,720
France	216	1,750	1,690	14,100 4/
Germany	1	88	33	686
Hong Kong	--	--	20	100
Italy	--	--	1	7
Japan	(3/)	21	17	631
Netherlands	--	--	12	71
Portugal	--	--	--	--
Russia	149	1,120	1,680	9,720
Sweden	1	16	1	16
Switzerland	1	63	1	146
Taiwan	6	29	61	473
Thailand	--	--	(3/)	2
United Kingdom	182	1,130	1,700	10,900
Total	831	5,460	7,100	45,700
Total, all grades:				
Austria	--	--	(3/)	45
Brazil	20	61	20	61
Canada	--	--	(3/)	45
China	255	1,180	1,870	8,720
France	216	1,750	1,690	14,100 4/
Germany	1	88	33	693
Hong Kong	--	--	20	100
Italy	--	--	1	7
Japan	2	31	19	641
Netherlands	--	--	12	71
Portugal	--	--	--	--
Russia	149	1,120	1,690	9,830
Singapore	--	--	1	5
Sweden	1	16	1	16
Switzerland	1	63	1	146
Taiwan	6	29	61	473
Thailand	--	--	(3/)	2
United Kingdom	182	1,130	1,700	10,900
Total	833	5,470	7,120	45,900

1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise into the United States.
3/ Less than 1/2 unit.
4/ All or part of these data have been referred to the Bureau of the Census for verification.

Source: Bureau of the Census.

TABLE 8
U.S. TRADE OF STAINLESS STEEL, BY PRODUCT, IN OCTOBER 1999 1/

Stainless steel product	October Gross weight (metric tons)	October Value 2/ (thousands)	January-October Gross weight (metric tons)	January-October Value 2/ (thousands)
Exports:				
Ingot	651	$2,410	6,830	$28,000
Flat-rolled (width > 600mm)	6,720	15,500	67,500	151,000
Flat-rolled (width < 600mm)	8,720	16,100	57,900	145,000
Bars & rods in irregular coils	207	712	2,400	6,960
Other bars and rods	1,550	6,410	13,400	57,900
Wire	783	4,120	6,000	31,500
Tubes, pipes, & hollow profiles	2,170	11,700	22,600	100,000
Total	20,800	56,900	177,000	521,000
Stainless steel scrap	30,500	19,500	213,000	118,000
Total	51,300	76,400	390,000	639,000
Imports:				
Ingot	27,500	31,400	257,000	250,000
Flat-rolled (width > 600mm)	35,200	46,900	285,000	407,000
Flat-rolled (width < 600mm)	3,040	9,540	28,400	92,700
Bars & rods in irregular coils	6,220	11,100	48,300	84,000
Other bars and rods	9,860	20,900	69,900	158,000
Wire	1,990	6,790	18,100	67,600
Tubes, pipes, & hollow profiles	5,470	20,400	51,300	190,000
Total	89,400	147,000	758,000	1,250,000
Stainless steel scrap	4,470	2,580	34,100	17,700
Total	93,800	149,000	792,000	1,270,000

1/ Data are rounded to three significant digits; may not add to totals shown.
2/ Export value is Free Alongside Ship (FAS). Import value is customs import value, which generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance and other charges incurred in bringing the merchandise to the United States.

Source: Bureau of the Census.

TABLE 9
CHROMITE ORE PRICES

(Dollars per metric ton, gross weight unless otherwise noted)

Week ending	South Africa 1/						Kazakhstan 2/	
	1	2	3	4	5	6	1	2
1998:								
12/06	65 - 75	70 - 80	72 - 80	75 - 88	100 - 120	70	105 - 115	135 - 155
12/13	65 - 75	70 - 80				70	105 - 115	135 - 155
12/20	65 - 75	70 - 80				70	105 - 115	135 - 155
12/27	65 - 75	70 - 80				70	105 - 115	135 - 155
1999:								
01/01	60 - 65	60 - 64	72 - 80	78 - 88	100 - 120	70	105 - 235	135 - 155
01/08	60 - 65	60 - 64				70	105 - 235	135 - 155
01/15	60 - 65	60 - 64				70	105 - 235	135 - 155
01/22	60 - 65	60 - 64				70	105 - 235	135 - 155
01/29	60 - 65	60 - 64				70	110 - 120	135 - 140
02/05	60 - 65	60 - 64	72 - 80	78 - 88	100 - 120	70	110 - 120	135 - 140
02/12	60 - 65	60 - 64				70	110 - 120	135 - 140
02/19	60 - 65	60 - 64				70	110 - 120	135 - 140
02/26	60 - 65	60 - 64				70	110 - 120	135 - 140
03/05	60 - 65	60 - 64	72 - 80	78 - 88	100 - 120	70	110 - 120	135 - 140
03/12	60 - 65	63 - 68				70	110 - 120	135 - 140
03/19	60 - 65	63 - 68				65	110 - 120	135 - 140
03/26	60 - 65	63 - 68				65	110 - 120	135 - 140
04/02	60 - 65	63 - 68	65 - 70	75 - 80	100 - 120	65	110 - 120	135 - 140
04/09	60 - 65	63 - 68				65	110 - 120	135 - 140
04/16	60 - 65	63 - 68				65	110 - 120	135 - 140
04/23	60 - 65	63 - 68				65	110 - 120	135 - 140
04/30	60 - 65	63 - 68				65	110 - 120	135 - 140
05/07	60 - 65	63 - 68	65 - 70	75 - 80	100 - 120	70	110 - 120	135 - 140
05/14	60 - 65	63 - 68				70	110 - 120	135 - 140
05/21	60 - 65	63 - 68				70	110 - 120	135 - 140
05/28	60 - 65	63 - 68				70	110 - 120	135 - 140
06/04	60 - 65	63 - 68				70	110 - 120	135 - 140
06/11	60 - 65	63 - 68	65 - 70	75 - 80	100 - 120	70	110 - 120	135 - 140
06/18	60 - 65	63 - 68				70	110 - 120	135 - 140
06/25	60 - 65	63 - 68				70	110 - 120	135 - 140
07/02	60 - 65	63 - 68	65 - 70	75 - 80	100 - 120	70	110 - 120	135 - 140
07/09	60 - 65	63 - 68				70	110 - 120	135 - 140
07/16	60 - 65	63 - 68				70	110 - 120	135 - 140
07/23	60 - 65	63 - 68				70	110 - 120	135 - 140
07/30	60 - 65	63 - 68				70	110 - 120	135 - 140
08/06	60 - 65	65 - 70	65 - 70	75 - 80	100 - 120	75	110 - 120	135 - 140
08/13	60 - 65	65 - 70				80	110 - 120	135 - 140
08/20	60 - 65	65 - 70				80	110 - 120	135 - 140
08/27	60 - 65	65 - 70				80	110 - 120	135 - 140
09/03	60 - 65	65 - 70	65 - 70	75 - 80	100 - 120	80	110 - 120	135 - 140
09/10	60 - 65	65 - 70				80	110 - 120	135 - 140
09/17	60 - 65	65 - 70				80	110 - 120	135 - 140
09/24	60 - 65	65 - 70				80	110 - 120	135 - 140
10/01	60 - 65	65 - 70	55 - 70	75 - 80	100 - 120	80	110 - 120	135 - 140
10/08	60 - 65	65 - 70				80	110 - 120	135 - 140
10/15	60 - 65	55 - 70				80	110 - 120	135 - 140
10/22	60 - 65	55 - 70				80	110 - 120	135 - 140
10/29	60 - 65	55 - 70				80	110 - 120	135 - 140
11/05	60 - 65	55 - 70	55 - 70	75 - 80	100 - 120	80	110 - 120	135 - 140
11/12	60 - 65	55 - 70				80	110 - 120	135 - 140
11/19	60 - 65	55 - 70				80	110 - 120	135 - 140
11/26	60 - 65	55 - 70				80	110 - 120	135 - 140
12/03	60 - 65	55 - 70	50 - 70	75 - 80	100 - 120	80	110 - 120	135 - 140
12/10	60 - 65	55 - 70				80	110 - 120	135 - 140
12/17	60 - 65	55 - 70				80	110 - 120	135 - 140
12/24	60 - 65							
12/31	60 - 65							

See footnotes at end of table.

TABLE 9--Continued
CHROMITE ORE PRICES

(Dollars per metric ton, gross weight unless otherwise noted)

Week ending	Turkey 3/ 1	2	3	4	5	Albania 4/	Philippines 5/	Sand 6/
1998:								
12/06	140 - 150	125 - 130	65	70	80 - 90	90 - 100	110 - 130	135 - 155
12/13	140 - 150	125 - 130	65	70	80 - 90	90 - 100		
12/20	140 - 150	125 - 130	65	70	80 - 90	90 - 100		
12/27	140 - 150	125 - 130	65	70	80 - 90	90 - 100		
1999:								
01/01	140 - 150	75 - 85	65	70	80 - 90	65 - 70	125 - 145	135 - 155
01/08	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
01/15	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
01/22	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
01/29	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
02/05	140 - 150	75 - 85	65	70	80 - 90	65 - 70	125 - 145	135 - 155
02/12	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
02/19	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
02/26	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
03/05	140 - 150	75 - 85	65	70	80 - 90	65 - 70	125 - 145	135 - 155
03/12	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
03/19	140 - 150	75 - 85	60	65	80 - 90	65 - 70		
03/26	140 - 150	75 - 85	60	65	80 - 90	65 - 70		
04/02	140 - 150	75 - 85	60	65	80 - 90	65 - 70	125 - 145	135 - 155
04/09	140 - 150	75 - 85	60	65	80 - 90	65 - 70		
04/16	140 - 150	75 - 85	60	65	80 - 90	65 - 70		
04/23	140 - 150	75 - 85	60	65	80 - 90	65 - 70		
04/30	140 - 150	75 - 85	60	65	80 - 90	65 - 70		
05/07	140 - 150	75 - 85	65	70	80 - 90	65 - 70	125 - 145	135 - 155
05/14	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
05/21	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
05/28	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
06/04	140 - 150	75 - 85	65	70	80 - 90	65 - 70	125 - 145	135 - 155
06/11	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
06/18	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
06/25	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
07/02	140 - 150	75 - 85	65	70	80 - 90	65 - 70	125 - 145	135 - 155
07/09	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
07/16	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
07/23	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
07/30	140 - 150	75 - 85	65	70	80 - 90	65 - 70		
08/06	140 - 150	75 - 85	70	75	80 - 90	70 - 85	125 - 145	135 - 155
08/13	140 - 150	75 - 85	70	75	80 - 90	70 - 85		
08/20	140 - 150	75 - 85	75	80	80 - 90	75 - 85		
08/27	140 - 150	75 - 85	75	80	80 - 90	75 - 85		
09/03	140 - 150	75 - 85	75	80	80 - 90	75 - 80	125 - 145	135 - 155
09/10	140 - 150	75 - 85	75	80	80 - 90	75 - 80		
09/17	140 - 150	75 - 85	75	80	80 - 90	75 - 80		
09/24	140 - 150	75 - 85	75	80	80 - 90	75 - 80		
10/01	140 - 150	75 - 85	75	80	80 - 90	75 - 80	125 - 145	135 - 155
10/08	140 - 150	75 - 85	75	80	80 - 90	75 - 80		
10/15	140 - 150	75 - 85	75	80	80 - 90	75 - 80		
10/22	140 - 150	75 - 85	75	80	80 - 90	75 - 80		
10/29	140 - 150	75 - 85	75	80	80 - 90	75 - 80		
11/05	140 - 150	75 - 85	75	80	80 - 90	75 - 80	125 - 145	135 - 155
11/12	140 - 150	65 - 70	75	80	65 - 70	65 - 70		
11/19	140 - 150	65 - 70	75	80	65 - 70	65 - 70		
11/26	140 - 150	65 - 70	75	80	65 - 70	65 - 70		
12/03	140 - 150	65 - 70	75	80	65 - 70	65 - 70	125 - 145	135 - 155
12/10	140 - 150	65 - 70	75	80	65 - 70	65 - 70		
12/17	140 - 150	65 - 70	75	80	65 - 70	65 - 70		
12/24	140 - 150							
12/31	140 - 150							

See footnotes at end of table.

TABLE 9--Continued
CHROMITE ORE PRICES

1/ South Africa 1 (SA1) refers to chromite ore of 44% chromic oxide (Cr_2O_3) content, no specified chromium-to-iron ratio as reported by Platt's Metals Week (PMW); SA2 refers to 40% Cr_2O_3, friably lumpy, free on board (FOB) as reported by Metal Bulletin (MB); SA3 refers to chemical grade, 46% Cr_2O_3 , wet bulk, FOB as reported by Industrial Minerals (IM); SA4 refers to foundry grade, 45% Cr_2O_3, wet bulk, FOB as reported by IM; SA5 refers to refractory grade, 46% Cr_2O_3, wet bulk, FOB as reported by IM; SA6 refers to Transvaal ore as reported by Ryan's Notes (RN).
2/ Kazakhstan 1 (K1) refers to 40% - 41% Cr_2O_3 minimum (min.) FOB as reported by MB; K2 refers to 48% Cr_2O_3 min. FOB as reported by MB.
3/ Turkey 1 (T1) refers to 48% Cr_2O_3, 3:1 chromium-to-iron ratio as reported by PMW; T2 refers to 48% Cr_2O_3, 3:1 chromium-to-iron ratio, lumpy as reported by MB; T3 refers to 38% - 40% Cr_2O_3 as reported by RN; T4 refers to 44% Cr_2O_3 as reported by RN; T5 refers to 40% - 42% Cr_2O_3, 2.5-to-1 chromium-to-iron ratio as reported by MB.
4/ Albania refers to 42% - 47% Cr_2O_3 lumpy, min. FOB as reported by MB.
5/ Philippine refers to refractory grade, concentrates, FOB as reported by IM.
6/ Sand refers to molding grade, 98% under 30 mesh, delivered, valued in British pounds as reported by IM.