

Mineral Industry Surveys

For information, contact:

Peter H. Kuck, Nickel Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4965, Fax: (703) 648-7757
E-mail: pkuck@usgs.gov

Linda M. White (Data)
Telephone: (703) 648-7986
Fax: (703) 648-7975
E-mail: lwhite@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

NICKEL IN MAY 2007

Reported domestic nickel consumption in May, on a daily average basis, was 8% less than the revised total for April, according to the U.S. Geological Survey. Daily average use of nickel metal and ferronickel for stainless and heat resisting steels was 13% less than the corresponding average for April. Use of nickel metal to make superalloys (such as INCONEL 718 and WASPALOY) decreased by 5% from revised April levels, on a daily average basis. The decrease in the superalloy category was partially offset by a 4% increase in the "Other nickel & nickel alloys" category (such as INCONEL 600 and Nickel 200). Sales to plating companies averaged 25.8 metric tons per day (t/d), 6% less than the April figure of 27.4 t/d. Percentages reported in this paragraph are based on data withheld to avoid revealing individual company proprietary data.

The United States imported 39,600 metric tons (t) of primary nickel in the first 4 months of 2007, 30% less than the 56,600 t for the corresponding period of 2006. About 87%, or 34,300 t, of the primary nickel was Class I materials. Class I materials are refined products with a nickel content of 99% or greater (electrolytic cathode, briquets, granules, pellets, powders, rondelles, etc.). Trade data for May 2007 will appear in a subsequent report.

On May 31, stocks in London Metal Exchange (LME) warehouses worldwide totaled 7,914 t, up 59% from 4,980 t on April 30. LME stocks have been minimal since mid-2006 owing to strong demand for austenitic stainless steel in Asia. On February 28, stocks bottomed out at 3,342 t—the lowest end-of-month figure reported in at least 12 years. World prices reflected the critically low stock levels. The average LME cash price for May was \$52,161 per metric ton (\$23.660 per pound), a record high in current dollars.

The monthly cash price had been climbing steadily since early 2006, but began to lose momentum at the end of the second quarter of 2007. The average LME 3-month mean nickel price for May was \$49,105 per metric ton (\$22.273 per pound), suggesting that the cash price was starting to plateau. Several analysts and traders had warned that the market was becoming

overly speculative and that nickel prices could turn downward if key markets for stainless steel in Europe and the United States softened.

MMC Norilsk Nickel of Russia has been gradually expanding its overseas nickel mining and processing operations. Norilsk is the leading mining and metals company in Russia and has been the world's leading producer of nickel and palladium for more than a decade. In late 2006 and early 2007, Norilsk Nickel made two key acquisitions. In November 2006, the company agreed to acquire the nickel business of OM Group, Inc. (Cleveland, OH) for \$408 million in cash. The proposed purchase included OMG's nickel refining operations in Harjavalta, Finland, the Cawse mining and leaching operations in Western Australia, and partial interests in three other Australian nickel mines. The European Commission approved the acquisition of the Harjavalta operations in February 2007, allowing the sale to be completed on March 1. At about the same time, Norilsk Nickel moved to acquire LionOre Mining International Ltd. (Toronto, Ontario, Canada), a company with nickel operations in Australia, Botswana, Norway, and South Africa. In early June, the Federal Treasurer of Australia approved the proposed takeover of LionOre. However, approval was still needed from the regulatory authorities of several other countries (MMC Norilsk Nickel, 2006; 2007; OM Group, Inc., 2007).

References Cited

- MMC Norilsk Nickel, 2006, MMC Norilsk Nickel to acquire nickel business from OM Group for \$408 million: Moscow, Russia, MMC Norilsk Nickel press release, November 20. (Accessed January 25, 2008, via <http://www.nornik.ru/en/>.)
- MMC Norilsk Nickel, 2007, Norilsk Nickel offer for LionOre receives Australian foreign investment review board approval: Moscow, Russia, and Toronto, Ontario, Canada, MMC Norilsk Nickel press release, June 4. (Accessed January 25, 2008, via <http://www.nornik.ru/en/>.)
- OM Group, Inc., 2007, OM Group completes sale of nickel business to Norilsk Nickel: Cleveland, OH, OM Group, Inc. press release, March 1. (Accessed January 25, 2008, at <http://www.omgi.com>.)

TABLE 1
CONSUMPTION OF NICKEL (EXCLUSIVE OF SCRAP), BY FORM AND USE¹

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder	Ferronickel	Oxide-sinter, salts, and other forms	Total	Total year to date
2006:					
May	6,530 ^r	850	59	7,430 ^r	37,000 ^r
June	6,550 ^r	758	59	7,370 ^r	44,400 ^r
July	6,200 ^r	677	52	6,930 ^r	51,300 ^r
August	6,390 ^r	788	59	7,240 ^r	58,600 ^r
September	6,120 ^r	823	57	7,000 ^r	65,600 ^r
October	6,330 ^r	851	57	7,240 ^r	72,800 ^r
November	6,060 ^r	709	52	6,820 ^r	79,600 ^r
December	5,200 ^r	655	52	5,910 ^r	85,500 ^r
January-December	75,500 ^r	9,350	712	85,500 ^r	XX
2007:					
January	6,410 ^r	854	55	7,320 ^r	7,320 ^r
February	6,050 ^r	759	55	6,870 ^r	14,200 ^r
March	5,730 ^r	846	63	6,640 ^r	20,800 ^r
April	6,310 ^r	812	58	7,180 ^r	28,000 ^r
May:					
Steel:					
Stainless and heat resisting	2,360	723	W	3,080	16,500
Alloy (excludes stainless)	207	--	--	207	1,170
Superalloys	1,220	--	W	1,220	6,130
Copper-nickel alloys	W	--	--	W	W
Electric, magnetic, and expansion alloys	12	--	--	12	51
Other nickel & nickel alloys	W	--	W	W	W
Cast iron	W	--	--	W	W
Electroplating (sales to platers)	791	--	W	791	3,950
Chemical and chemical uses	W	--	--	W	W
Other uses	1,450	--	56	1,510	7,020
Total reported	6,030 ²	723	56	6,810	34,800
Total all companies (calc) ³	XX	XX	XX	13,400	68,300
2007: January-May	30,500	3,990	289	34,800	XX
2006: January-May	32,600	4,090	324	37,000	XX

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other uses" category. XX Not -- Zero.

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

²Of consumption, 3,900 metric tons were consumed as cathodes and pellets, the remainder as briquets and powder.

³Figures represent calculated apparent consumption; based on the revised proportion of reported primary consumption (50.94%) to apparent primary consumption for 2004.

TABLE 2
ENDING STOCKS OF NICKEL (EXCLUSIVE OF SCRAP) HELD BY CONSUMERS,
BY FORM AND USE^{1, 2}

(Metric tons, nickel content)

Period	Cathodes, pellets, briquets, and powder		Ferronickel	Oxide-sinter, salts, and other forms	Total
	2006:				
May	2,490		292	154	2,940
June	2,250		307	145	2,710
July	2,010		333	151	2,500
August	1,990		439	166	2,590
September	1,840		413	151	2,410
October	1,550		364	153	2,070
November	1,780		364	165	2,300
December	1,890		380	159	2,430
2007:					
January	1,920 ^r		427	162	2,510 ^r
February	1,660 ^r		466	171	2,290 ^r
March	1,790 ^r		471	155	2,420 ^r
April ^f	1,470		463	165	2,100
May:					
Steel (stainless, heat resisting and alloy)	770		453	(3)	1,220
Nonferrous alloys ⁴	731		W	(3)	731
Foundry (cast irons)	(3)		W	--	(3)
Chemical (catalysts, ceramics, plating salt, etc.) and unspecified uses	75		W	184	259
Total	1,580		453	184	2,210

^rRevised. W Withheld to avoid disclosing company proprietary data. -- Zero.

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

²Stocks held by companies that consume nickel in more than one end-use category are credited to the major category.

Stocks are subject to revisions owing to inventory adjustments.

³Included in the "Chemical and unspecified uses" category.

⁴Includes superalloys, nickel-copper and copper-nickel alloys, permanent magnet alloys, and other nickel alloys.

TABLE 3
CONSUMPTION AND ENDING STOCKS OF PURCHASED SECONDARY NICKEL, BY USE¹

(Metric tons, nickel content)

Period	Consumption			Stocks		
	Ferrous scrap ²	Nonferrous scrap ³	Total scrap	Ferrous scrap ²	Nonferrous scrap ³	Total scrap
2006:						
May	4,340	644	4,980	2,760	54	2,810
June	3,840	836	4,670	3,090	44	3,130
July	4,450	658	5,100	3,110	57	3,170
August	5,560	705	6,260	2,720	50	2,770
September	5,930	741	6,680	2,350	47	2,400
October	5,040	590	5,630	2,470	58	2,530
November	NA	506	NA	NA	45	NA
December	NA	465	NA	NA	48	NA
January-December ⁴	46,500	7,980	53,500	XX	XX	XX
2007:						
January	NA	NA	NA	NA	53	NA
February	NA	567 ^r	NA	NA	77	NA
March	NA	883	NA	NA	47	NA
April	NA	NA	NA	NA	52	NA
May	NA	NA	NA	NA	51	NA

^rRevised. NA Not available. XX Not applicable.

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

²Nickel content is calculated from an average nickel content and the reported gross weight of scrap.

³Combined consumption and stocks of aluminum-base, copper-base, and nickel-base scrap.

⁴Consumption data do not add to total shown owing to missing data.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF NICKEL, BY COUNTRY¹

(Metric tons, nickel content)²

Period and country of origin	Cathodes, pellets, and briquets	Powder and flakes	Ferro-nickel	Metal-lurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total ³	Total year to date ⁴	Wrought nickel
2006:										
April	12,900	730	1,300	121	621	1,100	287	17,100	62,200	83
May	10,400	1,170	1,090	107	561	1,370	279	15,000	77,200	99
June	10,900	648	1,050	67	713	1,500	326	15,200	92,400	174
July	9,460	802	1,530	98	731	1,540	215	14,400	107,000	105
August	11,000	785	1,200	80	543	1,620	290	15,500	122,000	88
September	10,100	739	1,020	72	418	1,150	336	13,800	136,000	78
October	8,150	542	1,220	161	575	1,060	358	12,100	148,000	88
November	10,300	513	932	99	564	881	311	13,600	162,000	61
December	7,450	609	1,570	76	526	957	168	11,400	173,000	59
January-December	125,000	8,780	14,600	1,210	6,850	13,500	3,680	173,000	XX	1,110
2007:										
January	8,330	536	627	107	476	728	348	11,200	11,200	51
February	6,610	562	832	97	463	674	254	9,490	20,600	75
March	8,550	626	1,350	7	579	1,090	357	12,600	33,200	51
April:										
Australia	1,260	52	--	--	--	--	--	1,310	4,060	--
Canada	4,120	264	--	80	98	618	77	5,250	21,500	--
China	--	--	--	--	23	(5)	6	29	120	1
Colombia	--	--	158	--	--	1	1	160	747	--
Dominican Republic	--	--	526	--	--	--	--	526	2,520	--
Finland	211	--	--	--	--	--	90	301	956	--
France	45	(5)	--	--	49	--	--	94	338	41
Germany	--	23	--	--	42	--	46	111	400	17
Japan	--	26	--	--	15	--	26	67	450	7
Mexico	--	--	--	--	47	248	--	295	932	(5)
New Caledonia	--	--	257	--	--	--	--	257	506	--
Norway	913	--	--	--	9	--	--	922	3,920	--
Russia	1,880	100	--	--	9	--	(5)	1,990	6,220	--
South Africa	--	40	--	--	--	--	--	40	331	--
Sweden	--	5	--	--	--	--	--	5	17	--
United Kingdom	5	71	--	--	204	--	1	281	1,050	1
Zimbabwe	39	--	--	--	--	--	--	39	191	--
Other	--	19	--	(5)	53	31	82	185	762	10
Total	8,460	600	941	80	549	898	329	11,900	45,100	77
2007: January-April	31,900	2,320	3,750	291	2,070	3,390	1,290	45,100	XX	255
2006: January-April	46,800	2,970	4,990	447	2,220	3,410	1,400	62,200	XX	357

XX Not applicable. --Zero.

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

²The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide and hydroxide (65%).

³Excludes wrought nickel.

⁴May include revisions for prior months.

⁵Less than ½ unit.

TABLE 5
U.S. EXPORTS OF NICKEL, BY COUNTRY¹

(Metric tons, nickel content)²

Period and country of destination	Cathodes, pellets, and briquets	Powder and flakes	Ferro-nickel	Metal-lurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total ³	Total year to date	Wrought nickel
2006:										
April	189	111	22	8	975	2,540	387	4,230	19,100	151
May	79	100	6	8	2,070	3,420	636	6,320	25,400	119
June	48	64	(4)	4	1,420	2,910	454	4,890	30,300	84
July	39	73	3	4	2,120	3,090	358	5,690	36,000	101
August	25	78	3	5	2,010	3,120	673	5,920	41,900	96
September	68	67	(4)	9	2,000	4,170	556	6,870	48,800	89
October	13	71	1	5	2,420	2,630	591	5,740	54,500	85
November	47	106	3	11	2,650	3,140	491	6,450	61,000	66
December	57	71	--	7	2,610	3,350	389	6,480	67,400	61
January-December	882	1,030	67 [†]	150	21,300	38,100	5,920	67,400	XX	1,230
2007:										
January	64	88	2	2	3,160	4,440	254	8,010	8,010	144
February	112	79	(4)	2	2,620	5,940	525	9,280	17,300	192
March	93	112	5	249	2,810	6,330	659	10,300	27,500	99
April:										
Australia	--	(4)	--	--	8	1	(4)	10	172	1
Belgium	--	1	--	1	--	8	48	58	194	4
Canada	3	20	1	750	1,370	230	115	2,480	7,010	17
China	--	2	--	--	(4)	986	89	1,080	5,020	5
Germany	--	17	--	--	240	--	9	266	1,110	20
India	--	(4)	--	--	22	343	(4)	366	1,170	(4)
Italy	--	2	--	--	--	6	--	8	30	1
Japan	--	5	--	1	937	478	27	1,450	6,540	22
Korea, Republic of	--	1	--	--	47	500	27	575	1,550	46
Mexico	40	3	--	(4)	24	--	303	370	700	8
Netherlands	--	(4)	--	--	121	14	5	140	595	1
South Africa	--	(4)	--	--	9	(4)	1	10	17	--
Spain	--	--	--	--	--	68	--	68	3,030	--
Sweden	--	--	--	--	32	20	--	52	196	1
Taiwan	1	3	--	--	38	1,610	4	1,660	5,830	37
United Kingdom	--	13	--	--	55	4	28	100	458	3
Other	39	12	--	(4)	2	77	146	275	2,880	21
Total	83	79	1	752	2,900	4,350	802	8,960	36,500	187
2007: January-April	352	359	8	1,010	11,500	21,100	2,240	36,500	XX	622
2006: January-April	506	396	50	98	3,980	12,300	1,780	19,100	XX	528

[†]Revised. XX Not applicable. -- Zero.

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

²The nickel contents are assumed to be as follows: metallurgical-grade oxide (77%), waste and scrap (50%), and stainless steel scrap (7.5%). The chemicals category includes chlorides (25%); sulfates (22%); other salts (22%); supported catalysts (22%); and oxide, sesquioxide, and hydroxide (65%).

³Excludes wrought nickel.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF NICKEL ALLOYS, BY COUNTRY¹

(Metric tons, gross weight)

Period and country of origin	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets	Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2006:									
April	400	427	472	224	25	251	127	1,930	8,960
May	404	338	596	262	17	382	266	2,270	11,200
June	486	338	524	259	31	373	276	2,290	13,500
July	578	581	526	242	10	457	182	2,580	16,100
August	705	522	427	338	3	217	133	2,350	18,400
September	373	281	501	272	14	183	143	1,770	20,200
October	517	464	492	390	34	316	160	2,370	22,600
November	336	482	755	355	26	237	133	2,330	24,900
December	351	485	431	363	25	465	149	2,270	27,200
January-December	6,180	4,990	6,270	3,640	234	3,620	2,250	27,200	XX
2007:									
January	438	481	573	204	29	307	91	2,120	2,120
February	390	459	452	311	21	188	148	1,970	4,090
March	418	480	691	328	12	183	139	2,250	6,340
April:									
Australia	124	--	(2)	--	--	--	(2)	124	544
Belgium	--	--	(2)	(2)	--	1	--	1	27
Canada	5	--	2	--	--	10	26	43	160
China	--	--	(2)	1	--	(2)	46	47	190
France	--	(2)	210	14	--	38	4	266	934
Germany	195	119	218	381	25	27	9	974	3,420
Italy	17	287	18	--	--	1	(2)	323	1,180
Japan	--	(2)	3	--	--	133	1	137	248
Mexico	--	--	(2)	--	--	4	1	5	27
Netherlands	--	--	--	--	--	--	17	17	54
Sweden	--	13	186	5	--	39	--	243	1,100
United Kingdom	20	42	4	1	--	5	15	87	382
Other	62	44	47	1	(2)	(2)	59	213	560
Total	423	505	688	403	25	257	178	2,480	8,820
2007: January-April	1,670	1,930	2,400	1,250	88	936	556	8,820	XX
2006: January-April	2,430	1,500	2,020	1,160	73	988	803	8,960	XX

XX Not applicable. -- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF NICKEL ALLOYS, BY COUNTRY¹

(Metric tons, gross weight)

Period and country of destination	Unwrought alloyed ingot	Bars, rods, and profiles	Wire	Plates and sheets		Foil	Tubes and pipes	Other alloyed articles	Total	Total year to date
2006:										
April	955	1,730	71	371	30	245	246	3,650	14,100	
May	687	1,610	95	394	19	236	326	3,360	17,400	
June	550	1,650	75	426	21	226	286	3,230	20,700	
July	317	1,230	61	391	16	194	261	2,470	23,100	
August	606	1,460	95	400	16	234	292	3,110	26,200	
September	814	1,350	62	443	14	494	207	3,380	29,600	
October	829	1,430	66	412	21	1,170	253	4,180	33,800	
November	488	1,170	80	361	14	182	223	2,520	36,300	
December	387	1,430	55	537	14	226	198	2,850	39,200	
January-December	7,550	18,000	881	4,890	252	4,410	3,240	39,200	XX	
2007:										
January	417	1,340	48	395	6	255	244	2,700	2,700	
February	688	1,280	43	508	9	265	157	2,950	5,650	
March	720	1,600	78	702	15	316	158	3,590	9,250	
April:										
Australia	--	(2)	1	--	--	1	1	3	28	
Belgium	112	266	5	32	--	5	(2)	420	1,290	
Canada	4	85	15	56	2	58	23	243	888	
China	--	168	9	78	(2)	31	10	295	1,050	
France	88	186	1	65	--	2	1	343	1,410	
Germany	47	76	3	94	(2)	16	4	241	1,470	
India	--	1	(2)	1	(2)	3	(2)	6	59	
Ireland	--	--	(2)	--	--	--	1	1	11	
Israel	(2)	74	(2)	5	--	(2)	(2)	80	368	
Italy	20	16	1	77	1	2	2	119	482	
Japan	146	70	3	32	1	8	4	264	1,210	
Korea, Republic of	1	29	(2)	47	(2)	11	1	88	330	
Mexico	9	64	14	4	1	42	56	190	900	
Netherlands	--	15	(2)	3	(2)	4	2	24	91	
Singapore	3	8	5	3	--	1	3	23	139	
Spain	14	2	--	23	--	(2)	(2)	39	80	
Sweden	--	1	--	5	--	(2)	5	11	40	
Switzerland	9	1	2	8	(2)	(2)	(2)	21	40	
Taiwan	--	2	(2)	8	--	12	1	23	68	
United Kingdom	52	215	2	52	1	9	3	334	1,300	
Other	14	25	15	187	2	30	50	323	1,090	
Total	519	1,300	76	780	8	235	167	3,090	12,300	
2007: January- April	2,340	5,530	245	2,390	39	1,070	726	12,300	XX	
2006: January- April	2,880	6,630	292	1,520	117	1,450	1,190	14,100	XX	

XX Not applicable. -- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
NICKEL CONSUMPTION IN CAST AND WROUGHT PRODUCTS

	Percent	
	Wrought	Cast
May 2007:		
Stainless and heat resisting steels	100	(1)
Alloy steels	99	1
Superalloys	89	11
Copper-nickel alloys	95	5
Other nickel-base alloys	100	(1)

¹Less than ½ unit.

TABLE 9
NICKEL PRICES

Date	Platts Metals Week				American Metal Market ²			
	Cathode NY Dealer \$/lb.	LME Cash mean ¹ \$/t	LME Cash mean ¹ \$/lb.	18/8 Stainless steel scrap free market \$/long ton (gw)	18/8 Stainless steel scrap Pittsburgh \$/long ton (gw)	304 Stainless steel scrap: solids, clips Pittsburgh \$/long ton (gw)	316 Stainless steel scrap: solids, clips Pittsburgh \$/long ton (gw)	
2006:								
Average for month of:								
May	9.425	21,064.524	9.555	1,909	1,813	XX	XX	
June	9.664	20,747.045	9.411	1,963	2,088	XX	XX	
July	11.750	26,568.571	12.051	2,275	2,138	XX	XX	
August	13.808	30,727.955	13.938	2,493	2,419	XX	XX	
September	13.634	30,117.381	13.661	2,534	2,681	XX	XX	
October	14.822	32,692.500	14.829	2,584	2,662	XX	XX	
November	14.535	32,099.773	14.560	2,561	XX	2,783	3,750	
December	15.657	34,559.079	15.676	2,728	XX	2,805	3,881	
Yearly average	10.982	24,243.860	10.997	2,090	2,090	XX	XX	
2007:								
Average for week ending:								
May	4	23,723-24,315	51,137.500	23.196	4,140-4,185	XX	3,900-3,950	5,500-5,600
May	11	24,115-24,840	52,981.875	24.032	4,000-4,050	XX	4,150-4,200	5,700-5,800
May	18	24,409-25,188	53,206.000	24.134	3,700-3,800	XX	4,150-4,200	5,700-5,800
May	25	23,220-24,989	51,861.000	23.524	3,300-3,400	XX	4,150-4,200	5,700-5,800
June	1	23,218-23,554	50,731.250	23.011	2,800-3,000	XX	3,700-3,800	5,000-5,100
June	8	20,589-23,283	47,268.500	21.441	2,450-2,550	XX	3,700-3,800	5,000-5,100
June	15	19,092-20,460	41,742.500	18.934	1,800-2,000	XX	3,700-3,800	5,000-5,100
June	22	17,142-19,456	38,833.500	17.615	1,800-2,000	XX	3,700-3,800	5,000-5,100
June	29	17,142-17,868	37,226.000	16.885	1,700-1,825	XX	3,700-3,800	5,000-5,100
July	6	16,498-17,211	36,303.500	16.467	1,450-1,600	XX	2,800-2,850	4,000-4,150
July	13	15,232-16,559	33,332.000	15.119	1,350-1,450	XX	2,800-2,850	4,000-4,150
July	20	14,824-15,751	32,850.500	14.901	1,350-1,450	XX	2,800-2,850	4,000-4,150
July	27	14,586-16,094	32,155.000	14.585	1,570-1,790	XX	2,800-2,850	4,000-4,150
Average for month of:								
January		16.177	36,795.227	16.690	2,866	XX	2,917	4,114
February		18.309	41,171.125	18.675	3,141	XX	3,146	4,243
March		21.238	46,303.409	21.003	3,738	XX	3,481	4,856
April		23.139	50,249.474	22.793	4,069	XX	3,925	5,550
May		23.737	52,160.833	23.660	3,638 ³	XX	4,060	5,589
June		18.491	41,704.762	18.917	2,016	XX	3,719	5,018
July		15.285	33,416.591	15.158	1,501	XX	2,825	4,075

XX Not applicable.

¹Mean of the cash buyer price and the cash seller and settlement price.

²On November 1, 2006, American Metal Market (AMM) changed its price listings for austenitic stainless steel scrap. AMM has begun reporting prices for Type 316 solids & clips and has changed its listing for 18-8 bundles, solids & clips to Type 304 solids & clips. See November AMM Scrap Iron & Steel Prices section for details. All prices remain in dollars per gross (long) ton. More complete AMM price data will appear in subsequent U.S. Geological Survey Mineral Industry Surveys. AMM monthly averages are calculated by the U.S. Geological Survey.

³Confirmed by Platts Metals Week.