

Mineral Industry Surveys

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NICKEL IN JUNE 2007

Reported domestic nickel consumption in June, on a daily average basis, was 6% greater than the revised total for May, according to the U.S. Geological Survey. Daily average use of nickel metal and ferronickel for stainless and heat resisting steels was 13% greater than the corresponding revised average for May. Use of nickel metal to make superalloys (such as INCONEL 718 and WASPALOY) decreased slightly from revised May levels, on a daily average basis. The decrease in the superalloy category was overshadowed by a 14% decrease in the "Other nickel & nickel alloys" category (such as INCONEL 600 and Nickel 200). Sales to plating companies averaged 27.7 metric tons per day (t/d), 7% greater than the revised May figure of 25.9 t/d. Percentages reported in this paragraph are based on data withheld to avoid revealing individual company proprietary data.

The United States imported 49,600 metric tons (t) of primary nickel in the first 5 months of 2007, 29% less than the 69,700 t

for the corresponding period of 2006. About 87%, or 42,900 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 June 2007 will appear in a subsequent report.

On June 30, stocks in London Metal Exchange (LME) warehouses worldwide totaled 8,856 t, up 12% from 7,914 t on May 31.

The monthly cash price in current dollars reached a record high in May of \$52,161 per metric ton (\$23.660 per pound), but then turned downward. The average price for June was \$41,705 per metric ton (\$18.917 per pound), a 20% decrease from the May figure. The average LME 3-month mean nickel price for June was \$40,879 per metric ton (\$18.542 per pound), suggesting that the cash price was starting to weaken.

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:					
June	6,740 ^r	758	59	7,550 ^r	45,800 ^r
July	6,330 ^r	677	52	7,060 ^r	52,900 ^r
August	6,590 ^r	788	59	7,440 ^r	60,300 ^r
September	6,350 ^r	823	57	7,230 ^r	67,500 ^r
October	6,570 ^r	851	57	7,480 ^r	75,000 ^r
November	6,310 ^r	709	52	7,070 ^r	82,100 ^r
December	5,430 ^r	655	52	6,140 ^r	88,200 ^r
January-December	78,200 ^r	9,350	712	88,200 ^r	XX
2007:					
January	6,380 ^r	854	55	7,290 ^r	7,290 ^r
February	6,030 ^r	759	55	6,840 ^r	14,100 ^r
March	5,710 ^r	846	63	6,620 ^r	20,800
April	6,290 ^r	812	58	7,160 ^r	27,900 ^r
May	6,010 ^r	723	56	6,790 ^r	34,700 ^r
June:					
Steel:					
Stainless and heat resisting	2,540	827	W	3,360	19,900
Alloy (excludes stainless)	269	--	--	269	1,440
Superalloys	1,140	--	W	1,140	7,170
Copper-nickel alloys	W	--	--	W	W
Electric, magnetic, and expansion alloys	10	--	--	10	60
Other nickel & nickel alloys	W	--	W	W	W
Cast iron	W	--	--	W	W
Electroplating (sales to platers)	832	--	W	832	4,790
Chemical and chemical uses	W	--	--	W	W
Other uses	1,310	--	62	1,370	8,340
Total reported	6,090 ²	827	62	6,980	41,700
Total all companies (calc) ³	XX	XX	XX	13,700	81,800
2007: January-June	36,500	4,820	353	41,700	XX
2006: January-June	40,600	4,850	383	45,800	XX

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

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

²Of consumption, 3,904 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:				
June	2,270 ^r	307	145	2,730 ^r
July	2,030 ^r	333	151	2,510 ^r
August	2,000 ^r	439	166	2,610 ^r
September	1,860 ^r	413	151	2,430 ^r
October	1,570 ^r	364	153	2,080 ^r
November	1,790 ^r	364	175 ^r	2,330 ^r
December	1,880 ^r	380	159	2,420 ^r
2007:				
January	1,920	427	163 ^r	2,510
February	1,660	466	171	2,290
March	1,790	471	156 ^r	2,420
April	1,470	463	166 ^r	2,100
May	1,570 ^r	466 ^r	172 ^r	2,210
June:				
Steel (stainless, heat resisting and alloy)	651	390	(3)	1,040
Nonferrous alloys ⁴	831	W	(3)	831
Foundry (cast irons)	(3)	W	--	(3)
Chemical (catalysts, ceramics, plating salt, etc.) and unspecified uses	71	W	162	233
Total	1,550	390	162	2,110

^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:						
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	2,710 ^r	50	2,760 ^r
September	5,950 ^r	741	6,690 ^r	2,340 ^r	47	2,380 ^r
October	5,050 ^r	590	5,640 ^r	2,460 ^r	58	2,520 ^r
November	4,390	506	4,890	2,630	45	2,670
December	3,540	465	4,000	2,740	48	2,790
January-December	54,500 ^r	7,980	62,400 ^r	XX	XX	XX
2007:						
January	NA	674	NA	NA	53	NA
February	NA	573 ^r	NA	NA	77	NA
March	NA	888 ^r	NA	NA	47	NA
April	NA	NA	NA	NA	49 ^r	NA
May	NA	NA	NA	NA	48 ^r	NA
June	NA	NA	NA	NA	47	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.

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	Ferrous nickel	Metallurgical-grade oxide	Waste and scrap	Stainless steel scrap	Chemicals	Total ³	Total year to date ⁴	Wrought nickel
2006:										
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	8,460	600	941	80	549	898	329	11,900	45,100	77
May:										
Australia	710	65	--	--	--	--	--	775	4,830	--
Canada	4,450	343	--	--	163	597	14	5,560	27,100	2
China	(5)	2	9	--	7	--	26	44	164	1
Colombia	--	--	142	--	1	13	--	156	904	--
Dominican Republic	--	--	718	--	--	1	--	719	3,230	--
Finland	66	--	--	--	--	(5)	89	155	1,110	--
France	45	(5)	--	--	24	--	14	83	422	24
Germany	--	11	--	--	70	--	28	109	508	17
Japan	--	13	--	16	25	1	36	91	541	11
Mexico	--	--	--	--	29	388	3	420	1,350	--
New Caledonia	--	--	150	--	--	--	--	150	656	--
Norway	868	--	--	--	--	--	--	868	4,790	2
Russia	1,780	60	--	--	26	--	--	1,870	8,090	--
South Africa	--	20	--	--	--	--	--	20	350	--
Sweden	--	3	--	--	--	--	--	3	20	--
United Kingdom	57	41	--	2	143	(5)	3	246	1,300	1
Zimbabwe	115	--	--	--	--	--	--	115	305	--
Other	1	25	--	--	82	19	61	188	948	9
Total	8,090	583	1,020	18	570	1,020	274	11,600	56,600	67
2007: January-May	40,000	2,910	4,770	309	2,640	4,410	1,560	56,600	XX	322
2006: January-May	57,200	4,140	6,080	554	2,780	4,770	1,680	77,200	XX	456

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.

Source: U.S. Census Bureau.

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:										
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	83	79	1	752	2,900	4,350	802	8,960	36,500	187
May:										
Australia	--	--	--	--	44	--	--	44	215	--
Belgium	--	8	--	--	1	11	17	37	231	1
Canada	2	9	(4)	475	1,750	222	180	2,640	9,640	75
China	--	2	(4)	--	15	757	60	834	5,860	7
Germany	--	20	--	--	131	3	39	193	1,310	2
India	--	1	--	--	46	566	12	625	1,790	(4)
Italy	--	(4)	--	--	--	8	(4)	9	39	3
Japan	--	6	--	--	1,280	407	14	1,710	8,250	3
Korea, Republic of	--	2	(4)	--	178	411	16	607	2,150	3
Mexico	78	3	--	--	--	--	105	186	886	6
Netherlands	--	--	--	--	19	14	49	82	678	--
South Africa	--	--	--	--	8	--	3	11	27	--
Spain	--	(4)	--	--	--	44	--	45	3,080	--
Sweden	--	(4)	--	--	73	(4)	1	74	270	--
Taiwan	--	10	--	--	19	1,780	--	1,810	7,640	36
United Kingdom	--	2	--	--	18	7	38	65	524	3
Other	1	13	--	(4)	--	1,000	169	1,180	4,060	87
Total	81	76	(4)	475	3,580	5,230	703	10,200	46,700	226
2007: January-May	433	435	9	1,480	15,100	26,300	2,940	46,700	XX	848
2006: January-May	585	496	57	105	6,060	15,700	2,410	25,400	XX	647

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:									
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	423	505	688	403	25	257	178	2,480	8,820
May:									
Australia	108	--	--	--	--	--	1	109	652
Belgium	26	--	(2)	(2)	--	--	--	26	53
Canada	5	(2)	4	--	--	6	68	83	244
China	--	--	1	1	--	(2)	79	81	273
France	--	4	187	18	--	36	2	247	1,180
Germany	248	140	201	325	--	45	5	964	4,380
Italy	--	126	9	--	--	(2)	2	137	1,310
Japan	--	3	6	4	--	41	15	69	316
Mexico	--	--	(2)	--	--	8	1	9	37
Netherlands	--	3	--	1	--	--	10	14	68
Sweden	--	8	212	9	--	15	--	244	1,340
United Kingdom	1	89	5	1	(2)	4	37	137	520
Other	24	59	23	1	(2)	2	15	124	682
Total	412	432	648	360	(2)	157	235	2,240	11,100
2007: January-May	2,080	2,360	3,050	1,600	88	1,090	791	11,100	XX
2006: January-May	2,830	1,830	2,610	1,420	90	1,370	1,070	11,200	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:									
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	519	1,300	76	780	8	235	167	3,090	12,300
May:									
Australia	(2)	1	(2)	1	--	2	(2)	5	33
Belgium	190	117	7	(2)	--	9	(2)	324	1,610
Canada	30	99	21	35	3	48	16	252	1,140
China	1	161	17	34	2	9	60	284	1,340
France	222	250	11	33	--	1	1	518	1,920
Germany	19	50	4	40	1	4	2	120	1,590
India	--	4	(2)	11	--	1	1	17	77
Ireland	(2)	--	1	3	--	1	1	6	17
Israel	--	59	(2)	3	--	1	1	64	433
Italy	64	2	4	54	--	1	2	127	610
Japan	7	54	(2)	3	4	8	1	77	1,290
Korea, Republic of	4	22	2	52	1	3	1	85	414
Mexico	(2)	92	14	13	1	44	156	320	1,220
Netherlands	4	40	--	4	--	3	3	54	145
Singapore	8	4	21	6	--	1	2	42	181
Spain	--	1	(2)	(2)	--	--	(2)	2	82
Sweden	--	(2)	2	5	--	--	2	10	50
Switzerland	7	(2)	2	4	(2)	1	(2)	15	55
Taiwan	(2)	2	--	6	--	4	1	13	81
United Kingdom	29	179	4	66	(2)	8	14	300	1,600
Other	29	48	12	84	1	67	61	302	1,390
Total	615	1,190	123	458	13	217	326	2,940	15,300
2007: January-May	2,960	6,710	368	2,840	52	1,290	1,050	15,300	XX
2006: January-May	3,560	8,240	387	1,920	136	1,680	1,520	17,400	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
June 2007:		
Stainless and heat resisting steels	100	(1)
Alloy steels	99	1
Superalloys	88	12
Copper-nickel alloys	96	4
Other nickel-base alloys	100	(1)

¹Less than ½ unit.

TABLE 9
NICKEL PRICES

Date	Platts Metals Week				American Metal Market ^{2,3}			
	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:								
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:								
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
August	3	14,171-14,504	30,543.500	13.854	1,570-1,800	XX	2,800-2,850	4,000-4,150
August	10	12,867-13,808	27,804.500	12.612	1,450-1,570	XX	2,000-2,050	3,200-3,250
August	17	11,815-13,060	26,212.000	11.890	1,450-1,500	XX	2,200-2,250	3,600-3,650
August	24	12,028-13,196	26,952.500	12.225	1,400-1,500	XX	2,200-2,250	3,600-3,650
August	31	12,518-13,196	28,136.875	12.763	1,680-1,790	XX	2,200-2,250	3,600-3,650
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 ⁴	XX	4,060	5,589
June		18.491	41,704.762	18.917	2,016	XX	3,719	5,018
July ³		15.285	33,416.591	15.158	1,501	XX	2,804	4,032
August		12.680	27,643.182	12.539	1,571	XX	2,364	3,708

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. AMM monthly averages are calculated by the U.S. Geological Survey.

³American Metal Market began publishing monthly stainless consumer buying prices in its September 2007 issue. Computation of the monthly average price is based on the number of actual working days in the month and does not include weekends and holidays. See individual issues for details.

⁴Confirmed by Platts Metals Week.