

Mineral Industry Surveys

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COBALT IN JUNE 2006

Preliminary data for 2005 and 2006 indicate that U.S. cobalt consumption during the first half of 2006 was 3% higher than that consumed during the first half of 2005, according to the U.S. Geological Survey. U.S. cobalt consumption during the quarter ending June 30, 2006, was slightly lower than that consumed during the quarter ending March 31, 2006.

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals was 10% higher in January through May 2006 than that imported during the same period in 2005. The amount of cobalt contained in U.S. exports of unwrought cobalt

and chemicals was 31% higher in January through May 2006 than that exported during the same period in 2005.

Update

Prices for electrolytic cobalt, in dollars per pound from Platts Metals Week, are listed below.

<u>Date</u>	<u>Price range</u>
July 20	14.40-15.00
July 27	15.00-15.80

TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Metal ²	Oxide and other chemical compounds ³	Scrap	Total
2005:				
June	254	176	194	624
July	261	147	177	585
August	276	151	201	628
September	263	159	201	623
October	266	154	201	621
November	259	147	201	606
December	248	148	201	597
January-June ^r	1,600	958	1,160	3,720
January-December ⁴	3,170	1,860	2,340	7,380
2006:				
January	324 ^r	149	173 ^r	646 ^r
February	317 ^r	151	166 ^r	634 ^r
March	321 ^r	153	171 ^r	645 ^r
April	299 ^r	146	174 ^r	620
May	320 ^r	161 ^r	175 ^r	655
June	303	159	175	636
January-June	1,880	919	1,030	3,840

^rRevised.

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

²Includes metal powder.

³Data may include other cobalt materials.

⁴Data based on monthly reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE¹

(Metric tons, contained cobalt)

End use	2005		2006	
	January- June	January- December ²	June	January- June ³
Steel	298 ^r	598	57	344
Superalloys	1,660	3,300	297	1,830
Magnetic alloys	115 ^r	235	25	149
Other alloys ⁴	W	W	W	W
Cemented carbides ⁵	382 ^r	762	61	369
Chemical and ceramic uses ⁶	1,130 ^r	2,210	174	1,010
Miscellaneous and unspecified	135	271	23	137
Total	3,720 ^r	7,380	636	3,840

^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

²Data based on monthly reports.

³Includes revisions to prior months' data.

⁴Includes nonferrous alloys, welding materials, and wear-resistant alloys.

⁵Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

⁶Includes catalysts, driers in paints or related usages, feed or nutritive additives, glass decolorizer, ground coat frit, pigments, and other uses.

TABLE 3
U.S. REPORTED STOCKS OF COBALT MATERIALS¹

(Metric tons, contained cobalt)

Period	Industry ²				U.S. Government, metal ⁵
	Metal ³	Oxide and other chemical compounds ⁴	Scrap	Total	
2005:					
June	347	186	79	611	2,070
July	370	201	87	658	1,930
August	341	191	102	634	1,870
September	353	187	98	638	1,810
October	340	180	94	615	1,670
November	326	182	91	599	1,560
December	330	179	87	596	1,550
2006:					
January	310	187	80 ^r	577 ^r	1,520
February	321	183	81 ^r	584 ^r	1,500
March	335	176	84 ^r	596 ^r	1,480
April	338	173 ^r	74 ^r	586 ^r	1,480
May	334 ^r	183	74 ^r	592 ^r	1,480
June	339	183	74	597	1,480

^rRevised.

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

²Stocks reported by cobalt processors and consumers.

³Includes metal powder.

⁴Data may include other cobalt materials.

⁵Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

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

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Metals ²		Oxides and hydroxides		Salts and compounds ³		Total cobalt content for the month ⁵	Cobalt content, year to date ^{5, 6}
	Quantity	Value ⁴	Quantity	Value ⁴	Quantity	Value ⁴		
2005:								
May	885,000	\$29,900,000	87,600	\$2,570,000	173,000	\$1,660,000	1,000,000	4,580,000
June	904,000	30,100,000	91,600	2,620,000	187,000	2,050,000	1,030,000	5,620,000
July	712,000	22,600,000	119,000	2,920,000	120,000	1,130,000	835,000	6,450,000
August	829,000	23,900,000	82,500	2,210,000	150,000	1,690,000	946,000	7,400,000
September	846,000	26,800,000	113,000	2,770,000	167,000	1,400,000	980,000	8,380,000
October	846,000	26,500,000	111,000	2,610,000	237,000	2,640,000	1,010,000	9,390,000
November	971,000	28,300,000	116,000	2,790,000	158,000	1,840,000	1,120,000	10,500,000
December	379,000	11,000,000	108,000	2,380,000	271,000	2,850,000	555,000	11,100,000
January-May	3,870,000	143,000,000	569,000	16,800,000	907,000	11,200,000	4,580,000	XX
January-December	9,350,000	312,000,000	1,310,000	35,100,000	2,200,000	24,800,000	11,100,000	XX
2006:								
January	906,000	25,000,000	79,300	1,890,000	245,000	2,830,000	1,060,000	1,060,000
February	571,000	15,600,000	102,000	2,200,000	317,000	3,720,000	775,000	1,830,000
March	1,160,000	30,300,000	115,000	2,620,000	196,000	2,230,000	1,320,000	3,150,000
April	942,000	26,500,000	121,000	2,850,000	165,000	1,640,000	1,090,000	4,240,000
May:								
Australia	25,000	677,000	--	--	--	--	25,000	237,000
Belgium	8,680	296,000	26,000	654,000	--	--	27,400	241,000
Brazil	20,000	603,000	--	--	--	--	20,000	114,000
Canada	119,000	3,540,000	--	--	--	--	119,000	451,000
China	50,700	1,590,000	36,500	711,000	31,900	472,000	90,600	649,000
Congo (Kinshasa)	--	--	--	--	--	--	--	9,980
Cote d'Ivoire	--	--	--	--	--	--	--	2,590
Finland	34,800	1,240,000	24,600	548,000	131,000	1,620,000	106,000	379,000
France	1,960	126,000	3,600	161,000	--	--	4,550	20,100
Germany	2,310	123,000	794	45,800	--	--	2,890	13,400
India	20,000	498,000	--	--	16,300	95,400	24,400	71,800
Japan	11,700	368,000	--	--	--	--	11,700	80,300
Korea, Republic of	247	13,400	--	--	--	--	247	607
Kyrgyzstan	--	--	--	--	--	--	--	736
Morocco	40,000	1,130,000	--	--	--	--	40,000	140,000
Norway	83,000	2,430,000	--	--	--	--	83,000	1,050,000
Philippines	--	--	--	--	15,200	267,000	5,320	14,800
Russia	161,000	4,940,000	--	--	--	--	161,000	1,040,000
South Africa	500	15,100	--	--	--	--	500	23,000
Sweden	--	--	--	--	--	--	--	2,180
Taiwan	--	--	--	--	--	--	--	360
Uganda	--	--	--	--	--	--	--	59,400
United Kingdom	1,010	38,700	10,000	244,000	--	--	8,210	116,000
Zambia	60,000	1,640,000	--	--	--	--	60,000	310,000
Total	640,000	19,300,000	102,000	2,360,000	195,000	2,450,000	790,000	5,030,000
January-May	4,220,000	117,000,000	519,000	11,900,000	1,120,000	12,900,000	5,030,000	XX

XX Not applicable. -- Zero.

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

²Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

³Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

⁴Customs value.

⁵Estimated from gross weights.

⁶May include revisions to prior months.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY ¹

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Quantity	Value ²	Quantity	Value ²	Quantity	Value ²
2005:						
May	11,100	\$348,000	75,400	\$845,000	21,300	\$1,550,000
June	500	33,000	120,000	1,060,000	20,500	1,540,000
July	1,990	95,700	17,100	276,000	27,300	1,730,000
August	675	42,800	91,800	856,000	12,400	1,060,000
September	23,500	711,000	42,700	495,000	18,300	1,150,000
October	10,700	372,000	88,200	594,000	18,700	1,520,000
November	10,100	410,000	100,000	1,090,000	36,900	2,190,000
December	35,200	350,000	53,600	363,000	21,700	1,510,000
January-May	18,500	672,000	301,000	3,150,000	100,000	6,980,000
January-December	101,000	2,690,000	815,000	7,880,000	256,000	17,700,000
2006:						
January	385	14,000	59,800	1,090,000	14,600	1,140,000
February	1,380	53,700	68,200	441,000	12,700	1,080,000
March	1,570	74,900	55,200	731,000	25,100	1,940,000
April	1,050	60,800	29,000	421,000	26,700	1,820,000
May:						
Austria	200	13,100	--	--	--	--
Belgium	186	12,400	--	--	--	--
Canada	135	27,400	1,600	19,000	2,080	390,000
France	--	--	9,550	181,000	248	104,000
Germany	55	4,860	--	--	1,090	96,900
Ireland	--	--	10,300	167,000	--	--
Japan	200	10,800	373	5,050	1,350	63,600
United Kingdom	88	10,200	4,930	77,700	18,800	1,040,000
Total	864	78,800	26,800	450,000	23,600	1,690,000
January-May	5,260	282,000	239,000	3,130,000	103,000	7,670,000

-- Zero.

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

²Customs value.

Source: U.S. Census Bureau.

TABLE 6
U.S. EXPORTS OF COBALT MATERIALS¹

(Kilograms, gross weight of material, except as noted)

Period	Unwrought cobalt, powders, matte, waste and scrap ²		Oxides and hydroxides		Salts and compounds ³		Total cobalt content for the month ⁵	Cobalt content, year to date ^{5,6}
	Quantity	Value ⁴	Quantity	Value ⁴	Quantity	Value ⁴		
2005:								
May	207,000	\$5,980,000	93,500	\$2,250,000	36,600	\$205,000	283,000	998,000
June	170,000	5,710,000	107,000	1,860,000	26,300	217,000	254,000	1,250,000
July	174,000	5,280,000	39,700	818,000	75,200	621,000	221,000	1,470,000
August	170,000	5,560,000	25,500	581,000	18,900	137,000	193,000	1,660,000
September	108,000	4,050,000	154,000	1,780,000	30,400	229,000	226,000	1,890,000
October	147,000	6,240,000	68,000	1,610,000	18,400	119,000	201,000	2,090,000
November	103,000	4,030,000	57,700	1,480,000	88,900	390,000	166,000	2,260,000
December	90,100	3,130,000	110,000	2,410,000	49,200	275,000	181,000	2,440,000
January-May	710,000	26,600,000	267,000	6,580,000	396,000	1,830,000	998,000	XX
January-December	1,670,000	60,600,000	829,000	17,100,000	704,000	3,820,000	2,440,000	XX
2006:								
January	96,100	3,850,000	108,000	2,610,000	51,500	317,000	187,000	187,000
February	96,200	3,960,000	91,800	2,170,000	43,400	308,000	173,000	359,000
March	232,000	9,530,000	93,800	2,030,000	76,300	518,000	318,000	678,000
April	326,000	12,700,000	123,000	2,710,000	19,900	177,000	419,000	1,100,000
May	134,000	4,780,000	83,300	2,060,000	79,800	461,000	213,000	1,310,000
January-May	884,000	34,900,000	500,000	11,600,000	271,000	1,780,000	1,310,000	XX

XX Not applicable.

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

²May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

³Cobalt acetates and cobalt chlorides.

⁴Free alongside ship (f.a.s.) value.

⁵Estimated from gross weights.

⁶Year to date may include revisions to prior months.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 7
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, AND CONCENTRATES¹

(Kilograms, gross weight of material, except as noted)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value ²	Quantity	Value ²
2005:				
May	129,000	\$6,080,000	49,200	\$1,300,000
June	230,000	9,230,000	36,200	1,200,000
July	224,000	8,410,000	--	--
August	213,000	7,950,000	242,000	1,870,000
September	147,000	6,370,000	139,000	1,720,000
October	222,000	8,360,000	41,800	1,050,000
November	216,000	8,370,000	--	--
December	204,000	8,800,000	69,200	562,000
January-May	879,000	34,300,000	200,000	5,720,000
January-December	2,340,000	91,800,000	729,000	12,100,000
2006:				
January	188,000	7,160,000	5,150	129,000
February	157,000	7,530,000	6,390	139,000
March	219,000	8,340,000	28,000	893,000
April	183,000	8,250,000	69,200	1,170,000
May	115,000	5,260,000	19,700	493,000
January-May	862,000	36,500,000	128,000	2,820,000

-- Zero.

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

²Free alongside ship (f.a.s.) value.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.