

# Mineral Industry Surveys

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## COBALT IN MAY 2012

Preliminary data indicate that U.S. cobalt consumption during January through May 2012 was 11% lower than consumption during the same period in 2011. The amount of cobalt contained in U.S. imports of cobalt metals and chemicals during January through May 2012 was 11% higher than that imported during the same period in 2011. The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals during January through May 2012 was slightly lower than that exported during the same period in 2011.

## Prices

Prices for cobalt metal, in dollars per pound, in May 2012 are listed below.

Type	Price range	Average price
U.S. spot <sup>1</sup>	14.80–16.10	15.38
LME cash mean <sup>2</sup>	XX	13.83

XX Not applicable.

<sup>1</sup>Source: Platts Metals Week, minimum 99.8% cobalt cathode.

<sup>2</sup>London Metal Exchange, mean of the cash buyer price and the cash seller and settlement price, minimum 99.3% cobalt briquettes, cathode, ingot, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

TABLE 1  
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS<sup>P, 1</sup>

(Metric tons, contained cobalt)

Period	Metal <sup>2</sup>	Oxide and other chemical compounds <sup>3</sup>	Scrap	Total
2011:				
May	493 <sup>r</sup>	182	170 <sup>r</sup>	845
June	579 <sup>r</sup>	181	191 <sup>r</sup>	951
July	276 <sup>r</sup>	176	174 <sup>r</sup>	626 <sup>r</sup>
August	310 <sup>r</sup>	178	167 <sup>r</sup>	654
September	301 <sup>r</sup>	176	180 <sup>r</sup>	657 <sup>r</sup>
October	307 <sup>r</sup>	182	160 <sup>r</sup>	648
November	196 <sup>r</sup>	173	250 <sup>r</sup>	618 <sup>r</sup>
December	273 <sup>r</sup>	176	164 <sup>r</sup>	613
January–May	1,770 <sup>r</sup>	891 <sup>r</sup>	920 <sup>r</sup>	3,580
January–December <sup>4</sup>	4,010 <sup>r</sup>	2,130	2,200 <sup>r</sup>	8,350
2012:				
January	282	176	169	627
February	287	176	175	638
March	258	177	193	628
April	281	176 <sup>r</sup>	191	648 <sup>r</sup>
May	275	178	191	644
January–May	1,380	884	920	3,190

<sup>P</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Includes metal powder.

<sup>3</sup>Data may include other cobalt materials.

<sup>4</sup>Data based on monthly reports.

TABLE 2  
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE<sup>P, 1</sup>

(Metric tons, contained cobalt)

End use	2011		2012	
	January–May	January–December <sup>2,3</sup>	May	January–May
Steel	224 <sup>r</sup>	536	45	224
Superalloys	1,890	4,290 <sup>r</sup>	305	1,500
Magnetic alloys	104	252	21	105
Other alloys <sup>4</sup>	W	W	W	W
Cemented carbides <sup>5</sup>	328	786	66	327
Chemical and ceramic uses <sup>6</sup>	928 <sup>r</sup>	2,220	186	920
Miscellaneous and unspecified	113 <sup>r</sup>	271 <sup>r</sup>	23	113
Total	3,580	8,350	644	3,190

<sup>P</sup>Preliminary. <sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

<sup>2</sup>Data based on monthly reports.

<sup>3</sup>May include revisions to previously published data.

<sup>4</sup>Includes nonferrous alloys, welding materials, and wear-resistant alloys.

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

<sup>6</sup>Includes 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 MATERIALS<sup>1</sup>

(Metric tons, contained cobalt)

Period	U.S. industry <sup>p, 2</sup>			U.S. Government, metal <sup>6</sup>	LME, <sup>3</sup> metal		Total
	Metal and scrap <sup>4</sup>	Oxide and other chemical compounds <sup>5</sup>	Total		U.S. warehouse	Non-U.S. warehouse	
2011:							
May	527 <sup>r</sup>	169	696 <sup>r</sup>	301	108	255	363
June	530 <sup>r</sup>	170	699 <sup>r</sup>	301	30	219	249
July	550 <sup>r</sup>	168	718 <sup>r</sup>	301	35	227	262
August	576 <sup>r</sup>	165	741 <sup>r</sup>	301	35	262	297
September	555 <sup>r</sup>	170	725 <sup>r</sup>	301	33	264	297
October	527 <sup>r</sup>	165	691 <sup>r</sup>	301	30	293	323
November	523 <sup>r</sup>	171	694 <sup>r</sup>	301	40	279	319
December	521 <sup>r</sup>	192	713 <sup>r</sup>	301	43	261	304
2012:							
January	523	184	707	301	26	285	311
February	500	180	680	301	20	273	293
March	538	180	719	301	27	318	345
April	555	182 <sup>r</sup>	737 <sup>r</sup>	301	22	328	350
May	554	177	732	301	22	330	352

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Stocks reported by cobalt processors and consumers.

<sup>3</sup>London Metal Exchange.

<sup>4</sup>Includes metal powder.

<sup>5</sup>Data may include other cobalt materials.

<sup>6</sup>Data from Defense Logistics Agency, DLA Strategic Materials; uncommitted material only.

**TABLE 4**  
**U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY<sup>1</sup>**

(Metric tons, gross weight of material, except as noted)

Period and country of origin	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup>	Cobalt content, year to date <sup>5,6</sup>
	Quantity	Value <sup>4</sup> (thousands)	Quantity	Value <sup>4</sup> (thousands)	Quantity	Value <sup>4</sup> (thousands)		
2011:								
May	575	\$22,000	284	\$6,880	117	\$1,490	815	4,630
June	715	27,800	207	4,860	144	2,030	918	5,550
July	305	12,200	281	5,430	247	2,890	586	6,140
August	804	28,600	118	3,030	143	1,600	932	7,070
September	637	22,000	222	5,980	131	1,270	835	7,900
October	773	27,900	288	6,100	161	1,370	1,030	8,930
November	577	18,700	235	4,750	124	1,330	784	9,710
December	632	19,900	294	5,610	105	1,220	878	10,600
January–May	3,580	139,000	947	25,400	1,140	13,500	4,630	XX
January–December	8,020	296,000	2,590	61,200	2,190	25,300	10,600	XX
2012:								
January	636	20,100	175	3,260	90	662	785	785
February	812	25,500	201	4,470	186	2,670	1,040	1,820
March	740	24,600	325	7,240	149	1,750	1,020	2,840
April	1,010	31,200	353	7,610	187	2,040	1,320	4,160
May:								
Australia	43	1,190	--	--	--	--	43	424
Austria	--	--	--	--	--	--	--	5
Belgium	--	--	6	173	--	--	4	194
Brazil	40	1,160	--	--	(7)	5	40	266
Canada	137	4,220	35	447	--	--	163	623
China	174	4,960	14	321	35	648	199	862
Congo (Kinshasa)	--	--	--	--	--	--	--	40
Finland	26	1,020	38	917	66	969	81	607
France	1	38	--	--	--	--	1	8
Germany	(7)	9	--	--	--	--	(7)	1
India	--	--	--	--	60	382	16	97
Japan	70	2,250	--	--	--	--	70	191
Korea, Republic of	--	--	--	--	--	--	--	17
Morocco	10	304	--	--	--	--	10	60
Netherlands	--	--	--	--	--	--	--	9
Norway	78	2,600	--	--	--	--	78	458
Peru	--	--	--	--	1	27	1	3
Russia	78	2,360	--	--	--	--	78	479
South Africa	98	2,940	--	--	--	--	98	226
Sweden	1	47	--	--	--	--	1	7
Taiwan	2	43	--	--	--	--	2	6
Uganda	--	--	--	--	--	--	--	18
United Kingdom	2	114	26	633	10	95	23	108
Zambia	80	2,480	--	--	--	--	80	441
Total	839	25,700	118	2,490	172	2,130	987	5,150
January–May	4,030	127,000	1,170	25,100	784	9,260	5,150	XX

XX Not applicable. -- Zero.

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

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

<sup>3</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

<sup>4</sup>Customs value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to previously published data.

<sup>7</sup>Less than ½ unit.

Source: U.S. Census Bureau.

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

(Metric tons, 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 <sup>2</sup> (thousands)	Quantity	Value <sup>2</sup> (thousands)	Quantity	Value <sup>2</sup> (thousands)
2011:						
May	52	\$1,990	87	\$1,200	16	\$1,820
June	68	2,570	43	891	20	1,950
July	50	1,670	53	938	24	2,230
August	77	2,880	55	996	16	2,400
September	94	3,500	40	519	25	2,530
October	67	2,390	71	1,240	26	2,510
November	63	2,110	47	817	19	2,420
December	81	2,560	44	669	18	2,070
January–May	255	9,610	376	6,010	99	10,900
January–December	754	27,300	730	12,100	247	27,000
2012:						
January	82	2,680	67	1,080	36	1,900
February	73	2,500	54	1,110	22	2,200
March	59	1,950	124	2,310	21	2,610
April	81	2,770	41	733	22	2,670
May:						
Australia	--	--	--	--	(3)	13
Belgium	3	101	--	--	--	--
Brazil	--	--	(3)	4	--	--
Canada	52	1,630	4	60	4	963
China	--	--	--	--	4	354
France	(3)	7	4	97	2	201
Germany	(3)	15	34	312	2	548
Ireland	--	--	22	264	--	--
Japan	(3)	9	7	111	1	60
Korea, Republic of	--	--	2	27	--	--
Mexico	--	--	(3)	3	--	--
New Zealand	--	--	(3)	4	--	--
Switzerland	--	--	--	--	(3)	2
Taiwan	--	--	1	13	(3)	23
United Kingdom	3	112	12	167	7	449
Total	59	1,870	86	1,060	19	2,610
January–May	354	11,800	372	6,290	121	12,000

-- Zero.

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

<sup>2</sup>Customs value.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. EXPORTS OF COBALT MATERIALS<sup>1</sup>

(Metric tons, gross weight of material, except as noted)

Period	Unwrought cobalt, powders, matte, waste and scrap <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt content for the period <sup>5</sup>	Cobalt content, year to date <sup>5,6</sup>
	Quantity	Value <sup>4</sup> (thousands)	Quantity	Value <sup>4</sup> (thousands)	Quantity	Value <sup>4</sup> (thousands)		
2011:								
May	340	\$9,470	(7)	\$17	25	\$300	346	1,560
June	204	8,070	18	55	27	312	223	1,790
July	282	9,380	47	120	65	736	332	2,120
August	194	7,440	(7)	20	33	368	202	2,320
September	246	7,550	6	199	14	160	253	2,570
October	225	8,300	71	229	38	413	285	2,860
November	249	6,860	55	246	38	555	298	3,160
December	220	7,460	21	63	2	25	236	3,390
January–May	1,440	41,200	114	1,770	186	2,020	1,560	XX
January–December	3,060	96,300	332	2,700	403	4,590	3,390	XX
2012:								
January	234	7,450	35	183	19	182	264	264
February	238	8,380	3	81	23	225	246	510
March	325	10,800	16	347	1	22	337	847
April	258	8,400	33	159	1	10	281	1,130
May	353	10,700	70	323	20	1,750	408	1,540
January–May	1,410	45,700	157	1,090	63	2,180	1,540	XX

XX Not applicable.

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

<sup>2</sup>May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

<sup>3</sup>Cobalt acetates and cobalt chlorides.

<sup>4</sup>Free alongside ship (f.a.s.) value.

<sup>5</sup>Estimated from gross weights.

<sup>6</sup>May include revisions to previously published data.

<sup>7</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE,  
AND CONCENTRATES<sup>1</sup>

(Metric tons, gross weight of material, except as noted)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value <sup>2</sup> (thousands)	Quantity	Value <sup>2</sup> (thousands)
2011:				
May	115	\$6,560	4	\$141
June	98	5,960	3	119
July	128	7,340	40	163
August	98	6,260	2	4
September	111	6,670	--	--
October	117	7,370	38	42
November	99	5,920	--	--
December	123	7,780	--	--
January–May	586	34,600	624	1,240
January–December	1,360	81,800	707	1,570
2012:				
January	118	7,190	(3)	4
February	125	8,450	5	68
March	127	7,850	20	83
April	141	8,330	2	48
May	132	8,800	3	58
January–May	644	40,600	30	260

-- Zero.

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

<sup>2</sup>Free alongside ship (f.a.s.) value.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.